



Agenda Item #8.B.1.

BUSINESS CONSUMER SERVICES AND HOUSING AGENCY • GOVERNOR EDMUND G. BROWN JR.



BOARD OF VOCATIONAL NURSING & PSYCHIATRIC TECHNICIANS
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DATE: January 30, 2015

TO: Board Members

FROM: *Pam Hinckley*
Pam Hinckley, R.N., M.S.N.
Nursing Education Consultant

SUBJECT: Palo Verde Community College Vocational Nursing Program – Consideration of Placement on Provisional Approval; Consideration of Unannounced Site Visit; Consideration of Request to Admit Students (Director: Sharron Burgeson, Blythe, Riverside County – Community College)

Palo Verde Community College, Vocational Nursing Program is presented to the Board for consideration of placement on provisional approval.

In accordance with section 2526.1(c) of the Vocational Nursing Rules and Regulations,

“The Board may place any program on provisional approval when a program does not meet all requirements as set forth in this chapter and in Section 2526...”

Section 2530(l) of the Vocational Nursing Rules and Regulations states:

“The program shall maintain a yearly average minimum pass rate on the licensure examination that does not fall below 10 percentage points of the state average pass rate for first time candidates of approved vocational nursing schools for the same period.”

The program requests approval to admit 15 students on August 17, 2015; graduating December 15, 2016. This class would **replace** the class that is scheduled to graduate June 5, 2015.

History of Prior Board Actions

(See Attachment A for History of Prior Board Actions)

Enrollment

Palo Verde Community College offers a full – time traditional (TR) course of instruction that is three (3) semesters (54 weeks) in length and a fast – track (FT) class that is forty – two

(42) weeks in length. The FT class is on hold and has not been offered since 2010. The program must obtain Board approval prior to the admission of classes. The pattern of admissions for current and proposed classes is seen in the enrollment table below.

The following table represents **current and proposed** student enrollment based on class starts and completions. The table indicates a **maximum enrollment of 34 students** for the period **August 2009 through August 2015**.

ENROLLMENT DATA				
CLASS DATES		#Students Admitted	#Students Current or Completed	Total Enrolled
Start	Complete			
8/09 (FT)		13	11	11
8/09 (TR)		15	12	11 + 12 = 23
	7/10 (8/09 FT)		-11	23 - 11 = 12
8/10 (FT)		22		12 + 22 = 34
	12/10 (8/09 TR Class)		-12	34 - 12 = 22
1/11 (TR)		15	12	22 + 12 = 34
	7/11 (8/10 FT)		-22	34 - 22 = 12
	6/12 (1/11 TR Class)		-12	12 - 12 = 0
9/12 (TR)		17	19	0 + 19 = 19
	12/13 (9/12 Class)		-19	19 - 19 = 0
1/14 (TR)		17	17	0 + 17 = 17
	6/15 (1/14 Class)		-17	17 - 17 = 0
8/15 (TR) Proposed	12/16	15		0 + 15 = 15

Licensing Examination Statistics

The following statistics, furnished by Pearson VUE and published by the National Council of State Boards of Nursing as "Jurisdictional Summary of All First-Time Candidates Educated in Member Board Jurisdiction" for the period October 2011 through December 2014 specify the pass percentage rates for graduates of the Palo Verde Community College Vocational Nursing Program on the National Council Licensure Examination for Practical/Vocational Nurses (NCLEX-PN®).

NCLEX-PN® Licensure Examination Data							
Quarterly Statistics					Annual Statistics*		
Quarter	# Candidates	# Passed	% Passed	State Average Quarterly Pass Rate	Program Average Annual Pass Rate	State Average Annual Pass Rate [CCR 2530(l)]	Variance from the State Average Annual Pass Rate
Oct – Dec 2011	3	1	33%	74%	42%	75%	-33
Jan – Mar 2012	6	4	67%	77%	47%	74%	-27
Apr – Jun 2012	1	0	0%	72%	47%	74%	-27
Jul – Sep 2012	4	3	75%	74%	57%	74%	-17
Oct – Dec 2012	6	4	67%	70%	65%	74%	-9
Jan – Mar 2013	1	0	0%	75%	58%	73%	-15
Apr – Jun 2013	No Candidates Tested			78%	64%	73%	-9
Jul – Sep 2013	No Candidates Tested			75%	57%	74%	-17
Oct – Dec 2013	1	0	0%	76%	0%	76%	-76
Jan – Mar 2014	6	3	50%	74%	43%	76%	-33
Apr – Jun 2014	9	3	33%	66%	38%	73%	-35
Jul – Sep 2014	1	0	0%	72%	35%	73%	-38
Oct – Dec 2014	2	0	0%	72%	33%	72%	-39

*The Annual Pass Rate changes every quarter. It is calculated by dividing the number of candidates who passed during the current and previous three quarters by the number of candidates who tested during the same period. If no data is available for the relevant period, the statistic is carried over from the last quarter for which data is available.

California Code of Regulations section 2530(l) states:

“The program shall maintain a yearly average minimum pass rate on the licensure examination that does not fall below 10 percentage points of the state average pass rate for first time candidates of approved vocational nursing schools for the same period.”

This data substantiates the program’s non-compliance for 11 of the previous 13 quarters. Further, the program has been noncompliant with regulatory requirements for the most recent six (6) consecutive quarters.

Based on the **most recent data available** (October 2014 to December 2014), the program’s average annual pass rate is **33%**. The California average annual pass rate for graduates from approved vocational nursing programs who took the NCLEX-PN® Licensure Examination for the first time during the same period is 72%. The average annual pass rate for the Palo Verde Community College Vocational Nursing Program is **39** percentage points **below** the state average annual pass rate.

Faculty and Facilities

Section 2534(d) of the Vocational Nursing Rules and Regulations states:

“For supervision of clinical experience, there shall be a maximum of 15 students for each instructor.”

The number of Board-approved faculty totals eight (8) including the director. The director has 90% administrative and 10% teaching responsibility. Four (4) instructors are approved to teach clinical.

Based on a maximum enrollment of 34 students, two (2) instructors are required. The program proposes the admission of 15 students. Therefore, based on the **maximum proposed enrollment of 15 students**, one (1) instructor is needed. Therefore, the number of current faculty is adequate for the current and proposed enrollment.

Section 2534(b) of the Vocational Nursing Rules and Regulations states, in part:

“Schools shall have clinical facilities adequate as to number, type, and variety of patients treated, to provide clinical experience for all students in the areas specified by Section 2533. There must be available for student assignment, an adequate daily census of patients to afford a variety of clinical experiences consistent with competency-based objectives and theory being taught.”

The program has sufficient clinical facilities to afford the number type and variety of patients that will provide clinical experience consistent with competency-based objectives and theory.

Other Considerations

Published examination statistics illustrate the program’s difficulties in maintaining compliant program pass rates on the licensure examination. On July 10, 2010, the program was approved for the period June 28, 2010 through June 27, 2014. The program’s pattern of admissions was also approved to include the ongoing admission of 22 students every three (3) semesters, excluding summer session in the traditional class and the ongoing admission of 22 students in the fast – track class each year. At that time, the program’s average annual pass rate was 77%.

On July 18, 2014, the Executive Officer continued approval of the program. However, approval of the program’s ongoing admissions for the traditional and fast track classes was revoked. At that time, the program’s average annual pass rate was 43%. The program was required to investigate the root cause(s) of its low licensure pass rates and submit a written report identifying the cause(s) and plan to correct the identified problem(s) by August 15, 2014. At that time, the program’s average annual pass rates had been noncompliant for three (3) consecutive quarters.

Subsequently, the due date was extended at the request of the director. On October 14, 2014, the Board received correspondence and a report from the director regarding the “root cause analysis.”

On December 3, 2014, Board representatives made an unannounced onsite inspection of the program to determine compliance with regulatory requirements. During the one-day visit, the consultants assessed the program’s resources including faculty, clinical facilities, library, staff and support services, physical space, skills laboratory and equipment required for achievement of the program’s objectives. In addition, the consultants reviewed records for newly graduated and currently-enrolled students, and facilitated discussions with the director and other staff members.

On the day of the visit, the program's current students were assigned to an evening shift clinical rotation at John F. Kennedy Memorial Hospital, Indio, CA. Due to the 98 mile distance of the facility from the school, the consultants were unable to interview enrolled students. The program's clinical sites, per the Board - approved list, appear to be in compliance with requirements prescribed in existing regulations.

➤ **General Site Information**

The program is located in Blythe at Palo Verde Community College. The director's office is on the lower level and the classroom and laboratory are upstairs in the same building. A school representative escorted the consultants through the VN classroom and laboratory while awaiting the director's arrival. Upon her arrival, the director requested the Vice President of Student Affairs (VP) to join the consultants and director during introductory remarks, purpose of the visit and the program's status relevant to its pass rates on the licensure examination. The VP voiced concern over the program's status and additionally verbalized his support of the program.

➤ **Skills Laboratory**

The Skills Laboratory has five (5) beds and seven (7) mannequins, including three (3) adult, one (1) child, and three (3) infant mannequins. Supplies were adequate with the exception of lacking oxygen equipment, (tubing, masks, cannulas, etc.) and sterile dressings. The linen was in disarray. Equipment, in general, was scattered in the lab. Syringes were found in unlocked cabinets.

Based on findings during the visit, twelve (12) of the California Code of Regulations were identified (see Attachment B). Those violations and the director's response to the violations (see Attachment C) follows:

Section 2526(a)(2) of the Vocational Nursing Rules and Regulations states:

"The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
. . . (2) Conceptual Framework."

Violation #1: Board files confirm that the program has an approved conceptual framework that served as a blueprint for development of the curriculum. However, the director was unable to verbalize the program's conceptual framework or describe its utilization, and impact on the program curriculum.

Status: This violation is **corrected**. On January 20, 2015, the director submitted the program's conceptual framework and documentation confirming its utilization and impact on the approved curriculum

Section 2526(a)(7) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
. . . (7) Instructional Plan.”

Violation #2: Review and analysis of documents provided during the site visit and information provided during an interview with the director substantiated that the program is not using the instructional plan approved by the Board.

Status: This violation is **corrected**. On January 20, 2015, the director submitted a copy of program’s approved Instructional Plan and a plan to ensure its implementation.

Section 2526(a)(8) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
. . . (8) Evaluation methodology for curriculum.”

Violation #3: Board files confirm the program has an approved methodology for evaluation of the curriculum. However, the director failed to provide documentation confirming implementation with the Board - approved curriculum. Further, the director was unable to identify or provide documentation establishing when the curriculum was last evaluated.

Status: This violation is **not corrected**; however, the director submitted documentation of a plan, form and timeline for evaluating the curriculum on January 20, 2015. If implemented as presented, the submitted plan should prevent future violations.

Section 2526(a)(11) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
. . . (11) Evaluation methodology of clinical facilities.”

Violation #4: The director failed to provide documentation substantiating Implementation of the program’s approved methodology for evaluating its clinical facilities to which students were assigned. Further, the director was unable to identify when the program last evaluated clinical facilities.

Status: This violation is **not** corrected; however, the director submitted documentation of a plan, form and timeline for evaluating the program’s clinical facilities on January 20, 2015. If implemented as presented, the submitted plan should prevent future violations.

Section 2529(b) of the Vocational Nursing Rules and Regulations states:

“Each vocational nursing program shall have one faculty member, designated as director who meets the requirements of subsection (c) (1) herein, who shall actively administer the program. The director is responsible for compliance with all regulations in Chapter 1, Article 5 (commencing with Section 2525 et seq).”

Violation #5: Given the identification of deficiencies in critical program elements, consultants identified that the program lacks active administration by director as required. Based on information identified during the survey, consultants identified the program director had no knowledge of what or where the Board approved curriculum is. The director was unaware of what the program’s conceptual framework is or how it is implemented in the program.

Further, the director failed to evaluate the assigned faculty, even though some were identified as performing at less than optimum level. Additionally, the director failed to evaluate clinical facilities relevant to their ability to meet program clinical objectives. Also, the director failed to ensure the evaluation of student performance to identify the need for remediation or removal from the program.

Status: This violation is **not** corrected; however, the director submitted documentation of a plan to actively administer the program on January 9, 2015. If implemented as presented, the submitted plan should ensure active administration and prevent future violations.

Section 2530(b) of the Vocational Nursing Rules and Regulations states:

“Regular faculty meetings shall be held. Minutes shall be available to the Board's representative.”

Violation #6: Analysis of provided program documents and information confirms that the program failed to have regular faculty meetings as prescribed by regulation.

From November 2013 through August 2014, no faculty meetings were recorded. In September 2014, the program held four (4) separate joint faculty meetings with other programs. The faculty meeting minutes provided did not contain evidence of discussion of topics relevant to student progress and problems related to correction of the low licensure pass rates. Primarily, the notes consisted of a one (1) line topic such as “annual report”, “director’s forum”, “late report to Pam”, etc.

Status: This violation is **not corrected**; however, implementation of the plan, schedule, and standard agenda submitted by the director on January 20, 2015 should prevent future violations.

Section 2530(e) of the Vocational Nursing Rules and Regulations states:

“Each instructor shall have a daily lesson plan which correlates the theory and practice offered to the student. A copy of this plan shall be available to the director.”

Violation #7: The program failed to provide lesson plans that correlate theory and clinical experience offered to the student. Consultants requested lesson plans for specific content areas. The director was unable to provide any lesson plans. Further, the director failed to provide instructors with a daily lesson plan that correlates theory and clinical practice for students.

The director provided a binder stating its use for instruction. Included in the binder were multiple journal articles that were dated 2006 and older. The lecture notes consisted of pages from a Mosby 1995 text that are highlighted for relevance. The director indicated this is what the teacher uses for lecture. The sequencing of the “lecture note pages” did not coincide with the student’s current text.

Status: This violation is **not corrected**; however, if implemented as presented on January 20, 2015, the director’s plan should prevent future violations. The submitted documents include lesson plans and lecture notes that correlate with theory content to be taught for the months of January and February. Additionally, she presented a plan to continue to develop lesson plans and lecture notes consistent with the remainder of the curriculum.

Section 2530(f) of the Vocational Nursing Rules and Regulations states:

“The program’s instructional plan shall be available to all faculty.”

Violation #8: The director failed to provide the instructors with a copy of the Board approved instructional plan as prescribed by regulation. Further, an analysis of provided information and documents confirmed that the program director was unable to find the Board - approved instructional plan.

Status of #8: This violation is **corrected**. On January 20, 2015, the director submitted signatures of instructors indicating they had received the program’s instructional plan.

Section 2530(i) of the Vocational Nursing Rules and Regulations states:

“The school shall evaluate student performance to determine the need for remediation or removal from the program.”

Violation #9: The program failed to evaluate students to determine the need for remediation or removal from the program. Upon review of students’ self-evaluations, students identified they needed help with skills and theory.

However, no documentation was found evidencing assistance with these topics had been provided or a plan developed to address the identified deficits. Additionally, students receiving “D’s” on the midterm examination received no remediation but were advanced on to the next level.

Status: This violation is **not corrected**; however, if implemented as presented on January 20, 2015, the director’s this should prevent future violations. The submitted plan specifies remediation of poorly performing students and a form which includes follow-up.

Section 2533(f) of the Vocational Nursing Rules and Regulations states:

“All curricular changes that significantly alter the program philosophy, conceptual framework, content, objectives, or other written documentation as required in Section 2526, shall be approved by the Board prior to implementation. . .”

Violation #10: Based on review and analysis of documents provided during the survey, the program failed to obtain Board approval prior to the implementation of a major curriculum revision.

Status: This violation is **not corrected**. On January 20, 2015, the director submitted the Board approved instructional plan; however, as presented, the design of the curriculum has been changed to a block format. The submitted documentation states the program has “broken the curriculum apart.” Content is now being “taught in separate courses” instead of being integrated as originally approved by the Board. It is unclear, if the hours currently being taught are the same as those approved by the Board. The director was advised to submit a revised curriculum addressing the discrepancies identified above prior to the next class.

Section 2534(c) of the Vocational Nursing Rules and Regulations states:

“Schools are responsible for the continuous review of clinical facilities to determine if the student’s clinical objectives for each facility are being met.”

Violation #11: The program failed to evaluate clinical facilities to determine if clinical objectives can be achieved, as prescribed by regulation.

Status: This violation is **not corrected**; however, if implemented as submitted on January 20, 2015, the director’s plan should prevent future violations. That plan included a tool for evaluating clinical facilities and a timeline for implementation.

Section 2535 of the Vocational Nursing Rules and Regulations states:

“Each school shall have a policy, approved by the Board for giving credit toward the curriculum requirements.”

Violation #12: Review and analysis of program documents, materials, and student files confirmed that the program failed to grant credit for prior education and experience as prescribed by regulation.

A form for credit granting was provided; however, no evidence was found to indicate that it is being utilized. A review of student files confirmed evidence of students' prior education that qualifies for credit granting; however, no evidence of credit granting was found.

Status: This violation is **not corrected**; however, if implemented as presented on January 9, 2015, the director's plan should prevent future violations. That plan includes required forms along with the school's policy for credit granting and a timeline for implementation.

Summary:

The program had twelve (12) violations that were identified during the unannounced site visit on December 3, 2014. The current status of the violations is as follows:

- Three (3) violations of the California Rules and Regulations, sections (2526(a)(2), 2526(a)(7), and 2530(f) are **corrected**.
- Eight (8) violations of the California Rules and Regulations, sections 2526(a)(8), 2526(a)(11), 2529(b), 2530(b), 2530(e), 2530(i), 25334(c) and 2535, are **uncorrected**; **however, implementation of the submitted plans of correction will prevent future violations.**
- One (1) violation is considered **uncorrected**. This violation is in regards to the program's use of an unapproved curriculum. The director was advised to submit a revised curriculum for Board approval or follow the Board approved curriculum.

Recommendations:

1. Place Palo Verde Community College, Vocational Nursing Program on provisional approval for two (2) year period from February 13, 2015, through February 28, 2017 and issue a notice to the program to identify specific areas of noncompliance and requirements for correction as referenced in section 2526.1 (e) of the California Code of Regulations.
2. Approve the program's request to admit 15 students on August 17, 2015; graduating December 15, 2016 replacing the class that is scheduled to graduate June 5, 2015, **contingent** on the following:
 - a. The program uses the Board approved curriculum **or** submits for Board approval a revised curriculum by **May 30, 2015**.

- b. The program submits lesson plans consistent with the curriculum to be used for Board approval by **May 30, 2015**.
3. Require the program director to submit, under penalty of perjury, the names of all enrolled students, dates of admission, placement in the curriculum, and expected dates of graduation by **September 1, 2015**.
4. Require the program to admit no additional classes without prior approval by the Board.
5. Require the program to bring its average annual pass rate to no more than ten (10) percentage points below the State average annual pass rate.
6. Require the program to submit a follow-up report in eight (8) months but no later than **November 1, 2015** and in 22 months but no later than **November 1, 2016**. The report must include a comprehensive analysis of the program, specific actions taken to improve program pass rates, timeline for implementation, and the effect of employed interventions. The following elements must be addressed in the analysis.
 - a. Current Student Enrollment.
 - b. Admission Criteria.
 - c. Screening and Selection Criteria.
 - d. Terminal Objectives.
 - e. Curriculum Objectives.
 - f. Instructional Plan.
 - g. Theory and Clinical Objectives for Each Course.
 - h. Lesson Plans for Each Course.
 - i. Textbooks.
 - j. Attendance Policy.
 - k. Remediation Policy.
 - l. Evaluations of Theory and Clinical Faculty.
 - m. Evaluations of Theory Presentations.
 - n. Evaluations of Clinical Rotations and Their Correlation to Theory Presentations.
 - o. Evaluation of Student Achievement.
7. Require the program to comply with all approval standards in Article 4 of the Vocational Nursing Practice Act, commencing at Business and Professions Code section 2880, and Article 5 of the Board's Regulations, commencing at California Code of Regulations, Title 16, section 2525.
8. Require the program to demonstrate incremental progress in correcting the violations. If the program fails to satisfactorily demonstrate incremental progress, the full Board may revoke the program's approval.
9. Failure to take any of these corrective actions may cause the Board to revoke the program's approval.
10. Place the program on the **February 2017** Board agenda for reconsideration of provisional approval.

Rationale: Published examination statistics evidence Palo Verde Community College Vocational Nursing Program's non-compliance with regulatory requirements relative to program pass rates for the most recent six (6) consecutive quarters with average annual pass rates that are 17 to 39 percentage points **below** state average annual pass rates. Based on Quarter 4 – 2014 statistics, the program's quarter pass rate is 0% and its average annual pass rate of 33%.

On December 3, 2014, an onsite inspection of the program was conducted. Twelve (12) violations were identified. As stated above in violation number five (5), consultants identified that the program lacks active administration by a director. Based on information identified during the survey, consultants identified the program director had no knowledge of what or where the Board approved curriculum is. She was unaware of what the program's conceptual framework is or how it is implemented in the program.

Further, the director failed to evaluate the assigned faculty, even though some were identified as performing at less than optimum level. Additionally, she failed to evaluate clinical facilities relevant to their ability to meet program clinical objectives. She has also neglected to evaluate student performance and the need for remediation or removal from the program.

Given the number and seriousness of the violations, including the director's failure to actively administer the program, and the program's noncompliant pass rates, placement of the Palo Verde Community College Vocational Nursing Program on provisional approval is recommended. Extending that provisional approval for two (2) years will allow the program the time required to correct identified deficiencies including the implementation of strategies to improve the educational achievement of currently enrolled and proposed students.

Currently, three (3) violations are corrected, eight (8) violations have a plan in place and if implemented will prevent future violations, and one (1) violation remains uncorrected. The uncorrected violation relates to the use of an unapproved curriculum. The recommendation to approve a class of 15 students is contingent on the program's utilization of a Board - approved curriculum and lesson plans.

The current class will graduate in June of 2015. It is anticipated, they will take the licensure examination during Quarters 3 and 4 of 2015.

Attachment A: History of Prior Board Action

Attachment B: Board Correspondence - Notice of Violations, dated December 11, 2014.

Attachment C: Program Correspondence – Response to Violations numbers 5 & 12 Received January 9, 2015; and, Response to Violations numbers 1 through 4, 6 through 11 Received on January 20, 2015.

Agenda Item #8.B.1., Attachment A

Palo Verde College Vocational Nursing Program

History of Prior Board Actions

- On September 22, 1995, the Board approved commencement of 15 students in the Palo Verde Community College Vocational Nursing Program effective October 1995. The program is 54 weeks long.
- On November 17, 1995, the Board approved a revised start date of the initial class for January 1996, contingent upon Board approval of one full-time instructor and one part-time instructor by December 15, 1995.
- On June 27, 1997, the Board accredited the Palo Verde College Vocational Nursing Program, retroactive to the initial class which began January 23, 1996. Additionally, the Board approved admission of a second class of 15 students beginning on August 19, 1997. The Board required the program to obtain prior approval to start a third class after August 19, 1997.
- On April 25, 2000, a notification of violation was sent to the Palo Verde College Vocational Nursing Program. The director was asked to amend the admission date of the fourth class in order to have prior Board approval in place.
- On November 16, 2001, the Board approved the program's request to replace students who graduate on December 20, 2001, with 15 students commencing on January 22, 2002, only.
- On June 28, 2002, the Board approved continued full accreditation for the Palo Verde Community College Vocational Nursing Program for the four-year period from June 28, 2002, to June 28, 2006, and issued a certificate accordingly.
- On June 20, 2003, the Board approved the program's request to admit a full-time class of 15 students starting August 18, 2003, to replace the class that graduated June 7, 2003.

The Board also approved the program's request to admit 15 students on an ongoing basis every third semester, excluding summer session starting on August 18, 2003.

- On May 14, 2004, the Board approved the Palo Verde Community College Vocational Nursing Program's request to admit a Fast-track class of 15 students on August 23, 2004, only, with a projected graduation date of July 20, 2005.

- On September 16, 2005, the Board approved the program's request to admit 15 students into the Fast-track class on August 23, 2005, only, to replace the students that graduate July 22, 2005.
- On April 12, 2006, the Board approved continued full accreditation for the Palo Verde Community College Vocational Nursing Program for the four-year period from June 28, 2006, to June 27, 2010, and issued a certificate accordingly.

The Board also approved the program's request to admit 15 students into the fast track class starting August 22, 2006, to replace students graduating on July 20, 2006.

Lastly, the Board approved ongoing admissions in the Fast-track class to replace graduating classes, only, for the Palo Verde Community College Vocational Nursing Program with the following stipulations:

- a. No additional classes are added to the program's current pattern of admissions without prior Board approval. The program's current pattern of admissions includes one part-time class of 15 students admitted every three semesters and one full-time fast track class of 15 students admitted every year.
 - b. The director documents that adequate resources, i.e. faculty and facilities, are available to support each admitted class of students.
- On July 2, 2008, the Executive Officer approved the program's request to increase class size to 22 students for the fast track class beginning on August 19, 2008, and approved 22 students for the traditional class beginning on August 18, 2009, thereby increasing the class size from 15 to 22 students per class.
 - **On September 10, 2009, a new program director was approved.**
 - On May 26, 2010, the Board received the Program Records Survey and supporting documents.
 - On July 10, 2010, the Executive Officer approved continued full accreditation for the Palo Verde Community College Vocational Nursing Program for the period June 28, 2010 through June 27, 2014 and issue a certificate accordingly; and, approved the program's current pattern of admissions to include:
 - a. Ongoing admission of 22 students every three (3) semesters, excluding summer session in the traditional class.
 - b. Ongoing admission of 22 students into the fast-track class every year.
 - On July 18, 2014, the Executive Officer approved continued full approval for the Palo Verde Community College Vocational Nursing Program for the period June 28, 2014 through June 27, 2018 and issued a certificate accordingly; **and**, revoked the program's ongoing admissions; **and**, required the program to obtain Board approval prior to the

admission of future classes; **and**, required the program to investigate the root cause(s) of the low licensure pass rates and submit a written report identifying the cause(s) and plan to correct the identified problem(s) by August 15, 2014.

- On October 14, 2014, the director submitted the “root cause analysis” as designated above. Note: the due date was extended to allow the director time to return from sick leave and investigate the issue(s).
- On December 3, 2014, Board consultants made an unannounced site visit. Twelve (12) violations were identified.
- On December 11, 2014, the Board sent a notice of violations to the program. The program was advised to submit a plan to correct the violations by January 9, 2015 (2 violations) and January 16, 2015 (remaining 10 violations).
- On January 9, 2015, the director submitted her response to correct identified violations.
- On January 20, 2015, the director submitted her response to correct the remaining violations.



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CERTIFIED MAIL

December 11, 2014

Sharron Burgeson, Director
Vocational Nursing Program
Palo Verde College
One College Drive
Blythe, CA 92225

Subject: Vocational Nursing Program Notice of Violation

Dear Ms. Burgeson:

On December 3, 2014 the Board of Vocational Nursing and Psychiatric Technicians (Board) made an unannounced site visit to Palo Verde College Vocational Nursing Program. Based on the visit and analysis of submitted documents, the following violations were identified:

Section 2526(a)(2) of the Vocational Nursing Rules and Regulations states:

"The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
... (2) Conceptual Framework. . .

Violation #1: The director was asked to provide the consultants with a description of the program's conceptual framework. The director was unable to verbalize the program's conceptual framework or describe its utilization, and impact on the program curriculum.

Required Action: Provide the Board with a copy of the Board approved conceptual framework **by January 16, 2015.**

Section 2526(a)(7) of the Vocational Nursing Rules and Regulations states:

"The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
... (7) Instructional Plan. . .

Violation #2: Based upon a review and analysis of documents provided by the director during the site visit and based upon an interview with the director, it was identified that the program is not using the Board approved instructional plan.

Required Action: Provide the Board with a copy of the Board approved instructional plan **by January 16, 2015.**

Section 2526(a)(8) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
... (8) Evaluation methodology for curriculum. . .

Violation #3: The director was unable to identify when the curriculum was last evaluated or provide documents substantiating implementation of the program’s methodology for evaluation of the Board approved curriculum.

Required Action: Provide the Board with a curriculum evaluation form and a timeline for evaluating the curriculum **by January 16, 2015; AND,** the results of evaluation the curriculum **by January 30, 2015.**

Section 2526(a)(11) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:
... (11) Evaluation methodology of clinical facilities. . .

Violation #4: The director was unable to identify when the program last evaluated clinical facilities or provide evidence of a methodology used for evaluation of clinical sites.

Required Action: Provide the Board with a clinical facility evaluation tool and a timeline for evaluating all Board approved clinical facilities **by January 16, 201; AND,** the results of evaluation of each Board approved facility **by January 30, 2015.**

Section 2529(b) of the Vocational Nursing Rules and Regulations states:

“Each vocational nursing program shall have one faculty member, designated as director who meets the requirements of subsection (c) (1) herein, who shall actively administer the program. The director is

responsible for compliance with all regulations in Chapter 1, Article 5 (commencing with Section 2525 et seq).”

Violation #5: During an analysis of the program, consultants identified that the director was not actively administering the program. Based on information identified during the survey, consultants identified the program director has no knowledge of what or where the Board approved curriculum is. She is unaware of what the program's conceptual framework is or how it is implemented in the program.

Further, the director failed to evaluate the assigned faculty, even though some were identified as performing at less than optimum level.

Additionally, she failed to evaluate clinical facilities relevant to their ability to meet program clinical objectives. She has also neglected to evaluate student performance and the need for remediation or removal from the program.

Required Action: Provide the Board with a document identifying how the director will “actively administer” the program **by January 9, 2015**. This document should minimally include how the director will prevent all listed violations from reoccurring as well as the issues presented in this violation.

Section 2530(b) of the Vocational Nursing Rules and Regulations states:

“Regular faculty meetings shall be held. Minutes shall be available to the Board's representative.”

Violation #6: Based on provided documents and information it was identified the program failed to have regular faculty meetings as prescribed by regulation. From November 2013 through August 2014, no faculty meetings were recorded. In September 2014, the program held four (4) separate joint faculty meetings with other programs. The faculty meeting minutes provided did not contain evidence of discussion of topics relevant to student progress and problems related to correction of the low licensure pass rates. Primarily, the notes consisted of a one (1) line topic such as “annual report”, “director's forum”, “late report to Pam”, etc.

Required Action: Provide the Board with a list of topics to be addressed by the director at faculty meetings for the next 6 months. Provide specific dates that these faculty meetings will be held **by January 16, 2015**.

Section 2530(e) of the Vocational Nursing Rules and Regulations states:

“Each instructor shall have a daily lesson plan which correlates the theory and practice offered to the student. A copy of this plan shall be available to the director.”

Violation #7: The program failed to provide lesson plans that correlate theory and clinical experience offered to the student. Consultants requested lesson plans for specific content areas. The director was unable to provide lesson plans. Further, the director failed to provide instructors with a copy of daily lesson plans used for instruction.

The director provided consultants with a binder that is used for instruction. Included in the binder were multiple journal articles that were dated 2006 and older. The lecture notes consisted of pages from a Mosby 1995 text that are highlighted for relevance. The director indicated this is what the teacher uses for lecture. The sequencing of the “lecture note pages” did not coincide with the student’s current text.

Required Action: Provide the Board with updated lesson plans and lecture notes for the months January and February, 2015. Additionally, provide a timeline for developing current lesson plans and lecture notes for the entire curriculum **by January 16, 2015.**

Section 2530(f) of the Vocational Nursing Rules and Regulations states:

“The program’s instructional plan shall be available to all faculty.”

Violation #8 A review and analysis of provided documents revealed the program director is unable to find the Board approved instructional plan. As such, the director failed to provide the instructors with a copy of the Board approved instructional plan.

Required Action: Provide each Board approved instructor with a copy of the Board approved instructional plan. Provide a dated document with instructor’s signatures verifying each instructor has received a copy of the Board approved instructional plan **by January 16, 2015.**

Section 2530(i) of the Vocational Nursing Rules and Regulations states:

“The school shall evaluate student performance to determine the need for remediation or removal from the program.”

Violation #9: The program failed to evaluate students to determine the need for remediation or removal from the program. Upon review of students self-evaluations, students identified they needed help with skills and theory. No documentation was found evidencing assistance with these topics or a plan to address these identified deficits. Additionally, students receiving "D's" on the midterm examination received no remediation but were advanced on to the next level.

Required Action: Provide a remediation evaluation tool which includes specific objectives to be achieved, dates of follow up and criteria for termination of remediation. Provide proof of implementation **by January 16, 2015.**

Section 2533(f) of the Vocational Nursing Rules and Regulations states:

"All curricular changes that significantly alter the program philosophy, conceptual framework, content, objectives, or other written documentation as required in Section 2526, shall be approved by the Board prior to implementation . . .

Violation #10: Based on review and analysis of documents provided during the survey, the program failed to obtain Board approval prior to the implementation of a major curriculum revision. The program is not following the Board approved curriculum. As such, the program has implemented a major curriculum revision.

Required Action: Submit a copy of the Board approved instructional plan, as designated in Violation #2 above; **and**, verification of intent to follow the plan as Board approved; **and**, submit an instructional calendar that demonstrates curricular presentation consistent with the Board approved instructional plan.

Section 2534(c) of the Vocational Nursing Rules and Regulations states:

"Schools are responsible for the continuous review of clinical facilities to determine if the student's clinical objectives for each facility are being met."

Violation #11: The director failed to evaluate clinical facilities to determine if clinical objectives can be achieved, as prescribed by regulation.

Required Action: Provide the Board with a clinical facility evaluation tool and a timeline for evaluating all Board approved clinical facilities **by January 16, 2015.** (See Violation #4 above)

Section 2535 of the Vocational Nursing Rules and Regulations states:

“Each school shall have a policy, approved by the Board for giving credit toward the curriculum requirements.”

Violation #12: Consultants review and analysis of program materials and student files provided no evidence that the program granted credit for prior education and experience as prescribed by regulation. A form for credit granting was provided; however, no evidence was found to indicate that it is being utilized. A review of student files demonstrated evidence of prior education that qualifies for credit granting but no evidence of credit granting was found.

Required Action: Provide the Board with the following forms to be utilized to evaluate credit for previous education as prescribed by regulation **by January 9, 2015.**

1. Create a document that will be utilized to inform students of the school's Board approved credit granting policy in which the student may choose to have their credit evaluated or decline.
2. Create a form to be utilized to evaluate credit for previous education and/or experience.
3. Create a timeline for implementation.

Be advised that the continuation of such violations jeopardizes your program's approval. A plan and timeline for correction of each violation (1-12) listed above will be required.

The Board requires the above information no later than **January 16, 2015.**

As a reminder, the Board is scheduled to reconsider the program's provisional approval at the February 2015 Board meeting.

Should further information be needed, please feel free to contact me.

Sincerely,



PAM HINCKLEY
Nursing Education Consultant

Section 2526(a)(2) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:

...(2) Conceptual Framework

Required Action

Provide the Board with a copy of the Board approved conceptual framework by January 16, 2015.

Resolution: Attachment A: Conceptual Framework

The Conceptual Framework is provided to each student in the VN Student Handbook as well as reinforced throughout the program.

ATTACHMENT A



Palo Verde College ***Department of Nursing and Allied Health***

Conceptual Framework

The faculty of Palo Verde College Nursing Department has chosen an eclectic conceptual framework. This eclectic conceptual framework is built on two major curricular concepts; human needs and the nursing process. The nursing process is a framework that can be utilized in all nursing practice. It is important for the vocational nurse to conceptualize all phases of the nursing process which includes assessment, analysis, planning, implementation, and evaluation. At Palo Verde College the nursing process will be utilized throughout the curriculum.

Assessment will be utilized to collect data that reflects the health status of the client in relation to all dimensions of the person, including physical, emotional, intellectual, social and spiritual needs. Analysis is the step of the nursing process in which the vocational nurse will use diagnostic reasoning, theoretical knowledge and clinical judgment to examine, organize and synthesize the data collected during assessment. The plan of care is the next step to guide the nursing actions. The plan of care will identify behavioral outcomes and the terms to achieve the outcomes, then the outcomes statements and the plan of care is recorded on the nursing care plan. Implementation involves both a nursing action and the client's response to the action. The nursing care plan will be utilized in the implementation phase. Evaluation begins in the assessment phase of the nursing process, as the vocational nurse compares the client's functional health status and coping patterns with developmental norms and healthy patterns of adjustment. Evaluation continues throughout the nursing process as the vocational nurse assists with monitoring the client's responses to intervention.

The minor curricular threads are based on a health and wellness continuum which includes life span development, communication, patient teaching, end-of-life care, and the role of the vocational nurse. The vocational nurse contributes to the nursing process by assisting with the performance of the basic physical assessments, implementing the nursing care plan within his or her scope of practice as defined in the Vocational Nursing Practice Act, and contributing data to the analysis, planning and evaluation of patient care.

The person is the center of our conceptual framework. Throughout the life span, the person enters the health care system; most individuals are born into the health care system. At times during the process of growth and development the person is unable to meet their needs because of path-physiological, psycho-social, cultural or spiritual causes. The vocational nurse is one of the primary resources as the person travels on the wellness-illness continuum. The vocational nurse will assist the person in maintaining optimum health throughout the life span.

To effectively care for any person, the vocational nurse must be able to identify fulfilled and unmet needs. This practice requires a comprehensive knowledge base and skillful use of the nursing process. The vocational nurse realizes throughout the person's life span, these unfulfilled or unmet needs are influenced the person's interactions with significant others, societal groups, and the environment.

The vocational nurse assists with the assessment, analysis, plans, implementation, and evaluation of the direct care given to persons who are unable to maintain their wellness independently due to the lack of necessary strength, will and knowledge. Through effective communication, patient teaching, and the use of the nursing process, vocational nurses assist people to make informed choices contributing to wellness restoration, maintenance, or to a peace death. While using communications, patient teaching, and the nursing process, it is important to involve the patient's family members, significant others and support system for teaching and giving support. It is also important to formulate a plan of care to meet the individual needs as they relate to the stages of growth and development. The nursing process is the core and essence of nursing and is central to all nursing actions.

Vocational nurses function with the definition and framework of the role specified by the Nurse Practice Act as responsible members on the health care team.

Section 2526(a)(7) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:

(7) instructional plan

Required Action

Provide

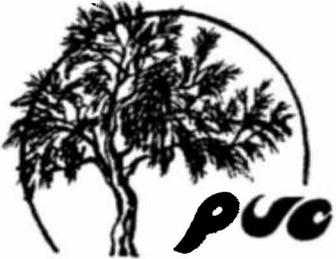
The Board with a copy of the Board approved instructional plan by January 16, 2015.

Resolution

At the time of the recent onsite visit by the Nursing Consultants, it was evident that documentation of the approved instructional plan could not be located. Subsequently, the documents were located and are attached. **ATTACHMENT A: INSTRUCTIONAL PLAN DATED APRIL 1995.**

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 1</i>		<i>Week 2</i>		<i>Week 3</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Fundamentals of Nursing Health and Microbiology/Universal Precautions	3	Fundamentals of Nursing Enemas	1
Fundamentals of Nursing Introduction to Basic Needs Introduction to Nursing Process	5	Fundamentals of Nursing Basic Human Needs and Patient Education	3	Fundamentals of Nursing Nursing Process/Charting/Reporting	4
Pharmacology Review Basic math	1	Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Fundamentals of Nursing Introduction to Nursing and Allied Health	3
Fundamentals of Nursing CPR and CNA Review	3	Pharmacology Review of Basic Math	1	Pharmacology Systems and Measurements	1
Anatomy and Physiology Body Planes/Sections/Cavities	4	Fundamentals of Nursing CPR and CNA Review	3	Fundamentals of Nursing CPR and CNA Review	3
		Anatomy and Physiology Physiology of Cells	4	Anatomy and Physiology Body Tissues	4
Total	17	Total	18	Total	16
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Orientation to Fundamentals Laboratory CNA Review (lab)	8	Fundamentals of Nursing Universal Precautions (lab) CNA Review (lab)	8	Fundamentals of Nursing Enemas (lab) CNA Review (lab)	8
A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology LDR.....Leadership MAT.....Maternal Nursing M/S.....Medical Surgical		NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing SUP.....Supervisor			

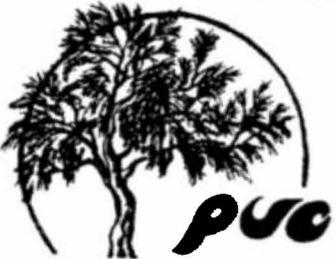
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 4</i>		<i>Week 5</i>		<i>Week 6</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Specimens	1	Fundamentals of Nursing Surgical Asepsis	1	Fundamentals of Nursing Admission and Discharge	1
Fundamentals of Nursing Introduction to Nursing and Allied Health	3	Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Pharmacology Measurement Equipment	1
Pharmacology Conversions	1	Pharmacology Conversions	1	Fundamentals of Nursing CPR and CNA Review and Assessment	3
Fundamentals of Nursing CPR and CNA Review and Assessment	3	Fundamentals of Nursing CPR and CNA Review and Assessment	3	Anatomy and Physiology Muscular System	4
Anatomy and Physiology Integumentary	4	Anatomy and Physiology Skeletal System	4		
Total	12	Total	13	Total	9
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Fundamentals of Nursing Specimens (lab)	2	Fundamentals of Nursing Surgical Asepsis (lab)	2	Fundamentals of Nursing Admission and Discharge (lab)	2
Fundamentals of Nursing Start Clinical	8	Fundamentals of Nursing	8	Fundamentals of Nursing	8
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

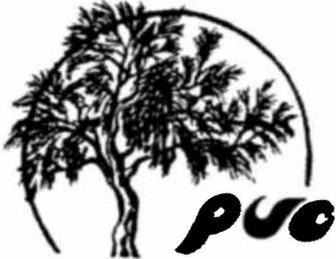
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 7</i>		<i>Week 8</i>		<i>Week 9</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Urinary Catherization	1	Fundamentals of Nursing Bladder Irrigation	1	Fundamentals of Nursing Irrigation	1
Pharmacology Interpreting Drug Orders	1	Pharmacology Understanding Drug Labels	2	Fundamentals of Nursing CPR and CNA Review and Assessment Mid Term	2 1
Fundamentals of Nursing CPR and CNA Review and Assessment	3	Fundamentals of Nursing CPR and CNA Review and Assessment	3	Pharmacology Oral Dosage Calculations Mid Term	1
Anatomy and Physiology Nervous System	3	Anatomy and Physiology Nervous System	3	Anatomy and Physiology Special Senses Mid Term	2 1
Total	8	Total	9	Total	8
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Fundamentals of Nursing Urinary Catherization (lab)	2	Fundamentals of Nursing Bladder Irrigation (lab)	2	Fundamentals of Nursing Irrigation (lab)	2
Gerontology	8	Gerontology	8	Fundamentals of Nursing Fundamentals of Nursing	8 7
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

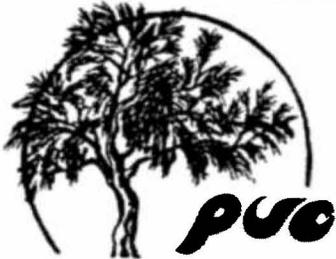
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 10</i>		<i>Week 11</i>		<i>Week 12</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Oral/Nasal Suction	1	Fundamentals of Nursing Hot and Cold Application	1	Fundamentals of Nursing Intubation and Irrigation	1
Fundamental of Nursing Needs of Chronically Ill	3	Fundamentals of Nursing Needs of Chronically Ill	3	Fundamentals of Nursing Monitoring IVs/O2 Therapy	3
Pharmacology Oral Dosage Calculation	1	Pharmacology Parenteral Dosage Calculations SQ/IM Injection	1	Pharmacology Parenteral Dosage Calculations	1
Anatomy and Physiology Endocrine System	3	Anatomy and Physiology Circulatory System	3	Anatomy and Physiology Immune System	3
Total	8	Total	8	Total	8
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Fundamentals of Nursing Oral/Nasal Suctioning (lab)	2	Fundamentals of Nursing SQ/IM Injections (lab)	2	Fundamentals of Nursing NG Irrigation (lab)	2
Hot and Cold Application (lab)	8	Monitoring IV's/O2 Therapy (lab)	8	Fundamentals of Nursing	8
Fundamentals of Nursing	8	Fundamentals of Nursing	8	Fundamentals of Nursing	8
Fundamentals of Nursing	8	Fundamentals of Nursing	8	Fundamentals of Nursing	8
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

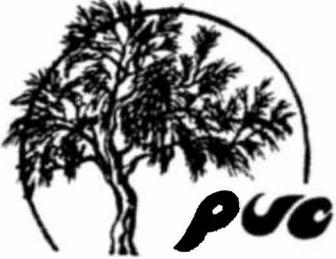
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 13</i>		<i>Week 14</i>		<i>Week 15</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing N/G Feedings	1	Fundamentals of Nursing Care of Terminally Ill	1	Fundamentals of Nursing Post Mortem Care	1
Fundamental of Nursing Meeting Basic Needs of Preoperative Patients	3	Fundamentals of Nursing Meeting the Basic Needs of Pre-Operative Patients	3	Fundamentals of Nursing Meeting the Needs of Post Operative Patients	3
Pharmacology Pediatric Dosage Calculations	1	Pharmacology Pediatric Dosage Calculations	1	Pharmacology IV Calculations	1
Anatomy and Physiology Respiratory System	3	Anatomy and Physiology Digestive System	3	Anatomy and Physiology Urinary System	3
Total	8	Total	8	Total	8
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Fundamentals of Nursing NG Feedings (lab)	8 1	Fundamentals of Nursing Fundamentals of Nursing Care of Terminally Ill (lab)	8 8 2	Fundamentals of Nursing Fundamentals of Nursing Post Mortem Care (lab)	8 8 2
Calculation and Administration (lab) With 2 hour practice lab	7 2	Start administration of Medications in clinical areas			
A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology LDR.....Leadership MAT.....Maternal Nursing M/S.....Medical Surgical		NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing SUP.....Supervisor			

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

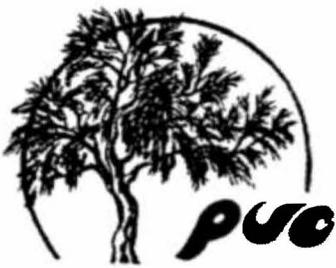
<i>Week 16</i>		<i>Week 17</i>		<i>Week 18</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Assist with Physical Exams	1	Make-up	0	Fundamentals in Nursing Theory Final	2
Fundamental of Nursing Meeting Basic Needs of Post Operative Patients	3	Review Fundamentals Theory	2		
Pharmacology IV Calculations	1	Finals Pharmacology	1		
Anatomy and Physiology Reproductive System	2	Anatomy	1		
Total	7	Total	4	Total	2
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
fundamentals of Nursing	8	Make-up	0		
Fundamentals of Nursing	8				
Assist with Physical Exams (lab)	1				
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

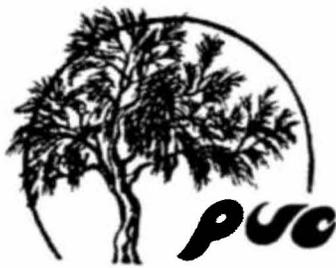
<i>Week 4</i>		<i>Week 5</i>		<i>Week 6</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Communicable Disease/HIV	6	Needs of the Person with Communicable Disease/HIV	3	Needs of Person with Endocrine Problems	6
Needs of the Person with Endocrine Problems	3				
Pharmacology		Pharmacology		Pharmacology	
Drugs for the Musculoskeletal Patient	2	Anti-infectives	2	Drugs for Chemotherapy	2
Growth and Development		Growth and Development		Growth and Development	
Theories of Human Dev.	1	1 Theories of Human Development	1	Theories of Human Dev.	
Nutrition		Nutrition		Nutrition	
Needs of the Person with Musculoskeletal Problems	1	Needs of the Person with a Communicable Disease	1	Needs of the Person with Endocrine Problems	1
Psychology		Psychology		Psychology	
Therapeutic Communication	2	Therapeutic Communication	2	Nurse/Client Relationship	2
Total	12	Total	12	Total	12
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Medical Surgical		Medical Surgical		Medical Surgical	
Musculoskeletal Disease	5	Communicable Disease	16	Endocrine	16
Communicable Disease	11	*includes medication administration		*includes medication administration	Com
*includes medication administration				*in-	

A&P.....	Anatomy and Physiology	NP.....	Nursing Process
CD.....	Communicable Diseases	NUT.....	Nutrition
COM.....	Communication	PE.....	Patient Education
FUN.....	Fundamentals of Nursing	PEDS.....	Pediatrics
G&D.....	Growth and Development	PHARM.....	Pharmacology
GER.....	Gerontology	PSY.....	Psychology
LDR.....	Leadership	REH.....	Rehabilitation Nursing
MAT.....	Maternal Nursing	REPRO.....	Reproductive
MED SURG.....	Medical Surgical	SUP.....	Supervisor
NEURO.....	Neurosensory	U.....	Urinary



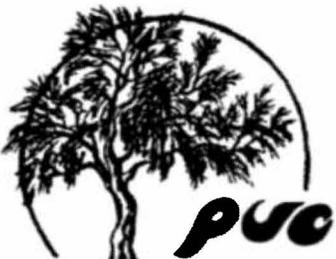
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 7</i>		<i>Week 8</i>		<i>Week 9</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Needs of the Person with Endocrine Problems 6		Medical Surgical Needs of the Person with Endocrine Problems 3 Needs of the Person with Cardiovascular Problems 3		Medical Surgical Needs of the Person with Cardiovascular Problems 6	
Nutrition Meeting Nutritional Needs of Endocrine Problems 1		Pharmacology Drugs for Cardiovascular Problems		Nutrition Meeting Nutritional Needs of Cardio 2	
Pharmacology Drugs for Endocrine Problems 2		Psychology Stress and Adaptation 2 Defense Mechanisms		Pharmacology Drugs for Cardiovascular Problems 2	
Psychology Stress and Adaption 2		Nutrition Meeting Nutritional Needs of Endocrine Pts 1		Psychology Maslow Human Needs Theory 2	
G&D Positive and Personal Growth 1		G&D Positive and Personal Growth 1		G&D Positive and Personal Growth 1	
Total 12		Total 12		Total 12	
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical Endocrine 16 *includes medication administration		Medical Surgical Endocrine 16 *includes medication administration		Medical Surgical Endocrine 6 Cardio 10 *includes medication administration	
A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology LDR.....Leadership MAT.....Maternal Nursing MED SURG.....Medical Surgical NEURO.....Neurosensory		NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing REPRO.....Reproductive SUP.....Supervisor U.....Urinary			

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 10</i>		<i>Week 11</i>		<i>Week 12</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Needs of Person with Cardiovascular Problems	6	Medical Surgical Needs of the Person with Cardiovascular Problems	3	Medical Surgical Needs of the Person with Urinary Problems	6
Pharmacology Drugs for Respiratory Problems	2	Pharmacology Drugs for Neurosensory Problems	2	Pharmacology Drugs for Neurosensory Problems	2
Psychology Psychosocial Assessment	2	Nutrition Needs of the Person with Cardiovascular Problems	1	Nutrition Needs of the Person with Urinary Problems	1
Nutrition Needs of the Person with Cardio Problems	1	Group Process	2	Crisis Intervention	2
	Psychology		Psychology		
Total	11	Total	11	Total	11
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Medical Surgical Cardiovascular *includes 3 hours medication administration	16	Medical Surgical Cardiovascular	16	Medical Surgical Cardiovascular Genitourinary	12 4
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		REPRO.....Reproductive			
MED SURG.....Medical Surgical		SUP.....Supervisor			
NEURO.....Neurosensory		U.....Urinary			

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 13</i>		<i>Week 14</i>		<i>Week 15</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Needs of the Person with Urinary Problems	6	Medical Surgical Needs of the Person with Urinary Problems Needs of the Geriatric Person	3 3	Medical Surgical Needs of the Geriatric Person	6
Pharmacology Drugs for Gastrointestinal Problems	2	Pharmacology Drugs for Urinary Problems	2	Pharmacology Drugs for Integumentary Problems	2
Nutrition Needs of the Person with Genitourinary Problems	1	Psychology Concept of Anxiety, Anger, Hostility, Loneliness, Guilt, Powerlessness	2	Psychology Client with Special Problems	2
Psychology Loss and Grief	2	Nutrition Needs of the Person with Genitourinary Problems	1	Nutrition Needs of the Geriatric Person	1
Total	11	Total	11	Total	11
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Medical Surgical Genitourinary	16	Medical Surgical Genitourinary	16	Medical Surgical Genitourinary Geriatric	18 6

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 NEURO.....Neurosensory

NP.....Nursing Process
 NUT.....Nutrition
 PE.....Patient Education
 PEDS.....Pediatrics
 PHARM.....Pharmacology
 PSY.....Psychology
 REH.....Rehabilitation Nursing
 REPRO.....Reproductive
 SUP.....Supervisor
 U.....Urinary



Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 16</i>	<i>Week 17</i>	<i>Week 18</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical/Gerontology Needs of the Geriatric Client 6 Nutrition chology Needs of the Geriatric Client 1 Pharmacology Medications and the Elderly 2 Psychology Therapeutic Plans and Treatments 2	Medical Surgical/Gerontology Needs of the Geriatric Client 2 Needs of the Geriatric Person 1 Pharmacology Medication and the Elderly 2 Psychology Therapeutic Plans and Treatment 2	Medical Surgical Final Exam 1 NutritionPsy 2 Pharmacology Final Exam 2 Nutrition Final 1
Total 11	Total 7	Total 6
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Geriatric 24	Medical Surgical Geriatric 24	Make-up

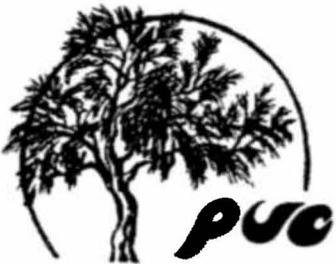
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Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 1</i>		<i>Week 2</i>		<i>Week 3</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Respiratory Problems/Trach	6	Needs of the Person with Respiratory Problems	6	Needs of the Person with Respiratory Problems	6
Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2
Growth and Development		Growth and Development		Nutrition	
Life Span Approach	2	Prenatal Development	2	Nutritional Needs of the Respiratory Patient	1
		Growth and Development		Introduction to Developmental Stages	2
Total	10	Total	10	Total	11
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Respiratory	14	Respiratory	16	Respiratory	16
Trach Care (lab)	1				
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G&D.....Growth and Development		PEDS.....Pediatrics			
GER.....Gerontology		PHARM.....Pharmacology			
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Palo Verde College
 Instructional Plan for Vocational Nursing Program
 Semester

Nursing Week: Third Semester

<i>Week 4</i>		<i>Week 5</i>		<i>Week 6</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Gastrointestinal Problems	6	Needs of the Person with Gastrointestinal Problems	6	Needs of the Person with Gastrointestinal Problems	6
Needs of the Person with Reproductive Problems	2	*includes fluid and electrolyte problems		*includes fluid and electrolyte problems	
		Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2
Growth and Development		Growth and Development		Growth and Development	
Infancy and Basic Trust	2	Childhood: Toddler and Preschool	2	Childhood: School Age	2
				Nutrition	
				Needs of the person with GI/Fluid and Electrolyte Problems	1
Total	10	Total	10	Total	11
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Gastrointestinal	16	Gastrointestinal	16	Gastrointestinal	16

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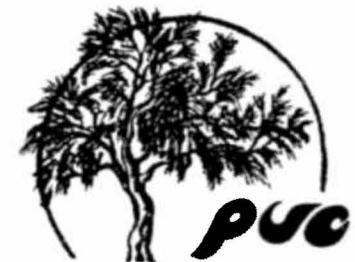
Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 7</i>		<i>Week 8</i>		<i>Week 9</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Maternal Problems	5	Needs of the Person with Maternal Problems	4	Pediatric Problems of Infants and Toddlers	6
Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2
Growth and Development		Growth and Development		Growth and Development	
Preadolescent and Adolescent	3	Young Adulthood	2	Mid Term Exam	1
Nutrition		Nutrition		Nutrition	
Needs of the Person with GI/Fluid and Electrolyte	1	Needs of the Person with Maternal Problems	1	Needs of the Person with Reproductive Problems	1
Total	11	Total	9	Total	10
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Maternal Nursing	16	Maternal Nursing	24	Nursery	24

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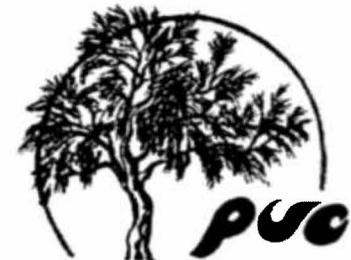
Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 13</i>		<i>Week 14</i>		<i>Week 15</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Needs of the Person with Neurosensory Problems	6	Medical Surgical Needs of the Person with Neurosensory Problems	6	Medical Surgical Rehabilitation	6
Growth and Development Death and Bereavement/The Later Years	2	Growth and Development Death and Bereavement	2	Growth and Development Abusive Behaviors: Child/Woman	3
Nutrition Needs of the Person with Neurosensory Problems	1	Nutrition Nutritional Needs of the Neurosensory Patient	1		
Total	9	Total	9	Total	9
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical Neurosensory	24	Medical Surgical Neurosensory	24	Rehabilitation	24

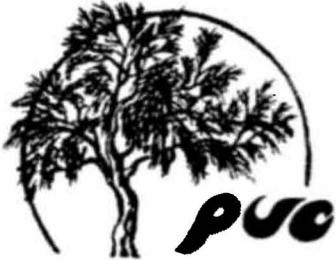
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Palo Verde College
 Instructional Plan for Vocational Nursing Program
 Semester

Nursing Week: Third Semester

<i>Week 16</i>		<i>Week 17</i>		<i>Week 18</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Rehabilitation	3	Medical Surgical Supervision/Review	4	Medical Surgical Finals	2
Medical Surgical Leadership	3	Growth and Development Review	1	Growth and Development Finals	1
Growth and Development Dysfunctional Abusive Behavior: Elderly	2				
Total	8	Total	5	Total	3
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical Leadership	24	Medical Surgical Supervision	24	Makeup	
A&P.....Anatomy and Physiology		NEURO.....Neurosensory			
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Section 2526(a)(8) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:

...(8) Evaluation Methodology for Curriculum

Required Action

Provide the Board with a **curriculum evaluation form (1)** and a **timeline for evaluating the curriculum (2)** by January 16, 2015; AND, the results of the evaluation by January 30, 2015.

Resolution:

- 1. ATTACHMENT A: CURRICULUM EVALUATION FORM**
- 2. Workgroup Meeting Date: January 23, 2015; Results of Evaluation: January 30, 2015**

The evaluation of the curriculum will be completed by the VN nursing faculty, director, and the Division Chair. Following the analysis, any development of the existing IP will be assigned; updates will be reported at all subsequent faculty meetings.

The goals for this workgroup are:

Short-term: Review the current Instructional Plan to identify and address concerns related to content areas, teaching methodologies, and related clinical objectives.

Long-term: Direction from the Board will determine the direction and further development of the current IP.



Palo Verde College

Department of Nursing and Allied Health

Annual Curriculum Review

Date _____ Reviewers _____

Element	Criteria	Rating	Action	Completion Date	Follow-Up	Completion Date
		5 (most) – 1 (least)				
Content Accuracy	Content is thorough and accurate with credible authorship and reviewers. For materials utilized (other than textbook), source is accurately documented.					
Content Depth	Content coverage is rich. Content coverage is appropriate in breadth and depth for the Licensed Vocational Nurse (LVN).					
Content Scope	Thoroughly covers foundational concepts in theory and practice appropriate for the LVN. When presenting multidisciplinary collaboration, the role of the LVN is clearly identified.					



Palo Verde College

Department of Nursing and Allied Health

Element	Criteria	Rating	Action	Completion Date	Follow-Up	Completion Date
		5 (most) – 1 (least)				
Standards Coverage	Thoroughly covers all standards and meets the intention of the standards as set by the Board of Vocational Nursing and Psychiatric Technicians (BVNPT).					
Design	Design facilitates use with appealing features and navigation ease. Incorporates techniques as appropriate for audio/visual/tactile learning styles.					
Ease of Use of Materials	After training, program is well laid out and intuitive. Allows access and use by any nursing faculty instructor.					



Palo Verde College

Department of Nursing and Allied Health

Element	Criteria	Rating	Action	Completion Date	Follow-Up	Completion Date
		5 (most) – 1 (least)				
Lesson Plan Model	Lesson plan design includes effective concept introduction, practice, summarizing, and assessment of key concepts.					
Program Philosophy	Program has a sound philosophy grounded in credible evidence, research, and/or experience. The philosophy is evidenced throughout the program.					
Student Learning	Carefully develops incremental concepts along learning trajectories; that is, from least to most complex, i.e. fundamental to advanced.					



Palo Verde College

Department of Nursing and Allied Health

Element	Criteria	Rating	Action	Completion Date	Follow-Up	Completion Date
		5 (most) – 1 (least)				
Teaching Methodologies	Employs effective, innovative, and engaging teaching methods that are effective for content, such as visual/auditory learning for theoretical concepts and demonstration/hands-on practice for skills competence.					

Section 2526(a)(11) of the Vocational Nursing Rules and Regulations states:

“The institution shall apply to the Board for approval. Written documentation shall be prepared by the director and shall include:

...(11) Evaluation methodology for clinical facilities

Required Action

Provide the Board with a clinical facility evaluation tool and a timeline for evaluating all Board approved clinical facilities by January 16, 2015; AND, the results of evaluation of each Board approved facility by January 30, 2015.

Resolution

1. ATTACHMENT A: CLINICAL FACILITY EVALUATION TOOL

The intent of attached Clinical Facility Evaluation is to solicit feedback at two time periods and across two levels of evaluation: 1) annually - administrative (by PVC Program Director) and 2) post-rotation - student learning (by faculty). The goal for each level of feedback is presented.

Administrative Feedback

The goal of securing annual feedback independent of a specific rotation timeframe is to identify global issues related to the clinical site. Feedback is solicited from the primary contact at the facility (clinical coordinator, nursing educator, Director of Staff Development, and/or the facility designee). At this level, the PD can obtain general information that assists in the overall planning or development of the clinical site, such as: overall staff-faculty relations, unit needs, new developments at the facility, rotation assignments, or parameters of student practice.

Post-Rotation Feedback

The goal of obtaining feedback following the completion of each clinical rotation is to identify concerns specific to a unit and its staff. The immediate clinical faculty identifies needs that require immediate attention and/or remediation in order to maintain or enhance relations with staff that come in direct contact with students. The faculty can obtain specific information that will affect the upcoming scheduled rotation and, therefore, require immediate resolution. Faculty are advised to notify the PD of any event requiring immediate attention rather than wait until the post-rotation evaluation.

2. Timeline for Implementation: ATTACHMENT B

During the holidays, it was difficult to reach the appropriate facility staff with whom evaluation discussions could be held. Consequently, those facilities most recently utilized were evaluated by the PVC clinical faculty. For all other clinical facilities, the visits for the Annual Evaluation will be completed and the results reported by January 30, 2015. The clinical facilities scheduled for the upcoming Semester 3 are the priority for evaluation.

Going forward, one facility per month will be designated for an annual evaluation.



CLINICAL FACILITY EVALUATION

Instructor _____ Facility _____ Rotation Dates _____

Directions

1. **The evaluation is to be completed by each faculty person who supervised students at the facility.**
2. Provide a general statement regarding the experience and recommendations to improve facility relations or the student experience at the facility.
3. The faculty must also review the student feedback and meet with PD to discuss areas of concern (rating 3 or less) and areas of strength for use of the clinical site.
4. Forward the completed CLINICAL FACILITY EVALUATION form to the Program Director.
5. Reminder: Faculty must report any incident raised by the clinical site as soon as possible after it has occurred. The PD will determine if immediate intervention with the site is warranted.

SECTION I

Note: Any rating of "No" requires a comment.

TOPIC	1 = Yes 3 = Sometimes 5 = No	Comments
The environment was clean and provides for student/patient safety.		
Supplies are readily available.		
Facility staff appear aware of course clinical objectives.		
Staff are willing to assist students.		
Staff provide good care to patients and are good role models.		
Staff appear to promote the well-being of patients and are advocates when necessary.		
Facility policies/procedures and safety manuals are available for student use.		
Staff shows respect for students.		
Additional comments/recommendations:		

SECTION II Student evaluations reviewed? Yes No

SECTION III Issues/Concerns

Issue/Concern	Recommendation	Resolution/Follow-Up



CLINICAL FACILITY EVALUATION

Annual Site Evaluation

Post-Rotation Evaluation

Instructor/PD C Bruno - Mofu Facility JFK Hospital Rotation Dates 10/15 - 12/4/14

Directions

1. **Clinical facility evaluations are to be completed by each faculty person who supervised students at the facility or the Program Director/designee on an annual basis.**
2. Provide a general statement regarding the experience and recommendations to improve facility relations or the student experience at the facility.
3. The clinical faculty must also review the student feedback and meet with PD to discuss areas of concern (rating 3 or less) and/or areas of strength for use of the clinical site.
4. Forward the completed CLINICAL FACILITY EVALUATION form to the Program Director.
5. Reminder: Faculty must report any incident raised by the clinical site as soon as possible after it has occurred. The PD will determine if immediate intervention with the site is warranted.

SECTION I

Note: Any rating of "No" or "Sometimes" requires a comment.

TOPIC	1 = Yes/Always 3 = Sometimes 5 = No/Never	Comments
Faculty has been appropriately oriented to this facility/unit.	1	
Faculty was able to obtain client information needed to assist students' learning.	3	faculty do NOT have access to EHR yet
Facility staff appear aware of course clinical objectives.	1	
Staff are willing to assist students.	1	
Staff provide good care to patients and are good role models. Staff conduct themselves in a professional manner.	1	
Facility policies/procedures and safety manuals are available for student use.	1	
Facility invited students to participate in conferences and inservices to further the learning experience.	3	when ever offered - just NOT frequent
Faculty recommends using this facility/unit for clinical practice with future rotations.	1	
Additional comments/recommendations (see next page):		

Additional comments/recommendations:

SECTION II Student evaluations reviewed? Yes No

SECTION III Issues/Concerns (attach additional page as required)

Issue/Concern	Recommendation	Resolution/Follow-Up
Client information	Hospital / Company are working on a Policy/Procedure to allow faculty access to EHR	Still awaiting Policy decision. Steps will often make copies of lab + MAR's for student use.
Educational experiences + Conferences	When they are available students are invited. Not frequent while we have been there.	

Status of Clinical Facility Evaluations

As of January 15, 2015

Facility Name	Clinical Group	Annual/ Post Rotation	Status
Blythe Family Clinic	Sem 3 -Mat & Peds	Annual Post-rotation	Confirmed Thur, Jan 20, 10 am June 2015
Blythe Nursing Care Center	Sem Varies	Annual Post-rotation	Confirmed Jan 20, 12 pm
Desert Urgent Care	Sem 2 -Med-Surg	Post-Rotation Annual	Completed By March 15
Indian Health Service – Parker Unit	Sem All – Med Surg	Annual or Post-Rotation	No appt for 30 days (undergoing renovation)
John F Kennedy Memorial Hospital (JFK)	Sem 2 -Med-Surg Sem 3 – Mat & Peds	Post-rotation Annual	Completed – Sem 2 By Mar 15
La Paz Regional Hospital	Sem 1-3 - Med-Surg	Post Rotation Annual	Completed Confirmed Jan 16, 12:30 pm
Palo Verde Child Care Center (Headstart)	Peds	Post-rotation Annual	June 2015 Confirmed Jan 21, 2:45 pm
Palo Verde College Child Development Center	Peds	Post-rotation Annual	June 2015 Confirmed Jan 21, 12 pm
Sheltering Wings	Sem 1 - Med-Surg	Post-rotation Annual	December 2015 Confirmed Jan 21, 4 pm

Section 2529(b) of the Vocational Nursing Rules and Regulations

“Each vocational nursing program shall have one faculty member, designated as director who meets the requirements of subsection (c)(1) herein, who shall actively administer the program. The director is responsible for compliance with all regulations in Chapter 1, Article 5 (commencing with Section 2525 et seq).”

Required Action:

Provide the Board with a document identifying how the director “will actively administer” the program by January 9, 2015. This document should minimally include how the director will prevent all listed violations from reoccurring as well as the issues presented in this violation.

Resolution: Attachment A: Program Director Plan of Action

Introductory Statement

Dear Board Members:

It is acknowledged that the program has lacked sufficient leadership in managing the program in general, and the faculty in particular. Historically, long-time tenured staff have been allowed to develop ownership of certain aspects of the program and openly resist direction from the Program Director. Several factors have contributed to this behavior, such as the “union” aspect which limits the faculty evaluation process, the tenure of faculty, and lack of support for PD authority when there was conflict between college policy and BVNPT regulations. There has been poor support from the previous College administrations for the PD to administer the program.

However, it is understood that it is the responsibility of the Program Director to direct the program despite those circumstances. Clearly, that has not happened. I am confident that I have the leadership skills to manage the program and direct the faculty in implementing processes to meet the program’s instructional plan. Per the current Administration, there is strong support for any VN PD to maintain the integrity of the program. As we work through the corrective process, fragmentation of the program will no longer be permitted. Consequently, any future PD will inherit a program that is intact with the acknowledgement by the faculty that the PD is accountable to administer the program in its entirety.

Attached is a self-directed plan to collaborate with Administration and faculty to meet the Board’s required actions. Barriers to program management, along with actions to address those issues, are identified. I will use this opportunity to assert the leadership required to direct this collaborative process. In doing so, my goal is to confirm the Program Director role as the leader in all aspects of the program (from classroom teaching to clinical practice).

Respectfully submitted,

Sharron Burgeson
Program Director



**Program Director Plan of Action
Submitted 1/09/2015**

Issue	Plan	Action	Resolution/Outcome
<p>Tenured staff have had long-term ownership of program curriculum and teaching assignments; faculty resistant to change</p>	<p>Meet with staff and College administration designee to clarify roles and responsibilities: Program Director (PD)</p> <ul style="list-style-type: none"> • Has right-of-assignment for both theory and clinical faculty; faculty input is allowed, but faculty do not determine final teaching assignments • Is accountable to evaluate teaching by reviewing materials, exams, assignments, and classroom presentation/management by faculty 	<p>Staff Meeting - 12/29/2014 Meet with VN Faculty and reviewed the Palo Verde College Instructional Plan. Assigned responsibility for documenting teaching plans and learning objectives.</p> <p>Meeting with PD and Dr. Sean Hancock (VP of Instruction) on 1/8/2015 to clarify role and responsibility to right of assignment, and accountability in evaluating faculty teaching; course preparation and presentation.</p> <p>Staff Meeting – 2/20/2015 Introduce non-optional additional evaluation criteria for faculty by PD and Students.</p>	



Program Director Plan of Action
Submitted 1/09/2015

Issue	Plan	Action	Resolution/Outcome
1. Curriculum and Instructional Plan implementation decisions made by faculty, often independent of input/direction by Program Director	<p>Meeting with VP of Instruction regarding PD role and responsibility to the following:</p> <ul style="list-style-type: none"> • Text and additional resources to be approved by Program Director; faculty may provide input and request changes • Curriculum and teaching methodologies to be submitted to PD for review and approval • Curriculum issues to be presented at each faculty meeting • Instructor resources must include the use of a text approved by the PD, who will also review usability of available on-line instructor resources • Instructional Plan must be followed as BVNPT approved; only PD can alter (per Board approval) 	<p>Meeting with VP of Instruction 1/8/2015</p> <p>Meet to review responsibilities of the Program Director per BVNPT, and receive confirmation of support to implement the procedures listed.</p> <p>Staff Meeting: 2/20/2015 to present changes in PD responsibilities to faculty.</p>	



Program Director Plan of Action
Submitted 1/09/2015

Issue	Plan	Action	Resolution/Outcome
3. Remediation Plan implementation not followed consistently by all staff.	Remediation Policy , and Form to be evaluated and revised to include the following ; <ul style="list-style-type: none"> • Include Faculty and Student responsibility for remediation • Policy to include remediation acknowledgement form to advise students of 75 % mastery required for passing course and the remediation process 	PD to revise remediation form and policy to be developed by PD 1/12/2015. Staff Meeting 1/15/2015 to present remediation policy and form to faculty for r implementation by the 4th week of school.	PD to revise form and Policy by 1/12/2015 *COMPLETED* Staff Meeting 1/15/2015 Documents ready for presentation to faculty
4. Staff Development Opportunities	PD Assessment of Staff –asses the learning needs and provide opportunities to meet/improve teaching competence. PD to evaluate and approve continuing education activities subsidized by College	PD will have assessed staffs learning needs and provide recommendation to improve teaching competency by 3/6/2015 Meeting with VP of Instruction on 2/8/2015 regarding PD evaluating and approving education activities when the	Staff Assessments <ul style="list-style-type: none"> • In progress Meeting with VP of Instruction on 2/8/2015 *discussion tabled



**Program Director Plan of Action
Submitted 1/09/2015**

Issue	Plan	Action	Resolution/Outcome
		event is subsidized by College funds.	
<p>5. Limitation of Faculty Evaluations (determined by the CTA union). Current Faculty evaluation form does not allow for full evaluation of substantive criteria.</p>	<p>Although the current evaluation cannot be amended, an additional evaluation will be recommended to be developed to identify areas of growth as well as recognize areas of competence related to teaching, such as instructional plan, teaching materials, classroom management, meeting deadlines, professionalism. Review current student evaluation and determine if additional criteria need to be added. Evaluations to be anonymously solicited from students following each semester and analyzed by PD and faculty</p>	<p>Faculty Evaluation Criteria</p> <ul style="list-style-type: none"> • Program Director to develop additional criteria for faculty evaluations. Develop by 3/12/2015 and presented to faculty at staff meeting on 3/20/2015 Implement by 4/15/2015 • Students will evaluate clinical and theory instructor every semester. • Review current student evaluation and additional criteria if needed 3/12/2015 • Student and Faculty Evaluation reviewed by faculty at staff meeting on 2/20/2015 	<p>Faculty Evaluation Criteria</p> <p>*Table for start after Jan 16*</p>



**Program Director Plan of Action
Submitted 1/09/2015**

Issue	Plan	Action	Resolution/Outcome
		<ul style="list-style-type: none"> • Implement faculty and student evaluation by 5/1/2015 • Evaluated by PD by 5/8/2015 and presented to faculty at staff meeting on May 15th 	
Lack of Support at College Administration level	The current Administration has expressed the need for the Program Director to actively administer the program. Independent meetings to be held with the VP of Student Instruction to present accountability of Program Director for program administration.	Meet with VP of Instruction on 1/8/2015 to confirm PD responsibilities. Establish regular, ongoing meetings.	Meet with VP of Instruction on 1/8/2015 (see item # 2) VP available for monthly meetings or PRN

Section 2530(b) of the Vocational Nursing Rules and Regulations states:

“Regular faculty meetings shall be held. Minutes shall be available to the Board’s representative.”

Required Action

Provide the Board with a **list of topics to be addressed by the director (1)** at faculty meetings for the next six months. **Provide specific dates (2)** that these faculty meetings will be held by **January 16, 2015**.

Resolution

1. ATTACHMENT A: TEMPLATE FOR FACULTY MEETING AGENDA

A template for nursing faculty meetings has been developed as a guide for future meetings.

2. ATTACHMENT B: AGENDA ITEMS/DATES FOR SIX MONTHS (DEC 2014 – MAY 2015)

Faculty meeting dates have been established and faculty notified so that schedules can be arranged as needed. Due to the immediate need for curriculum management, focused topics have been identified that will be addressed (in addition to the templated items).



Palo Verde College

Department of Nursing and Allied Health

Agenda Template

Date:	Time:	Room: CL 224
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Vocational Nursing Committee Members

VN Staff	Signature
Sharron Burgeson – Director	
Cheryl-Bruno Mofu – Instructor	
Derek Copple – Instructor	
Silvia Lainez – Secretary	
Guest:	
Guest:	

Agenda Item	Discussion	Follow-up
1. New Business		
2. Old Business		
3. VN Program <ul style="list-style-type: none"> A. Student <ul style="list-style-type: none"> (1) Students at Risk (2) Remediation/Follow-up B. Faculty (may include) <ul style="list-style-type: none"> (1) Faculty Assignments (2) Faculty Evaluations 		
3. Curriculum Items <ul style="list-style-type: none"> A. Content B. Scheduling C. Textbook Review D. Course Outline Record E. Student Learning Outcomes F. Syllabi G. Resources 		
4. Clinical Items <ul style="list-style-type: none"> A. Facility Scheduling B. Facility Evaluation C. Student Facility Evaluations 		
5. Skills Lab		



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6. VTEA 7. CTE Grant		
7. Good of the Order:		
8. Next Meeting Date:		
9. Items to be discussed at the next meeting:		



Palo Verde College

Department of Nursing and Allied Health

NURSING FACULTY MEETING SCHEDULE

DECEMBER 2014 – MAY 2015

Date	Focus Topics (in addition to ongoing agenda)
Dec. 29, 2014	Meeting completed as scheduled.
Jan. 6, 2015	Meeting completed as scheduled.
Jan. 15, 2015 Thursday	<ul style="list-style-type: none"> ▪ Review of Report to Board (due 1/16) ▪ Remediation Policy ▪ Faculty Meeting topics & dates ▪ Curriculum Review
Jan. 23, 2015 Friday	<ul style="list-style-type: none"> ▪ Curriculum Review only
Feb. 6, 2015 Friday	<ul style="list-style-type: none"> ▪ Curriculum ▪ Student Issues
Feb. 20, 2015 Friday	<ul style="list-style-type: none"> ▪ Student Issues ▪ Remediation ▪ Submit completed Semester 3 Lesson Plan
March 27, 2015 Friday	<ul style="list-style-type: none"> ▪ Curriculum – Follow-up ▪ Annual Clinical Facility Eval. Report Issues ▪ Faculty Teaching Assignments
April 17, 2015 Friday	<ul style="list-style-type: none"> ▪ Student & Instructor Eval. Of Facility (1st post-rotation) ▪ Submit completed Semester 1 Lesson Plan ▪ Curriculum Review Items for Follow-up ▪ 2015 Faculty Meeting Dates
May 1, 2015 Friday	<ul style="list-style-type: none"> ▪ Report re Eval. Of Facility & Plan (PRN) ▪ Student Issues ▪ Remediation ▪ Curriculum Review Items for Follow-up
May 15, 2015 Friday	<ul style="list-style-type: none"> ▪ Student Issues ▪ Remediation ▪ Student Eval. Of Course & Faculty
May 28, 2015 Thursday	Evaluation Results Analysis: Issues identified, Plan developed (PRN)

Section 2530(e) of the Vocational Nursing Rules and Regulations states:

“Each instructor shall have a daily lesson plan which correlates the theory and practice offered to the student. A copy of this plan shall be available to the director.”

Required Action

Provide the Board with **updated lesson plans and lecture notes for the months January and February (1)**, 2015. Additionally, provide a **timeline for developing current lesson plans and lecture notes for the entire curriculum (2)** by **January 16, 2015**.

Resolution

1. ATTACHMENT A: LESSON PLANS FOR JAN-FEB 2015.

The 3rd semester commences January 26, 2015. January and February lessons plans cover weeks 1 – 5 of the program. They are provided as **ATTACHMENT A**.

2. Timeline for development of lesson plans and lectures notes for entire curriculum.

Semester 3: The lesson plans for the upcoming Semester 3 of the program **have been completed**. They will be included for review by the curriculum workgroup. However, any revisions will apply to the next scheduled third semester of the program.

Semester 1: Lesson plans for the new program start scheduled for August 2015 will commence on February 9, pending the results of the curriculum review scheduled for January 23, 2015. Lesson plans and lecture notes will be **finalized by April 17, 2015**.

Semester 2: Lesson plans and lecture notes will begin development on April 6, 2015. Both will be developed, reviewed, and **finalized by May 15, 2015**.

Supplemental Materials/Resources: Supplemental learning materials and activities will be ongoing with responsibility for development by the faculty assigned to teach the semester. Faculty will adhere to the instructional plan, follow the lesson plan, but may adapt lecture notes to their lecture style. In the event of the absence of the instructor, classroom instruction will proceed as scheduled with use of the previously developed lecture notes. Faculty are encouraged to develop classroom learning activities to further reinforce learning.



Palo Verde College

Vocational Nursing

THIRD SEMESTER – WEEK 1

Respiratory Part 1: Assessment, Diagnostics, Selected Procedures; Upper Airway

Topic	Reference Assignments	Supplemental Materials/ Learning Reinforcement Activity
<p>Overview of the Respiratory System</p> <ol style="list-style-type: none"> 1. Review of Anatomy and Physiology Pages 339-353 2. Respiratory physiology 	<p>Introductory Medical Surgical Nursing Timby & Smith 9th 2006 Chapter 25</p>	<p>Handouts: Memory Notebook of Nursing</p> <p>https://www.youtube.com/watch?v=WV-WupqdRYw (Respiratory Sounds for NCLEX: Published on Nov 24, 2013, 29 minutes) also post on bridge.</p>
<p>Assessment of the Respiratory System</p> <p>Data collection</p> <ol style="list-style-type: none"> 1. Inspection 2. Auscultation breath sounds 3. Palpation 4. Percussion 	<p>Taylor's Clinical nursing skills Pages 732-729; Chapter 26, 354-365; 751-763; 366-370</p>	<p>Memory Notebook of Nursing handouts Youtube video Published on Nov 24, 2013 Breath sounds, 29 minutes</p> <p>https://www.youtube.com/watch?v=WV-WupqdRYw</p>

Topic	Reference Assignments	Supplemental Materials/ Learning Reinforcement Activity
Diagnostic tests		
<p>Nursing management of client with thoracentesis</p> <ol style="list-style-type: none"> 1. Gather equipment. Signed consent. 2. Introduce self, explain procedure 3. Hand hygiene 4. Assist the physician to position and drape client 5. After procedure apply pressure to puncture and apply sterile pressure dressing 6. Document date and time of procedure, amount and characteristic of fluid. 		
<p>Nursing management of the client undergoing bronchoscopy</p> <ol style="list-style-type: none"> 1. Informed consent, permit needed 2. Side-lying position 3. Check for the return of cough and gag reflex before giving oral fluid 4. Explain signs of respiratory distress. 		
<p>Upper Airway Disorders</p> <p>Discussion includes:</p> <ul style="list-style-type: none"> • Clinical manifestations • Medical management • Implications for Nursing Care <ol style="list-style-type: none"> 1. Tonsillitis and adenoiditis 2. Epistaxis 3. Structural disorders 4. Laryngeal cancer 5. Trauma/obstruction of the upper airway 		

Topic	Reference Assignments	Supplemental Materials/ Learning Reinforcement Activity
1. Treatment for obstructed airway		
<p>Nursing Care Of The Client With A Tracheostomy</p> <ol style="list-style-type: none"> 1. Introduce self, verify patient and explain the procedure. 2. Perform hand hygiene and other appropriate infection control measures. 3. Prepare the client and the equipment 4. Position client and explain rationale. 5. Establish a sterile field 6. Correct procedure for cleaning Inner Cannula 7. Replace and secure the inner cannula <p>Clean Incision Site and Tube Flange</p> <ol style="list-style-type: none"> 1. Sterile applicators and gauze with Normal Saline 2. Hold tube to prevent movement 3. H₂O₂ if needed to remove crusty secretions 4. Clean the flange of the tube in the same manner 		<p>YouTube skills video <i>Tracheostomy Care And Suctioning</i> 16 minutes Uploaded on Jul 22, 2011</p> <p>https://www.youtube.com/watch?v=gtKc9pe9HCw</p>
<p>Suctioning of Tracheostomy Tube</p> <ol style="list-style-type: none"> 1. Introduce self, explain the procedure 2. Wash hands, put on gloves & PPE 3. Turn on suction 4. Maintaining sterility, insert the suction catheter 5. Suction time = <15 secs per pass 6. On completing procedure, wash hands and document procedure in the chart 		



Vocational Nursing Program

Semester 3 Lesson Plans/Lecture Notes

Week #1 Respiratory; introduction to respiratory system

Structure: Class meets once weekly, for 6.5 hours with a 40 minute lunch and 10 minute break per hour.

Supplemental Resources:

1. Handouts: Memory Notebook of Nursing
2. <https://www.youtube.com/watch?v=VV-WupqdRYw> (Respiratory Sounds for NCLEX: Published on Nov 24, 2013, 29 minutes) also post on bridge.

Homework

1. Write out weekly objectives

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons, the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe structure of the upper and lower airways 2. Describe the cause for differences in chest contour for kyphosis, scoliosis, barrel chest, pigeon chest 3. Explain the normal physiology of the respiratory system 4. Differentiate between hypoxia, hypoxemia, hypercapnia and hypocapnia. 5. Describe the O₂ and CO₂ gas exchange 6. Define criteria for a positive TB skin test 7. Identify elements of a respiratory assessment 8. Identify tests or examinations commonly done in the diagnosis of respiratory disorders 9. Provide appropriate nursing care and teaching for clients undergoing thoracentesis. 10. Provide appropriate nursing care and teaching for clients undergoing bronchoscopy. 11. Discuss the complications associated with thoracentesis and bronchoscopy. 	<p>Text: Introduction to Medical Surgical Nursing by Timby & Smith Pages 340-352</p> <p>Supplemental resources: Handouts: Memory Notebook of Nursing</p> <p>https://www.youtube.com/watch?v=VV-WupqdRYw (Respiratory Sounds for NCLEX: Published on Nov 24, 2013, 29 minutes) also post on bridge.</p> <p>RESPIRATORY ANATOMY</p> <ol style="list-style-type: none"> 1. Upper airway <ul style="list-style-type: none"> Nose Paranasal sinuses Turbinate bones Pharynx <ul style="list-style-type: none"> - nasopharynx –opening to Eustachian tubes; connect pharynx to middle ear -oropharynx -tonsils and adenoids Larynx <ul style="list-style-type: none"> -epiglottis -glottis -thyroid cartilage – Adams apple -cricoid cartilage -vocal cords 2. Lower airway <ul style="list-style-type: none"> Trachea Bronchi & bronchioles Lungs and alveoli Accessory structures <ul style="list-style-type: none"> -diaphragm -mediastinum -2 layers of pleura ---visceral pleura, covers lung surface 	<p>Lecture Discussion</p> <p>Evaluation: Written Exam</p>

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>12. Differentiate between normal and adventitious breath sounds</p>	<p>---parietal pleura, covers chest wall ---pleural space</p> <p>RESPIRATORY PHYSIOLOGY TERMS</p> <ol style="list-style-type: none"> 1. Respiration: exchange O₂ and CO₂ between atmospheric air and blood, and between the blood and the cells 2. Ventilation: movement of air into and out of the lungs sufficient to maintain normal arterial O₂ and CO₂ tensions 3. Inspiration: movement of air into the lungs 4. Expiration: removal of C₂ out of the lungs 5. Diffusion: transfer of a substance from an area of higher concentration or pressure to an area of lower concentration or pressure. Exchange of O₂ and CO₂ across alveolar-capillary membrane and at the cellular level. 6. Perfusion: flow of blood in the pulmonary circulation. <p>RESPIRATORY PHYSIOLOGY</p> <ol style="list-style-type: none"> 1. Mechanics of ventilation <ul style="list-style-type: none"> -during inspiration diaphragm contracts and flattens enlarging the thoracic cavity -pressure in the thorax decreases to levels below atmospheric pressure, moving air into the lungs -when inspiration is complete diaphragm relaxes and lungs return to original position. Size of thoracic cavity decreases, increasing the pressure to level greater than atmospheric pressure and air flows out of the lungs. 2. Control of ventilation: <ul style="list-style-type: none"> Respiratory center in medulla oblongata and pons which control rate and depth. -central chemoreceptors in the medulla respond to changes in the CSF. These receptors signal the lung to change depth & rate. -chemo receptors in the carotid arteries and aortic arch respond to changes in pH, levels of O₂ and CO₂ in the blood. <p>ALVEOLAR RESPIRATION:</p> <ol style="list-style-type: none"> 1. Determines amount of CO₂ in the body. 2. Increased CO₂ causes a decrease in normal pH of 7.4. 3. The kidneys contribute to normal pH excreting more hydrogen ions keeping serum bicarbonate levels near normal. Together lungs & kidneys maintain pH at 7.4 4. In the acutely ill client compensatory mechanisms attempt to maintain normal pH by: <ul style="list-style-type: none"> -lungs eliminate acid by blowing off more CO₂, and also conserve CO₂ by slowing respiratory volume and reabsorbing bicarbonate -the kidneys excrete more bicarbonate 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>5. Disturbances in pH that involve the lungs are considered respiratory. All other mechanisms that disturb pH are termed metabolic. They can coexist.</p> <p>PHYSICAL ASSESSMENT OF RESPIRATORY SYSTEM</p> <p>1. <u>History</u></p> <ul style="list-style-type: none"> -client' general health, -family health -frequency of respiratory illness - allergies -smoking (how long & how much) -cough, sputum, dyspnea & wheezing <p>Medication (OTC and RX)</p> <ul style="list-style-type: none"> -any pulmonary tests in past (CXR, TB test) -occupation -exercise tolerance, level of fatigue -pain <p>2. General observations</p> <p><u>Inspection</u></p> <ul style="list-style-type: none"> -shortness of breath when speaking -posture -skin color -LOC, mental status, restless, agitated -use of accessory muscles -resp rate, depth, effort, rhythm -shape of chest and symmetry of movement -inspection of nose for signs of injury, inflammation, lesions -examine posterior pharynx and tonsils for signs of swelling, inflammation or exudate -note difficulty swallowing or hoarseness <p><u>Palpation</u></p> <ul style="list-style-type: none"> -palpate trachea for placement midline -note enlarged lymph nodes -palpate chest for lesions, deformity, pain, swelling or abnormalities -kyphosis – exaggerated curvature of the thoracic spine; congenital anomaly or associated with injury or osteoporosis -scoliosis -- lateral s-shaped curvature of the thoracic and lumbar spine --barrel chest – chest is round, ribs are horizontal, sternum pulled forward; associated with emphysema and aging <p><u>Auscultation</u></p> <p>1. Normal breath sounds</p> <ul style="list-style-type: none"> -Vesicular sounds; air movement in bronchiole an alveoli; heard over lung fields, quiet low pitch. Long inspiration, short expiration -bronchial sounds; air moves through the trachea, loud with long expiration -bronchovesicular sounds; heard between trachea and upper lungs; medium pitch with equal inspiration and expiration <p>2. Adventitious – abnormal breath sounds</p> <ul style="list-style-type: none"> -Crackles – (formally called rales) discrete sounds like rubbing hair strands together. Sometimes clear with cough, and may be result of inflammation or congestion. 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>-Crackles that do not clear with cough may indicate pulmonary edema or fluid in alveoli</p> <p>-Sibilant (hissing or whistling, formally called wheezes), continuous musical sounds that can be heard during inspiration and expiration; result of air through narrow or partially obstructed airpassages (usually with increased secretions).</p> <p>-Sonorous wheezes (formally rhonchi) low pitched, heard in trachea and bronchi</p> <p>-Friction rub crackling or grating sound heard on inspiration and expiration; due to inflamed pleural space. Do not clear with cough.</p> <p>DIAGNOSTIC TESTS</p> <ol style="list-style-type: none"> 1. Pulse oximetry – noninvasive method to measure O₂ content of hemoglobin -- normal 95% or more 2. ABG's - blood sample from radial, brachial, femoral artery or an inserted arterial line ABG's determine: <ul style="list-style-type: none"> -blood pH -O₂ carrying capacity Levels of O₂, CO₂, bicarb 3. TB skin test <ul style="list-style-type: none"> -Mantoux or TB skin test to determine if a patient has been infected with TB. -does not determine active or dormant disease -inject 0.1 ml intradermal -Read test site 48-72 hours looking at degree of erythema AND palpate induration. -erythema without induration is insignificant -read as follows: <ul style="list-style-type: none"> ---Neg 0- 4mm induration; no follow-up needed ----questionable 5 – 9mm; If client had contact with someone with TB this is considered significant -----Pos 10mm or greater 4. PFT – pulmonary function tests— <ul style="list-style-type: none"> -Test functional ability of the lungs. - Results vary according to age, sex, weight, and height. - best performed sitting or standing 5. Sputum studies <ul style="list-style-type: none"> - Viewed for pathogens, and cancer cells - C& S obtained to diagnose infections and prescribe antibiotics -serial sputum specimens may be required as a Neg smear is not necessarily mean absence of disease 6. Radiography; MRI, CT Scan 7. Pulmonary angiography <ul style="list-style-type: none"> -radioisotope study to assess arterial circulation of the lungs -catheter inserted into arm, threaded through right side of heart to pulmonary artery -contrast injected into femoral artery <p>Nursing Care</p> <p>---determine level of anxiety over procedure; not going to be radioactive</p>	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>---determine allergies, especially iodine, shell fish and contrast die</p> <p>---inform client there is a feeling of pressure on insertion of the catheter, and warm flushed feeling and urge to cough when contrast instilled</p> <p>---monitor for signs of allergic reaction</p> <p>Post procedure nursing responsibilities include</p> <ul style="list-style-type: none"> ---Inspect puncture sites ---assess distal circulation ---apply pressure dressing if bleeding occurs ---bed rest for 2-6 hours post procedure --pressure dressing applied after catheter removed remains in place during bed rest. <ol style="list-style-type: none"> 1. Lung scans – VQ scans <ul style="list-style-type: none"> -ventilation and perfusion scan useful in detecting PE -use radioisotopes – not radioactive; use less than with CXR -during procedure client may need to hold their breath for short periods of time 2. Bronchoscopy –allows direct visualization of larynx, trachea and bronchi with a scope <ul style="list-style-type: none"> -used to diagnose, treat, evaluate, obtain biopsy, obtain sputum, perform pulmonary washing, or remove a FB -patients usually fearful -NPO at least 6 hours before -local anesthesia suppresses swallow, cough and gag reflex -receives atropine before procedure to dry secretions, and sedative (versed usually) as amnesiac and to depress vagus nerve (Valsalva) -potential complications include: bronchospasm, laryngospasm secondary to edema, hypoxemia, bleeding, aspiration, perforation, cardiac dysrhythmias and infection 3. Thoracentesis – aspiration of air or fluid from the pleural space, usually using ultrasound guided needle insertion, or /and percussion, under local anesthesia. <ul style="list-style-type: none"> -bloody fluid is usually diagnostic for trauma or cancer -purulent for infection -serous may also be diagnostic for cancer, inflammatory condition or heart failure -1-2 L may be removed to relieve respiratory distress -medication may be instilled to treat infection -done at bedside, ED or treatment room -positioned in orthopenic position on pillow or side lying on unaffected side <p>Thoracentesis - Nursing Responsibilities</p> <ul style="list-style-type: none"> -monitor vitals & pulse oximetry -Instruct client: NO moving, coughing or deep breathing -monitor for respiratory distress, dyspnea, tachypnea or hypotension 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>-small sterile pressure dressing to site post procedure</p> <p>-Post CXR</p> <p>-position on unaffected side for at least 1 hour</p> <p>-document amount, color or fluid and client tolerance of procedure</p> <p>***use of contrast dye in clients over 50 requires BUN and Creatinine. Borderline normal tests may necessitate client receive mucomyst PO, 60 ml pre and post procedure to help flush dye.</p> <p>***Post procedure fluids must be increased to flush the dye and protect kidneys</p>	



Vocational Nursing Program

Semester 3 Lesson Plans/Lecture Notes

Week 1 Respiratory; Clients with upper Respiratory Disorders

Structure: Class meets once weekly, for 6.5 hours with a 40 minute lunch and 10 minute break per hour.

Supplemental Resources/Homework

Text: Introduction to Medical Surgical Nursing, Timby and Smith. Chapter 26; pages 354-363

Review Kaplan remediation sections

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> Identify critical assessments needed for a client with an infectious disorder of the respiratory system Discuss the nursing care for the client with an inflammatory or infections disorder upper respiratory system. Discuss medical treatment and nursing care for the client with laryngeal cancer. Discuss psychosocial issues the client may experience following a laryngectomy. Discuss assessment data required to provide nursing care to clients with disorders of the upper airway. Define sinusitis, nasal polyps, deviated septum and epistaxis. Outline general nursing management of the person following nasal surgery. Discuss the etiology, symptoms, medical and nursing interventions for persons with common cold, influenza pneumonia, pleurisy, allergic rhinitis, and bronchitis. 	<p>INFECTIONS AND INFLAMMATORY DISORDERS RHINITIS – (common cold or coryza) inflammation of the nasal mucous membranes ; -most common cause is rhinovirus (with more than 100 strains) -Spread by direct contact with fomites or inhalation of droplets -can cause pneumonia in the immunocompromised, debilitated or older adult client.</p> <ol style="list-style-type: none"> Symptoms include: <ul style="list-style-type: none"> -sneezing, cough -Nasal congestion -Rhinorrhea (clear nasal discharge) -sore throat, low grade fever -watery eyes, headache -aching muscles and malaise -Lasts between 5 -14 days Sustained fever suggests bacterial infection or infection of sinuses or ears Allergic rhinitis persist as long as specific allergen exposure persist. <p>Treatment</p> <ol style="list-style-type: none"> Antibiotics not used unless specific bacteria found, or prophylactically for above clients at risk for pneumonia. Clients advised to: <ul style="list-style-type: none"> -use antipyretics -decongestants, increase fluid intake -antitussives -saline gargles, cool mist vaporizer -antihistamines for allergic rhinitis -Care with OTC medication interactions with ASA, acetaminophen, decongestants that can elevate BP, Contraindicated in thyroid disease Maintain healthy life style <ul style="list-style-type: none"> -rest and sleep, support immune system -Proper diet, moderate exercise, -Hand washing 	<p>Lecture Discussion Evaluation: written exam</p>

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>SINUSITIS – inflammation of the sinuses, most often maxillary. Complications include infection of the middle ear and or brain. Never fly with sinusitis, can result in meningitis.</p> <ol style="list-style-type: none"> 1. Cause is infection from nasal passage to sinuses, and blockage of normal sinus drainage. Trapped secretions become infected easily 2. Allergies often cause edema of mucous membranes and lead to obstruction of sinus drainage. 3. Nasal polyps and deviated septum may also impair drainage. 4. Cold lasting more than 10 days or with nasal discharge green or dark yellow and foul smelling need medical attention <p>Signs and Symptoms:</p> <ul style="list-style-type: none"> -headache, fever, pain over infected sinus -pressure around eyes and malaise -nasal smear or irrigation of sinus for C&S identifies correct antibiotic <p>Surgical./Medical management</p> <ul style="list-style-type: none"> -conservative treatment usually enough -saline irrigation of maxillary sinuses to remove accumulated exudate and promote drainage -Antibiotic therapy for severe infections----- vasoconstricting nose drops like phenylephrine (Dimetapp Cold Drops, , Sudafed PE, Sudafed PE Children's Nasal Decongestant for example) will aid in relief of nasal congestion and drainage FOR SHORT-TERM. -Surgical treatment for chronic sinusitis may be necessary to provide opening ofr adequate drainage. <p>Nursing Management</p> <ul style="list-style-type: none"> -mouth washes and humidification and increased fluids to loosen secretions and provide comfort -use decongestant and antihistamines as directed <p>Post-operative Nursing Management</p> <ul style="list-style-type: none"> - standard post-operative care with special considerations - repeated swallowing suggests hemorrhage -risk of damage to optic nerve; check visual acuity with each assessment (“how many fingers do I have up?”) -check temp every 4 hour -assess for pain over involved sinus, may indicate impaired drainage or post op infection -administer analgesics -ice bags to reduce pain and edema -nasal packing and moustache dressing – leave packing alone, change moustache dressing PRN -mouth breathing, dry mouth, frequent oral care, ice chips, frequent sips -do not blow nose, do not lift more than 5-10 lbs., do not Valsalva for 10-14 days <p>PHARYNGITIS – inflammation of the throat associated with rhinitis and URI's</p> <ul style="list-style-type: none"> -associated with bacteria and viruses, most serious is group A streptococci or strep throat 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>- can lead to cardiac complication like endocarditis and rheumatic fever, and renal complications like glomerulonephritis.</p> <p>-highly contagious, spreads via droplet or inhalation</p> <p>-incubation 2-4 days</p> <p>Signs and symptoms:</p> <p>-sore throat, sometimes severe with dysphagia, fever & chills, headache and malaise.</p> <p>-some have white exudate patches over tonsils area.</p> <p>-Quick strep to rule out strep in most clinics or offices or routine culture in hospital reveals specific organism</p> <p>-early antibiotic treatment best choice and Penicillin's are usually drug group of choice</p> <p>TONSILLITIS AND ADENOIDITIS- most common together, and most common in children, but seen in adults.</p> <ol style="list-style-type: none"> 1. Lymphatic tissue, common site of infection either primary or secondary to some other URI. 2. Chronic tonsillar infection can lead to enlargement which can lead to upper airway obstruction 3. Chronic adenoidal infection can result in acute or chronic otitis media. 4. If group A strep, prompt treatment to prevent cardiac or renal complications <p>Assessment findings</p> <ol style="list-style-type: none"> 1. Sore throat, dysphagia, fever, malaise, 2. Enlarged adenoids may cause nasal obstruction giving nasal tone to voice, noisy breathing, snoring, 3. Enlarged red tonsils with white patches 4. C&S determines correct antibiotic <p>Medical Management</p> <ol style="list-style-type: none"> 1. Antibiotic, analgesics like acetaminophen and saline gargles to reduce fever and discomfort <p>Surgical Management – generally out patient</p> <ol style="list-style-type: none"> 1. Criteria for surgical removal is repeated episodes that interfere with school or work, several times in a year or 2. Enlarged obstructive adenoids repeated purulent otitis media or 3. Hearing loss from serous otitis media associated with enlarged tonsils and adenoids, or asthma and rheumatic fever 4. Preop, assess vitals baseline, Last food or drink 5. Lab, hematocrit, platelet count, and clotting times (high risk for hemorrhage) 6. Bleeding tendencies and use of ASA and NSAID's <p>Post-op – start with standard post op care</p> <ol style="list-style-type: none"> 1. Position on side or fowler's with head to side and emesis basin for drainage or emesis 2. Teach to spit not swallow secretions which could be blood, first 24 hours 3. Assess gag reflex, increase risk for aspiration 4. Frequent swallowing indicates swallowing blood 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>5. Frequent fluids, warm gargle</p> <p>6. Soft diet for several days, but nothing with small bits like cottage cheese and rice that can get caught in the area of tonsil removal</p> <p>7. Watch vitals, increased respiratory rate may indicate aspiration or obstruction or both</p> <p>8. No straw use, carbonated fluids, do not blow nose cough or clear throat</p> <p>9. Push fluids, ice collar, analgesic</p> <p>10. Risk for bleeding increases again in 7-10 day as scabs start to slough off</p> <p>PERITONSILLAR ABSCESS – abscess forms between the tonsil and pharynx.</p> <p>1. Experience pain with swallowing, talking, fever, malaise, ear pain;</p> <p>2. Posterior Affected side is red and swollen as is the pharynx.</p> <p>3. Drainage is collected for C&S; cause usually strep or staph</p> <p>4. Penicillin usually given while awaiting culture result</p> <p>5. I&D done if abscess partially blocks airway</p> <p>6. Local anesthetic used and abscess evacuated.</p> <p>7. Nursing management</p> <ul style="list-style-type: none"> -HOB elevated to prevent aspiration -ice collar, analgesics -force fluids -observe for signs of respiratory obstruction -observe for signs of excessive bleeding <p>LARYNGITIS –Edema of the vocal cords and or inflammation of the larynx. May also be caused by improper use of voice, allergies or smoking</p> <p>1. Hoarseness, inability to speak above whisper or complete loss of voice usual symptoms</p> <p>2. General treatment is stop talking, or stop the smoking, or avoid the irritants.</p> <p>3. Persistent hoarseness is a sign of laryngeal cancer</p> <p>NASAL OBSTRUCTION – something that interferes with passage of air</p> <p>1. DEVIATED SEPTUM – irregularity in the septum, deviating from the midline. Remarkable deviation can obstruct one nares and interfere with sinus drainage</p> <p>2. NASAL POLYPS are grape like swellings in the nasal mucosa. Usually from chronic irritation from allergic rhinitis. They can obstruct breathing or impede sinus drainage as well.</p> <p>3. Assessments</p> <ul style="list-style-type: none"> --history of sinusitis --difficulty breathing from one nares --frequent nose bleeds --frequent nasal discharge --direct inspection with a nasal speculum reveals deviation or polyps. <p>MEDICAL SURGICAL MANAGEMENT</p> <p>1. Septoplasty – through an incision in the mucous membranes, removal of obstructing portions of the</p>	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>septum. This should restore septum and breathing, allowing for sinus drainage</p> <ul style="list-style-type: none"> -Both sides of nose packed with gauze and left for 24-48 hours. Moustache dressing absorbs drainage. <p>2. Rhinoplasty is a reconstruction of the nose ("nose job") and can be done at the time of the septoplasty.</p> <ul style="list-style-type: none"> -cosmetic procedure and correct structural issues or deformities affecting breathing, along with changing the contour of the nose itself. -incision inside nares, allows for restructuring or re-contouring of nose. -nose packed, and top of the nose is taped (similar to a saddle) and splint applied with little plaster like substance, and remains in place for at least a week. <p>3. Conservative treatment for polyps includes steroid nasal spray to reduce inflammation or direct injection into the polyp.</p> <ul style="list-style-type: none"> -if the conservative route fails the physician does a: polypectomy under local anesthetic. With a snare or laser they are removed and sent to pathology to rule out malignancy <p>Nursing Care: procedures usually as outpatient</p> <ol style="list-style-type: none"> 1. --semi Fowler's position after surgery to promote drainage 2. --spit, don't swallow, might be blood; avoid vomiting 3. --apply ice to reduce swelling and bruising 4. --monitor vital signs 5. --mouth care with saline gargle 6. --monitor dressing for excess bleeding 7. --medicate as directed; analgesics and antiemetics <p>EPISTAXIS – nose bleed</p> <ol style="list-style-type: none"> 1. Causes include <ul style="list-style-type: none"> -hypertension, rheumatic fever, trauma, -infection , overuse of NSAID's or ASA, -snorting drugs, especially cocaine -FB in the nose, deviated septum, forceful nose blowing (especially with blood dyscrasias, dry environment -digital manipulation of the nose <p>Medical Management</p> <ol style="list-style-type: none"> 1. Lean forward and spit do not swallow 2. Direct continuous pressure -5-10 minutes by the clock 3. Do not blow nose after direct pressure to see if still bleeding 4. Try to apply ice bags to nose while applying pressure 5. cauterization with silver nitrate stick or electrocautery or vasodilator topically applied like epinephrine Nasal packing 6. Nosestop inflated balloon catheter for poster bleed <p>LARYNGEAL OBSTRUCTION</p> <p>Causes: edema from allergies</p> <ul style="list-style-type: none"> -severe head and neck injury -inflammation and edema of throat 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>-aspiration of FB</p> <p>Assessment</p> <ol style="list-style-type: none"> 1. -stridor—high pitched harsh respiratory sound 2. -depending on cause, may have dysphagia, cough, hoarseness and hemoptysis 3. -partial obstruction causes difficulty breathing 4. -total obstruction prevents air movement 5. -universal distress or choking sign 6. Abdominal thrusts (Heimlich Maneuver) for obstructed airway (page 361) (café coronary for example) 7. allergic reactions treated with epinephrine and steroids (anaphylaxis for example) 8. severe obstruction unrelieved by above requires tracheostomy <p>SLEEP APNEA – episodes of brief frequent respiratory standstill during sleep</p> <ol style="list-style-type: none"> 1. Most common in older obese men, but also obese women, men and women. <ul style="list-style-type: none"> -Cigarette smoker is at high risk -Use of hypnotics and sedatives predisposed to problems along with alcohol use 2. Results from flabby soft palate, along with reduced muscle tone in sleep causing collapse of airway 3. Most sleep apnea patients have <ul style="list-style-type: none"> -hypertension and at increased risk for -CVA and AMI or dysrhythmias <p>Assessment:</p> <ol style="list-style-type: none"> 1. loud snoring with 10 second pauses or periods of apnea 2. -hypoxia causes a brief awakening with loud snort 3. -daytime fatigue, mood changes <ol style="list-style-type: none"> 1. morning headache, difficulty concentrating 4. -sore throat 5. -enuresis 6. -erectile dysfunction or decreased libido 7. Diagnosis based on sleep apnea studies or polysomnography <p>Medical Management</p> <ol style="list-style-type: none"> 1. -lose weight 2. -Avoid respiratory depressants like ETOH or sedatives 3. -Medications to promote respiratory drive 4. Protriptyline (Vivactil, Triptil) 5. -supplemental O₂ with full face mask, nasal mask or cannula – 2 most common <ol style="list-style-type: none"> a. --CPAP or continuous positive airway pressure b. -BIPAP or bi-level positive airway pressure <p>Surgical Management</p> <ol style="list-style-type: none"> 1. -uvulopalatopharyngoplasty- reconstruct uvula, palate and pharynx 2. -Trach is successful but objectionable to clients as barbaric 	



Vocational Nursing Program

Semester 3 Lesson Plans/Lecture Notes

Week #1 Respiratory; Laryngeal Cancer

Structure: Class meets once weekly, for 6.5 hours with a 40 minute lunch and 10 minute break per hour.

Supplemental Resources:

1. Handouts: Memory Notebook of Nursing

Homework

1. Write out weekly objectives

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify earliest symptoms of laryngeal cancer 2. Discuss treatment of laryngeal cancer and methods of alternate communication for the client with a laryngectomy. 3. Describe early symptoms of cancer of the larynx. 4. Discuss emotional impact of radical surgery often necessary for cancer of the larynx. 5. Identify nursing management of the client with a tracheostomy 6. Make a teaching plan of how the person with a laryngectomy can provide self-care. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith; Chapter 26; pages 364-372</p> <p>LARYNGEAL CANCER – Laryngeal cancer occurs when malignant cells form on the tissues of the larynx, or voice box.</p> <p>The larynx contains the vocal folds. The vocal folds vibrate. This makes sound when air is directed against them. A person's voice is heard when this sound echoes through the throat, mouth, and nose.</p> <p>most common in older men – but women catching up as they increase smoking</p> <p>Cause: basically unknown, BUT ---smoking is often similar in patients alcohol, industrial pollutants also associated.</p> <p>-some feel heredity, vocal over use and chronic laryngitis are also factors</p> <p>Signs and Symptoms:</p> <ul style="list-style-type: none"> -persistent hoarseness earliest symptom, initially light and often ignored -swollen feeling or lump in the throat -dysphagia, or burning in throat with hot or citrus liquids -bad cough or chest congestion -halitosis – bad breath -prolonged ear ache -advanced findings <ul style="list-style-type: none"> – dyspnea -weakness -weight loss -enlarged cervical lymph nodes 	<p>Lecture Discussion Evaluation: Exam</p>

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>-pain and anemia</p> <p>Medical and Surgical Management</p> <p>Diagnosis: History</p> <ul style="list-style-type: none"> -palpate for lumps -endoscopy to visualize (laryngoscopy) <p>Treatment:</p> <ul style="list-style-type: none"> - chemotherapy and radiation therapy may be tried, usually poor results <p>Patients who have undergone radiation treatment may have:</p> <ul style="list-style-type: none"> dry and/or red skin at the site of the treatment sore throat dry mouth (xerostomia) sensitive mouth mouth sores difficulty swallowing decreased taste fatigue breathing difficulties from swelling <p>Patients who have received chemotherapy, often for the treatment of metastasized cancer, may have:</p> <ul style="list-style-type: none"> nausea or vomiting increased chance of infection bleeding or bruising fatigue shortness of breath <ul style="list-style-type: none"> -laser surgery may be used for lesions or partial laryngectomy –can still speak, change in voice possible as surrounding structures become less flexible and resonant. <ul style="list-style-type: none"> -Total laryngectomy -- A laryngectomy is the removal of the larynx and separation of the airway from the mouth, nose and esophagus. . <p>During this operation, a new route for breathing is surgically created. The end of the trachea is connected to a stoma made in the neck. Rather than using the mouth and the nose, the person will breathe through this hole.</p> <p>This is a permanent tracheostomy as the trachea is no longer connected to upper airways. With the larynx completely removed. It also means:</p> <ul style="list-style-type: none"> -no air enters nose or mouth -esophagus must be reconstructed with removal of trachea resulting in enteral feedings for awhile <p>Because the patient with the laryngectomy breathes through a stoma, the air inhaled into the lungs is no longer warmed or moisturized by structures of the nose and mouth. As a result, the breathing tubes can become irritated and create a thick mucus. This mucus may also crust on the stoma and require</p>	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>routine removal. The patient may benefit from humidifiers and a cover to protect the stoma.</p> <p>4. ALTERNATIVE METHODS OF SPEECH Loss of speech is one of the more devastating results of this process, and every effort is made to develop alternative communication methods with the client.</p> <p>Esophageal Speech: A person takes air in through the mouth, traps it in the throat, and then releases it. As the air is released, it makes the upper parts of the throat/esophagus vibrate and produces sound that is shaped into words in the same way it was before surgery: with the lips, tongue, teeth, and other mouth parts. This type of alaryngeal speech is difficult to learn and use effectively, especially in rushed or stressful communication situations.</p> <p>Artificial Larynx: The person uses an electronic or mechanical instrument that provides the sound source for speech. Some of these devices are held against the neck, and others have a tube that the patient puts in his mouth. Many people use an artificial larynx as their first means of alaryngeal speech. Effective use still requires training and practice, and some disadvantages exist. The artificial larynx has a mechanical voice quality, requires the use of one hand, and draws attention to the speaker.</p> <p>Tracheoesophageal Puncture (TEP): This surgical procedure is one of the more popular methods of alaryngeal speech production. It can be performed at the time of the laryngectomy surgery or afterwards. The surgeon creates a connection between the trachea and the esophagus with a small hole. A small, one-way shunt valve is then inserted into this hole. To speak, the person inhales air through the stoma and into the lungs. Then, he or she covers the stoma with a finger. Air from the lungs is then directed from the trachea, through the shunt valve, and into the esophagus. The esophagus vibrates, creating a sound source for speech. This sound is then shaped into speech sounds in the mouth in the same way it was done before laryngectomy. The Speech Pathologist will assist the individual in selecting and fitting the prosthesis and can teach proper prosthesis care and use.</p> <p>Nursing Care (Laryngeal Surgery) Assessment: Preop</p> <ol style="list-style-type: none"> 1. Determine level of understanding for procedure and outcome 2. Determine alternate methods of communication. Work with white board 3. Allow client and family members to ventilate feelings including fear of diagnosis, loss of voice and speech, and altered self- image, -Allow for grieving which includes anger at self and others. 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>-Refer to American Cancer Society Lost Cord Club for further support</p> <p>4. Gather general baseline information</p> <p>Postop (Planning And Intervention)</p> <ol style="list-style-type: none"> 1. Preventing postop complications (pain, wound infection, hemorrhage, stable vitals), frequent assessment of airway 2. Help to cope with body image alteration 3. Frequent checks by all staff as cannot speak and answer voice from the desk. --fearful, anxious, slightly manipulative--- alleviate their fears by being prompt and develop trust 4. Note at desk, when light on get up, DO NOT answer the light from the desk. 5. Suction set up at bedside 6. Humidified O2 with trach collar 7. Careful skin care around stoma (humidified air and secretions) 8. Second tracheostomy tube at bedside 9. Do not cut 4X4 gauze to go around tube, may cause fibers into trachea use precut ones. 10. Watch for signs of restlessness, agitation, dyspnea, tachycardia – signs of airway obstruction (bring trach setup and care setup to class) <p>DISCHARGE INSTRUCTIONS</p> <ol style="list-style-type: none"> 1. Keep stoma covered especially outdoors. Wear a bandana or non-fraying scarf to help warm the air, protect stoma from dust and dirt and make it less obvious 2. Keep skin moistened 3. Use humidifier in rooms 4. Teach patients to cover stoma when coughing 5. Caution on aspiration risk (dust, bugs, small items, water) 6. Do not allow water to enter stoma; avoid showers, use hand held only, or better use bath <p>----Be very careful shaving. It is easy to cut yourself because nerve endings cut during surgery can decrease sensation.</p> <ol style="list-style-type: none"> 7. Do not swim alone 8. Increase fluid intake 9. Avoid smoke, dust and aerosol sprays 10. Do not be worried about bed covers over stoma 11. Personal hygiene with stoma may be challenging. Sense of smell altered. Give special attention to nose and mouth. These areas are no longer moist, and it is harder for to detect mouth odor. Good mouth care stimulates taste buds 12. Teach family to suction using aseptic technique – More suctioning means more secretions 13. Teach family to clean around stoma, and cleaning the inner cannula 14. Changing ties: DO NOT REMOVE OLD TIES BEFORE NEW TIES IN PLACE – can cough out tube DISASTER 	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<p>15. Do not place knot in ties in the back of the neck tie at the side</p> <p>Special Notes About Care Of Tracheostomy By The Care Giver</p> <ol style="list-style-type: none"> 1. Caregivers must know the type and size (length) of the tracheostomy tube (inner cannula). 2. Caregivers must know when to suction, as suctioning is only needed when patient is not able to expel secretions. 3. Caregivers must know how deep to suction. 4. Insert suction catheter the length of the inner cannula 5. Caregivers must know cleaning the inner cannula depends on secretions amount, consistency and thickness <ul style="list-style-type: none"> ---Caregiver must evaluate frequency of care needed based on assessment of secretions ---Secretions in the inner cannula must never be allowed to dry and crust <p>5. Caregivers must know when and why to instill normal saline and add additional moisture via mist:</p> <ul style="list-style-type: none"> ---When secretions too thick for patient to expel ---When dry plugs are expelled during care <p>It is essential the care giver be at the bedside when suctioning and cannula cleaning are performed.</p>	



Vocational Nursing

THIRD SEMESTER – WEEK 2

Respiratory Part 2: Lower Airway

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>Clients with Diseases of the Lower Airway Presentation includes:</p> <ul style="list-style-type: none"> ● Review of pathophysiology ● Clinical manifestations ● Medical management ● Implications for Nursing ● Related Pharmacology <p>1. Bronchitis</p> <p>2. Pneumonia a. core measure</p> <p>3. Pleural Effusion a. friction rub</p> <p>3. Empyema</p> <p>4. Lung abscess</p>	<p>Review Sections in Kaplan Remediation Section TB, COPD, ASTHMA</p> <p>Timby & Smith Introductory Medical Surgical Nursing Chapter 27 Pages 374-398</p> <p>Taylor’s Critical Nursing Skills Pages 144-148 (PPE); 707-735; 262-274; 853-856</p> <p>Memory I and Notebook of Nursing Volume I & II</p> <p>Website to review core measures for pneumonia Published 3/11 /http://keymedinfo.com/site/667KeyM/Core Measures Upate AMI, HF, Pneum, 2011 Self Study FOR WEB SITE.pdf</p>	<p>Memory Notebook of Nursing Volume I&II</p> <p>Review DVD from Taylor’s for suctioning, airway insertion, IS, metered dose inhalers https://www.youtube.com/watch?feature=player_embedded&v=6A8mzMe3pqA (quick overview of the role of the brainstem, chemosensors and baroreceptors in the control and regulation of breathing). Published on May 11, 2014</p> <p>View point from Respiratory Therapist. Handout: Hypoxic Drive Theory: A history of the myth February 17, 2012 http://respiratorytherapycave.blogspot.com/2012/02/hypoxic-drive-theory-history-of-myth.html</p>

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>5. Influenza</p> <p> a. core measures</p> <p>6. Tuberculosis</p> <p>7. Bronchiectasis</p> <p>8. Atelectasis</p> <p>9. Chronic Bronchitis</p> <p>10. COPD</p> <p> a. chemoreceptors</p> <p> b. baroreceptors</p> <p> c. hypercapnia</p> <p> d. hypoxic drive</p> <p>11. Pulmonary rehabilitation</p> <p>12. Asthma</p> <p> a. Inhalers</p> <p>13. Cystic Fibrosis</p> <p> a. postural drainage</p> <p>14. Common medications used in respiratory disorders</p> <p> a. metaproterenol</p> <p> b. albuterol</p> <p> c. atrovent</p> <p> d. steroids</p> <p> e. cromolyn sodium</p>		<p>Listen on this youtube video friction rub Published on May 16, 2013 https://www.youtube.com/watch?v=36t0vMrcrKU</p> <p>Positions for postural drainage – guide 2013 http://copd.about.com/od/copdtreatment/ig/Postural-Drainage-Positions/</p>

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 2 Topic # 8 **ASTHMA**

Semester 3rd
Hours _____

Page 1 of 5

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify critical assessments needed for a client with asthma. 3. List the needs and the therapeutic interventions for the client diagnosed with asthma. 4. Discuss the appropriate nursing management for clients with asthma. 5. Discuss the etiology symptoms, medical and nursing interventions for COPD, asthma, emphysema, bronchiectasis, lung abscess, tuberculosis, and lung cancer. 6. Discuss the relationship of cancer of the lung, and acute and chronic lung disease to smoking, air pollution, and other possible causes of these disorders (see objective # 5). 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page; 390-394</p> <p>Supplemental resources: Memory Notebook or Nursing Volume I What is Asthma 5 min (Lung Association) http://www.lung.org/assets/video/what-is-asthma.swf</p> <p>What's New with asthma research 3.39 min (National Heart, Lung And Blood Institute) https://www.youtube.com/watch?feature=player_embedded&v=qeW5n8YapQ8</p> <p>ASTHMA-- is a chronic lung disease that inflames, constricts, and or increases mucous production any and all which can narrow the airways. Asthma causes recurring periods of wheezing, chest tightness, shortness of breath, and coughing. The coughing often occurs at night or early in the morning.</p> <p>The exact cause of asthma is not known. Asthma tends to run in families and may be inherited, but environmental factors may also play a key role. Scientists continue to explore what causes asthma. Science knows that these factors play an important role in the development of asthma:</p> <p>http://www.lung.org/assets/video/what-is-asthma.swf (What is Asthma)</p> <ol style="list-style-type: none"> 1. Genetics. Asthma tends to runs in families. Genetics plays an important role in causing asthma. If your mom or dad have asthma, then you are more likely to have asthma too. 2. Allergies. Some people are more likely to develop allergies than others, especially if your mom or dad had allergies. Certain allergies are linked to people who get asthma. 3. Respiratory Infections. As the lungs develop in infancy and early childhood, certain respiratory infections have been shown to cause inflammation and damage the lung tissue. The damage that is caused in infancy or early childhood can impact lung function long-term. 4. Environment. Contact with allergens, certain irritants, or exposure to viral infections as an infant or in early childhood when the immune system in developing have been linked to developing asthma. Irritants and air pollution may also play a significant role in adult-onset asthma. 5. Exercise induced asthma; some otherwise healthy people can develop asthma symptoms only when exercising. This is called exercise-induced bronchoconstriction or exercise-induced asthma. 	<p>Lecture</p> <p>Evaluation: Exam</p>

6. Emotions -- a subgroup of individuals who are under or have undergone stressful situations may find themselves suddenly wheezing.

Asthmatic children after a temper tantrum, a spouse after a major argument; someone in a very emotional movie can all experience an increase in the symptoms of an asthma attack. Therefore while emotional stress can be a significant triggering factor in asthma, it is not the sole cause.

*****HOWEVER, an asthma attack NO MATTER the cause is serious and should be treated.

TRIGGERS

https://www.youtube.com/watch?feature=player_embedded&v=qeW5n8YapQ8 (What's New)

1. Allergens from dust, animal fur, cockroaches, mold, and pollens from trees, grasses, and flowers
2. Irritants such as cigarette smoke, air pollution, chemicals or dust in the workplace, compounds in home décor products, and sprays (such as hairspray)
3. Medicines such as aspirin or other nonsteroidal anti-inflammatory drugs and nonselective beta-blockers
4. Sulfites in foods and drinks
5. Viral upper respiratory infections, such as colds
6. Physical activity, including exercise

SIGNS AND SYMPTOMS - EARLY WARNING SIGNS

Early warning signs are changes that happen just before or at the very beginning of an asthma episode..

In general, these signs are not severe enough to stop a person from going about his or her daily activities. But by recognizing these signs, you can help your client stop an asthma episode or prevent one from getting worse. Early warning signs include:

- Frequent cough, especially at night
- Losing your breath easily or shortness of breath
- Feeling very tired or weak when exercising
- Wheezing or coughing after exercise
- Feeling tired, easily upset, grouchy, or moody
- Decreases or changes in a peak expiratory flow
- Signs of a cold, upper respiratory infection, or allergies (sneezing, runny nose, cough, congestion, sore throat, and headache)
- Trouble sleeping

SYMPTOMS OF WORSENING ASTHMA

- A cough that won't go away (day and night)
- Wheezing
- Tightness in the chest
- Shortness of breath
- Poor response to quick relief, rescue inhalers or nebulizers (bronchodilators)

LATE, SEVERE SYMPTOMS. These symptoms occur in life-threatening asthma episodes

- Severe wheezing (both when breathing in and out)
- Coughing that won't stop
- Very rapid breathing

Inability to catch your breath
Chest pain or pressure
Tightened neck and chest muscles (retractions)
Difficulty talking
Inability to fully exhale
Feelings of anxiety or panic
Pale, sweaty face
Blue lips or fingernails

DIAGNOSIS

1. Medical history with a physical exam with a physician.
2. PFT's
3. Chest or sinus XR

MEDICAL MANAGEMENT

There are two groups of asthma medications:

1. Long term controllers
2. Rescue inhalers or Quick relievers

Controller medications are the most important because they prevent asthma attacks. When you use these drugs, your airways are less inflamed and less likely to react to triggers.

Quick-relief medications -- also called rescue medications -- relax the muscles around your airway. If you have to use a rescue medication more than twice a week, your asthma isn't well-controlled. But people who have exercise-induced asthma may use a quick-acting med called a beta-agonist before a workout.

The right medication should allow you to live an active and normal life. If your asthma symptoms aren't controlled, ask your doctor to help you find a different treatment that works better.

LONG-TERM CONTROL MEDICATIONS—used only when asthma is under control. These drugs are taken daily over a long time to get asthma under control and keep it that way. **THESE ARE NOT AND SHOULD NOT BE USED AS RESCUE INHALERS OR MEDICATIONS**

1. Steroid anti-inflammatory medications are best inhaled as PO and IV have greater consequences

Inhaled steroids come in three forms: the metered dose inhaler (MDI), dry powder inhaler (DPI), and nebulizer solutions.

Advair (a combination drug that includes a steroid and a long-acting bronchodilator drug)

Aerobid

Arnuity Ellipta

Asmanex

Azmacort

Dulera (a combination drug that also includes a long-acting bronchodilator drug)

Flovent

Pulmicort

Symbicort (a combination drug that includes a steroid and a long-acting bronchodilator drug)

Qvar

2. Long-acting beta-agonists. A beta-agonist is a type of drug called a bronchodilator, which opens your airways.

Advair and Symbicort (a combination of a long-acting beta-agonist bronchodilator and an inhaled steroid)

Serevent (salmeterol)

Foradil (formoterol)

Perforomist (formoterol solution for nebulizers)

Long-acting beta-agonist bronchodilators increase the risk of death from asthma and should only be used as additional treatment for people who are also using an inhaled steroid.

For details, see their black-box warning.

3. Leukotriene modifiers

Accolate,

Singulair, and

Zyflo are leukotriene modifiers. Leukotrienes are inflammatory chemicals that occur naturally in our bodies and cause tightening of airway muscles and production of mucus

4. Mast cell inhibitors

Inhaled Cromoly prevent release of mast cells and decrease release of chemicals that cause inflammation.

QUICK-RELIEF ASTHMA DRUGS

These medications provide fast relief of asthma attack symptoms like cough, chest tightness, and wheezing. They include:

1. Short-acting beta-agonists (bronchodilators)

Albuterol (AccuNeb, Proventil HFA, Ventolin HFA, also available as a generic solution for nebulizers)

Alupent (Metaproterenol, available as a generic solution for nebulizers)

Levalbuterol (Xopenex)

Pirbuterol (Maxair)

bronchodilators can have side effects such as:

Nervous or shaky feeling

Increased heart rate or palpitations

Upset stomach

Trouble sleeping

Muscle aches or cramps

2. Systemic corticosteroids are anti-inflammatory drugs that get symptoms under control quickly.

Prednisone

Solu Medrol

There are a few ways to take asthma medications. Some are inhaled, using a metered dose inhaler, dry powder inhaler, or a nebulizer (which changes medication from a liquid to a mist). Others are taken by mouth, either in pill or liquid form. They can also be given by injection.

Some asthma drugs can be taken together. And some inhalers mix two different medications to get the drugs to your airways quicker

Quick riddle me this: which comes first, the steroid or the bronchodilator inhaler?

NURSING MANAGEMENT

1. Maintain respiratory function and relieve bronchoconstriction while encouraging expectoration.

- | | | |
|--|---|--|
| | <ol style="list-style-type: none">2. Control exercise-induced asthma by having the client sit down, rest, and use diaphragmatic and pulse-lip breathing until shortness of breath subsides.3. Supervise the client's drug regimen.4. Demonstrate the proper use of metered dose inhaler properly.5. Reassure the client during an asthma attack and stay with him.6. Place the client in semi-fowler position and encourage diaphragmatic breathing.7. Assist him to relax as much as possible.8. As ordered, administer oxygen by nasal cannula to ease breathing and to increase arterial oxygen saturation during an acute asthma attack.9. Adjust oxygen according to the client's vital signs, O₂ sat or ABG'S measurements.10. Administer drugs and I.V. fluids as ordered.11. Combat dehydration with I.V. fluids until the client can tolerate oral fluids, which will help loosen secretions.12. Encourage the client to express his fears and concerns about his illness.13. Encourage the client to identify and comply with care measures and activities that promote relaxation. | |
|--|---|--|

Supplemental resources:

1. Memory Notebook or Nursing Volume I
2. What is Asthma? 5 min (Lung Association)
<http://www.lung.org/assets/video/what-is-asthma.swf>
3. What's New with asthma research 3.39 min (National Heart, Lung And Blood Institute)
https://www.youtube.com/watch?feature=player_embedded&v=qeW5n8YapQ8

1. Homework

Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week #2 Topic # 9 **CYSTIC FIBROSIS**

Semester 3rd
Hours _____

Page 1 of 4

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify the causes for cystic fibrosis. 3. List the needs and the therapeutic interventions for the client diagnosed with cystic fibrosis. 4. Discuss the appropriate nursing management for clients with cystic fibrosis. 5. List the steps of postural drainage and describe which nursing assessments are associate with the procedure. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 392-394</p> <p>Positions for postural drainage – guide 2013 http://copd.about.com/od/copdtreatment/ig/Postural-Drainage-Positions/</p> <p>CYSTIC FIBROSIS -- Cystic fibrosis is a life-threatening disorder that causes severe damage to the lungs and digestive system.</p> <p>An inherited condition, cystic fibrosis affects the cells that produce mucus, sweat and digestive juices. These secreted fluids are normally thin and slippery. But in cystic fibrosis, a defective gene causes the secretions to become thick and sticky. Instead of acting as a lubricant, the secretions plug up tubes, ducts and passageways, especially in the lungs and pancreas.</p> <p>CF obstructs the pancreas and stops natural enzymes from helping the body break down food and absorb vital nutrients</p> <p>People with CF have a shorter-than-normal life expectancy. The good news is that as treatments for CF improve, the life expectancy for people with the disease is rising. Fifty years ago, children with CF often died before attending elementary school. Today many people with the disease live into their 30's, 40's and beyond. Getting early treatment for CF can improve quality of life and lifespan.</p> <p>CAUSES OF CYSTIC FIBROSIS A person must inherit two defective CF genes—one from each parent—to have CF. Each time two carriers of the defective gene conceive, there is a:</p> <ul style="list-style-type: none"> 25 percent chance that their child will have cystic fibrosis 50 percent chance that the child will inherit one defective gene and be a carrier but not have the disease 25 percent chance that the child will not have the gene at all <p>SIGNS AND SYMPTOMS – most common Very salty-tasting skin – sweat gland malfunction Persistent coughing that produces mucous Frequent lung infections Wheezing or shortness of breath Poor growth and slow weight gain, in spite of a good appetite Malabsorption of fat soluble vitamins. What are they again? Foul smelling frequent greasy, bulky stools (Steatorrhea) or difficulty in bowel movements with severe constipation</p>	<p>Lecture</p> <p>Evaluation: Exam</p>

Intestinal blockage, particularly in newborns (meconium ileus)

Frequent straining while passing stool can cause part of the rectum — the end of the large intestine — to protrude outside the anus (rectal prolapse). When this occurs in children, it may be a sign of cystic fibrosis. Rectal prolapse in children may require surgery.

MEDICAL AND SURGICAL MANAGEMENT

1. Every state in the U.S. now routinely screens newborns for cystic fibrosis. In the screening test, a blood sample is checked for higher than normal levels of a chemical (immunoreactive trypsinogen, or IRT) released by the pancreas.

A newborn's IRT may be high because of premature birth or a stressful delivery. For that reason other tests are needed to confirm a diagnosis of cystic fibrosis:

2. Sweat test. A sweat-producing chemical is applied to a small area of skin. The collected sweat is then tested to see if it's saltier than normal.

The sweat test is usually done when the infant is a month old, to ensure the sample is large enough to be analyzed. The sweat test can determine if the infant carries the cystic fibrosis gene or has the condition. Testing should be done at a center specializing in cystic fibrosis.

3. Genetic testing. DNA samples from blood or saliva can be checked for specific defects on the gene responsible for cystic fibrosis.

TESTING OF OLDER CHILDREN AND ADULTS

Cystic fibrosis tests may be recommended for older children and adults who weren't screened at birth. The doctor may suggest genetic and sweat tests for cystic fibrosis if client has recurring bouts of inflamed pancreatitis, nasal polyps, chronic sinus or lung infections, bronchiectasis, or male infertility.

TESTING AFTER DIAGNOSIS

Clients with cystic fibrosis, need regular tests to help manage the condition:

1. Imaging tests. Damage to your lungs or intestines can be monitored with X-rays, CT scans and MRI.

2. Lung function tests. These tests measure the size of your lungs, how much air you can breathe in and out, how fast you can breathe in and out, and how well your lungs deliver oxygen to your blood.

3. Sputum culture. Your spit (sputum) is analyzed for bacteria.

4. Organ function tests. Blood tests can measure the health of your pancreas and liver. Children with cystic fibrosis should be regularly tested for diabetes after age 10.

MEDICAL MANAGEMENT

There is no cure for cystic fibrosis, but treatment can ease symptoms and reduce complications. Close monitoring and early, aggressive intervention is recommended.

1. The goals of treatment include:
 - Preventing and controlling lung infections
 - Loosening and removing mucus from the lungs
 - Preventing and treating intestinal blockage
 - Providing adequate nutrition
2. Medications options include
 - Antibiotics to treat and prevent lung infections
 - Mucus-thinning drugs to help you cough up the mucus, which improves lung function
 - Bronchodilators to help keep your airways open by relaxing the muscles around your bronchial tubes
 - Oral pancreatic enzymes to help your digestive tract absorb nutrients
3. Chest physical therapy

Loosening the thick mucus in the lungs makes it easier to cough up. Chest physical therapy helps loosen mucus and is usually done from one to four times a day. A common technique is clapping with cupped hands on the front and back of the chest.

Site with positons

<http://copd.about.com/od/copdtreatment/ig/Postural-Drainage-Positions/>

Mechanical devices also can help loosen lung mucus. The options include:

- Chest clapper, a hand-held device that mimics the effect of cupped hands clapping over the ribs
- Inflatable vest, a device worn around the chest that vibrates at high frequency Very cool device
- Breathing devices, usually a tube or mask through which you exhale while performing breathing exercises

4. Pulmonary rehabilitation

Doctor may recommend a long-term program to improve lung function and overall well-being. Pulmonary rehabilitation is usually done on an outpatient basis and may include:

- Exercise training
- Nutritional counseling
- Energy-conserving techniques
- Breathing strategies
- Psychological counseling or group support or both

SURGICAL AND OTHER PROCEDURES

1. Nasal polyp removal that obstruct breathing.
2. Oxygen therapy. If blood-oxygen levels decline, the doctor may recommend the client sometimes breathe pure oxygen to prevent high blood pressure in the lungs (pulmonary hypertension).
3. Endoscopy and lavage. Mucus may be suctioned from obstructed airways through an endoscope.
4. Lung transplant. If client has severe breathing problems, life-threatening lung complications or increasing resistance to antibiotics used to treat lung infections, lung transplantation may be an option.

Because both lungs are affected by cystic fibrosis, both need to be replaced. Lung transplants for people with cystic

fibrosis are controversial because studies indicate the procedure is associated with many complications, and may not prolong life or enhance quality of life.

5. Feeding tube. Cystic fibrosis interferes with digestion, so clients can't absorb nutrients from food very well. The doctor may suggest using a feeding tube to deliver extra nutrition while you sleep. This tube may be threaded through your nose to your stomach or surgically implanted into the abdomen.

6. Bowel surgery. If a blockage develops in the bowel, you may need surgery to remove it. Intussusception, where a section of bowel has folded in on itself, also may require surgical repair.

NURSING MANAGEMENT

1. Give medications as ordered. Administer pancreatic enzymes with meals and snacks.

2. Perform chest physiotherapy, including postural drainage and chest percussion several times a day as ordered.

3. Administer oxygen therapy as ordered.

4. Provide a well-balanced, high calorie, high protein diet for the client. One of two groups with free salt intake. Chips and sweets are allowed to help increase weight.

5. Make sure the client receives plenty of fluids to prevent dehydration.

6. Provide exercise and activity periods for the client to promote health.

7. Provide the young child with play periods, and enlist the help of physical therapy department.

8. Provide emotional support to the parents of children with cystic fibrosis.

9. Be flexible with care and visiting hours during hospitalization to allow the child to continue school.

10. Include the family in all phases of the child's care.

11. Give children choices whenever possible

Supplemental Resources:

1. Positions for postural drainage -- guide

<http://copd.about.com/od/copdtreatment/ig/Postural-Drainage-Positions/>

Homework

1. Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 2 Topic # 10 **Pulmonary Hypertension &
 Pulmonary Embolism**

Semester 3rd
 Hours _____

Page 1 of 6

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss pathophysiology of pulmonary hypertension 2. Discuss complicating factors in the diagnoses of pulmonary hypertension. 3. List risk factors associated with development of a pulmonary embolism 4. Discuss pathophysiology of a pulmonary embolism. 5. Discuss signs and symptoms of pulmonary hypertension. 6. Discuss treatment of pulmonary hypertension and the nursing management. 7. Discuss signs and symptoms of pulmonary embolism. 8. Discuss treatment and nursing management of pulmonary embolism. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 394-397</p> <p>Supplemental resources: Memory Notebook of Nursing Volume I Pulmonary Hypertension Overview, Mayo Clinic, 6 min https://www.youtube.com/watch?feature=player_embedded&v=m0bRqBNARoQ Uploaded on Dec 9, 2009</p> <p>PULMONARY HYPERTENSION - abnormally high blood pressure in the arteries of the lungs. It makes the right side of the heart work harder than normal.</p> <p>CAUSES - Pulmonary hypertension begins when the pulmonary arteries, and capillaries become narrowed, blocked or destroyed. This makes it harder for blood to flow through the lungs, and raises pressure within the lungs' arteries.</p> <p>As the pressure builds, the right ventricle must work harder to pump blood through the lungs, eventually causing the heart muscle to weaken and eventually fail.</p> <p>Pulmonary hypertension is a serious illness that becomes progressively worse and is sometimes fatal. Although pulmonary hypertension isn't curable, treatments are available that can help lessen symptoms and improve quality of life.</p> <p>Sometimes doctors can't find a reason for high blood pressure in the lungs. In that case, the condition is called idiopathic pulmonary hypertension. Genes may play a role in why some people get it. It may occur in a perfectly, otherwise healthy individual.</p> <p>In other cases, there is another condition that's causing the problem. This is considered secondary pulmonary hypertension. Any of these illnesses can lead to pulmonary hypertension.</p> <ul style="list-style-type: none"> Congestive heart failure Blood clots in the lungs HIV Illegal drug use (like cocaine or methamphetamine) Liver disease (such as cirrhosis of the liver) Lupus, scleroderma, rheumatoid arthritis, and other autoimmune diseases A congenital heart defect Lung diseases like emphysema, chronic bronchitis, or pulmonary fibrosis Sleep apnea 	<p>Lecture Discussion Evaluation: Exam</p>

SYMPTOMS

Shortness of breath (dyspnea), initially while exercising and eventually while at rest

Fatigue

Dizziness or fainting spells (syncope)

Chest pressure or pain

Edema in ankles, legs and eventually in the abdomen (ascites)

Bluish color to your lips and skin (cyanosis)

Racing pulse or heart palpitations

Neck vein distention

Orthopnea

DIAGNOSIS based on

1. DOPPLER ECHOCARDIOGRAM.

These images show how well your heart is functioning, and recorded pictures allow your doctor to measure the size and thickness of your heart muscle.

Sometimes your doctor will recommend an exercise echocardiogram to help determine how well your heart works under stress, an echocardiogram before exercising on a stationary bike or treadmill and another test immediately afterward.

2. TRANSESOPHAGEAL ECHOCARDIOGRAM. If it's difficult to get a clear picture of the heart and lungs with a standard echocardiogram, the doctor may recommend a transesophageal echocardiogram. In this procedure, a flexible tube containing a transducer is guided down your throat and into your esophagus after using a numbing spray in the back of your throat. From here, the transducer can get detailed images of your heart.

3. RIGHT HEART CATHETERIZATION. This test is often the most reliable way of diagnosing pulmonary hypertension. Right heart catheterization allows the doctor to directly measure the pressure in the main pulmonary arteries and right ventricle. It's also used to see what effect different medications may have on the client's pulmonary hypertension.

MEDICAL MANAGEMENT--medications

VASODILATORS

1. They open the narrowed blood vessels. One of the most commonly prescribed vasodilators for pulmonary hypertension is epoprostenol (Flolan).

The drawback to epoprostenol is that its effects last only a few minutes. This drug is continuously injected through an intravenous (IV) catheter via a small pump the client wears in a pack on belt or shoulder.

They must learn to prepare medication mixture, operate the pump and care for the IV catheter. They need comprehensive follow-up care. Potential side effects of epoprostenol include jaw pain, nausea, diarrhea, leg cramps, as well as pain and infection at the IV site.

2. Another form of the drug, iloprost (Vestavia), avoids many of these problems.

Iloprost can be inhaled every three hours through a nebulizer, making it far more convenient and less painful to use. And because it's inhaled, it goes directly to the lungs.

Side effects associated with iloprost include chest pain — often accompanied by headache and nausea — and breathlessness.

3. Sildenafil and tadalafil. Sildenafil (Revatio, Viagra) and tadalafil (Cialis, Adcirca) are sometimes used to treat pulmonary hypertension. These drugs work by opening the blood vessels in the lungs to allow blood to flow through more easily. Side effects include upset stomach, dizziness and vision problems.

4. High-dose calcium channel blockers. These drugs help relax the muscles in the walls of your blood vessels. They include medications such as amlodipine (Norvasc), diltiazem (Cardizem, Tiazac, others) and nifedipine (Adalat, Procardia).

Although calcium channel blockers can be effective, only a small number of people with pulmonary hypertension respond to them.

5. Anticoagulant warfarin (Coumadin, Jantoven) to help prevent the formation of blood clots within the small pulmonary arteries.

6. Diuretics help eliminate excess fluid and reduces the amount of work the heart has to do. They also may be used to limit fluid buildup in the lungs.

Oxygen, especially if clients live at a high altitude or have sleep apnea.

SURGERIES

Atrial septostomy an opening between the left and right chambers to relieve the pressure on the right side of side heart. Atrial septostomy can have serious complications, including dysrhythmias.

Transplantation. In some cases, a lung or heart-lung transplant may be an option, especially for younger people who have idiopathic pulmonary hypertension. Major risks of any type of transplantation include rejection of the transplanted organ and serious infection, and you must take immunosuppressant drugs for life to help reduce the chance of rejection.

NURSING MANAGEMENT:

Focus is on recognizing the signs and symptoms of respiratory distress. The nurse can reduce the body demand for O₂ by helping prevent fatigue, assisting with ADL's and administering O₂ as needed.

PULMONARY EMBOLISM-- A pulmonary embolus is a blockage of an artery in the lungs by fat, air, a blood clot, or tumor cells. Clots are the most common form of embolism.

The clot usually forms in smaller vessels in the leg, pelvis, arms, or heart, but occasionally the clot can be large.

PATHOPHYSIOLOGY

When a clot forms in the large veins of the legs or arms, it is referred to as a deep venous thrombosis (DVT). The pulmonary embolism occurs when part or all of the DVT breaks away and travels through the blood in the veins and lodges in the lungs.

The clot travels through the vessels of the lung continuing to reach smaller vessels until it becomes wedged in a vessel that is too small to allow it to continue further.

The clot blocks all or some of the blood from traveling to that section of the lung. These blockages result in areas in the lung where the disruption of blood flow does not allow the carbon dioxide waste to be delivered to the air sacs for removal (ventilation).

Similarly, since blood is blocked to certain portions of the lung, oxygen cannot be extracted from these same air sacs (perfusion). The process of matching the lungs ventilation with the blood flow through the lungs is disrupted, resulting in ventilation-perfusion inequalities.

In other words, areas in the lung are ventilated (get air) but get no blood to exchange the waste product carbon dioxide with oxygen.

If the pulmonary embolism is large, it may be capable of such a large mismatch, the client cannot get enough oxygen into the blood and can become acutely short of breath.

In some instances, clots are so large that blood flow is blocked from the right side of the heart entering the lungs. This can result in instantaneous death. In other clients, the mismatch is not so profound, but still causes symptoms, especially when oxygen demand increases (for example, during exercise).

CAUSE-- Several risk factors can make a person more likely to develop a blood clot that can eventually break loose and travel to the lung.

Immobilization: A stroke, broken bone, or spinal cord injury can result in confinement to bed so that clot formation can occur in either the arms or legs.

Travel: Prolonged travel, such as sitting in an airplane or a long car trip, allows the blood to sit in the legs and increases the risk of clot formation. (remember the reporter flying back and forth to middle east – suddenly died of massive PE)

Recent surgery (includes hypercoagulable state due to surgical damage and the body trying to repair itself. It is also often associated with immobility and sometimes vessel damage depending on the surgery). This has been immensely improved with the increased use of Lovenox injections.

Trauma or injury (especially to the legs)

Obesity

Heart dysrhythmias (such as A-fib)

Burns
Previous history of blood clot in the legs (DVTs) or pulmonary embolism
---Conditions that increase clotting of the blood
Pregnancy
Cancer
Estrogen therapy and oral contraceptives

SIGNS AND SYMPTOMS

Not all pulmonary embolisms exhibit the same signs and symptoms. But certain symptoms may indicate that a pulmonary embolism has occurred.

The following signs and symptoms may occur (in the order they are typically seen):

Chest pain: Pain is very sharp and stabbing in nature, has a sudden onset, and is worse when taking a deep breath (referred to as pleuritic chest pain).

Shortness of breath, especially with exertion

Anxiety or apprehension, feeling of doom

Cough: Usually, this cough is dry, but it may be associated with blood.

Sweating

Passing out

Doctors may suspect a blood clot if any of these symptoms occur in someone who has or recently had a swollen or painful arm or leg or who has any of the risk factors listed above.

DIAGNOSTIC TOOLS

1. Chest X-ray (may show other causes for shortness of breath like heart failure or a pneumothorax)
2. Electrocardiogram (ECC, EKG)
3. CBC (complete blood count; helps to exclude infections)
4. ABG's levels show respiratory alkalosis and hypoxemia.
5. D-dimer test (measures breakdown products of blood clots; if negative, suggests there is less chance that the person has a pulmonary embolism;

if elevated, it is less useful since many things cause an elevation of this test including many things that may be associated with pulmonary embolism, like pregnancy, cancer, recent surgery, and infection). A test of exclusion

6. Venous Doppler study (legs or occasionally arms) can confirm the presence or absence of a DVT.

7. Pulmonary angiography is the gold standard for diagnosing pulmonary embolism. In this case, a catheter is placed in a large vein in the groin and moved through the right side of the heart in to the main pulmonary artery. Dye is injected and X-rays obtained of the pulmonary vessels. This test is done less frequently these days because of increased sophistication of CT's.

8. CT scan of the lungs using a newer generation CT, pulmonary embolism protocol, where dye is injected to visualize the pulmonary arteries; this is not 100% diagnostic for pulmonary embolism but as the newer CT's increase resolution, they are approaching the gold standard angiogram.

9. VQ scan (Ventilation – Perfusion scan) as above.

MEDICAL MANAGEMENT

1. Oxygen can be given in several ways.

If the client has severely low oxygen levels, he or she will be given a higher flow of oxygen through a mask.

Clients may be so short of breath that they require ventilator treatment.

2. Anticoagulants may be given, especially in clients with severe symptoms..

Heparin is usually the first medication given.. It is administered continuously through the IV.

Anticoagulants may be given, especially in clients with severe symptoms..

Another is called enoxaparin (Lovenox), or a low molecular weight heparin.

The current trend is to use low molecular weight heparin for the treatment of pulmonary embolism.

Warfarin (Coumadin) is usually given shortly after the heparin or Lovenox is started. The medications are continued until blood tests show that the warfarin is adequately anticoagulating the blood. In very stable clients, much of the drug management can be done in the outpatient setting.

3. "Clot buster" medications (also called thrombolytic) are given to those who are critically ill. The purpose is to break up the clot that is blocking the blood vessel in the lung. These medications are used only in those with massive pulmonary embolism, blood pressure collapse, or severely low oxygen that does not respond to treatment. Examples of these medications are reteplase (Retavase), TPA, streptokinase, and urokinase.

4. In some life-threatening cases, the client is taken to a radiologic surgery by an interventional radiologist and a catheter is placed into the pulmonary artery similar to the angiogram described above. This special catheter can break up and suck the clot out relieving the obstruction immediately

NURSING MANAGEMENT

- Bed rest with active and passive range of motion.
- Keep the client in semi fowler's position to enhance ventilation.
- Assist with TCDB breathing to mobilize secretions and clear airway.
- Assess respiratory status to detect respiratory distress.
- Assess cardiovascular status. An irregular pulse may signal arrhythmia caused by hypoxemia. If cause of PE by thrombophlebitis, temperature may be elevated.
- Administer O2 to enhance oxygenation.
- Establish an IV line for fluids and drugs.
- Monitor and record intake and output to detect fluid volume overload and renal perfusion.
- ABG's monitoring to evaluate the need for mechanical ventilation.
- Monitor laboratory studies because client on heparin and need to evaluate electrolyte, CBC, H&H, INR, PT, PTT, Electrolytes

Supplemental resources:

1. Memory Notebook of Nursing Volume I
2. Pulmonary Hypertension Overview, Mayo Clinic, 6 min

https://www.youtube.com/watch?feature=player_embedded&v=m0bRgBNAr0 Uploaded on Dec 9, 2009

Homework

1. Write out weekly objectives



Vocational Nursing Program

Semester 3 Lesson Plans/Lecture Notes

Week #1 Respiratory; Bronchitis and Pneumonia

Structure: Class meets once weekly, for 6.5 hours with a 40 minute lunch and 10 minute break per hour.

Supplemental resources:

- website to review core measures for pneumonia
[http://keymedinfo.com/site/667KeyM/Core Measures Update AMI, HF, Pneum, 2011 Self Study FOR WEB SITE.pdf](http://keymedinfo.com/site/667KeyM/Core%20Measures%20Update%20AMI,%20HF,%20Pneum,%202011%20Self%20Study%20FOR%20WEB%20SITE.pdf) published 3/11

Homework:

- Write out weekly objectives/

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> Describe infectious and inflammatory disorders of the lower respiratory airway Identify critical assessments needed for a client with pneumonia. Discuss the etiology, symptoms, medical and nursing interventions for a client with pneumonia, and bronchitis. Discuss the core measures for pneumonia and influenza, their purpose and desired 	<p>ACUTE BRONCHITIS – inflammation of the bronchi and their branches. Trachea involved – tracheobronchitis</p> <ol style="list-style-type: none"> Virus usual cause, starting with URI can have secondary bacterial infection Increased with mucopurulent sputum Signs and Symptoms: <ul style="list-style-type: none"> - fever, chills, malaise, headache, -dry, spasm like, irritating, nonproductive cough -later cough produces mucous plugs and some sputum -wheezing - coughing often causes incontinence, and initiated by deep breath, cough, or drag on cigarette, Usually diagnosed by history and physical, but can do sputum C&S and or CXR <p>Medical And Nursing Management</p> <ol style="list-style-type: none"> Usually self-limiting, may use antibiotics prophylactically for client immunocompromised or with chronic illness Treat symptoms <ul style="list-style-type: none"> -bed rest, antipyretics,, antitussives and expectorants -cool mist humidifier, increase fluid intake -clean humidifier daily <p>PNEUMONIA inflammatory process affecting bronchi and alveoli. Often a secondary infection for clients with chronic illness, children and the elderly.</p> <p>*** In 2005, the flu went through Blythe and 25% of the residents of BNCC died that year from complications of pneumonia. It still can be deadly****</p> <p>Causes Of Pneumonia</p> <ol style="list-style-type: none"> -Viruses are most common cause. -Bacterial cause less often but are more serious (refer to test for various causative organisms). <ol style="list-style-type: none"> Ingestion of caustic substance, fumes or chemicals (like gas) can cause pneumonia. 	<p>Lecture</p> <p>Evaluation: Exam</p>

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	3. -Aspiration pneumonia 4. -Hypoventilation – atelectasis – lead to hypostatic pneumonia Classification Of Pneumonia 1. -Community Acquired Pneumonia 2. outcomes.--Hospital acquired pneumonia (formally nosocomial)	
	Pathophysiology 1. -organism to alveoli by inhalation of droplets, aspiration of organism. Or less often from blood 2. -inflammatory reaction 3. -exudate produced impairing gas exchange 4. -capillaries become engorged causing collapse or atelectasis reducing gas exchange 5. -WBC invade area and fill interstitial space. This can become consolidation 6. -without treatment more inflammation and more exudate causes more hypoxemia 7. -client becomes more ill, and with poor oxygenation Complications 1. -congestive failure 2. -empyema (pus in pleural cavity) 3. -pleurisy (inflammation of plural) 4. -septicemia 5. -atelectasis 6. -hypotension and shock Assessment 1. -bacterial - sudden onset, 2. -fever chills; tachycardia and tachypnea a. -productive cough and chest pain from coughing, general malaise, and b. -rust colored sputum c. -breathing causes pain, so client uses shallow breaths as possible d. -positive blood cultures 3. -Viral differs, a. -blood cultures sterile b. -copious sputum production c. -fever usually no chills 4. -breath sounds with wheezing, crackles and decreased breath sounds 5. -may show perioral and oral mucosa duskiness or cyanosis 6. -elevated WBC 7. -CXR shows infiltrates and consolidation 8. -Blood Cultures and Sputum C&S determine organism Nursing Management 1. -monitor breath sounds and signs of respiratory difficulty 2. -pulse oximetry, vital signs, 3. -sputum production and cough quality 4. -Semi Fowler's position 5. -increase fluid intake, antipyretics, turgor, I&O 6. -antitussives judiciously 7. -serum electrolytes Prevention essential -Flu and Pneumonia vaccine to at risk and elderly	

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
	<ul style="list-style-type: none">-TCDB for post op clients, clients with limited mobility, or clients with pain restricting respiration.- Splinting areas or pain to facilitate TCDB	

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week #1 Topic # 5 **Pleurisy and Pleural Effusion, Empyema
 and Influenza**

Semester 3rd
 Hours _____

Page 1 of 2

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> Describe infectious and inflammatory disorders of the lower respiratory airway Identify critical assessments needed for a client with an infectious disorder of the lower respiratory airway Discuss the etiology, symptoms, medical and nursing interventions for persons with common cold, influenza pneumonia, pleurisy, allergic rhinitis, and bronchitis. Discuss the etiology symptoms, medical and nursing interventions for COPD, asthma, emphysema, bronchiectasis, lung abscess, tuberculosis, and lung cancer. Discuss the relationship of cancer of the lung, and acute and chronic lung disease to smoking, air pollution, and other possible causes of these disorders (see objective # 4). 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page; 377-379 Supplemental resources Listen on this YouTube video Published on May 16, 2013 https://www.youtube.com/watch?v=36t0vMrCrKU PLEURISY-- Inflammation in the pleural space 1. Pleura become swollen and thick forming an exudate, causing the pleurae to become ridged. 2. During inspiration, surfaces rub together, cause sharp, severe pain ASSESSMENT 1. Shallow respiration to prevent pain 2. dry cough, easy fatigue, dyspnea 3. develops a friction rub. Listen on this youtube video Published on May 16, 2013 https://www.youtube.com/watch?v=36t0vMrCrKU -Friction rub is the pleural surfaces rubbing together. A transient sound 4. Decreased respiratory volume may cause atelectasis, hypoxia or hypercapnia (elevated CO₂) 5. Sputum culture may show pathogens NURSING MANAGEMENT 1. analgesics, antipyretics, NSAIDS (less pain more coughing) 2. Splinting with respiration, (inspiration painful) – pillow with head of bed up. or laying on affected side 3. emotional support PLEURAL EFFUSION – abnormal collection between pleura. 1. Normal lubrication between pleura is 5 – 15. 2. Increase in formation of pleural fluids is often from inflammation or disease, ie -Congestive heart failure. -Kidney failure -Infection. -Malignancy. -Pulmonary embolism. -Hypoalbuminemia. -Cirrhosis. -Trauma. ASSESSMENT -fever, pain and dyspnea -advanced, dullness with percussion -diminished or absent breath sounds -possible friction rub - CXR and or CT scan NURSING MANAGEMENT 1. Goal, treat symptoms, remove the cause, make comfortable 2. Give analgesics, antibiotics, medications to treat primary cause 3. May need to insert chest tube (revisit later) 4. Probably need thoracentesis (review pg., 351). Drainage to lab to determine organism or origin of cells.</p>	<p>Lecture Discussion Auscultation Evaluation: Exam</p>

LUNG ABSCESS – A lung abscess is a bacterial infection that occurs in the lung tissue. The infection causes tissue to become necrotic, die, and pus collects in that space. A lung abscess can be challenging to treat, and can be life threatening

CAUSES –

Lung abscesses can be classified as primary or secondary. They develop from different strains of bacteria and have different causes.

Primary abscesses often develop from lung infections, such as pneumonia. Secondary abscesses often develop because of other issues, such as obstructions, abnormalities of the lungs, foreign materials, or other infections.

Aspirating foreign matter while sedated or unconscious, either through intoxication or anesthesia, can also cause a lung abscess. The inhaled material often comes from an infection in the mouth or respiratory tract or stomach.

DIAGNOSIS—

- History, recent surgery with anesthesia
- Sputum or pus that may be expectorated
- CXR, CT scan
- Thoracentesis or bronchoscopy

SIGNS AND SYMPTOM— can develop insidiously or acutely

Early:

- Fatigue
- Loss of appetite
- Sweating during the night
- Fever

A cough that brings up sputum may be foul smelling (because bacteria from the mouth or throat tend to produce foul odors) or streaked with blood.

May feel chest pain with respiration, especially if the pleura is inflamed

Many people have these symptoms for weeks or months before seeking medical attention. These people have chronic abscesses and, in addition to the other symptoms, lose a substantial amount of weight and have daily fever and night sweats. In contrast, lung abscesses caused by *Staphylococcus aureus* or MRSA can be fatal within days, sometimes even hours.

MEDICAL MANAGEMENT –

- Many abscess spontaneously rupture and the exudate ends up expectorated as copious amounts of sputum
- Some rupture spontaneously within the pleural space and become an empyema
- Long course of IV then PO antibiotics – 6 weeks to 6 month.
- rare a bronchoscopy to clean out the exudate

NURSING MANAGEMENT

- Chest drainage
- Chest physiotherapy
- TCDB
- Emotional support for long convalescence
- Diet: high in Protein, high in Calories
- Risk Factors:

*****Any one at risk for aspiration is at risk for lung abscess!

Impaired cough reflex CNS disorders NGT
Alcoholism LOC.

THORACIC EMPYEMA-- pus in the pleural space. Pus filled area becomes walled off.

Empyema doesn't occur on its own; it is a complication of other medical conditions. In order for empyema to occur, bacteria, fungi, or chemicals must get into the pleural space and cause inflammation, leading to the production of pus.

Lung infections, such as pneumonia, and lung abscess are two of the most common ways that bacteria get into your pleural space. Bacteria can also get into your pleural space from medical instruments that are used to do tests or to operate on your chest

ASSASSMENT:

- fever, chest pain, dyspnea, anorexia and malaise
- absent breath sounds over affected area

MEDICAL MANAGEMENT

- aspiration of exudate for C&S (thoracentesis)
- may insert chest tube for drainage (will revisit insertion)
- may surgically correct with thoracotomy and chest tubs

Nursing management

- emotional support
- Treat symptoms
- encourage TCDB

INFLUENZA – respiratory transmitted virus causing respiratory infection of generally short duration, but with sometimes devastating consequences.

1. impossible to develop immunity, multiple mutations in viral strains
2. Flu epidemics result in increased morbidity and mortality due to bacterial complications in:
 - children, pregnant women
 - elderly, immunocompromised,
 - clients with coexisting chronic diseases (especially cardiac, pulmonary, autoimmune, or malignancies, diabetics, renal clients) and smokers
3. Most severe complications would be pneumonia and cardio vascular disease

SYMPTOMS:

1. General malaise, aches and pains, weakness
2. Fever, chills, anorexia, URI
3. Cough may last weeks later

NURSING MANAGEMENT

1. Prevention – yourself and others. Get and Give those flu shots

-CDC recommendation and JFK hospital policy is:

No vaccine, wear a mask entire flu season to protect client

2. CDC once voiced goal of community wide flu vaccines
 - free to health care employees, prisons, nursing home resident

-often free to community (Blythe drive by clinic)

-given at a discount (Parker and Family Clinic)

-given in every pharmacy and Walmart around country

-part of the Core Measures

3. For general population, standard vaccine fine

- | | | |
|--|--|--|
| | <p>4. For the following, Physician determination and different type of vaccine may be necessary</p> <ul style="list-style-type: none">-children under 5 (nasal available)-pregnant women- immunocompromised,-clients with coexisting chronic diseases (especially cardiac, pulmonary, autoimmune, or malignancies, diabetics, renal clients)-people with egg or mycin allergies or history of Guillain–Barré syndrome should not receive flu vaccine <p>5. Treat the symptoms:</p> <ul style="list-style-type: none">-bed rest, antipyretics, NISAD's, fluids, antitussives, antihistamines, decongestants and REST, REST, REST!!! <p>6. No children under age of 12 as visitors in hospital</p> <p>7. Hand washing, stay home when sick, cover mouth with cough and sneezing</p> | |
|--|--|--|

Supplemental resources

1. Listen on this YouTube video Published on May 16, 2013 <https://www.youtube.com/watch?v=36t0vMrcrKU>

Homework

1. Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**

Semester 3rd

Week # 2 Topic # 7 **Chronic Obstructive Pulmonary Disease (COPD)** Hours _____

Page 1 of 8

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Define the disorders classified as obstructive pulmonary disease 2. Identify critical assessments needed for a client with an obstructive pulmonary disease 3. List the needs and the therapeutic interventions for the client diagnosed with an obstructive pulmonary disease 4. Discuss the appropriate nursing management for clients with obstructive disease 5. Discuss the etiology symptoms, medical and nursing interventions for COPD, asthma, emphysema, bronchiectasis, lung abscess, tuberculosis, and lung cancer. 6. Discuss the relationship of cancer of the lung, and acute and chronic lung disease to smoking, air pollution, and other possible causes of these disorders (see also lesson plan #12). 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page; 383-390</p> <p>Corresponding Kaplan remediation sections</p> <p>Supplemental resounds: Memory Notebook of Nursing volume I & II</p> <p>https://www.youtube.com/watch?feature=player_embedded&v=6A8mzMe3pgA (quick overview of the role of the brainstem, chemosensors and baroreceptors in the control and regulation of breathing). Published on May 11, 2014</p> <p>http://respiratorytherapycave.blogspot.com/2012/02/hypoxic-drive-theory-history-of-myth.html View point from Respiratory Therapist. Handout: Hypoxic Drive Theory: A history of the myth February 17, 2012</p> <p>CHRONIC OBSTRUCTIVE PULMONARY DISEASE -- Chronic obstructive pulmonary disease (COPD) is one of the most common lung diseases. It makes it difficult to breathe.</p> <p>A term for a group of pulmonary disorders with symptoms of chronic cough and expectoration, dyspnea and impaired expiratory air flow.</p> <p>There are two main forms of COPD: Chronic bronchitis, which involves a long-term cough with mucus; Emphysema, which involves destruction of the lungs over time</p> <p>BRONCHIECTASIS</p> <ol style="list-style-type: none"> 1. A condition in which the lungs' airways are abnormally stretched and widened. This stretching and widening is caused by mucus blockage. More and more mucus builds up in the airways, allowing bacteria to grow. This leads to infection. 2. Can develop at any age. It begins most often in childhood, but symptoms may not appear until much later. 3. Can occur as part of a birth defect or as a result of injury or other diseases, like tuberculosis, pneumonia and influenza. It also can be caused by a blockage in the airways due to a growth or something inhaled as a child such as a piece of a toy or peanut. 4. Bronchiectasis is not curable. But with proper treatment most people with the disease can have a good quality of life. <p>SIGNS AND SYMPTOMS</p> <ol style="list-style-type: none"> 1. The most common signs and symptoms are: 	<p>Lecture Discussion Evaluation: Exam</p>

Daily cough, over months or years
Daily production of large amounts of mucus, or phlegm
Repeated lung infections
Shortness of breath
Wheezing
Chest pain

2. Over time, more serious symptoms may including:

Coughing up blood or bloody mucus
Weight loss

Fatigue
Sinus drainage

3. Bronchiectasis can also lead to other serious conditions, including:

Collapsed lung – pneumothorax

Heart failure, if the disease advances to affect all parts of your airways

Brain abscess

MEDICAL MANAGEMENT

Tests used to detect the disease include:

Chest x-ray and or CT scan

Lung function tests

Sputum culture

TREATMENTS INCLUDE:

1. The main medicines used to treat bronchiectasis are

- Antibiotics for infection

- Bronchodilators

-Corticosteroids. They work best when you take them with an inhaler.

- Mucus thinners, such as acetylcysteine (Mucomyst), loosen the mucus.

- Expectorants help loosen the mucus in your lungs

Saline nasal washes help control sinusitis.

- Oxygen therapy (if the disease is widespread)

2. Chest Physiotherapy (CPT) -called chest clapping or percussion or postural drainage

- It involves pounding the client's chest and back over and over with your cupped hands or a device to loosen the mucus from the lungs so they can cough it up. You should do CPT for bronchiectasis three or four times each day.

-CPT is often called postural drainage. Their head dependent while you do CPT. This lets gravity and force help drain the mucus from your lungs. At home they can use a yoga ball.

3. Surgery to remove a section of lung. Doctors usually do this only if other treatments have not helped and only one part of your lung is affected. If there is major bleeding, doctor may recommend either surgery to remove the bleeding part of your lung or a procedure to control the bleeding.

NURSING MANAGEMENT

1. Nurses provide information and support about smoking cessation

2. Following up clients who require care including antibiotics, immunizations and blood tests.

3. Involved in educating the client following diagnosis and supporting clients and their families to cope and recognize symptoms so as to avoid complications.

4. Help with self-image which can be a problem as clients report worries about the negative image of coughing and sputum and how attractive they appear to others
5. Promoting prevention and self-management strategies such as: a healthy diet, exercise and good hygiene habits;
6. Identifying and treating exacerbations; and encouraging adherence to treatment.

ATELECTASIS – Endlessly discussed last two semesters; review page 384

CHRONIC BRONCHITIS -- a mucus-producing cough most days of the month, three months of a year for two years in a row without other underlying disease to explain the cough.

1. After a long period of irritation:

- Excess mucus is produced constantly
- The lining of the airways becomes thickened
- An irritating cough develops
- Air flow may be hampered
- The lungs become scarred
- The airways then make an ideal breeding place for infections.

2. Chronic bronchitis doesn't occur suddenly. After a winter cold seems cured, client may continue to cough and produce large amounts of mucus for several weeks. Since people who get chronic bronchitis are often smokers, the cough is usually dismissed as only "smoker's cough."

3. Colds become more damaging. Coughing and bringing up phlegm last longer after each cold. Without realizing it, clients begin to take this coughing and mucus production as a matter of course, all year long.

4. Generally, the cough is worse in the morning and in damp, cold weather. They may cough up an ounce or more of yellow mucus each day.

5. A person with chronic bronchitis also may develop emphysema. These two conditions together are commonly referred to as Chronic Obstructive Pulmonary Disease (COPD).

6. People exposed to industrial dusts and fumes in the workplace, such as coal miners, grain handlers, and metal molders, are also at high risk of developing this disease. Air pollution can worsen chronic bronchitis symptoms.

SIGNS AND SYMPTOMS: (insidious onset)

1. Productive cough lasting at least 3 months during a year for 2 successive years.
2. Thick, gelatinous sputum (greater amounts produced during superimposed infections).
3. Dyspnea and wheezing as disease progresses.

DIAGNOSTIC EVALUATION:

1. Pulmonary function tests, to demonstrate airflow obstruction-
2. CXR
3. Arterial blood gases, to detect decreased arterial oxygen PaO₂, pH, and increased PaCO₂
4. Sputum smears and cultures to identify pathogens.

THERAPEUTIC INTERVENTIONS:

1. STOP SMOKING to halt the progression and preserve lung capacity.
2. Low-flow oxygen to correct severe hypoxemia in a controlled manner and minimize carbon dioxide retention.
3. Home oxygen therapy, especially at night to prevent nocturnal oxygen desaturation.
4. Chest physical therapy, including postural drainage and breathing retraining.

MEDICAL MANAGEMENT WITH MEDICATIONS

1. Bronchodilators to reduce dyspnea and control bronchospasm delivered by metered-dose inhaler, other handheld devices, or nebulization.
2. Inhaled corticosteroids may be useful for some with severe airflow limitation and frequent exacerbations.
3. Corticosteroids by mouth or I.V. in acute exacerbations.
4. Antibiotics to control secondary bacterial infections.

NURSING INTERVENTIONS:

1. Monitor for adverse effects of bronchodilators-tremulousness, tachycardia, cardiac arrhythmias, central nervous system stimulation, hypertension.
2. Monitor oxygen saturation at rest and with activity.
3. Answer the clients' questions and encourage him and his family to express their concerns about the illness.
4. Provide mouth care after bronchodilator inhalation therapy.
5. To conserve the client's energy and prevent fatigue, help him to alternate periods of rest and activity.
6. Administer medications as ordered and note the client's response to them.
7. Assess the client for changes in baseline respiratory function.
8. Evaluate sputum quality and quantity, restlessness, increased tachypnea, and altered breath sounds. Report changes immediately.
9. Small frequent meal. Full stomach pushes up the diaphragm
10. Monitor the client's weight. Assess for edema.
11. Evaluate the client's nutritional status regularly.
12. Watch the client for signs and symptoms of respiratory infection, such as fever, increased cough and sputum production, and purulent sputum.
13. Advise the client to avoid crowds and people with known infections and obtain influenza and pneumococcus immunizations.
14. Add moisture (humidifier, vaporizer) to indoor air.
15. Avoid dairy products if these increase sputum production.
16. Use pursed lip breathing at intervals and during periods of dyspnea to control rate and depth of respiration and improve respiratory muscle coordination.
17. Discuss and demonstrates relaxation exercises to reduce stress, tension, and anxiety.

EMPHYSEMA -- a long-term, progressive disease of the lungs that primarily causes shortness of breath due to over-inflation of the alveoli.

In people with emphysema, the lung tissue involved in exchange of gases is impaired or destroyed

Emphysema is called an obstructive lung disease because airflow on exhalation is slowed or stopped because over-inflated alveoli do not exchange gases when a person breaths due to little or no movement of gases out of the alveoli.

Emphysema changes the anatomy of the lung in several important ways. This is due to in part to the destruction of lung tissue around smaller airways.

This tissue normally holds these small airways, called bronchioles, open, allowing air to leave the lungs on exhalation.

When this tissue is damaged, these airways collapse, making it difficult for the lungs to empty and the air (gases) becomes trapped in the alveoli.

Normal lung tissue looks like a new sponge. Emphysematous lung looks like an old used sponge, with large holes and a dramatic loss of "springy-ness" or elasticity.

When the lung is stretched during inflation (inhalation), the nature of the stretched tissue wants to relax to its resting state. In emphysema, this elastic function is impaired, resulting in air trapping in the lungs.

Emphysema destroys this spongy tissue of the lung and also severely affects the small blood vessels and airways that run throughout the lung. This affects the lungs ability to empty the alveoli but also

Not only is airflow affected but so is blood flow. This has dramatic impact on the ability for the lung not only to empty its alveoli but also for blood to flow through the lungs to receive oxygen.

SIGNS AND SYMPTOMS -- emphysema vary from mild to severe and include

1. Shortness of breath (dyspnea),
2. Cough,
3. Dyspnea on exertion Emphysema is a chronic (long lasting), progressive condition, which means the symptoms usually worsen over time..

***** Because the onset of the disease is gradual, many cases are not diagnosed until irreversible damage has occurred.

***** Episodes of worsening symptoms, called exacerbations, are common in clients who have emphysema. Exacerbations become more frequent in advanced disease.

AS DISEASE PROGRESSES

4. Cyanosis (bluish tint to the lips, fingertips, and skin; caused by low levels of oxygen [O₂] in the blood)
5. Edema (swelling; commonly in the feet and ankles)
6. Fatigue
7. Headaches (especially upon waking in the morning as a result of retaining carbon dioxide [CO₂] during sleep)
- 8 .Weight loss
9. Barrel chest (i.e., change in the shape of the chest)

caused by enlargement of the lungs and chest wall and the ineffective use of breathing muscles)

10. Crackles and wheezes during inhalation, decreased breath sounds, and distant heart sounds (often heard through a stethoscope)

11. Abdominal breathing and or use of accessory muscles

12. Prolonged periods of exhalation and grunting during exhalation

13. Vibration of the chest during speaking (called tactile fremitus)

AS EMPHYSEMA PROGRESSES,

14. Many clients experience shortness of breath from the slightest activity or even while sedentary.

15. They often exhibit pursed-lip breathing, which is a way to make each breath more effective by breathing through puckered ("pursed") lips.

16. Clients also may have a tendency to lean forward and support themselves with their arms on a surface in front of them or on their knees. This position can help make breathing easier by allowing clients to use accessory breathing muscles (i.e., muscles in the back, abdomen, or neck that are not normally used during breathing) more effectively.

17. . Anxiety, depression, and sleep disturbances are common

EMPHYSEMA COMPLICATIONS include the following:

1. Cor pulmonale (pulmonary hypertension and right-sided heart failure)

2. Heart failure

3. Pneumonia and other lung infections

4. Pneumothorax

5. Polycythemia (excess red blood cell production that Pulmonary occurs in response to low oxygen levels in the blood; can block small blood vessels)

6. Respiratory failure

DIAGNOSTIC EVALUATION

1. CXR and CT scan

2. ABG's

3. PFT's

MEDICAL MANAGEMENT

1. Medications

- Bronchodilators.

- Inhaled steroids..

-Antibiotics – often given "prophylactly with any cold, allergies or URI.

2. Therapy

- PULMONARY REHABILITATION PROGRAM TO teach breathing exercises and techniques that may reduce breathlessness and improve ability to exercise.

Breathing Through Pursed Lips

- When you are having trouble breathing, breathing through pursed lips can help you recover. Pursed-lip breathing takes three counts: inhale through your nose for a count of one, then exhale slowly and softly through your pursed lips for a count of two. Do not exhale forcefully. Repeat as directed.

Breathing From the Diaphragm

- The diaphragm is the muscle that helps you breathe. This exercise targets and strengthens this muscle. To perform this exercise properly, focus on using your diaphragm and not the muscles in your chest. When performing this exercise properly, your shoulders and chest should barely move. Sit comfortably with your feet on the floor. Place one hand over your diaphragm; this is located at the bottom of your breast bone and top of your abdomen. Feel your diaphragm muscle move inward as you breathe out as much air as you can. Inhale, feeling your diaphragm muscle move outward as your abdomen expands. Take six slow, complete breaths, resting briefly in between, or as directed by your rehab team. Repeat for two to three sets of six, or as directed.

Learning to Cough

- Learning to cough properly is an important part of pulmonary rehab. Coughing helps remove foreign substances and mucus from the lungs, which can help prevent pneumonia. Coughing properly helps conserve oxygen and energy. Breathing from your diaphragm as practiced before, inhale slowly and deeply. With your mouth open slightly, cough twice, once to loosen mucus and then to remove it. Sniff gently to inhale; deep breaths can make you cough again or inhale mucus. Practice controlled coughing as recommended by your pulmonary rehab team.

Building Endurance

- In addition to practicing exercises specifically related to breathing, most pulmonary rehab programs include recommendations for regular physical exercise to increase overall health and stamina. Before beginning any exercise program, talk with your physician and pulmonary rehab team to determine the amounts and types of exercise that will be best for you.

Pulmonary Rehab Exercises

Pulmonary rehab exercises increase your heart, lung and circulatory functioning level. Start at a slow, comfortable pace, and gradually increase your time and intensity. Consult with your medical care provider prior to starting any exercise program..

Trunk Rotations

Many patients with pulmonary issues slouch and, subconsciously, shorten their pectoral muscles. Trunk rotations help maintain the length of your pectoral muscles.

Stretching also improve flexibility in pulmonary patients, which enables thoracic mobility and helps improve breathing functions. Do a triceps stretch by either standing or sitting upright in a firm chair. Lift your right arm while bending your elbow. Stretch your arm to place your elbow next to your ear, putting your hand between your shoulder blades. Take your left hand, and gently push your right elbow back to increase the stretch. Hold this stretch for 10 seconds. Return your arms to the original position. Repeat this exercise three times. Do the exercise again using your left arm.

Walking

The best exercises for pulmonary rehab involve continuous rhythmic motion, and walking is one such exercise. Warm

up by walking at a slow pace for five minutes

Bicycling

Known as an aerobic exercise, bicycling is another recommended exercise for strengthening your cardiovascular endurance. Start peddling at a low level for five minutes, and then gradually increase your intensity by increasing your tension and speed.

Nutrition therapy. In the early stages of emphysema, many people need to lose weight, while people with late-stage emphysema often need to gain weight.

Supplemental oxygen. With low blood oxygen levels, using oxygen regularly at home and during activity may provide some relief. Many people use oxygen 24 hours a day. Really important to use O₂ during meals;

NURSING MANAGEMENT

Key is to STOP SMOKING EARLY

1. If ordered, perform chest physiotherapy, including postural drainage and chest percussion and vibration several times daily.
2. Schedule respiratory treatments at least 1 hour before and after meals.
3. Provide high calorie-protein rich diet to promote health and healing.
4. Make sure the client receives adequate fluids at least 3 liters per day to loosen secretions.
5. Encourage daily activity and provide diversionary activities as appropriate.
6. Administer medications as ordered and record the client's response.
7. Monitor the client's respiratory function regularly.
8. Monitor the client's RBC count for increases (warning signs of increasing lung and vascular congestion).
9. Watch for complications, such as respiratory tract infections, cor pulmonale, spontaneous pneumothorax, respiratory failure, and peptic ulcer disease.
10. Include the client and his family in care-related decision.
11. Provide supportive care, and help the client adjust to lifestyle changes imposed by a chronic illness.

Finally: COPD, Hypoxia, Hypercapnia, O₂ Therapy Levels and the Nurse.

Carbon dioxide (CO₂) is the waste product of metabolism and is expelled from the body during exhalation. CO₂ is also one of the gasses that can cross the blood-brain barrier. In the cerebrospinal fluid, it combines with water to produce carbonic acid which in turn separates to form hydrogen ions. The concentration of hydrogen ions in a solution is known as the pH.

Stay with me...

As the arterial level of carbon dioxide changes, this results in a change seen with the pH of the cerebrospinal fluid. This triggers a reaction in the central chemoreceptors located near the medulla.

These sensory receptors are responsible for regulating respiratory function - breathing - and monitoring the levels of arterial carbon dioxide. An increase in the arterial carbon dioxide level, leads to an increase in the depth and rate of respiration - the person breathes faster.

A reduction in the arterial carbon dioxide level leads to reduced depth and rate of respiration - the person breathes slower.

The disease process of COPD ultimately leads to chronically high arterial levels of carbon dioxide and low levels of oxygen.

Overtime, the central chemoreceptors become less sensitive to these changes. The stimulus for ventilation is then managed by the peripheral chemoreceptors located in the carotid bodies and the aortic arch.

These receptors are stimulated by low arterial levels of oxygen, transmitting messages to the respiratory center in the medulla. This leads to increased respiratory rate and depth with a low arterial oxygen level and a reduced depth and rate with a high arterial oxygen level.

Just a bit more!

This short video provides a quick overview of the role of the brainstem, chemosensors and baroreceptors in the control and regulation of breathing.

https://www.youtube.com/watch?feature=player_embedded&v=6A8mzMe3pqA

From here, we can see what happens when inappropriate levels of oxygen are given to a CO₂ retainer. Arterial oxygen levels increase from what may be normal for that individual, leading to a reduction in the depth and rate of respirations which will increase the arterial level of carbon dioxide - hypercapnia.

In a client with COPD, the oxygen saturation level of the hemoglobin (SaO₂) level may not reflect "normal" values. It is important that you communicate with your client and their family as much as possible to help you understand their premorbid respiratory function.

Assess whether breathlessness, sputum production or persistent cough is normal for your client. Involve the multidisciplinary team to create a care plan that defines SaO₂ targets as well as management for when the value falls outside of the limits.

Careful monitoring of the client with COPD is essential. If supplemental oxygen is required, small changes to the rate of administration can have dramatic effects in those who have a hypoxic drive to breath.

The client with COPD who becomes drowsy and appears to fall asleep after commencing oxygen therapy or having the flow rate changed should be managed by immediately removing the supplemental oxygen, assessing Glasgow Coma Scale (GCS) and respiratory function against previous assessments.

The base nursing skills of communication, assessment, planning and evaluation are vital in caring for the client with COPD. If you think it is challenging to care for a client with COPD, imagine having COPD.

View point from Respiratory Therapist.

Handout: Hypoxic Drive Theory: A history of the myth

February 17, 2012

<http://respiratorytherapycave.blogspot.com/2012/02/hypoxic-drive-theory-history-of-myth.html>

Supplemental resources

1. Memory Notebook of Nursing volume I & II
2. https://www.youtube.com/watch?feature=player_embedded&v=6A8mzMe3pgA (quick overview of the role of the brainstem, chemosensors and baroreceptors in the control and regulation of breathing). Published on May 11, 2014
3. <http://respiratorytherapycave.blogspot.com/2012/02/hypoxic-drive-theory-history-of-myth.html>
View point from Respiratory Therapist. Resource: Hypoxic Drive Theory: A history of the myth February 17, 2012

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week #2 Topic # 6 **Pulmonary Tuberculosis**

Semester 3rd
Hours _____

Page 1 of 6

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify critical assessments needed for a client with tuberculosis 2. Describe groups most at risk for tuberculosis 3. Describe nursing assessments and management for the various client exposed and diagnosed with tuberculosis 4. Discuss the etiology symptoms, medical and nursing interventions for COPD, asthma, emphysema, bronchiectasis, lung abscess, tuberculosis, and lung cancer. 5. Discuss the relationship of cancer of the lung, and acute and chronic lung disease to smoking, air pollution, and other possible causes of these disorders (see objective # 4). 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page; 380—383 Memory Notebook or Nursing Volume I handout</p> <p>TUBERCULOSIS – bacterial infection caused by the tuberculosis bacillus – gram + rods, acid fast (also called acid-fast bacillus) and aerobic.</p> <ol style="list-style-type: none"> 1. Pulmonary tuberculosis (TB) is a contagious bacterial infection that involves the lungs. It may spread to other organs. 2. The bacteria that cause tuberculosis are spread from one person to another through tiny droplets released into the air via coughs and sneezes...but can live as spores in dark places in particles of dried sputum. Which is why we should not spit in public places. 3. Once rare in developed countries, tuberculosis infections began increasing in 1985, partly because of the emergence of HIV, the virus that causes AIDS. HIV weakens a person's immune system so it can't fight the TB germs. In the United States, because of stronger control programs, tuberculosis began to decrease again in 1993, but remains a concern. <p>4.-Drug-resistant TB: Drug-resistant strains of tuberculosis emerge when an antibiotic fails to kill all of the bacteria it targets. The surviving bacteria become resistant to that particular drug and frequently other antibiotics as well. Some TB bacteria have developed resistance to the most commonly used treatments, such as isoniazid and rifampin.</p> <p>Some strains of TB have also developed resistance to drugs less commonly used in TB treatment, such as the antibiotics known as fluoroquinolones, and injectable medications including amikacin, kanamycin and capreomycin. These medications are often used to treat infections that are resistant to the more commonly used drugs.</p> <p>5. MOST AT RISK FOR TB DISEASE INCLUDE: - Anyone can get tuberculosis, but certain factors can increase your risk of the disease. These factors include: ** *Weakened immune system HIV/AIDS Diabetes End-stage kidney disease Certain cancers Cancer treatment, such as chemotherapy Drugs to prevent rejection of transplanted organs Some drugs used to treat rheumatoid arthritis, Crohn's disease and psoriasis Malnutrition, Very young or advanced age</p>	<p>Lecture Discussion Evaluation: Exam</p>

***Traveling or living in certain areas (world is a very small place and we have immigrants from everywhere)

-The risk of contracting tuberculosis is higher for people who live in or travel to countries that have high rates of tuberculosis and drug-resistant tuberculosis, such as:

Sub-Saharan Africa

India

China

Russia

Pakistan

Asia

And any country that passes out TB medications indiscriminately

****Poverty and substance abuse

--- Lack of medical care.

--a low or fixed income,

-- live in a remote area,

--have recently immigrated to the United States,

--are homeless,

--lack access to the medical care needed to diagnose and treat TB.

***Substance abuse.

-- IV drug use or alcohol abuse weakens your immune system and makes you more vulnerable to tuberculosis.

- Using tobacco greatly increases the risk of getting TB and dying of it.

***Where you work or live

-- Health care works. Regular contact with people who are ill increases your chances of exposure to TB bacteria.

Wearing a mask and frequent hand-washing greatly reduce your risk.

-- Living or working in a residential care facility.

--People who live or work in prisons,

--immigration centers or

--nursing homes are all at a higher risk of tuberculosis.

The risk of the disease is higher anywhere there is overcrowding and poor ventilation.

*** Living in a refugee camp or shelter. Weakened by poor nutrition and ill health and living in crowded, unsanitary conditions, refugees are at especially high risk of tuberculosis infection. (think homeless on skid row in LA)

-Were not treated correctly for TB infection in the past.

6. You can get TB by breathing in air droplets from a cough or sneeze of an infected person. The resulting lung infection is called primary TB.

7. You cannot get TB germs from:

-Sharing drinking containers or eating utensils.

-Smoking or sharing cigarettes with others.

-Saliva shared from kissing.

- shaking someone's hand,

- sharing food,

-touching bed linens or toilet seats, or sharing toothbrushes.

8. Although your body may harbor the bacteria that cause tuberculosis, a healthy immune system usually can prevent

you from becoming sick. For this reason, doctors make a distinction between:

- Latent TB. In this condition, you have a TB infection, but the bacteria remain in your body in an inactive state and cause no symptoms. Latent TB, also called inactive TB or TB infection, isn't contagious. It can turn into active TB, so treatment is important for the person with latent TB and to help control the spread of TB in general. An estimated 2 billion people have latent TB.

-Active TB. This condition makes you sick and can spread to others. It can occur in the first few weeks after infection with the TB bacteria, or it might occur years later.

SIGNS AND SYMPTOMS of active TB include:

- Coughing that lasts three or more weeks
- Coughing up blood
- Chest pain, or pain with breathing or coughing
- Unintentional weight loss
- Fatigue
- Fever
- Night sweats
- Chills
- Loss of appetite

COMPLICATIONS

Without treatment, tuberculosis can be fatal. Untreated active disease typically affects your lungs, but it can spread to other parts of the body through your bloodstream.

Examples of tuberculosis complications include:

-Spinal pain. Back pain and stiffness are common complications of tuberculosis.

- Joint damage. Tuberculosis arthritis usually affects the hips and knees.

- Swelling of the membranes that cover your brain (meningitis). This can cause a lasting or intermittent headache that occurs for weeks. Mental changes also are possible.

- Liver or kidney problems. Filtering functions become impaired if the liver or kidneys are affected by tuberculosis.

- Heart disorders. Rarely, tuberculosis can infect the tissues that surround your heart, causing inflammation and fluid collections that may interfere with your heart's ability to pump effectively. Remember this is called cardiac tamponade, and can be fatal.

TESTS AND DIAGNOSIS

1. The most commonly used diagnostic tool for tuberculosis is a TB skin test, though blood tests are becoming more commonplace. Reading in 48-72 hours (review in chapter 26 for positive findings)

2. A false-positive test may happen if you've been vaccinated recently with the bacille Calmette-Guerin (BCG) vaccine. This tuberculosis vaccine is seldom used in the United States but is widely used in countries with high TB infection rates.

3. False-negative results may occur in certain populations — including children, older people and people with AIDS — who sometimes don't respond to the TB skin test. A false-negative result can also occur in people who've recently

been infected with TB, but whose immune systems haven't yet reacted to the bacteria.

Blood tests

4. Blood tests may be used to confirm or rule out latent or active tuberculosis. These tests use sophisticated technology to measure your immune system's reaction to TB bacteria. QuantiFERON-TB Gold in-Tube test and T-Spot.TB test are two examples of TB blood tests. (Not used around here yet)

5. A positive skin test, the doctor is likely to order a chest X-ray or a CT scan. This may show white spots in the lungs where your immune system has walled off TB bacteria, or it may reveal changes in your lungs caused by active tuberculosis. CT scans provide more-detailed images than do X-rays.

6. Sputum tests or Sputum for AFB

-- For initial sampling, it is recommended that three (3) specimens are collected for AFB smear and culture at least eight hours apart within a 48 hour period. The first specimen is collected on the spot when the client is first encountered, regardless of time of day in order to expedite management among ill suspects and unreliable clients. At least one specimen should be a first morning specimen

NURSING PROCEDURE FOR SPECIMINE COLLECTION

-Rinse mouth well with water to avoid contamination with food particles and mouth flora. Not rinsing at all may result if excessive overgrowth of normal flora.

-If client will provide specimens from home, instruct to obtain specimen before eating and to store specimen in refrigerator until transported to clinic.

-Inhale deeply 2-3 times, breathe out hard each time.

--Cough deeply from the chest.

--Place the open container close to the mouth to collect the specimen.

-Avoid contaminating the inside of the container and lid.

-If the client is unable to raise early morning sputum, suggest that he/she stand or sit in a steamy environment for 15 minutes first by running hot water in the shower. If that still fails, obtain a physician's order for sputum induction.

-Offer to have the client empty bladder just prior to procedure.

--Avoid saliva and or nasal secretions, must be from deep in the lungs.

-Sputum samples can also be used to test for drug-resistant strains of TB. This helps your doctor choose the medications that are most likely to work. These tests can take four to eight weeks to be complete

MEDICAL MANAGEMENT

1. For most people, hospital admission during treatment is not necessary.

2. If the client is homeless, or otherwise believed to be noncompliant, a specialist TB treatment team is assembled. This is a team of healthcare professionals with experience in treating TB.

Treatment team may include:

- a Pulmonologists
- an infectious disease specialist
- a TB nurse specialist

-a home health nurse
-health care provider of record
-a pediatrician if client is child
-probably assigned a key worker. This is usually a nurse, health visitor or social care support worker who will be the point of contact between client and rest of the team and will help co-ordinate and manage care.

3. Antibiotics

Pulmonary TB is treated using a six-month course of a combination of antibiotics. The usual course of treatment is:
-- two antibiotics – isoniazid and rifampicin – every day for six months

two additional antibiotics – pyrazinamide and ethambutol every day for the first two months

May only need to take these antibiotics three times a week if client needs supervision.

After taking the medicine for two weeks, most people are no longer infectious and feel much better. However, it is important to continue taking your medicine exactly as prescribed and to complete the whole course of antibiotics.

***Taking medication for six months is the most effective method of ensuring that the TB bacteria are killed. Stop taking antibiotics before the course completed or skip a dose, the TB infection may become resistant to the antibiotics

In rare cases, TB can be fatal even with treatment. Death can occur if the lungs become too damaged to work properly.

4. Extra pulmonary TB (TB that occurs outside the lungs) can be treated using the same combination of antibiotics as those used to treat pulmonary TB. However, you may need to take them for 12 months.

If you have TB that affects your brain, you may also be prescribed a corticosteroid, such as prednisolone, for several weeks to take at the same time as your antibiotics. This will help reduce any swelling in the affected areas.

As with pulmonary TB, it is important to take your medicines exactly as prescribed and to finish the course.

Latent TB

Latent TB , you have been infected with the TB bacteria but do not have any symptoms of active disease. Treatment for latent TB is usually recommended for:

people 35 years of age or under
people with HIV, regardless of their age
healthcare workers, regardless of their age
people with evidence of scarring caused by TB, as shown on a chest X-ray, but who were never treated

Treatment is not recommended for people who have latent tuberculosis and are over 35 years of age (and do not have HIV and are not healthcare workers). This is because the risk of liver damage increases with age and the risks of treatment outweigh the benefits for some people.

Latent TB is also not always treated if it is suspected to be drug resistant. If this is the case, the client may be regularly monitored to check the infection does not become active.

in some cases, treatment for latent TB may be recommended for people requiring immunosuppressant medication. This may include people taking long-term corticosteroids or people receiving chemotherapy. In these cases, the TB infection should be treated before immunosuppressant medication begins.

Treatment for latent TB involves either taking a combination of rifampicin and isoniazid for three months, or isoniazid on its own for six months.

NURSING MANAGEMENT

- Maintain respiratory isolation until client responds to treatment or until the client is no longer contagious.
 - Administer medicines as ordered.
 - Always check sputum for blood or purulent expectoration.
 - Encourage questions and conversions so that the client can air his or her feelings.
 - Teach or educate the client all about TB.
 - Encourage the client to stop smoking.
 - Teach the client to cough or sneeze into tissue paper and dispose secretions properly.
 - Advise client to have plenty of rest and eat balanced meals.
 - Be alert for signs of drug reaction.
 - If the client is receiving ethambutol (EMB), watch for optic neuritis. If it develops, discontinue the drug.
 - If the client receives rifampicin (Rifampin), watch for hepatitis and purpura. Also observe the client for complications like hemoptysis.
 - Emphasize the importance of regular follow-up examinations and instruct the client and his family about the signs and symptoms of recurring TB
- DRUGS on page 382 – should make drug cards

Supplemental resources

1. Memory Notebook of Nursing Volume II

Homework

1. Write out weekly objectives
-



Vocational Nursing

THIRD SEMESTER – WEEK 3

**Respiratory Part 3:
Lower Airway; Chest Trauma; Chest Tube Care; Thoracic Surgery; ABGs**

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>Clients with Diseases of the Lower Airway Presentation includes:</p> <ul style="list-style-type: none"> • Review of pathophysiology • Clinical manifestations • Medical management • Implications for Nursing • Related Pharmacology <p>Disorders of the Lower Airway</p> <ol style="list-style-type: none"> 1. Pulmonary hypertension 2. Pulmonary embolism 3. Pulmonary edema 4. Respiratory failure <ol style="list-style-type: none"> a. precipitating factors 5. ARDS – acute respiratory distress syndrome 6. Malignant disorders <ol style="list-style-type: none"> a. Lung cancer b. Small cell and non-small cell tumors 	<p>Timby & Smith Introductory Medical Surgical Nursing Pages 394-415</p> <p>Taylor’s clinical nursing skills pages 764-741</p>	<p><u>Lower Airway Disorders</u> Pulmonary Hypertension Overview, Mayo Clinic, 6 min Uploaded on Dec 9, 2009 https://www.youtube.com/watch?feature=player_embedded&v=m0bRgBNArO0</p>

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
c. Mediastinal tumors		
Chest Trauma 1. Fractured ribs 2. Flail chest 3. Penetrating injury <ul style="list-style-type: none"> a. Pneumothorax b. Hemothorax 		Chest Trauma: PowerPoint: Chest Trauma http://image.slidesharecdn.com/chest-trauma-final-1-1230874155399897-1/95/chest-trauma-1-728.jpg?cb=1230867094 Published 12/09
Chest tubes: Nursing Management 1. Pleurovac <ul style="list-style-type: none"> a. gather equipment, identify client b. introduce self, explain procedure c. hand hygiene put on PPE d. check insertion site e. check connections and tubes f. check water for bubbling, fluctuation g. document amount and color of drainage 2. Chest tube removal <ul style="list-style-type: none"> a. Medicate with 30 minutes before procedure b. gather equipment c. Introduce self, explain procedure d. Hand hygiene, Put on PPE e. Assess respiratory status f. Apply occlusive dressing g. Document client respiratory assessment and how tolerated the procedure 		Chest Tubes Care of client with chest tube (PowerPoint) Uploaded on Oct 23, 2012 http://www.slideshare.net/hanasheque/care-of-client-with-chest-tube Chest tubes and chest tube systems (37 minutes) Uploaded on Jan 6, 2012 https://www.youtube.com/watch?v=x14I9ANZG8 Nursing: chest tube management and troubleshooting (12 minutes) Published on Sep 18, 2014 https://www.youtube.com/watch?v=pFuGwSOEtUk

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>Thoracic Surgery</p> <ol style="list-style-type: none"> 1. Purpose <ol style="list-style-type: none"> a. Pneumonectomy b. Lobectomy c. AAA repair d. Foreign body removal 2. Types of surgery <ol style="list-style-type: none"> a. Open thoracotomy b. Video-assisted thoracic surgery (VATS) 		<p><u>Thoracic Surgery</u> VATS introduction 1.45 min Published on Jun 1, 2012 https://www.youtube.com/watch?v=KoBw-xj68E Open thoracotomy incision with rib spreaders 2.14 min Uploaded on Jan 8, 2012 https://www.youtube.com/watch?v=A57ZB_J4FuY</p>
<p>ABGs: Simplified interpretation</p> <ol style="list-style-type: none"> 1. Determine pH – alkalosis, normal or acidosis 2. Determine PaCO₂ 3. Determine HCO₃ Normal, abnormal 4. Determine compensated, uncompensated respiratory or metabolic 		

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 3 Topic # 11

MALIGNANT DISORDERS OF THE LUNGS

Semester 3rd
Hours _____

Page 1 of 3

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss the etiology symptoms, medical and nursing interventions for COPD, asthma, emphysema, bronchiectasis, and lung abscess, and tuberculosis and lung cancer. 2. Discuss the relationship of cancer of the lung and acute and chronic lung diseases to smoking, air pollution, and other possible causes of these disorders (see also lesson plan #7). 3. Discuss difficulties associated with early detection and diagnosis of lung cancer. 4. Compare and contrast the postoperative nursing management for pneumonectomy, lobectomy, and thoracotomy 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith; Chapter 26; pages 399-401; Chapter 20 and 21 review (care of post op client and client with cancer)</p> <p>MALIGNANCIES OF THE RESPIRATORY SYSTEM – Respiratory cancers are cancers of the lung, larynx, trachea, and bronchus.</p> <p>**** It is estimated lung cancer in women will rise thirty-times faster than in men over the next thirty years</p> <p>SMOKING AND LUNG CANCER By far the biggest cause of lung cancer is smoking. It causes more than 8 out of 10 cases (86%) including a small proportion caused by exposure to second hand smoke in non-smokers (passive smoking).</p> <p>HERE ARE SOME FACTS ABOUT SMOKING AND LUNG CANCER The more you smoke, the more likely you are to get lung cancer but the length of time you have been a smoker is even more important than how many cigarettes you smoke a day</p> <p>Starting smoking at a young age is even more harmful than starting as an adult</p> <p>Stopping smoking reduces your risk of lung cancer compared to continuing to smoke. The sooner you quit, the better your health - but it's never too late</p> <p>Passive smoking (breathing in other people's cigarette smoke) increases the risk of lung cancer, but it is still much less than if you smoke yourself</p> <p>It is almost impossible to work out the risk of occasional passive smoking. We know that the risk of lung cancer for passive smokers goes up the more cigarette smoke they are exposed to.</p> <p>Overall, people exposed to environmental tobacco smoke at work or at home have their risk of lung cancer increased by about a quarter compared to people who are not exposed to it. Heavy exposure to environmental tobacco smoke at work has been shown to double the risk of lung cancer.</p> <p>Cigarette smoking is the main cause of lung cancer. But pipe and cigar smokers are still much more likely to get lung cancer than non-smokers. They are also much more likely to get cancer of the mouth or lip.</p> <p>In the past, lung cancer has been more common in men than women. Now, because more women smoke, it is</p>	<p>Lecture Discussion Evaluation: Exam</p>

almost as common in women.

Radon gas is a naturally occurring radioactive gas which comes from tiny amounts of uranium present in all rocks and soils. The radon gas can build up in homes and other buildings.

Radon is one of the biggest causes of lung cancer after smoking. The risk from radon increases the risk from smoking. Smokers with high indoor levels of radon have a particularly high risk of getting lung cancer.

SUBSTANCES THAT OCCUR IN THE WORKPLACE

Exposure to **asbestos** in the construction industry and shipbuilding is now much lower than in the 1960s. But asbestos is still a cause of lung cancer because cancers take so long to develop. And smokers are at even higher risk.

Silica which is used in glass making, may cause a condition known as silicosis. This condition increases the risk of lung cancer.

People at the highest risk of lung cancer caused by **diesel fumes** are miners and professional drivers. You can find more Information about workplace cancer risks on this link. Air pollution

We know that **air pollution** can cause lung cancer. The risk depends on the levels of air pollution you are regularly exposed to.

From the VA website: **Respiratory Cancers and Agent Orange**

Veterans who develop respiratory cancer (lung, bronchus, larynx, or trachea) and were exposed to Agent Orange or other herbicides during military service do not have to prove a connection between their disease and service to be eligible to receive VA health care and disability compensation

Having had a disease that caused scarring in the lungs may be a risk factor for a type of lung cancer called adenocarcinoma of the lung. Tuberculosis (TB) can make scar tissue form in the lungs. People who have had TB have double the risk of lung cancer. This risk continues for more than 20 years.

Researchers are looking into the impact of family history on lung cancer. If you have a first degree relative with lung cancer your risk of lung cancer is increased by 50%.

The risk is even greater if a brother or sister has lung cancer, rather than a parent. This risk is regardless of whether or not you smoke. But families of smokers might be exposed to cigarette smoke and so have an increased risk of lung cancer whether they have inherited a faulty gene or not.

Because there is a pattern of increased risk of lung cancer in family members, researchers think it is likely that there is at least one faulty gene that can increase the risk of lung cancer and be inherited in families). Research trials are trying to find such a gene.

PAST CANCER TREATMENT

There is some evidence that particular cancer treatments might increase your risk of lung cancer.

A review of lung cancer after treatment for breast cancer shows that ways of giving radiotherapy for breast cancer in the past increased the risk of developing lung cancer. This is not the same as metastatic lung cancer from breast cancer

But the most up to date methods of giving radiotherapy to treat breast cancer do not seem to increase the risk of primary lung cancer.

Treatment for other types of cancer has also been linked to a slightly increased risk of lung cancer some years later.

PREVIOUS CANCER

People who have had a head and neck cancer, esophageal cancer or cervical cancer have an increased risk of lung cancer.

This may be explained by the fact that the risk of these cancers is higher in smokers. But it could also be a result of radiotherapy treatment.

Lowered immunity

THREE MAIN TYPES OF LUNG CANCER

Primary lung cancer originates in the lungs, while secondary lung cancer starts somewhere else in the body, metastasizes, and reaches the lungs. They are considered different types of cancers and are not treated in the same way

Non-Small Cell Lung Cancer

This is the most common type of lung cancer. About 85% of lung cancers are non-small cell lung cancers. Squamous cell carcinoma, adenocarcinoma, and large cell carcinoma are all subtypes of non-small cell lung cancer.

Small Cell Lung Cancer

Small cell lung cancer is also called oat cell cancer. About 10%-15% of lung cancers are small cell lung cancers. This type of lung cancer tends to spread quickly. This cancer is a smokers cancer

Lung Carcinoid Tumor

Fewer than 5% of lung cancers are lung carcinoid tumors. They are also sometimes called lung neuroendocrine tumors. Most of these tumors grow slowly and rarely spread.

SIGNS AND SYMPTOMS OF LUNG CANCER

Symptoms vary, depending on the location of the cancer:

Cancer of the trachea—dry cough, hoarseness, breathlessness, difficulty swallowing

Cancer of the larynx—hoarseness, voice changes, sore throat or earache, feeling of a lump in the throat

Cancer of the bronchus—cough, chest pain, coughing blood

Most lung cancers do not cause any symptoms until they have spread too far to be cured, but symptoms do occur in some people with early lung cancer. The most common symptoms of lung cancer are:

A cough that does not go away or gets worse
Chest pain that is often worse with deep breathing, coughing, or laughing
Hoarseness
Weight loss and loss of appetite
Coughing up blood or rust-colored sputum (Shortness of breath
Feeling tired or weak
Infections such as bronchitis and pneumonia that don't go away or keep coming back
New onset of wheezing

If lung cancer spreads to distant organs, it may cause:

Bone pain (like pain in the back or hips)
Nervous system changes (such as headache, weakness or numbness of an arm or leg, dizziness, balance problems, or seizures), from cancer spread to the brain or spinal cord
Yellowing of the skin and eyes (jaundice), from cancer spread to the liver
Lumps near the surface of the body, due to cancer spreading to the skin or to lymph, such as those in the neck or above the collarbone

MEDICAL MANAGEMENT

Treatment depends on the type of lung cancer you have. The treatment for non-small cell lung cancer is different from the treatment for small cell lung cancer.

Small-Cell Lung Cancer

Clients with SCLC often have widespread disease at the time of diagnosis. Rapid clinical deterioration in clients with chest masses often indicates SCLC. Most treatment is palliative. Life expectancy after diagnosis is usually 4 – 16 weeks.

Non-small cell lung cancer can be treated with surgery, chemotherapy, radiotherapy or a combination of these, depending on the stage when the cancer is diagnosed. Some people with advanced lung cancer may have biological therapy.

TYPES OF SURGERIES

The following types of surgery may be used for lung cancer:

Lobectomy. The lungs have five lobes, three in the right lung and two in the left lung. The removal of an entire lobe of the lung in a procedure called a lobectomy is often the most effective type of surgery, even when the lung tumor is very small.

Sleeve Lobectomy

A surgical procedure that removes a cancerous lobe of the lung along with part of the bronchus that attaches to it. The remaining lobe(s) is then reconnected to the remaining segment of the bronchus. This procedure preserves part of a lung, and is an alternative to removing the lung as a whole (pneumonectomy).

A wedge. If the surgeon cannot remove an entire lobe of the lung, the surgeon can remove the tumor, surrounded by a margin of normal lung.

Segmentectomy. This is another way to remove the cancer when an entire lobe of the lung cannot be removed. In a segmentectomy, the surgeon removes the portion of the lung where the cancer developed.

Pneumonectomy. If the tumor is close to the center of the chest, the surgeon may have to remove the entire lung.

Radiofrequency ablation. Radiofrequency ablation is the use of a needle inserted into the tumor to destroy the cancer with an electrical current. It is sometimes used for a lung tumor that cannot be removed with the other types of surgery listed above.

Video assisted Thoracoscopic surgeries are done with increasing frequency for many indications. Video-assisted thoracoscopic surgery (VATS) is a minimally invasive surgical technique used to diagnose and treat problems in your chest.

NURSING MANAGEMENT

1. Review care of client receiving chemotherapy and radiation, chapter 21
2. Review care of the surgical client and post op care, chapter 20
3. Client will go to ICU, and have chest tubes (to be revisited)
4. Specific care of thoracic surgery will be reviewed later.

Homework

1. Write weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**

Semester 3rd

Week # 3 Topic # 11 **ABG'S RESPIRATORY FAILURE AND
ARDS ACUTE RESPIRATORY DISTRESS SYNDROME**

Hours _____

Page 1 of 3

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Compare conditions that may lead to respiratory failure and acute respiratory distress syndrome. 2. Compare acute and chronic respiratory failure. 3. Discuss the symptoms of ARDS and the nursing management. 4. Discuss some of the common causes of respiratory failure. 5. Discuss some of the underlining disease processes that could result in ARDS. 6. Discuss Nursing management of respiratory failure and ARDS 7. Define acidosis, alkalosis, uncompensated, partially compensated, or compensated, and, respiratory or metabolic as it applies to ABG'S interpretation. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 397-399; pages 347-347 (ABG's)</p> <p>Corresponding Kaplan remediation sections</p> <p>RESPIRATORY FAILURE -- Respiratory failure (lung failure) is a condition in which the level of oxygen in the blood becomes dangerously low or the level of carbon dioxide becomes dangerously high.</p> <p>PATHOPHYSIOLOGY Respiratory failure occurs because of the failure of the exchange of oxygen and carbon dioxide in the lung (alveoli), failure of the brain centers that control breathing, or failure of the muscles required to expand the lungs that can cause respiratory failure.</p> <p>Multiple conditions can cause one or both of these problems. Acute or sudden respiratory failure can happen as the result of trauma, injury, drug or alcohol overdose, or inhalation of carbon monoxide. Chronic, or long-term, respiratory failure is commonly caused by chronic obstructive pulmonary disease (COPD), neuromuscular disease, or even morbid obesity.</p> <p>DIAGNOSIS ABG'S values define respiratory failure</p> <p>SIGNS AND SYMPTOMS The signs and symptoms of respiratory failure differ depending on the severity and underlying cause. Acute respiratory failure occurs rapidly and can resolve with treatment. Chronic respiratory failure, on the other hand, is a progressive disease, which typically worsens over time. Symptoms of respiratory failure include: difficulty breathing, ----restless, agitated, apprehensive ----cyanosis, accessory muscle use, ----wheezing, dyspnea ----lethargy.</p> <p>TREATMENT depends on the severity of the disease and may include oxygen support, bronchodilators, and ventilatory support.</p> <p>NURSING MANAGEMENT –along with usual respiratory assessment add</p> <ol style="list-style-type: none"> 1. Monitor pulse oximetry for oxygen saturation and notify for < 90% 2. Monitor ABG's for changes and trends. 3. Maintain HOB elevation at least 30 degrees. 4. Monitor ECG changes in cardiac rhythm, dysrhythmias, or conduction defects. 	<p>Lecture Discussion</p> <p>Evaluation: Exam ABG'S' Quiz</p>

ARDS ACUTE RESPIRATORY DISTRESS SYNDROME -

Acute respiratory distress syndrome is a type of respiratory failure resulting from many different disorders that cause fluid to accumulate in the lungs and oxygen levels in the blood to be too low.

1. ARDS is a life-threatening lung condition.
2. It is a form of breathing failure that can occur in very ill or severely injured people.
3. It is not a specific disease.
4. It starts with swelling of tissue in the lungs and buildup of fluid in the alveoli that transfer oxygen to the bloodstream.
5. This leads to low blood oxygen levels.
6. ARDS can develop in anyone over the age of one year old.
7. Also known as Adult Respiratory Distress Syndrome, Respiratory Distress Syndrome

CAUSES

1. Direct injury to the lungs:
 - Chest trauma, such as a heavy blow
 - Breathing vomit
 - Breathing smoke, chemicals, or salt water
 - Burns
2. Indirect injury to the lungs:
 - Severe infection
 - Massive blood transfusion
 - Pneumonia
 - Severe inflammation of the pancreas (pancreatitis)
 - Overdoses of alcohol or certain drugs (eg, aspirin, cocaine, opioids, phenothiazine's, and tricyclic antidepressants)

Lung and bone marrow transplantation—within few days of a lung transplant, the recipient is prone to development of ARDS.

RISK FACTORS

ARDS usually develops in people who are already in the hospital and are being treated for an injury listed above.

However, only a small number of people who have these injuries actually develop ARDS.

While none can predict who will get ARDS, cigarette smokers, those with chronic lung disease, or those who are over age 65 are more at risk of developing ARDS.

SYMPTOMS

Confusion, and lethargy.
Shortness of breath
Fast, labored breathing, shallow
Tachycardia, dysrhythmias
Crackling or wheezing sounds in the lungs.
The skin may become mottled or cyanotic
low oxygen levels in the ABG's
CXR shows fluid where there should be air

TREATMENT

Treating the underlying cause or injury
Providing support until the lungs heal:
Mechanical ventilation (a breathing machine) through a tube placed in the mouth or nose, or through an opening created in the neck
Monitoring blood chemistry and fluid levels
Often, ARDS clients are sedated to tolerate being on the

ventilator.

NURSING MANAGEMENT

1. ARDS is a serious life threatening problem that requires Intensive care.

2. Injury to the lungs may be corrected quickly or require Weeks to months of treatment.

Promoting Adequate Ventilation

3. Respiratory management:

position client to maximize respiration,
oxygen,

endotracheal intubation and or tracheostomy care,

suctioning,

Mechanical ventilation with sedation and paralytics as needed.

4. Chest physiotherapy (monitor closely for deterioration in oxygenation with changes in position)

5. Provide safety interventions related to ventilator care.

6. Encourage rest.

7. Encourage oral fluid intake if client is not ventilated.

8. Minimizing anxiety.

Provide emotional support and reduce client anxiety.

Explain all procedures and deliver care in calm, reassuring manner. (Remember to talk to them while on the ventilator)

9. Maintain effective tracheobronchial hygiene.

10. Monitor fluid balance. Assess the client for signs and symptoms of fluid volume overload, including peripheral edema and jugular vein distention.

11. Provide adequate nutritional support each day to meet normal requirements, with enteral or parenteral feeding support if necessary.

ABG's Arterial Blood Gasses

7-step method to interpreting ABG's. We have three puzzle pieces to put together:

A) acidosis or alkalosis

B) uncompensated, partially compensated, or compensated

C) respiratory or metabolic

1) Across the top of your page, write down the normal values for the three most important ABG lab results:

pH (7.35-7.45),

PaCO₂ (35-45),

HCO₃⁻ (22-26).

2) Underneath pH, draw arrows to remind you which direction is acidic (down), and which direction is basic (down).

3) Underneath PaCO₂, and HCO₃⁻, draw arrows to remind you what abnormally high and low values would do to the body's pH. When you're done, your page should look something like this:

So far, we haven't even looked at the question yet, we're just trying to prevent any stupid mistakes!!

4) Now you can finally look at the patient's ABG'S values. Check the pH and decide if the value is normal, high, or low.

4a) If the pH is normal, check PaCO₂, and HCO₃⁻. If they are both normal, then you patient is fine and you can stop here. But if one or both of these values is abnormal, then

continue to step 5.

5) Identify if the patient has alkalosis or acidosis.

5a) If the pH is abnormal, then compare it to the arrows you wrote at the top of your paper and pick the imbalance that matches that direction (down is acidosis, up is alkalosis). Continue to step 6.

5b) If the pH is normal but at least one other value was abnormal, then choose acidosis/alkalosis based on which direction the pH is "heading." For example, 7.35-7.39 is toward acidosis, while 7.41-7.45 is toward alkalosis. Continue to step 6.

6) Identify if the patient is uncompensated, partially compensated, or compensated.

6a) If pH is normal and PaCO₂ and HCO₃⁻ are both abnormal, then the patient is compensated. Continue to step 7.

6b) If pH is abnormal and PaCO₂ and HCO₃⁻ are both abnormal, then the patient is partially compensated. Continue to step 7.

6c) If pH is abnormal, and either PaCO₂ or HCO₃⁻ are abnormal, then the patient is uncompensated. Continue to step 7.

7) Identify if imbalance is Respiratory or Metabolic. Finally time to look at the direction of the PaCO₂ and HCO₃⁻ values!

7a) If only PaCO₂ is abnormal, then it is respiratory.

7b) If only HCO₃⁻ is abnormal, then it is metabolic.

7c) If both PaCO₂ and HCO₃⁻ are abnormal, then you need to refer to your arrows. Only one of these values will cause the pH to go in the direction that you identified (i.e. acidosis or alkalosis).

ABG'S QUIZ

Name: _____

1. pH: 7.82, CO₂: 39, HCO₃: 30
2. pH: 7.31, CO₂: 27, HCO₃: 13
3. pH: 7.86, CO₂: 38, HCO₃: 30
4. pH: 7.48, CO₂: 33, HCO₃: 20
5. pH: 7.56, CO₂: 54, HCO₃: 30
6. pH: 7.34, CO₂: 37, HCO₃: 12
7. pH: 7.9, CO₂: 45, HCO₃: 27
8. pH: 7.11, CO₂: 52, HCO₃: 38
9. pH: 7.41, CO₂: 27, HCO₃: 16
10. pH: 7.43, CO₂: 49, HCO₃: 33

ABG'S QUIZ

Name: _____

1. pH: 7.82, CO₂: 39, HCO₃: 30

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7. pH: 7.9, CO₂: 45, HCO₃: 27

8. pH: 7.11, CO₂: 52, HCO₃: 38

9. pH: 7.41, CO₂: 27, HCO₃: 16

10 pH: 7.43, CO₂: 49, HCO₃: 33

Answers

pH: 7.82, CO₂: 39, HCO₃: 30 - Uncompensated Metabolic Alkalosis

pH: 7.31, CO₂: 27, HCO₃: 13 - Partially Compensated Metabolic Acidosis

pH: 7.86, CO₂: 38, HCO₃: 30 - Uncompensated Metabolic Alkalosis

pH: 7.48, CO₂: 33, HCO₃: 20 - Partially Compensated Respiratory Alkalosis

pH: 7.56, CO₂: 54, HCO₃: 30 - Partially Compensated Metabolic Alkalosis

pH: 7.34, CO₂: 37, HCO₃: 12 - Uncompensated Metabolic Acidosis

pH: 7.9, CO₂: 45, HCO₃: 27 - Uncompensated Metabolic Alkalosis

pH: 7.11, CO₂: 52, HCO₃: 38 - Partially Compensated Respiratory Acidosis

pH: 7.41, CO₂: 27, HCO₃: 16 - Fully Compensated Respiratory Alkalosis

pH: 7.43, CO₂: 49, HCO₃: 33 - Fully Compensated Metabolic Alkalosis

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 3 Topic # 13 **THORACIC TRAUMA**
RIB FRACTURES, FLAIL CHEST, PNEUMO, HEMO AND TENSION PNEUMOTHORAX

Semester 3rd
 Hours _____
 System: Respiratory

Page 1 of 6

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe nursing assessment required for a client who experiences trauma to the chest. 2. Differentiate between pneumothorax and atelectasis. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 401 - 403</p> <p>PowerPoint: http://image.slidesharecdn.com/chest-trauma-final-1-1230874155399897-1/95/chest-trauma-1-728.jpg?cb=1230867094 Published 12/09</p> <p>THORACIC TRAUMA - Chest injury: any injury to the thoracic cage and its contents, including the lungs, heart, great vessels, and esophagus.</p> <p>Chest injuries can result from blunt force Severe blunt force applied to the chest. Rapid deceleration injury or penetrating trauma Gunshot Stab</p> <p>The most important chest injuries include the following: Aortic disruption (usually twisting and tear or rupture) Blunt cardiac injury Cardiac tamponade Flail chest Hemothorax Pneumothorax: simple, open, and tension pneumothorax Pneumothoraces Pulmonary contusion</p> <p>General, SIGNS AND SYMPTOMS of chest trauma will include the following Shortness of breath Chest pain Signs of respiratory distress Shock Delayed capillary refill Tachycardia Hypotension Pain on palpation Diminished or absent breath sounds</p> <p>Your text speaks about Flail chest and Pneumothorax-</p> <p>TRANSCRIPT FOR POWERPOINT</p> <ol style="list-style-type: none"> 1. Chest Trauma 2. WHAT IS IT? Chest trauma is often sudden and dramatic Accounts for 25% of all trauma deaths 2/3 of deaths occur after reaching hospital 3. WHY DOES IT OCCUR? Blunt Trauma - Blunt force to chest. E.g. automobile crashes and falls. 	<p>Lecture PowerPoint: Discussion ←-----</p> <p>Evaluation: Exam</p>

Penetrating Trauma - Projectile that enters chest causing small or large hole. E.g. gun shot and stabbing.

Compression Injury - Chest is caught between two objects and chest is compressed.

4. WHAT DOES IT DO?

- Rib fractures
- Flail chest
- Pulmonary contusion
- Pneumothorax
- Hemothorax

5. Rib Fracture

A rib fracture is a break in a rib bone.

Cause is blunt chest trauma (fall, blow to the chest, etc).

Symptoms

Localized pain

Tenderness over the fractured area on inspiration and palpation

Shallow respiration atelectasis & pneumonia

Pain when coughing

Swelling and bruising in the fracture area

Internal bleeding

Pneumothorax or hemothorax

6. HOW TO DIAGNOSE?

CXR

7. MANAGEMENT

Most rib fracture heals in 3 – 6 weeks.

Generally treated conservatively with rest, local heat and analgesics.

Monitor for the sign of associated injuries.

Rest and do not do physical activity.

Adequate pain relief

8. FLAIL CHEST The breaking of 2 or more ribs in 2 or more places, resulting in free- floating rib segments. com

9. The flail segment has no bony or cartilaginous connection. Moves independently of the chest wall

Paradoxical chest movement

10. PARADOXICAL MOVEMENT

The flail portion of the chest is sucked in with inspiration, instead of expanding outward

Ballooned out with expiration instead of collapsing inward

Hypoventilation and hypoxemia

11. S/S OF FLAIL CHEST

Shortness of Breath

Paradoxical Movement

Bruising/Swelling

Crepitus (Grinding of bone ends on palpation)

Tachycardia

Hypotension

12 Complication:
Hypoventilation
Atelectasis
Mediastinal flutter (mediastinal structures tend to swing back n forth)
Diagnosis:
Palpation: crepitus and tenderness near fractured ribs.
chest x-ray
ABG's

13. PULMONARY CONTUSION
It is damage to the lung tissues resulting in hemorrhage and localized edema.
Ecchymosis at the site of the damage
Crackles
Cough may be present with blood-tinged sputum.
Pulmonary contusions tend to worsen over a 24- to 48-hour period and then slowly resolve unless complications occur (infection, ARDS).

Clients with severe contusions may require endotracheal intubation and mechanical ventilation

14. NURSING IMPLICATION
NURSING DIAGNOSIS
Ineffective Airway Clearance
Ineffective Breathing Pattern
Impaired Gas Exchange
Pain
Risk for Infection
Activity Intolerance
Anxiety
Decreased Cardiac output
Impaired tissue perfusion
Ineffective individual coping
Altered health maintenance

15. NURSING IMPLICATION
INTERVENTION:
Frequent and prompt Respiratory assessment
Adequate oxygenation
Analgesia to improve ventilation.
Clearing secretion
Stabilize the thoracic cage
Deep breathing exercises
Intubation and mechanical ventilation may be required to prevent further hypoxia

16. NURSING INTERVENTION
Pain Control
Alternative to relieve pain:
Intercostal Nerve Blocks
Epidural Anesthesia.
Wearing a chest binder
Maintain IV flow rates
Monitor S/S of adequate tissue perfusion
Anxiety reducing techniques
Coping mechanism
Heath education/teaching

17 COMPLICATIONS

Pneumonia
ARDS
Lung abscess
Emphysema
Pulmonary embolism.

18. PNEUMOTHORAX

Pneumothorax is a pocket of air between the two layers of pleura (parietal or visceral), resulting in collapse of the lung.

TYPES :

Open Pneumothorax
Tension Pneumothorax

19. Types

Open Laceration in the parietal pleura that allows atmospheric air to enter the pleural space; occurs as a result of penetrating chest trauma

Closed Laceration in the visceral pleura that allows air from the lung to enter the pleural space; occurs as a result of blunt chest trauma

20. Open Pneumothorax

21. Open Pneumothorax Inhale

22. Open Pneumothorax Exhale

23. Open Pneumothorax Inhale

24. Open Pneumothorax Exhale

25. Open Pneumothorax Inhale

26. Open Pneumothorax Inhale

27. Pathophysiology

Air enters the pleural space, the affected lung becomes compressed.

As the lung collapses, the alveoli become under ventilated,

Causing V/Q mismatching and intrapulmonary shunting.

28. If the pneumothorax is large, hypoxemia ensues and acute respiratory failure quickly develops.

In addition, increased pressure within the chest can lead to shifting of the mediastinum, compression of the great vessels, and decreased cardiac output

29. Tension Pneumothorax

Occurs when air is allowed to enter the pleural space but not exit it; as pressure increases inside the pleural space, the lung collapses and the mediastinum shifts to the unaffected side; may be a result of a spontaneous or traumatic pneumothorax.

30. Tension Pneumothorax Each time we inhale, the lung collapses further. There is no place for the air to escape.

31. Tension Pneumothorax Each time we inhale, the lung collapses further. There is no place for the air to escape.

32. Tension Pneumothorax Heart is being compressed
The trachea is pushed to the good side

33. photo

34. S/S OF TENSION PNEUMOTHORAX

Anxiety/Restlessness
Severe Dyspnea
Absent Breath sounds on affected side
Tachypnea
Tachycardia
Poor Color
Accessory Muscle Use
Hypotension
Tracheal Deviation
(late if seen at all)
Hyperresonance to percussion

35. Assessment and Diagnosis

Depend on the degree of lung collapse.

When a pneumothorax is large, decreased respiratory excursion on the affected side may be noticed, along with bulging intercostal muscles. The trachea may deviate away from the affected side.

Percussion reveals hyperresonance with decreased or absent breath sounds over the affected area.

ABG's will demonstrate hypoxemia and hypercapnia.

A chest x-ray film will confirm the pneumothorax with increased translucency evident on the affected side

36. MEDICAL MANAGEMENT

Depending on the severity of the specific disorder.

At times requires only supplemental oxygen administration, unless complications occur or underlying lung disease or injury is present.

At times urgently require intervention to evacuate the air from the pleural space and facilitate re expansion of the collapsed lung.

37. Treatment

Administering supplemental oxygen

Inserting a large-bore needle or catheter into the second intercostal space at the midclavicular line of the affected side. This action relieves the pressure within the chest. The needle should remain in place until the client is stabilized and a chest tube is inserted

Chest tube insertion

38. Needle Decompression

Locate 2-3 Intercostal space midclavicular line

Cleanse area using aseptic technique

Insert catheter (14g or larger) at least 3" in length over the top of the 3rd rib(nerve, artery, vein lie along bottom of rib)

Remove Stylette and listen for rush of air

Place Flutter valve over catheter

Reassess for Improvement

39. Needle Decompression

40. Nursing Diagnosis
Impaired Gas Exchange related to ventilation/perfusion mismatching or intrapulmonary shunting
Ineffective Breathing Pattern related to decreased lung expansion
Acute Pain related to transmission and perception of cutaneous, visceral, muscular, or ischemic impulses
Anxiety related to threat to biologic, psychologic, and/or social integrity
Disturbed Body Image related to actual change in body structures, function, or appearance
Compromised Family Coping related to critically ill family member

41. NURSING INTERVENTIONS

Continuous and vigilant respiratory assessment
Optimizing oxygenation and ventilation,
Maintaining the chest tube system
Providing comfort and emotional support
Maintaining surveillance for complications.

42. Hemothorax

Occurs when pleural space fills with blood
Usually occurs due to lacerated blood vessel in thorax
As blood increases, it puts pressure on heart and other vessels in chest cavity
Each Lung can hold 1.5 liters of blood

43. Hemothorax

44. Hemothorax

45. Hemothorax

46. Hemothorax

47. Hemothorax

48. Hemothorax May put pressure on the heart

49. Hemothorax Lots of blood vessels Where does the blood come from.

50. S/S of Hemothorax

Anxiety/Restlessness
Tachypnea
Signs of Shock
Frothy, Bloody Sputum
Diminished Breath Sounds on Affected Side
Tachycardia
Flat Neck Veins

51. Treatment for Hemothorax

ABC's
Secure Airway assist ventilation if necessary
General Shock Care due to Blood loss
RAPID TRANSPORT to hospital.

52. Summary Chest Injuries are common and often life threatening in trauma clients. So, Rapid identification and treatment of these clients is paramount to client survival. Airway management is very important and aggressive management is sometimes needed for proper management of most chest injuries.

PowerPoint: Chest Trauma

<http://image.slidesharecdn.com/chest-trauma-final-1-1230874155399897-1/95/chest-trauma-1-728.jpg?cb=1230867094>

Published 12/09

Homework

1. Write weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 3 Topic # 13-A **CHEST TUBES**

Semester 3rd
Hours _____
System: Respiratory

Page 1 of 4

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify the proper chest tube insertion site for the treatment of pneumothorax. 2. Identify the proper chest tube insertion site for the treatment of heamothorax. 3. Discuss nursing care required for the client with a chest tube. 4. Discuss the steps taken to prepare a pleurovac for use with a chest tube. 5. Summarize the specific nursing assessments associated with a person connected to water seal drainage. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 403-404</p> <p>Supplemental resources Care of client with chest tube (PowerPoint) Uploaded on Oct 23, 2012 http://www.slideshare.net/hanasheque/care-of-client-with-chest-tube</p> <p>SUPPLEMENTAL RESOURCES: VIDEOS Chest tubes and chest tube systems (37 minutes) Uploaded on Jan 6, 2012 https://www.youtube.com/watch?v=x_14I9ANZG8</p> <p>Nursing: chest tube management and troubleshooting (12 minutes) Published on Sep 18, 2014 https://www.youtube.com/watch?v=pFuGwSOEtUk</p> <p>CHEST TUBES -- are used to treat conditions that disrupt the pleural space. The body can absorb small volumes of fluid or air over time. But larger volumes limit lung expansion, causing respiratory distress.</p> <p>PowerPoint Transcript</p> <ol style="list-style-type: none"> 1. Care of Client with under water seal drainage 2. Is a flexible plastic tube that is inserted through the side of the chest into the pleural space to re-expand the lung 3. Purpose It is used to remove air, fluid or pus. To establish normal negative pressure in the pleural cavity for lung expansion. To equalize pressure on both sides of the thoracic cavity. To provide continuous suction to prevent tension pneumothorax. 4. Indication: Pneumothorax: accumulation of air; Pleural effusion: accumulation of fluid; Chylothorax: a collection of lymphatic fluid; Empyema: a pyogenic infection of the pleural space; Hemothorax: accumulation of blood; Hydrothorax: accumulation of serous fluid 5. Contraindication: Bleeding condition; Coagulopathy 6. Pre Procedure <ul style="list-style-type: none"> - Confirm the procedure - Inform client - Check for the consent - Prepare the equipment --X-ray (with the report to determine the affected lung) -- Position client 7. Observe/monitor client's: <ul style="list-style-type: none"> Respiration Saturation 	<p>Lecture Discussion PowerPoint: Care of client with chest tube</p> <p>Evaluation: Exam</p>

Reduce client's anxiety
Prepare the underwater seal
Connect the closed system fast

8. Post procedure
Monitor vital signs
15 min x 1 hour
30 mins x 1 hour
1 hour x 4 hours and until stable
Take note of the respiration
Rate, Pattern, Rhythm
Check saturation
Administer oxygen when necessary

9. Post procedure Care of client
Respiratory status
Auscultates lungs to assess air exchange in the affected lung
Place client in fowler's position

10. Change the gauze when necessary
Strict aseptic technique when performing dressing
Check skin integrity, Redness, Swelling, Loose suture

11. Intact and taped,
Maintain patency,
Check for obstruction,
Teach client on how to take care of the tubing,
Place a pillow between client and tubing,
Coil the tube
Avoid dependent loop
Instruct client to cough if tube is blocked
Milking and stripping of the tube when blocked

12. Use rubber tips
Clamped at the bedside
Clamping
During transfer
Not more than 1 minute
Upon doctor's order
Note: clamping chest tube will accumulate in the pleural cavity since the air has no means of escape. This can rapidly lead to tension pneumothorax.

13. 3 principles of underwater seal
Gravity, Water seal. Suction

14. Enhances flow from high to low
Place below client's chest wall (gravity)
Fill with sterile water.
Rod must be immersed 2cm in water.
Observe for the fluctuation of water level.

15. 5(a) Fluctuation
To ensure the patency of the system
It will stop when : lung fully expanded, an obstruction
Check for obstruction
Tubing –kinked
Client's position
Ask client to take a deep breath and cough

16. 5(b) Bubbling
Intermittent bubbling : normal
Continuous bubbling : abnormal

Check :
Wound
Tube
Connection
If rapid bubbling without air leak : inform doctor immediately

17. 5(c) Drainage output 70-100 mls per hour
Observe for any change in drainage color
Mark the amount
Document in I/O chart
Change bottle every 24 hours or when full

18. 6. Suction apparatus, Low suction pump
Must be controlled
Suction valve / meter is inserted for wall suction
Check for bubbling
If no bubbling
Clamp chest tube to check for air leaks
Check tubing and connection
Observe client's condition while chest tube is clamped.

19. 7. Safety
. Tube
Prevent kinking
Place a pillow as barrier
Never clamp unnecessarily
Bottle
Must be below chest
Keep bottle in basin
Inform relatives and housekeeping

20. 8. Ambulation
Encourage client to change position to promote drainage No
need to clamp the tube
Maintain chest tube below chest wall

21. 9. Exercise
Encourage deep breathing and arm exercise
On the first post op day.
When client not in severe pain.
Assist client.
To enhance the lung expansion
Prevent stiffness of the arm

22. 10. Comfort
Administer analgesic in the first 24 hours
Allow position that comfortable to the client.
Assist client in daily living activity
Hygiene

23. Removal of chest tube
Assessment
X-ray done to check the progress
Clamp for 2 hours
Chest tube removed

24. Emergency care
Bleeding
Observe wound dressing
Observe drainage
Dislodgement From insertion site : place a gauze

immediately
From connection : clamp chest tube immediately

25. Emergency care... Bottle break
Identify either client having pneumothorax or hemothorax.
Observe client for tension pneumothorax.
Place tube in saline immediately. Unclamped immediately.
(prevent respiratory distress)
Elevation of bottle
Immediately inform doctor

26. Complication
Bleeding
Pulmonary embolus
Cardiac tamponade
Atelectasis

Supplemental resources

1. Care of client with chest tube (PowerPoint) Uploaded on Oct 23, 2012
<http://www.slideshare.net/hanasheque/care-of-client-with-chest-tube>
2. Chest tubes and chest tube systems (37 minutes) Uploaded on Jan 6, 2012
https://www.youtube.com/watch?v=x_14I9ANZG8
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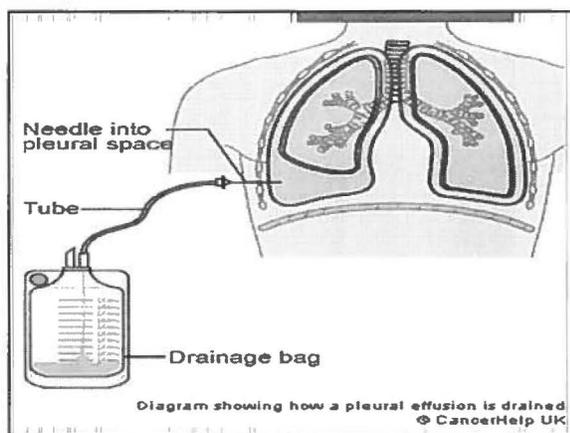
Homework

1. Write out weekly objectives

CARE OF CLIENT WITH UNDER WATER SEAL DRAINAGE

Chest tube

- is a flexible plastic tube that is inserted through the side of the chest into the pleural space to reexpand the lung.



Purpose

- It is used to remove air, fluid or pus.
- To establish normal negative pressure in the pleural cavity for lung expansion.
- To equalize pressure on both sides of the thoracic cavity.
- To provide continuous suction to prevent tension pneumothorax.

Indication

- Pneumothorax: accumulation of air
- Pleural effusion: accumulation of fluid
- Chylothorax: a collection of lymphatic fluid
- Empyema: a pyogenic infection of the pleural space
- Hemothorax: accumulation of blood
- Hydrothorax: accumulation of serous fluid

Contraindication

- Bleeding diathesis
- Coagulopathy

Pre Procedure

1. Confirm the procedure
2. Inform patient
3. Check for the consent
4. Prepare the equipments
5. X-ray (with the report to determine the affected lung)
6. Position patient

During the procedure

- Observe/monitor patient's
 - Respiration
 - Saturation
- Reduce patient's anxiety
- Prepare the under water seal
- Connect the closed system fast

Post procedure

- Monitor vital signs
 - 15min x 1 hour
 - 30mins x 1 hour
 - 1 hour x 4 hours and until stable
- Take note of the respiration
 - Rate
 - Pattern
 - Rhythm
- Check saturation
 - Administer oxygen when necessary

Post procedure

1. Care of patient

- Respiratory status
 - Auscultates lungs to assess air exchange in the affected lung
 - Place patient in fowler's position

2. Care of the wound

- Change the gauze when necessary
- Strict aseptic technique when performing dressing
- Check skin integrity
 - Redness
 - Swelling
 - Loose suture

3. Care of the Tubing

- Intact and taped
- Maintain patency
 - ✦ Check for obstruction
- Teach patient on how to take care of the tubing
 - ✦ Place a pillow between patient and tubing
 - ✦ Coil the tube
 - ✦ Avoid dependent loop
 - ✦ Instruct patient to cough if tube is blocked
 - ✦ Milking and stripping of the tube when blocked

4. Clamps

- Use rubber tips
- Clamped at the bedside
- Clamping
 - During transfer
 - Not more than 1 minute
 - Upon doctor's order

Note: clamping chest tube will accumulate in the pleural cavity since the air has no means of escape. This can rapidly lead to tension pneumothorax.

3 principles of under water seal

- Gravity
- Water seal
- Suction

5. Water seal

- Enhances flow from high to low.
- Place below patient's chest wall (gravity)
- Fill with sterile water.
- Rod must be immersed 2cm in water.
- Observe for the fluctuation of water level.

5(a) Fluctuation

- To ensure the patency of the system
- It will stop when :
 - lung fully expanded
 - an obstruction
 - Check for obstruction
 - Tubing -kinked
 - Patient's position
 - Ask patient to take a deep breath and cough

5(b) Bubbling

- Intermittent bubbling : normal
- Continuous bubbling : abnormal
 - Check :
 - Wound
 - Tube
 - Connection
 - If rapid bubbling without air leak : inform doctor immediately

5(c) Drainage output

- 70-100 mls per hour
- observe for any change in drainage colour
- Mark the amount
- Document in I/O chart
- Change bottle every 24hours or when full

6. Suction apparatus

1. Low suction pump
 - Must be controlled
 - Suction valve / meter is inserted for wall suction
 - Check for bubbling
 - If no bubbling
 - Clamp chest tube to check for air leaks
 - Check tubing and connection
 - Observe patient's condition while chest tube is clamped.

7. Safety

1. Tube
 - > Prevent kinking
 - > Place a pillow as barrier
 - > Never clamp unnecessarily
2. Bottle
 - > Must be below chest
 - > Keep bottle in basin
 - > Inform relatives and housekeeping

8. Ambulation

- Encourage patient to change position to promote drainage
- No need to clamp the tube
- Maintain chest tube below chest wall

9. Exercise

- Encourage deep breathing and arm exercise.
- On the first post op day.
- When patient not in severe pain.
- Assist patient.
 - > To enhance the lung expansion
 - > Prevent stiffness of the arm

10. Comfort

- Administer analgesic in the first 24 hours.
- Allow position that comfortable to the patient .
- Assist patient in daily living activity
 - Hygiene

Removal of chest tube

- Assessment
 - X-ray done to check the progress
 - Clamp for 2 hours
- Chest tube removed

Emergency care

- Bleeding
 - Observe wound dressing
 - Observe drainage
- Dislodgement
 - From insertion site : place a gauze immediately
 - From connection : clamp chest tube immediately

Emergency care...

- Bottle breaks
 - Identify either patient having pneumothorax or hemothorax.
 - Observe patient for tension pneumothorax.
 - Place tube in saline immediately.
 - Unclamped immediately. (prevent respiratory distress)
- Elevation of bottle
 - Immediately inform doctor

Complication

- Bleeding
- Pulmonary embolus
- Cardiac tamponade
- Atelectasis

Palo Verde College Vocational Nursing Program

Lesson Plans

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 3 Topic # 15 **THORACIC SURGERY**

Semester 3rd
 Hours 30 minutes Page 1 of 3
 System: Respiratory

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <p>1. Compare and contrast the post-operative nursing management for pneumonectomy, lobectomy and thoracotomy.</p>	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 403-408; Review general postop care Chapter 20</p> <p>SUPPLEMENTAL RESOURCES: VATS introduction 1.45 min Published on Jun 1, 2012 https://www.youtube.com/watch?v=KoBw_xj68E</p> <p>Open thoracotomy incision with rib spreaders 2.14 min Uploaded on Jan 8, 2012 https://www.youtube.com/watch?v=A57ZB_J4FuY</p> <p>THORACIC SURGERY - THORACOTOMY is a surgical opening of the chest. It is done to evaluate and treat pulmonary problems when noninvasive procedures are nondiagnostic or unlikely to be definitive. It can be open or using VATS.</p> <p>PNEUMONECTOMY and Lobectomy share many much of the pre and post op nursing</p> <p>LOBECTOMY is a thoracic procedure which removes a lobe of the lungs.</p> <p>The exact location of the incision depends on the lobe to be removed. When the pleural space is entered, the involved lung collapses. After the lobe is removed, the remaining lobes of the lung are re-expanded. Usually, two chest tubes are inserted for drainage.</p> <p>The incision may be anterolateral or posterolateral between the ribs.</p> <p>Video-assisted thoracic surgery (VATS) results in 3-4 small incisions between ribs but does not require rib spreader. Less traumatic and less in client time.</p> <p>PRE-OPERATIVE MANAGEMENT:</p> <ol style="list-style-type: none"> 1. Humidification, postural drainage and chest percussion after administration of prescribed bronchodilators. 2. Antibiotics are prescribed for infection. 3. Inform the client what to expect, from administration of anesthesia to thoracotomy and the likely use of chest tubes and a drainage system postoperatively. 4. Tell the client about the administration of oxygen postoperatively and the possible intubation and use of a ventilator. 5. Explain the importance of frequent turning to promote drainage of lung secretions. 6. Instruct the proper use of an incentive spirometry and how to perform diaphragmatic and pursed-lip breathing techniques. Coughing, and deep breathing exercises are 	<p>Lecture Discussion ABG worksheet Unit review Evaluation: Exam</p>

encouraged.

7. Teach the client to splint the incision site with hands, a pillow or a folded towel to avoid discomfort.

8. Arm and shoulder exercises are practiced so they can be performed after surgery to restore movement, prevent painful stiffening of the shoulder, and improve muscle power.

9. Listen to the client to evaluate his or her feelings about the illness and the proposed surgery.

10. Help the client overcome fears and to cope with the stress of surgery by correcting any misconceptions, supporting the client's decision to undergo surgery and dealing honestly with questions about pain, discomfort and treatments available.

POST-OPERATIVE MANAGEMENT:

1. Vital signs are checked frequently.

2. Oxygen is administered via cannula, mask or ventilator as long as necessary.

3. Fluids are given at a low hourly rate to prevent fluid overload and pulmonary edema, ARDS

4. Careful positioning of the client is important, bed may elevated 30 to 45 degrees.

5. Turning from back to operated side, but not completely to the un-operated side to prevent mediastinal shifting.

6. Encourage splinting of the incision site.

7. Must clear secretions (must keep medicated), Breathing exercises and spirometry, Chest percussion, Vibration, Postural drainage, WALKING

8. Dressings are assess for fresh bleeding.

9. Assess for signs of complications such as cyanosis, dyspnea and acute chest pain.

Pain Control Difficult; Systemic Opioids, Non-steroidal anti-inflammatory agents, Intercostal blocks, Intrapleura intercostal blocks, Epidural Analgesia

10. One or two chest tubes

11. Drains

POSTOP

Intake and output must be strictly monitored.

Intravenous fluids are routinely given slowly and in limited amounts (as ordered by the physician) to avoid fluid overload and pulmonary edema.

Vigorous turning, coughing, and deep breathing must be done to expel secretions. If these secretions are not removed, atelectasis may occur. Secretions that cannot be removed by coughing must be removed by suctioning.

Blood pressure, pulse, and respirations should be taken and recorded frequently for the first 24 hours

postoperatively. Nursing personnel should note general appearance, skin color and temperature, character of respiration, and appearance of the wound site. Close observation must be made for signs of shock, hemorrhage, pulmonary edema, or respiratory embarrassment

Proper positioning while bed resting is extremely important. The pneumonectomy client should not be placed directly on his inoperative side. To do so will place additional strain on the already overtaxed remaining lung.

OPERATIVE COMPLICATIONS FOR PNEUMONECTOMY

- Bleeding
- Bronchopleural Fistula
- Empyema
- Acute Lung Injury, ARDS, Pulmonary edema
- IV Fluid judiciously - " Dry lungs work better than wet lungs" (DIURETICS)
- Aspiration (Left Recurrent laryngeal nerve Injury)
- Myocardial Ischemia, tachycardia, A-Fib
- Prolonged air leak, longer than 7 days
- Bronchovesicular Fistula (rare)—massive hemoptysis
- Post Pneumectomy Syndrome; Torsion or compression of the trachea, bronchus or pulmonary vasculature due to mediastinal shift
- Post thoracotomy Pain— if narcotics & anti-inflammatory Are not effective. TEN's , nerve blocks, gabapentin

ARTERIAL BLOOD GASSES INTERPERTATION

This method is simple, easy and can be used for the majority of ABGs. It only addresses acid-base balance and considers just 3 values.

- pH,
- PaCO2
- HCO3-

Step 1. Use pH to determine Acidosis or Alkalosis.

pH		
< 7.35	7.35-7.45	> 7.45
Acidosis	Normal or Compensated	Alkalosis

Step 2. Use PaCO2 to determine respiratory effect.

PaCO2		
< 35	35 -45	> 45
<ul style="list-style-type: none"> • Tends toward alkalosis • Causes high pH • Neutralize s low pH 	Normal or Compensated	<ul style="list-style-type: none"> • Tends toward acidosis • Causes low pH • Neutralize s high pH

Step 3. Assume metabolic cause when respiratory is ruled out.

- You'll be right **most** of the time if you remember this simple table:

High pH		Low pH	
Alkalosis		Acidosis	
High PaCO2	Low PaCO2	High PaCO2	Low PaCO2
Metabolic	Respiratory	Respirator y	Metabolic

- If **PaCO₂** is abnormal and **pH** is normal, it indicates compensation.
 - pH > 7.4 would be a compensated alkalosis.
 - pH < 7.4 would be a compensated acidosis.

These steps will make more sense if we apply them to actual ABG values. **Click here to interpret some ABG values using these steps.** You may want to refer back to these steps (click on "linked" steps or use "BACK" button on your browser) or print out this page for reference.

Step 4. Use HCO₃⁻ to verify metabolic effect

- Normal HCO₃⁻ is 22-26

Please note:

Remember, the first three steps apply to the majority of cases, but do not take into account:

- the possibility of complete compensation, but those cases are usually less serious, and
- instances of combined respiratory and metabolic imbalance, but those cases are pretty rare.
- "Combined" disturbance means HCO₃⁻ alters the pH in the same direction as the PaCO₂.
- High PaCO₂ and low HCO₃⁻ (acidosis) or
- Low PaCO₂ and high HCO₃⁻ (alkalosis).

ABG PRACTICE PROBLEMS

Name: _____

NORMS: pH: 7.35-7.45

PaO₂: 80-100 mmHg

SaO₂: 95-100%

PaCO₂: 35-45 mmHg

HCO₃: 22-26 mEq/L

Determine if the result is Acidosis or Alkalosis (Respiratory or Metabolic) and if compensated, Partially Compensated, or Non-Compensated.

#1: ABG results: pH 7.35, PaO₂ 60, PaCO₂ 50, HCO₃ 30

#2: ABG results: pH 7.50, PaO₂ 75, PaCO₂ 40, HCO₃ 32

#3: ABG results: pH 7.6, PaO₂ 80, PaCO₂ 30, HCO₃ 24

#4: ABG results: pH 7.3, PaO₂ 75, PaCO₂ 32, HCO₃ 19

#5: ABG results: pH 7.45, PaO₂ 75, PaCO₂ 28, HCO₃ 20

#6: ABG results: pH 7.28, PaO₂ 78, PaCO₂ 39, HCO₃ 18

#7: ABG results: pH 7.45, PaO₂ 80, PaCO₂ 50, HCO₃ 30

#8: ABG results: pH 7.23, PaO₂ 77, PaCO₂ 50, HCO₃ 28

ABG PRACTICE PROBLEMS –ANSWER SHEET

NORMS: pH: 7.35-7.45

PaO₂: 80-100 mmHg

SaO₂: 95-100%

PaCO₂: 35-45 mmHg

HCO₃: 22-26 mEq/L

Determine if the result is Acidosis or Alkalosis (Respiratory or Metabolic) and if compensated, Partially Compensated, or Non-Compensated.

#1: ABG results: pH 7.35, PaO₂ 60, PaCO₂ 50, HCO₃ 30

Answer: Compensated Respiratory Acidosis

#2: ABG results: pH 7.50, PaO₂ 75, PaCO₂ 40, HCO₃ 32

Answer: Uncompensated Metabolic Alkalosis

#3: ABG results: pH 7.6, PaO₂ 80, PaCO₂ 30, HCO₃ 24

Answer: Uncompensated Respiratory Alkalosis

#4: ABG results: pH 7.3, PaO₂ 75, PaCO₂ 32, HCO₃ 19

Answer: Partially Compensated Metabolic Acidosis

#5: ABG results: pH 7.45, PaO₂ 75, PaCO₂ 28, HCO₃ 20

Answer: Compensated Respiratory Alkalosis

#6: ABG results: pH 7.28, PaO₂ 78, PaCO₂ 39, HCO₃ 18

Answer: Uncompensated

Metabolic Acidosis

#7: ABG results: pH 7.45, PaO₂ 80, PaCO₂ 50, HCO₃ 30

Answer: Compensated

Metabolic Alkalosis

#8: ABG results: pH 7.23, PaO₂ 77, PaCO₂ 50, HCO₃ 28

Answer: Partially Compensated Respiratory Acidosis

Supplemental resources

1. VATS introduction 1.45 min Published on Jun 1, 2012
https://www.youtube.com/watch?v=KoBw_-xj68E

2. Open thoracotomy incision with rib spreaders 2.14 min
Uploaded on Jan 8, 2012
https://www.youtube.com/watch?v=A57ZB_J4FuY

Homework:

1. Write out weekly objectives
2. End of unit review



Palo Verde College

Vocational Nursing

THIRD SEMESTER – WEEK 4

**Gastrointestinal Part 1:
Upper GI Disorders; Diagnostics; Tube Feeding**

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
Clients with Disorders of the Gastrointestinal System Anatomy and Physiology 1. Identify major structures	Timby & Smith Introductory Medical Surgical Nursing Pages 809-844 Tyler's Clinical Nursing Skills Pages 570-592	
Diagnostic tests 1. Radiology 2. Endoscopy 3. D. Lab tests a. H pylori		
Assessment of the GI system 1. Physical examination a. Skin b. Mouth c. Abdomen d. Anus e.		

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>Disorders of the Upper GI Tract Discussion includes:</p> <ul style="list-style-type: none"> • Review of pathophysiology • Clinical manifestations • Medical management • Implications for Nursing • Related Pharmacology <ol style="list-style-type: none"> 1. Anorexia 2. Nausea and vomiting 3. Oral cancer 4. Hiatal hernia 5. Cancer of the esophagus 6. Gastritis 7. Peptic ulcer disease 8. Stomach CA 		<p>1 minute video/photo array of oral cancer tumors, Published on Mar 18, 2013 https://www.youtube.com/watch?v=K--x00xJ3co</p> <p>3 minute video HPV risk for oral cancer Uploaded on Oct 25, 2011 https://www.youtube.com/watch?feature=player_embedded&v=0jPdUTYDBnU</p>
<p>Tube feeding –</p> <ol style="list-style-type: none"> 1. Insertion of NG tube <ol style="list-style-type: none"> a. Check order gather equipment b. Introduce self, identify client c. .Explain procedure Hand hygiene d. Apply PPE e. Measure tube Nose Ear Xiphoid f. Insert tube, check placement g. Secure h. Document procedure, secretions i. client response 2. Feeding methods contiguous. bolus <ol style="list-style-type: none"> a. Check order gather equipment 		

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<ul style="list-style-type: none"> b. Introduce self, identify client c. Explain procedure d. Perform hand hygiene e. Apply PPE f. Head of bed elevated 30-45 g. Check placement <ul style="list-style-type: none"> 1) Aspirate residual, flush tube h. Attach setup to feeding tube or i. Attach syringe and allow solution to flow by gravity j. Set infusion rate on pump k. Document procedure and client response 		
<p>Medications used to treat upper GI tract</p> <ul style="list-style-type: none"> 1. Antacids 2. Histamine-2 Antagonist 3. Zantec, Tagamet, Pepcid 4. Proton Pump Inhibitor 5. Prilosec, Prevacid, 6. GI motility agents 7. Reglan, Propulsid tumors 		

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 4 Topic # 15 **INTRODUCTION TO THE GI SYSTEM**

Semester 3rd
Hours _____

Page 1 of 6

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify major structures of the gastrointestinal system. 2. Discuss important information to ascertain about gastrointestinal health. 3. Identify facts in the client's history that provide pertinent data about the present illness. 4. Discuss physical assessment data that provides information about the function of the gastrointestinal tract and accessory organs. 5. Describe common diagnostic tests performed on clients with gastrointestinal disorders. 6. Explain nursing management of clients undergoing diagnostic testing for a gastrointestinal disorder. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 810-820 Refer to Kaplan remediation section</p> <p>Gastrointestinal system GASTROINTESTINAL SYSTEM ASP The gastro-intestinal system is essentially a long tube running right through the body, with specialized sections that are capable of digesting material put in at the top end and extracting any useful components from it, then expelling the waste products at the bottom end.</p> <p>The whole system is under hormonal control, with the presence of food in the mouth triggering off a cascade of hormonal actions; when there is food in the stomach, different hormones activate acid secretion, increased gut motility, enzyme release.</p> <p>ESOPHAGUS Once food has been chewed and mixed with saliva in the mouth, it is swallowed and passes down the esophagus. The esophagus has a stratified squamous epithelial lining which protects the esophagus from trauma.</p> <p>The lumen of the esophagus is surrounded by layers of muscle, voluntary in the top third, progressing to involuntary in the bottom third- and food is propelled into the stomach by waves of peristalsis.</p> <p>STOMACH The stomach is a 'j'-shaped organ, with two openings- the esophageal and the duodenal- and four regions- the cardiac, fundus, body and pylorus. Each region performs different functions; the fundus collects digestive gases and produce intrinsic factor, the body secretes pepsinogen and hydrochloric acid, and the pylorus is responsible for mucus, gastrin and pepsinogen secretion.</p> <p>The stomach has five major functions; Temporary food storage Control the rate at which food enters the duodenum Acid secretion and antibacterial action Liquefaction of stomach contents Preliminary digestion.</p> <p>SMALL INTESTINE The small intestine is the site where most of the chemical and mechanical digestion is carried out, and where virtually all of the absorption of useful materials is carried out. The whole of the small intestine is lined with an absorptive mucosal type, with certain modifications for each section.</p>	<p>Lecture Discussion</p> <p>Evaluation: Exam</p>

The intestine also has a smooth muscle wall with two layers of muscle; rhythmical contractions force products of digestion through the intestine (peristalsis).

There are three main sections to the small intestine;

The duodenum forms a 'C' shape around the head of the pancreas. Its main function is to neutralize the acidic gastric contents (called 'chyme, BTW Which means "juice" in Greek') and to initiate further digestion; glands in the mucosa secrete an alkaline mucus which neutralizes the chyme and protects the surface of the duodenum.

The jejunum & The ileum. The jejunum and the ileum are the greatly coiled parts of the small intestine, and together are about 20 feet (4-6 meters) long; the junction between the two sections is not well-defined. The mucosa of these sections is highly folded, greatly increasing the surface area available for absorption.

THE PANCREAS

The pancreas consists mainly of exocrine glands that secrete enzymes to aid in the digestion of food in the small intestine.

The main enzymes produced are lipases, peptidases and amylases for fats, proteins and carbohydrates respectively. These are released into the duodenum, the same place that bile from the liver drains into.

Pancreatic exocrine secretion is hormonally regulated, and the same hormone that encourages secretion also encourages discharge of the gall bladder's store of bile. As bile is essentially an emulsifying agent, it makes fats water soluble and gives the pancreatic enzymes lots of surface area to work on.

LARGE INTESTINES

By the time digestive products reach the large intestine, almost all of the nutritionally useful products have been removed.

The large intestine removes water from the remainder, passing semi-solid feces into the rectum to be expelled from the body through the anus. The mucosa is arranged into tightly-packed straight tubular glands which consist of cells specialized for water absorption and mucus-secreting goblet cells to aid the passage of feces.

The large intestine also contains areas of lymphoid tissue; these can be found in the ileum too), and they provide local immunological protection of potential weak-spots in the body's defenses. As the gut is teeming with bacteria, reinforcement of the surface seems reasonable.

ASSESSMENT -- Pain is the most common complaint related to abdominal problems. Important points to cover with the patient are the location and duration of the pain, any change in its location or intensity, any known precipitating factors, and any associated symptoms (fever, chills, nausea, vomiting, or change in bowel habits).

Also ask about associated abdominal findings such as bloody stools, melena, or abdominal distention. Also other systems or illnesses overlap i.e.: GU, pregnancy, reproductive.

GENERAL AND HISTORY

Onset (sudden or gradual)
Location
Duration,
Characteristics/quality of symptom
Associated symptoms
Precipitating and aggravating factors
Relieving factors
Timing, frequency, and duration
Current situation (same, improving or deteriorating)
Previous diagnosis of similar episodes
Previous treatments and efficacy
Effects on daily activities

ABDOMINAL PAIN

Quality –sharp, burning, cramping
Quantity– constant, intermittent
Radiation–localized, generalized
Timing -Related to eating or movement
Severity 1-10

NAUSEA AND VOMITING,

Frequency, amount
Presence of bile, Hematemesis
Force, projectile
Color
Relationship to food intake
Dysphagia, Solids or liquids

BOWEL HABITS

Last bowel movement
Frequency, color and consistency of stool
Presence of blood or melena
Pain before, during or after defecation
Sense of incomplete emptying after bowel movement
Use of laxatives–type and frequency
Hemorrhoids
Belching, bloating and flatulence
Change in bowel habits

OTHER ASSOCIATED SYMPTOMS

Change in appetite
Fever, Malaise, Headache
Dehydration, Meal pattern
Recent weight loss or gain that is not deliberate
Enlarged, painful nodes (axilla, groin)
Skin–dry, rash, itchy

PAST AND CURRENT USE OF MEDICATIONS

prescription and over the counter (OTC) e.g., ASA, ,
antacids, Previ Pack for peptic ulcer disease,
acetaminophen, antibiotics
(particularly clindamycin use within the past 2 months),
Laxatives

DISEASES

Hiatus hernia, Esophageal cancer
Documented H Pylori or

gastroesophageal reflux disease (GERD)
Chronic constipation-Irritable bowel syndrome (IBS),
Inflammatory bowel disease
Peptic ulcer disease (PUD)
Diverticulosis

Liver disease (hepatitis A, hepatitis B, hepatitis C or cirrhosis), gall bladder disease, pancreatitis
Personal and Social History Specific to GI
Substance use -alcohol, smoking, caffeine, street drugs, including injection drugs, steroids

DIETARY recall including foods avoided (and reasons for),
fat intake,
Obesity, anorexia, bulimia or other eating disorder

OTHER

Travel to area where there are infectious problems
Sanitation problems at home or in the community
Sexual history and practices, including risk behaviors (unprotected oral, anal or vaginal intercourse, multiple partners, sexual orientation) and contraceptives
Sexual or physical assault or spousal abuse
Fear, embarrassment, anxiety

PHYSICAL ASSESSMENT

Vital Signs

General apparent state of health, appearance of comfort or distress

Color

Nutritional status, state of hydration

ABDOMINAL INSPECTION

Abdominal contour, symmetry, scars, dilatation of veins

Movement of abdominal wall with respiration

Visible masses, hernias, pulsations, peristalsis

Guarding and positioning for comfort

Ability to move, and assessment of gait

ABDOMINAL AUSCULTATION

Auscultation should be performed before percussion and palpation so as not to alter bowel sounds

Presence, character and frequency of bowel sounds

Presence of bruits (renal, iliac or abdominal aortic)

ABDOMINAL PERCUSSION

Percuss resonance, tympanic, dull, flat

ABDOMINAL PALPATION

Palpation is performed with the client lying supine, with hands by the sides and relaxed.

The client's abdomen must be completely exposed

Examine all four quadrants in succession

Start with the painless areas, and palpate the painful area last

Assess for abdominal guarding, tenderness or rigid abdomen, board like abdomen

Areas of tenderness, enlargement

Assess for rebound tenderness (pain that occurs upon suddenly releasing the hand after deep palpation), which indicates peritoneal irritation

Assess for referred tenderness (pain that is felt in an area distant to the area being palpated), which can be a clue to the location of the underlying disease

Inguinal and femoral lymph nodes: enlargement, tenderness

RECTAL EXAMINATION

For occult blood

For referred pain

For hemorrhoids, anal fissures

DIAGNOSTIC TESTS

LAB

H pylori

Gastric washing

Stool for occult blood, Ova and Parasites (O&P)

C diff, Culture and Sensitivity (C&S)

Hemoglobin

Pregnancy test (urine)

Liver panel including amylase and lipase

RADIOLOGY STUDIES

X-ray and other imaging contrast studies visualize the entire GI tract from pharynx to rectum and are most useful for detecting masses, lesions, and structural abnormalities (eg, tumors, strictures).

Single-contrast studies fill the lumen with radiopaque material, outlining the structure. Better, more detailed images are obtained from double-contrast studies, in which a small amount of high-density barium coats the mucosal surface and gas distends the organ and enhances contrast.

The gas is injected by the operator in double-contrast barium enema, whereas in other studies, existing GI tract gas is adequate. In all cases, patients turn themselves to properly distribute the gas and barium.

Fluoroscopy can monitor the progress of the contrast material. Either video or plain films can be taken for documentation.

The main contraindication to x-ray contrast studies is suspected perforation, because free barium is highly irritating to the mediastinum and peritoneum; water-soluble contrast is less irritating and may be used if perforation is possible. Older patients may have difficulty turning themselves to properly distribute the barium and gas.

Patients having upper GI x-ray contrast studies must be NPO after midnight. Patients having barium enema follow a clear liquid diet the day before, take an oral Na phosphate laxative in the afternoon, and take a bisacodyl suppository in the evening. Other laxative regimens are effective like Go-Litely

Complications are rare. Barium impaction may be prevented by post procedure oral fluids and sometimes laxatives, usually 60 ml MOM.

An upper GI examination is best done as a biphasic study beginning with a double-contrast examination of the esophagus, stomach, and duodenum, followed by a single-contrast study using low-density barium. After the examination 60 ml of MOM or other ordered laxative is given to remove the barium.

A barium swallow is done by using fluoroscopy and provides a more detailed evaluation of the small bowel. Shortly before

the examination, the patient is given metoclopramide (Reglan) 20 mg po to hasten transit of the contrast material.

A barium enema can be done as a single- or double-contrast study. Single-contrast barium enemas are used for potential obstruction, diverticulitis, fistulas, and megacolon.

Double-contrast studies are preferred for detection of tumors.

CT SCANNING OF THE ABDOMEN:

CT scanning using oral and IV contrast allows excellent visualization of both the small bowel and colon as well as of other intra-abdominal structures.

CT enterography provides visualization of the small-bowel mucosa. Patients are given a large volume (1350 mL) of barium sulfate before imaging

CT colonography (virtual colonoscopy) generates 3D and 2D images of the colon by using a combination of oral contrast and gas distention of the colon. Optimal CT colonography technique requires careful cleansing and distention of the colon.

Residual stool causes problems similar to those encountered with barium enema because it simulates polyps or masses.

CT enterography and CT colonoscopy have largely supplanted standard small-bowel series and barium enema examinations.

MRI can be used when CT scanning is inadequate.

ENDOSCOPY STUDIES

Flexible endoscopes equipped with video cameras can be used to view the upper GI tract from pharynx to upper duodenum and the lower GI tract from anus to cecum (and, sometimes, terminal ileum).

Several other diagnostic and therapeutic interventions also can be done endoscopically. The potential to combine diagnosis and therapy in one procedure gives endoscopy a significant advantage over studies that provide only imaging (eg, x-ray contrast studies, CT, MRI) and often outweighs endoscopy's higher cost and need for sedation.

Therapeutic endoscopic procedures include removal of foreign bodies; hemostasis by hemoclips placement, injection of drugs, variceal banding, stent placement; reduction of volvulus or intussusception; decompression of acute or subacute colonic dilatation; and feeding tube placement

Homework

1. Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 4 Topic # 16 **ANOREXIA AND NAUSEA & VOMITING**

Semester 3rd
Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss assessments findings and treatment of anorexia in the ill client, 2. Develop a teaching plan for the client with anorexia related to an illness or disease process. 3. Develop a care plan for the client with persistent nausea and vomiting. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page: 821-825</p> <p>Refer to the Kaplan remediation section</p> <p>ANOREXIA: Loss of appetite implies that hunger is absent—a person with anorexia has no desire to eat. In contrast, a person with an eating disorder such as anorexia nervosa or bulimia is hungry but restricts food intake or vomits after eating because of over concern about weight gain.</p> <p>A brief period of anorexia accompanies almost all acute illnesses. Chronic anorexia usually occurs only in people with a serious underlying disorder such as cancer; AIDS; chronic lung disease; and severe heart, kidney, or liver failure.</p> <p>Disorders that affect the part of the brain where appetite is regulated can cause anorexia as well. Anorexia is common among people who are dying. Some drugs, such as digoxin, fluoxetine (Prozac), quinidine, and hydralazine, cause anorexia.</p> <p>MEDICAL TREATMENT relies on determining the cause. Most often, anorexia occurs in a person with a known underlying disorder. Unexplained chronic anorexia is a signal to the doctor that something is wrong. A thorough evaluation of the person's symptoms and a complete physical examination often suggest a cause and help the doctor decide which tests are needed.</p> <p>Underlying causes are treated to the extent possible. Steps that can help increase a person's desire to eat include providing favorite foods, a flexible meal schedule, and, if the person desires, a small amount of an alcoholic beverage served 30 minutes before meals.</p> <p>In certain situations, doctors may use drugs, such as cyproheptadine (Peritol, is a antihistamine), low-dose corticosteroids, megestrol (Megace used at BNCC), and dronabinol (Tetrahydrocannabinol, trade name Marinol), to help stimulate the appetite.</p> <p>NURSING MANAGEMENT for clients with poor appetite due to illness or disease (especially cancer)</p> <p>Eat small frequent meals and healthy snacks that are high in protein and calories.</p> <p>Eat during periods of greatest appetite, rather than at set mealtimes. Be flexible. Eat whenever you feel hungry.</p>	<p>Lecture Discussion Evaluation: Exam</p>

Make mealtime as pleasant as possible by trying the following suggestions:

- Rest before eating.
- Play soft background music or a relaxation tape.
- Use an attractive table setting.
- Indulge in your favorite foods.
- Make plans to eat with family and friends.

Take pain medication as instructed.

Take nausea medication a half-hour before meals, or as instructed.

Avoid foods that cause bloating and gas, such as cabbage, broccoli, and beans; or indigestion, such as spicy foods.

If you have a sore mouth, do mouth care routinely and especially before and after meals.

If you have dry mouth, or a metallic or bitter taste in your mouth try sugar-free hard candy, gum, or mints.

Marinate meats with sweet marinades or sauces like teriyaki or soy. Try different seasonings.

Don't drink large quantities of fluids with meals, since this will make you feel fuller sooner.

Avoid "empty calorie" liquids like soda pop.

Try fruit juices and milk products.

If you have trouble digesting milk and milk products, speak to your nurse or the registered dietitian.

Exercise as tolerated. A moderate exercise routine helps stimulate appetite.

Your doctor may order an appetite-stimulating medication.

Sometimes loss of appetite during cancer therapy is a symptom of depression. If you think you may have problems with your mood and emotions, speak to your doctor about your concerns.

NAUSEA AND VOMITING:

Nausea and vomiting can be an unpleasant complication, or indication of many medical conditions, and is associated with adverse effects of hundreds of medications.

Nausea and vomiting occur so frequently that they are almost considered "acceptable," usually referred to as "minor" and considered more of an inconvenience or a nuisance than a medical problem.

N&V is not only unpleasant but can be debilitating and can cause unnecessarily prolonged recovery times and increased costs.

In critically ill clients, severe or protracted nausea and vomiting can lead to serious complications such as aspiration pneumonia, dehydration, malnutrition, and disruption of the surgical site

Vomiting is different from regurgitation, in which one spits up

stomach contents without feeling sick and without strong muscle contractions.

SOME CAUSES

Stress, fear and anxiety
Overeating and eating disorders
Food poisoning
Hangover
Food allergy or food intolerance
Pregnancy
Medication
Migraine
Viral gastroenteritis AKA flu
Inflammation of gall bladder (gall stones) and pancreas
Gastroparesis –slow stomach emptying.
(GERD), peptic ulcer disease, or irritable bowel syndrome (IBS) for example.
Chemotherapy and cancer
Labyrinthitis
Appendicitis
Motion sickness, such as being seasick or carsick
Chemical toxins in the environment
Strong pain; AMI, renal colic
Concussion
Meningitis or encephalitis
Brain tumor
Intestinal blockage
Disgusting smells

WHEN TO SEEK MEDICAL ATTENTION FOR N&V

If home treatment is not working, dehydration is present, or a known injury has occurred (such as head injury or infection) that may be causing the vomiting

Take an infant or child under six years to the doctor if vomiting lasts more than a few hours, diarrhea is present, signs of dehydration occur, there is a fever, or if the child hasn't urinated for 4-6 hours.

Take a child over age six years to the doctor if vomiting lasts one day, diarrhea combined with vomiting lasts for more than 24 hours, there are any signs of dehydration, there is a fever higher than 101 degrees, or the child hasn't urinated for six hours.

There is blood in the vomit (bright red or "coffee grounds" in appearance)

Severe headache or stiff neck
Lethargy, confusion, or a decreased alertness
Severe abdominal pain
Diarrhea
Rapid breathing or pulse

MEDICAL MANAGEMENT

Determine cause, avoid the cause or correct the cause
Withhold food and fluids and allowing GI tract to rest
IV fluids
Antiemetics

NURSING MANAGEMENT

Position the client: To prevent aspiration
Conscious: semi fowler's
Unconscious: lateral
Provide good oral care measures

	<p>Suction mouth as needed if the client is unable to expel vomitus.</p> <p>Relieve sensation of nausea by providing any of the following:</p> <ul style="list-style-type: none"> Ice chips Hot tea with lemon Hot ginger ale Dry toast or crackers Cold cola beverage <p>Replace fluid-electrolyte loss (oral or intravenous fluid infusion)</p> <p>Observe for potential complications:</p> <p>Dehydration</p> <ul style="list-style-type: none"> Thirst (first sign) Dry mouth and mucus membrane Warm, flushed dry skin, Fever, tachycardia, low BP Weight loss Sunken eyeballs Oliguria Dark, concentrated urine High specific gravity of urine Poor skin turgor Altered LOC (level of consciousness) Elevated BUN, serum creatinine Elevated hematocrit <p>Acid-base balance</p> <ul style="list-style-type: none"> Initially, metabolic alkalosis due to excessive loss of gastric acids If vomiting is incessant/prolonged, metabolic acidosis occurs due to excessive loss of bicarbonate from duodenum. <p>Hypokalemia</p> <ul style="list-style-type: none"> Initial manifestation in muscle weakness in the legs or leg cramps Provide potassium-rich foods such as banana, raw tomato, raw carrot, baked potatoes, citrus fruits and dried fruits. <p>Administer antiemetic as ordered by the physician; for example</p> <ul style="list-style-type: none"> ondansetron (Zofran) metoclopramide (Reglan) promethazine (Phenergan) meclizine (Antivert) <p>OTC</p> <ul style="list-style-type: none"> dimenhydrinate (Dramamine) 	
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Homework

1. Write weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 4 Topic # 17 **ORAL CANCER**

Semester 3rd
Hours _____

Page 1 of 2

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss contributing causes for oral cancer. 2. Discuss care of the client diagnosed and treated for oral cancer. 3. Discuss the medical and nursing interventions for the person with cancer of the mouth, esophagus stomach colon and rectum. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 825-826</p> <p>Refer to Kaplan remediation section</p> <p>Supplemental resources: 1 minute video/photo array of oral cancer tumors Published on Mar 18, 2013 https://www.youtube.com/watch?v=K--x0OxJ3co</p> <p>3 minute video HPV risk for oral cancer Uploaded on Oct 25, 2011 https://www.youtube.com/watch?feature=player_embedded&v=0jPdUTYDBnU</p> <p>ORAL CANCER The oral cavity consists of lips, cheek lining, salivary glands, hard palate, soft palate, uvula, area under the tongue, gums, teeth, tongue, and tonsils. Oral cancer can occur in any part of the oral cavity; oral cancer is sometimes termed head and neck cancer.</p> <p>RISK FACTORS Smoking. Cigarette, cigar, or pipe smokers are six times more likely than nonsmokers to develop oral cancers. Smokeless tobacco users. Users of dip, snuff, or chewing tobacco products are 50 times more likely to develop cancers of the cheek, gums, and lining of the lips. Excessive consumption of alcohol. Oral cancers are about six times more common in drinkers than in nondrinkers. Family history of cancer. Excessive sun exposure, especially at a young age. Anyone who has already had some form of head and neck cancer Human papilloma virus infection (genital warts virus)</p> <p>SYMPTOMS Swellings/thickenings, lumps or bumps, rough spots/crusts/or eroded areas on the lips, gums, or other areas inside the mouth The development of velvety white, red, or speckled (white and red) patches in the mouth Unexplained bleeding in the mouth Unexplained numbness, loss of feeling, or pain/tenderness in any area of the face, mouth, or neck Persistent sores on the face, neck, or mouth that bleed easily and do not heal within 2 weeks A soreness or feeling that something is caught in the back of the throat Difficulty chewing or swallowing, speaking, or moving the jaw or tongue Hoarseness, chronic sore throat, or change in voice</p>	<p>Lecture Discussion</p> <p>Evaluation: Exam</p>

Ear pain
A change in the way your teeth or dentures fit together
Dramatic weight loss

DIAGNOSIS of oral cancer is by the patient's history and physical exam and definitively by a biopsy of oral tissue; occasionally, CT scans, MRI scans or PET scans may be used.

TREATMENT:

Methods of treatment for oral cancer include surgery, radiation therapy, and/or chemotherapy.

The side effects of oral cancer treatment may include pain,
weakness,
altered facial appearance,
difficulty in swallowing or chewing food,
dry mouth,
tooth decay,
sore throat, sore gums,
bleeding,
infections,
denture problems,
voice quality and communication changes,
thyroid problems,
fatigue,
hair loss,
nausea, vomiting, and diarrhea.

Rehabilitation after oral cancer surgery consists of regaining strength, developing a healthy diet the patient can tolerate.

Possibly dental implants or facial reconstruction surgery.

After treatment and rehabilitation checkups are needed to maintain health and make sure that the oral cancer does not recur.

Oral cancer treatment can result in significant lifestyle changes; most patients are advised to discuss lifestyle problems with professionals such as social workers to help patients get the care they may need, which includes a strong recommendation to quit smoking or using tobacco products.

NURSING MANAGEMENT

Similar to other clients with cancer, review Chapter 21.
Also review chapter 20, post-surgical care.
Refer to chapter 26 for communication issues after laryngeal surgery and Trach care
Airway management is primary impotence
Suction at the bedside
Head of bed elevated
Pain control
Antiemetics to prevent N&V
Promote effective coping for surgery that can be grossly disfiguring, influence eating, communicating, cause excessive drooling
Tube feedings may be necessary if ability to chew and swallow is disrupted.

Depression can be a very real problem

Supplemental resources:

1. 1 minute video/photo array of oral cancer tumors Published on Mar 18, 2013
<https://www.youtube.com/watch?v=K--x0OxJ3co>
2. 3 minute video HPV risk for oral cancer Uploaded on Oct 25, 2011
https://www.youtube.com/watch?feature=player_embedded&v=0jPdUTYDBnU

Homework

1. Written weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 4 Topic # 18 **TUBE FEEDINGS**

Semester 3rd
Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify disease states and conditions that may require enteral feeding 2. Describe the types of tubes used for enteral feeding 3. Explain complications associated with enteral feeding tubes 4. Discuss nursing care required to avoid these complication 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 826-831 Tayler' Clinical Nursing Skills Pages 570-592 Refer to Kaplan remediation section</p> <p>TUBE FEEDINGS – Enteral feeding is the delivery of liquid nutrients via tube or mouth into the gastrointestinal tract</p> <p>Preferred over intravenous parenteral feeding for those clients with normally functioning GI tracts</p> <p>Enteral feeding tubes are enteral access devices placed directly into the gastrointestinal (GI) tract for the delivery of nutrients and/or drugs</p> <p>INDICATIONS FOR ENTERAL FEEDING Enteral feeding is indicated for clients who have a functional GI tract but they: will not, should not, or cannot eat, are/will become malnourished, or are unable to maintain optimal nutritional status via oral feedings</p> <p>If oral dietary intake remains compromised or is contraindicated for more -7 days, enteral feeding may be necessary.</p> <p>DISEASE STATES/CONDITIONS THAT MAY REQUIRE ENTERAL FEEDING INCLUDE ... Hypermetabolism = major surgery, sepsis, trauma Neurological Disease = stroke, multiple sclerosis, head injury Gastrointestinal Disease = esophageal obstruction, bowel disease, pancreatic insufficiency, gastroparesis Cancer = chemo or radiotherapy, surgery Psychiatric Disease = anorexia nervosa, severe depression Organ System Failure = respiratory, renal, cardiac, hepatic Learning Disability = cerebral palsy, Rett syndrome Failure to Thrive = Cystic fibrosis, celiac disease, Crohn's Disease</p> <p>TYPES OF TUBES AND THEIR COMPLICATIONS</p> <p>NASOENTERIC TUBE – Nasogastric, Nasoduodenal and Nasojejunal tubes –should not be used more than 4 weeks Short -term (< 4 weeks) Most common Easiest to place Least expensive</p> <p>COMPLICATIONS of these tubes include: Sinusitis, Epistaxis Dysphasia Dislodgement</p>	<p>Lecture Discussion</p> <p>Evaluation: Exam</p>

Tube occlusion
Pulmonary aspiration
Nasopharyngeal discomfort
Erosion of the nasal septum
Migration and displacement

OROENTERIC TUBES – placed through the mouth
This route may also be reserved for premature or small infants who can only breathe through their nose

COMPLICATIONS

As above plus in an adult cannot speak

ENTEROSTOMY TUBES

Two categories:

Gastrostomy tubes, Jejunostomy tubes

Method of placement:

Open surgical, Laparoscopic, Endoscopic, Radiologic

Percutaneous Endoscopic Gastrostomy (PEG tube)

SURGICAL INSERTION

General anesthesia required; often, as a secondary procedure during abdominal surgery for another condition

May have ileus 24 hours postop; Gastric decompression usually ordered. Observe for post-surgical complications.

LAPAROSCOPIC

Monitored conscious sedation; deep sedation or general Anesthesia may be required for some clients. Less invasive than surgical insertion.

ENDOSCOPIC

Local anesthesia and conscious sedation; requires Monitoring. Popular placement method.

ENTEROSTOMY TUBE COMPLICATIONS

Infection

Pressure necrosis/ulcers

Skin irritation/breakdown

Excessive granulation tissue

Peritubular allergic reactions

Tube deterioration

Tube occlusion

Tube displacement

The Joint Commission Sentinel Event Alert: Issue 36
April 3, 2006 "Tubing misconnections a persistent and potentially deadly occurrence"

"Tube feeding formula is accidentally connected to intravenous or other lines or catheters for which it was not intended. Reported cases to Joint Commission: eight deaths and one instance of permanent loss of function; 7 adults and 2 infants"

NURSING MANAGEMENT

CARE OF ALL ENTERAL FEEDING TUBES

Pulmonary Aspiration:

Evaluate all enterally fed clients for risk of aspiration.
Assure the feeding tube is in the proper position before
Initiating feedings.

Keep head of bed elevated at 30-45 at all times during
the administration of enteral feeding

CARE OF NASOENTERIC TUBES

Regularly assess and monitor to:

Ensure correct placement

Protect mucosal surfaces

Avoid complications such as skin breakdown or infection,
tube clogging. If problems arise, early intervention is key to
maintaining enteral access.

Tube placement should be checked: every 8 hours during
continuous feedings or before each intermittent or bolus
feeding.

Change fixator device or tape as needed and at least every
3 to 5 days

Inspect the nares, mouth, and pharynx daily for skin
irritation, ulceration, pressure necrosis and lesions
Maintain good oral hygiene

Follow facility policy for oral care and for flushing the tube
Daily assessment, Brush teeth (and tongue); Frequent
rinsing of mouth and Suction (if indicated)

CARE OF ENTEROSTOMY TUBES

Regularly assess and monitor to:

Ensure correct placement

Protect skin at the exit site

Maintain tube patency and integrity

If problems arise, early intervention is key to maintaining
enteral access.

Tube displacement/migration: Secure the device

Check for placement, stabilization and fit daily and prn

Balloon retention devices should have the internal
balloon checked for proper inflation every 7 to 10 days

ROUTINE STOMA SITE CARE

Strict adherence to infection control protocols

Daily inspection for irritation or infection

Cleanse skin per facility policy

Inspect gastrostomy tube and rotate the bumper/bolster to ensure proper fit. Do not rotate jejunal tubes

SKIN IRRITATION/ALLERGY:

Inspect skin around tube site daily for signs of skin breakdown, infection, tenderness or excoriation; if present, assess and address cause

Cleanse skin with warm water and mild soap; avoid routine use of hydrogen peroxide

Assess for tube migration and/or inappropriate inflation of balloon

INFECTION (I.E. BACTERIAL, FUNGAL):

Practice appropriate hand hygiene

Assess skin daily for signs of irritation or infection

Document findings

Keep dressing dry

Protect skin from moisture; frequent dressing change PRN

HYPERGRANULATION TISSUE:

Restrict the use of hydrogen peroxide

Prevent: excessive tube movement excessive moisture constant exposure to drainage.

INJURY TO THE CLIENT (E.G. PRESSURE ULCERS, NECROSIS):

Ensure internal bolster contains proper fill volume (for balloon retained devices)

Ensure external bolster/stabilizer rests comfortably against the skin without excess tension

Rotate bumper daily

Avoid bulky dressings under the external bumper

Do not rotate jejunal tubes

LEAKAGE AROUND THE TUBE:

Stabilize the tube

Check for appropriate balloon inflation

Note manufacturer's mark on the tube to assess for migration

Verify leakage has stopped

If uncontrolled, considerations should include replacement,

TUBE OCCLUSION AND DETERIORATION:

Flush feeding tubes with 30 ml. of water every 4 hours during continuous feeding before and after intermittent feedings in an adult client

Adhere to protocols that call for proper flushing of tubes before and after medication administration

Observe for tube for signs of deterioration

ADDITIONAL COMPLICATIONS WITH ALL TUBE FEEDING METHODS

ASPIRATION PNEUMONIA. Aspiration often occurs without obvious evidence of vomiting or regurgitation and is recognized by the development of clinical signs of respiratory compromise or pneumonia

To minimize the risk of aspiration, clients should be fed sitting up or at a 30- to 45-degree semi recumbent body position. They should remain in the position at least one hour after feeding is completed.

Since there may be an increased risk of aspiration if gastric contents accumulate, the gastric residual volume (RV) should be checked.

For continuous feedings, residual can be checked while the infusion is in progress; for intermittent feedings it is checked one hour after cessation of feeding.

The most common reported complication of tube feeding is **DIARRHEA**.

Simultaneous use of other drugs, particularly antibiotics, is usually the cause of apparent tube feeding related diarrhea.

3. Any **DRUGS ADMINISTERED** via the tube should be liquid and should be given separately from the feeding with flushing of the tube before and after. If the tablets must be crushed dissolve them in warm water until they are liquid to prevent obtruding the tube.

4. Careful measures are needed to avoid **BACTERIAL CONTAMINATION** of feeding which can give rise to sepsis, pneumonia, and urinary tract infections, as well as gastrointestinal problems.

Homework

1. Written weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**

Semester 3rd

Week # 4 Topic # 19 **GERD, ESOPHAGEAL DIVERTICULA AND
HIATAL HERNIA**

Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/S TANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Summarize symptoms, nursing interventions for GERD. 2. Discuss dietary management of GERD 3. Summarize symptoms, nursing interventions for diverticula. 4. Discuss dietary management of diverticulitis. 5. Summarize symptoms, nursing interventions for hiatal hernia. 6. Discuss dietary management and structural changes to manage hiatal hernia. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 831-839</p> <p>Refer to Kaplan remediation sections.</p> <p>GERD- Gastroesophageal Reflux Disease is a condition in which the esophagus becomes irritated or inflamed because of acid backing up from the stomach into the esophagus. The stomach produces hydrochloric acid after a meal to aid in the digestion of food</p> <p>The inner lining of the stomach resists corrosion by this acid. The cells lining the stomach secrete large amounts of protective mucus.</p> <p>The lining of the esophagus does not share these resistant features and stomach acid can damage it.</p> <p>The esophagus lies just behind the heart, so the term "heartburn" was coined to describe the sensation of acid burning the esophagus.</p> <p>Normally, a ring of muscle at the bottom of the esophagus, called the lower esophageal sphincter (or cardiac sphincter), prevents reflux (or backing up) of acid.</p> <p>This sphincter relaxes during swallowing to allow food to pass. It then tightens to prevent flow in the opposite direction.</p> <p>With GERD the sphincter relaxes between swallows allowing stomach contents and corrosive acid to well up and damage the lining of the esophagus.</p> <p>CAUSE No one knows the exact cause of gastroesophageal reflux. The following are contributing factors that weaken or relax the lower esophageal sphincter, making reflux worse:</p> <p>LIFESTYLE: Use of alcohol or cigarettes, obesity, poor posture (slouching) Medications: Calcium channel blockers, theophylline), nitrates, antihistamines DIET: Fatty and fried foods, chocolate, garlic and onions, drinks with caffeine, acidic foods such as citrus fruits and tomatoes, spicy foods, mint flavorings EATING HABITS: Eating large meals, eating quickly or soon before bedtime OTHER MEDICAL CONDITIONS: Hiatal hernia, pregnancy, diabetes, rapid weight gain</p> <p>SYMPTOMS Pyrosis (i.e. burning sensation in the esophagus) Felt as a retrosternal sensation of burning or discomfort</p>	<p>Lecture Discussion Evaluation: Exam</p>

Occurs usually after eating or when lying down or bending over.

Regurgitation: Effortless return of gastric and/or esophageal contents into the pharynx; sour-tasting secretions

Dysphagia (i.e. difficulty swallowing) and odynophagia (i.e pain on swallowing)

Symptoms mimicking those of a heart attack

It can induce respiratory complications if gastric contents spill into the tracheobronchial tree, especially if occurring during sleep

ATYPICAL SYMPTOMS

Cough, dyspnea, hoarseness, and chest pain

DIAGNOSIS

Diagnosis of GERD is usually straightforward. Information obtained via history and physical assessment is often sufficient, as long as MD can rule out other potential causes for the heartburn such as:

Cardiac

Peptic ulcer

Esophagitis

Esophageal Endoscopy: The gold standard as a definitive diagnosis

Barium swallow: Not as definitive in mild cases

COMPLICATIONS

Are related to H+Cl- effect on the esophageal mucosa

Esophagitis: can complicate to esophageal ulceration

Barrett's esophagus (esophageal metaplasia) which is a pre-cancerous lesion

TREATMENT

Avoid factors that cause reflux – life style changes

Stop smoking, alcohol, chocolate, caffeine

Avoid acid or acid producing foods

Elevate HOB ~30°

Do not lie down 2 to 3 hours after eating

Drug therapy (see pages 833-834 in text)

Evaluate effectiveness

Observe for side effects

NURSING MANAGEMENT

In consultation with dietician, develop a diet for the client that takes his food preferences into account while helping to minimize reflux symptoms.

To reduce intra-abdominal pressure, have the client sleep in reverse Trendelenburg's position with the head of the bed elevated 6" to 12" (on blocks. Different than just elevating bed HOB).

Encourage the patient to avoid lying down immediately after meals and late-night snacks.

Monitor the client's response to therapy and compliance with treatment.

If surgery was performed, monitor intake and output and vital signs.

Monitor for complication of the disease and of surgery, if appropriate.

Teach the client about the causes of gastroesophageal reflux, and review antireflux regimen for medication, diet, and positional therapy.

Discuss the recommended dietary changes.

Encourage lifestyle changes.

Instruct the client to avoid situations or activities that increase intra-abdominal pressure.

Encourage the client compliance with his drug regimen.

HIATAL HERNIA-- Is a protrusion of part of stomach through the hiatus of the diaphragm and into the thoracic cavity; (esophageal hiatus is a hole in the diaphragm through which the esophagus and the vagus nerve pass).

TWO TYPES OF HIATAL HERNIAS:

Sliding hernia – the upper stomach and gastroesophageal junction move upward into the chest and slide in and out of the thorax (most common).

Paraesophageal hernia – or rolling hernia, part of the greater curvature of the stomach rolls through the diaphragmatic defect next to the gastroesophageal junction.

Hiatal hernia results from muscle weakening caused by aging or other conditions such as esophageal carcinoma, trauma, or after certain surgical procedures.

Treatment can prevent incarceration of the involved portion of the stomach in the thorax, which constricts gastric blood supply.

ASSESSMENT

Maybe asymptomatic.

Client may report feeling of fullness or chest pain resembling angina.

Sliding hernia may cause dysphagia, heartburn (with or without regurgitation of gastric contents into the mouth), or retrosternal or substernal chest pain from gastric reflux.

Severe pain or shock may result from incarceration of stomach in thoracic cavity with paraesophageal hernia.

DIAGNOSTIC EVALUATION

Upper gastric intestinal series with barium contrast shows outline of hernia in esophagus.

Endoscopy visualizes defect and rules out other disorders, such as tumors or esophagitis.

THERAPEUTIC INTERVENTION

To reduce intra-abdominal pressure, have the client sleep in reverse Trendelenburg's position with the head of the bed elevated 6" to 12" (15 to 20) to reduce nighttime reflux.

PHARMACOLOGIC INTERVENTIONS

Antacids neutralize gastric acid and reduce pain.

If client has esophagitis, give histamine-2 receptor antagonist (such as cimetidine/Tagamet or ranitidine/Zantac or famotidine/Pepcid) or proton pump inhibitor (such as omeprazole/Prilosec) to decrease acid secretion.

SURGICAL INTERVENTIONS

Gastropexy to fix the stomach in position is indicated if symptoms are severe. (Gastropexy is a surgical operation in which the stomach is sutured to the abdominal wall or the diaphragm).

NURSING INTERVENTIONS

Advise the client about preventing reflux of gastric contents into esophagus by:

- Eating smaller meals to reduce stomach bulk.
- Avoiding stimulation of gastric secretions by omitting caffeine and alcohol, which may intensify symptoms.
- Refraining from smoking, which stimulates gastric acid secretions.
- Avoiding fatty foods, which promote reflux and delay gastric emptying.
- Refraining from lying down for at least 1 hour after meals.
- Losing weight, if obese.
- Avoiding bending from the waist or wearing tight-fitting clothes.
- Advise the client to report health care facility immediately on onset of acute chest pain – may indicate incarceration of paraesophageal hernia.
- Reassure client that he or she is not having a heart attack, but all instances of chest pain should be taken seriously and reported to the client's health care provider.

ESOPHAGEAL DIVERTICULUM or herniation of the esophageal mucosa, are hollow outpunching of the esophageal wall. Food, fluids, and secretions accumulate in these dilated outpunching's, creating discomfort.

Aspiration pneumonia, bronchitis, bronchiectasis, and lung abscess may be the result of regurgitating contents of the esophageal diverticula. Esophageal diverticula may also lead to esophageal perforation.

ASSESSMENT

Although small diverticula may not cause symptoms, larger diverticula can cause :

Dysphagia - (difficulty swallowing, a feeling of food caught in the throat (both for liquids and solid).

Regurgitation of undigested food, often hours after ingestion is a characteristic symptom of clients with diverticula.

Food that might be regurgitated when the client bends or lies down.

Aspiration pneumonitis may result if regurgitation is during sleep.

Halitosis or Foul smelling breath.

DIAGNOSIS

All diverticula are diagnosed by videotaped barium swallow.

TREATMENT

Specific treatment is usually not required, although resection is occasionally necessary for large or symptomatic diverticula.

NURSING INTERVENTIONS:

	<p>If the client regurgitates food and mucus, protect the client from aspiration by positioning him with his head elevated or turned to one side.</p> <p>If the client has dysphagia, record well tolerated foods and note circumstances that ease swallowing.</p> <p>Administer ordered antacids and provide antireflux care. Regularly assess the client's nutritional status.</p> <p>Monitor the client's degree of discomfort and the effectiveness of treatment.</p> <p>Monitor respiratory signs and symptoms that suggest aspiration. Teach the client about his disorder.</p> <p>Explain necessary diagnostic tests and treatments. Emphasize the need to chew food thoroughly to prevent food particles from becoming trapped in the diverticulum.</p> <p>Teach the client how to perform massage or postural drainage to prevent aspiration.</p> <p>Support the client emotionally, especially if he's upset and concerned about his symptoms.</p>	
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Homework

1. Write weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 4 Topic # 20 **Esophageal Cancer and Esophagectomy**

Semester 3rd
Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss risk factors for esophageal cancer. 2. Discuss nursing management of the client post esophagectomy. 3. Discuss the medical and nursing interventions for the person with cancer of the mouth, esophagus and stomach. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 839-840 (Review chapters 20 & 21, post op care and care of the client with cancer) Refer to Kaplan remediation section</p> <p>ESOPHAGEAL CANCER is one of the most lethal of all malignant diseases, begins in the esophagus and is divided into two major types:</p> <p>Squamous cell carcinomas, tumors that develop in the tissue lining the hollow organs of the body. . Squamous cell carcinomas arise in the squamous cells that line the esophagus. These cancers usually occur in the upper and middle part of the esophagus</p> <p>Adenocarcinoma, depending on the type of cells that are malignant. Adenocarcinomas usually develop in the glandular tissue in the lower part of the esophagus.</p> <p>RISK FACTORS - the most common risk factors for esophageal cancer are: Age: esophageal cancer is most often diagnosed in people over age 50.</p> <p>Gender: esophageal cancer is more common in men than in women, but the gender gap is narrowing.</p> <p>Tobacco and Alcohol Use: use of tobacco in any form can increase your risk of developing esophageal cancer — particularly squamous cell carcinoma.</p> <p>The more you smoke and the longer you smoke, the greater your risk of esophageal cancer.</p> <p>The same is true of heavy use of alcohol over a long period of time. The combination of smoking with heavy alcohol use is the most significant risk factor for squamous cell carcinoma of the esophagus, greatly increasing your chances of developing the disease.</p> <p>Barrett’s Esophagus: caused by long-term reflux of acid from the stomach into the esophagus, Barrett’s esophagus increases the risk of esophageal adenocarcinoma.</p> <p>Race: squamous cell cancer of the esophagus is more common among African American than Caucasians.</p> <p>Adenocarcinoma is more common in Caucasian men than men of other races.</p> <p>Obesity--being overweight is a risk factor for esophageal adenocarcinoma.</p>	<p>Lecture Discussion Group care plan for client with esophagectomy</p> <p>Evaluation: Exam</p>

Ingestion of Lye or Corrosive Materials --accidental ingestion of cleaning liquids containing lye may increase a person's chances of getting squamous cell esophageal cancer, especially if the accident occurred in childhood.

Vitamin Deficiencies --some studies have linked esophageal cancer with deficiencies in beta carotene, vitamin E, selenium, or iron.

History of Other Illnesses--a variety of other illnesses and medical conditions have been associated with an increased risk of esophageal cancer. These include:

- Cancers of the head, neck, or lungs
- Human papillomavirus (HPV) infection

PREVENTING ESOPHAGEAL CANCER

There is no sure way to prevent esophageal cancer, but doctors recommend certain behaviors and warn against others to lower risk. Most of them are also ways to preserve your overall health:

Quit smoking. The habit is a known risk factor for esophageal cancer and other malignancies.

Stop drinking alcohol, or try to cut back.

Consult a doctor if you experience persistent heartburn that may be a sign of gastroesophageal reflux disease (GERD).

Commit to a regular exercise program and avoid becoming overweight.

SIGNS AND SYMPTOMS

Esophageal cancer symptoms become progressively worse as tumor size increases.

Initially, a client may not notice esophageal cancer symptoms at all, as the tumors are too small to cause problems.

As tumors grow, esophageal cancer symptoms appear, beginning with difficulty swallowing. This may come and go, generally growing worse each time it returns.

The signs and symptoms may include, but are not limited to, the following:

Difficulty swallowing

Feelings of fullness, pressure, and burning as food travels down the esophagus

The sensation of having a piece of food stuck behind the breastbone

Weight loss and loss of appetite caused by a change in eating habits, which is in turn due to the discomfort from other esophageal cancer symptoms such as heartburn, indigestion, and vomiting

Regurgitation of food

Blood found in vomit or in stool (from bleeding in the esophagus).

A persistent cough, hoarseness, hiccups, pneumonia

Bone pain

DIAGNOSIS

Diagnosis of esophageal cancer symptoms is usually conducted with a barium swallow, and may also include endoscopy along with a biopsy, and a CT scan of the chest and abdomen.

TREATMENT-- Esophagectomy is the surgical removal of the lower two-thirds or nearly the entirety of the esophagus, along with the uppermost part of the stomach, and all of the surrounding lymph nodes. The stomach is then reshaped into a "new esophagus," brought up into the chest or the neck, and reconnected to the remaining portion of the esophagus.

Esophagectomy can be performed via open incisions in both the chest and the abdomen, meaning that the ribs are spread apart and the abdominal wall is widely opened.

This results in more discomfort and possibly prolonged recovery times.

Totally laparoscopic and thoracoscopic esophagectomy allows thoracic surgeons in some cases to perform esophagectomy through five small abdominal incisions and 3 to 4 right VATS (thoracoscopy) incision.

NURSING MANAGEMENT (see also table 51-1 page 835)
After esophagectomy, clients go to an intensive care unit for 24 to 48 hours. They are usually intubated and have multiple drains and tubes. These clients require intensive cardiopulmonary monitoring.

Neurological Status -- Assess neurological status every shift and more often if any changes from baseline occur. Remember restlessness and agitation are signs of problems.

Pain Management -- Management of pain is key in these clients. The main classes of medication used for pain control include opioids, NSAID's, and local anesthetics.

Non-pharmacological interventions include heat/cold, massage, distraction, relaxation, and positioning.

Pulmonary Care

The risk of pulmonary complications is substantial after all esophageal surgical procedures.

Aggressive pulmonary toilet should be initiated immediately postoperatively to prevent atelectasis and pneumonia, major complications of esophagectomy. Pain control is paramount in ensuring good pulmonary toilet.

Clients are usually intubated after surgery and may or may not be extubated the evening of surgery.

Chest Tubes --(review Page: 403-404)

Depending on the type of surgery, a chest tube may be in place. For clients with chest tubes, assess the drainage every shift. The drainage should become serosanguineous within a few hours. Expect no more than 100 to 200 mL/h on the first day. Drainage should decrease gradually.

Check the chest tube site for drainage, and keep the chest tube dressing clean, dry, and intact. Keep the chest tube free of any kinks or dependent loops, and palpate the surrounding area for subcutaneous emphysema.

ARDS - (Review pages 397-399)

Acute respiratory distress syndrome can develop as soon as the evening of surgery. Unfortunately, the complication of acute respiratory distress syndrome remains difficult to predict, but all clients should be monitored

Fluids

Clients are given intravenous maintenance fluid (isotonic sodium chloride solution or lactated Ringer solution) at a rate of 100 to 200 mL/h for the first 12 to 16 hours after surgery. These fluids help maintain adequate circulating blood volume to protect vital organs and ensure adequate blood supply to the newly created anastomosis.

These clients require a delicate balance between adequate fluid replacement and fluid overload.

NG Tube

In general, all clients have a nasogastric tube after esophagectomy.

Do not move, manipulate, or irrigate the nasogastric tube. If the tube comes out for any reason, do not attempt to replace it. The nasogastric tube goes through the anastomosis and is not sutured in place.

Attempting to replace the nasogastric tube may result in damage to the anastomosis. Be sure to notify a physician immediately if the tube becomes dislodged or does not appear to be functioning properly.

Monitor the tube for patency and assess the drainage for color and amount.

Gastrointestinal Care

After esophagectomy, clients are restricted from taking anything by mouth for 5 to 7 days to prevent an anastomotic leak or fistula formation.

Clients have nasogastric tubes with low-level continuous or intermittent suction. Oral medications, if ordered, are crushed and put down the nasogastric tube; they are never swallowed.

Frequent mouth care improves clients' comfort and reduces the risk for infection and should be maintained while clients are intubated and throughout the period when they are NPO.

J-Tube Care

A Jejunostomy feeding tube is often placed during surgery and is left clamped until used.

Flush the tube with 10 to 20 mL of sodium chloride solution every shift.

Jejunostomy site care should be performed on a daily basis. Wash the surrounding skin with a gentle soap, and assess the skin for any signs of irritation or breakdown.

Apply a non-petroleum-based protective ointment, and make sure that the tube is well secured. Clients may or may not be started on tube feedings 2 to 3 days after surgery, depending on the surgeon's preference.

TPN

Preoperatively, clients may have been receiving total parenteral nutrition or some other high-energy liquid supplement. If so, total parenteral nutrition may be resumed after surgery.

At 5 to 7 days after surgery, a fluoroscopic swallowing examination with water-soluble contrast material is done to check the anastomosis for leaks before oral intake of anything is allowed.

Keep all dressings clean, dry, and intact.

Clients may have a Jackson-Pratt drain to bulb suction coming out of one of the incisions. Monitor the amount and color of drainage each shift.

Potential Sites Of Infection.

They often have compromised nutritional status, they have invasive catheters in the early postoperative period, and they have the usual risk of infection at the surgical sites.

Meticulous wound and skin care, hand washing, avoidance of cross-contamination with organisms from other clients, and changing of invasive catheters per the facility's protocol assist in reducing the chance of infection. Judicious use of antibiotics and adequate nutrition

Other Considerations

A high proportion of clients who have esophageal surgery have a history of heavy smoking and or alcohol use. Be aware of possible delirium tremens on postoperative day 3 or 72 hours after the client's last drink.

Early identification (preoperative) of clients at risk for signs and symptoms of withdrawal is the best prevention, and early treatment is safest for both clients and staff.

Benzodiazepines (most commonly lorazepam) are ordered to manage alcohol withdrawal.

For clients experiencing nicotine withdrawal consider a path

Psychosocial Aspects

Diagnosis of esophageal cancer can be a devastating event in a person's life. Clients may struggle with depression, mortality, and fear preoperatively, and most likely they will experience some fear and anxiety after surgery. Clients need support and reassurance postoperatively

Supplemental resources

1. Group care plan client with esophagectomy.

Homework

1. Write weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**

Semester 3rd

Week # 5 Topic # 21 **GASTRITIS AND PEPTIC ULCER DISEASE**

Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss the lifestyle habits believed to contribute to gastritis and peptic ulcer disease. 2. Discuss the medications used in the treatment for gastritis and peptic ulcer disease 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 840-844 Refer to Kaplan remediation resources Memory Notebook of Nursing Volume I</p> <p>GASTRITIS is an inflammation, irritation, or erosion of the lining of the stomach. It can occur suddenly (acute) or gradually (chronic). In some cases, gastritis can lead to ulcers and an increased risk of stomach cancer. For most people, however, gastritis isn't serious and improves quickly with treatment.</p> <p>CAUSES Gastritis can be caused by irritation due to excessive alcohol use, chronic vomiting, stress, or The use of certain medications such as aspirin or other anti-inflammatory drugs.</p> <p>It may also be caused by any of the following: HELICOBACTER PYLORI (H. PYLORI): A bacteria that lives in the mucous lining of the stomach; without treatment, the infection can lead to ulcers, and in some people, stomach cancer. PERNICIOUS ANEMIA: A form of anemia that occurs when the stomach lacks a naturally occurring substance needed to properly absorb and digest vitamin B12</p> <p>BILE REFLUX: A backflow of bile into the stomach from the bile tract (that connects to the liver and gallbladder) Infections caused by bacteria and viruses</p> <p>SIGNS AND SYMPTOMS Dyspepsia - Indigestion (such as epigastric pain, nausea, bloating and vomiting) is one of the complaints that often arise. Gastrointestinal bleeding was also found in the form of hematemesis and melena, followed by signs of anemia after bleeding.</p> <p>Clients with gastritis also can complain of dizziness, weakness and discomfort in the abdomen</p> <p>TREATMENT / MANAGEMENT Treatment of gastritis depends on the specific cause.</p> <p>Acute gastritis caused by nonsteroidal anti-inflammatory drugs or alcohol may be relieved by stopping use of those substances.</p> <p>Chronic gastritis caused by H. pylori infection is treated with antibiotics.</p>	<p>Lecture Discussion Evaluation: Exam</p>

Antibiotic medications to kill H. pylori. For H. pylori in your digestive tract, a combination of antibiotics, such as clarithromycin (Biaxin) and amoxicillin or metronidazole (Flagyl), to kill the bacterium. Prescription is usually for 10 to 14 days.

Medications that block acid production and promote healing.

Proton pump inhibitors reduce acid by blocking the action of the parts of cells that produce acid.

These drugs include the prescription and over-the-counter medications omeprazole (Prilosec), lansoprazole (Prevacid), rabeprazole (Aciphex), esomeprazole (Nexium), dexlansoprazole (Dexilant) and pantoprazole (Protonix).

Long-term use of proton pump inhibitors, particularly at high doses, may increase your risk of hip, wrist and spine fractures.

Medications to reduce acid production.

Acid blockers — also called histamine (H-2) blockers — reduce the amount of acid released into your digestive tract, which relieves gastritis pain and promotes healing.

Available by prescription or over-the-counter, acid blockers include ranitidine (Zantac), famotidine (Pepcid), cimetidine (Tagamet) and nizatidine (Axid).

Antacids that neutralize stomach acid. Antacids neutralize existing stomach acid and can provide rapid pain relief. Side effects can include constipation or diarrhea, depending on the main ingredients.

NURSING MANAGEMENT

If the client is vomiting, give antiemetics.

Administer I.V. fluids as ordered to maintain fluid and electrolyte imbalance.

When the client can tolerate oral feedings, provide a bland diet that takes into account his food preference. Restart feedings slowly.

Offer smaller, more frequent servings to reduce the amount of irritating gastric secretions.

Help client identify specific foods that cause gastric upset and eliminate them from his diet.

Administer antacids and other prescribed medications as ordered.

If pain or nausea interferes with the client's appetite, administer pain medications or antiemetics about 1 hour before meals.

Monitor the client's fluid intake and output and electrolyte levels.

Assess the client for presence of bowel sounds.
Monitor the client's response to antacids and other

prescribed medications.

Monitor the client's compliance to treatment and elimination of risk factors in his lifestyle.

Teach the client about the disorder.

Urge the client to seek immediate attention for recurring signs and symptoms, such as hematemesis, nausea, or vomiting.

PEPTIC ULCER DISEASE

A peptic ulcer is a defect in the lining of the stomach or the first part of the small intestine, or duodenum. A peptic ulcer in the stomach is called a gastric ulcer. An ulcer in the duodenum is called a duodenal ulcer.

A peptic ulcer is an excavation formed in the mucosal wall of the stomach, pylorus, duodenum, or esophagus. It is frequently referred to as a gastric, duodenal, or esophageal ulcer, depending on its location. It is caused by the erosion of a circumscribed area of mucous membrane.

Peptic ulcer has been associated with bacterial infection, such as *Helicobacter pylori*. The greatest frequency is noted in people between the ages of 40 and 60 years. After menopause, the incidence among women is almost equal to that in men.

PREDISPOSING FACTORS INCLUDE

family history of peptic ulcer,
blood type O,
chronic use of nonsteroidal anti-inflammatory drugs (NSAID's),
alcohol ingestion,
excessive smoking,
possibly high stress.

Esophageal ulcers result from the backward flow of hydrochloric acid from the stomach into the esophagus.

SYMPTOMS of an ulcer may last days, weeks, or months and may subside only to reappear without cause. Many clients have asymptomatic ulcers.

Dull, gnawing pain and a burning sensation in the mid epigastrium or in the back are characteristic.

Pain is relieved by eating or taking alkali; once the stomach has emptied or the alkali wears off, the pain returns.

Sharply localized tenderness is elicited by gentle pressure on the epigastrium or slightly right of the midline.

Other symptoms include Pyrosis (heartburn) and a burning sensation in the esophagus and stomach, which moves up to the mouth, occasionally with sour burping.

Vomiting is rare in uncomplicated duodenal ulcer; it may or may not be preceded by nausea and usually follows a bout of severe pain and bloating; it is relieved by removal of the acid gastric contents.

Constipation or diarrhea may result from diet and

medications.

Bleeding and tarry stools may occur; a small portion of clients who bleed from an acute ulcer have only very mild symptoms or none at all.

ASSESSMENT AND DIAGNOSTIC METHODS

Physical examination

Duodenal ulcers

Burning, aching, or gnawing pain in the right epigastrium occurring 2 to 3 hours after meals, possibly causing the client to awaken at night; relieved by eating

Pyrosis (i.e. heartburn), nausea, and vomiting

GI bleeding, a slow oozing manifested by melena or a sudden, rapid loss of large amounts of blood through hematemesis.

Gastric ulcers

Burning, aching, gnawing pain in the upper epigastrium occurring 30 minutes to 1 hour after meals (rarely at night); unrelieved by eating

Diagnostic

Endoscopy (preferred, but upper gastrointestinal [GI] barium study may be done).

Diagnostic tests include analysis of stool specimens for occult blood, gastric secretory studies, and biopsy and histology with culture to detect *H. pylori* (serologic testing, stool antigen tests, or a breath test may also detect *H. pylori*).

MEDICAL MANAGEMENT

treatment means taking medicines—such as H₂ blockers and proton pump inhibitors and making lifestyle changes, including:

Stop taking NSAID's, if possible. These include aspirin, ibuprofen (such as Advil), and naproxen (such as Aleve).

Quitting smoking.

Not drinking too much alcohol (no more than 2 drinks a day for men and 1 drink a day for women). Should stop but this is a compromise.

Serious complications from a peptic ulcer, such as bleeding or obstruction, may need an endoscopy.

A perforation or if the ulcer continues to bleed despite treatment, may require surgery. But surgery is rarely used to treat an ulcer.

NURSING MANAGEMENT

Assess pain and methods used to relieve it; take a thorough history, including a 72 hour food intake history.

If client has vomited, determine whether emesis is bright red or coffee ground in appearance. This helps identify source of the blood.

Ask client about usual food habits, alcohol, smoking, medication use (NSAID's), and level of tension or nervousness.

Ask how client expresses anger (especially at work and with family), and determine whether client is experiencing occupational stress or family problems.

Obtain a family history of ulcer disease

Assess vital signs for indicators of anemia (tachycardia, hypotension).

Assess for blood in the stools with an occult blood test. Palpate abdomen for localized tenderness.

LIFE STYLE CHANGES

Stress reduction and rest are priority interventions. The client needs to identify situations that are stressful or exhausting (rushed lifestyle and irregular schedules) and implement changes, such as establishing regular rest periods during the day in the acute phase of the disease. Biofeedback, hypnosis, behavior modification, massage, or acupuncture may also be useful.

Smoking cessation is strongly encouraged because smoking raises duodenal acidity and significantly inhibits ulcer repair. Support groups may be helpful.

Dietary modification may be helpful. Clients should eat whatever agrees with them; small, frequent meals are not necessary if antacids or histamine blockers are part of therapy.

Over secretion and hypermotility of the GI tract can be minimized by avoiding extremes of temperature and over stimulation by meat extracts.

Alcohol and caffeinated beverages such as coffee (including decaffeinated coffee, which stimulates acid secretion) should be avoided.

Diets rich in milk and cream should be avoided also because they are potent acid stimulators. The client is encouraged to eat three regular meals a day.

Supplemental resources

1. Memory Notebook of Nursing – handout

Homework

1. Write out weekly objectives

Palo Verde College Vocational Nursing Program

Lesson Plans

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 5 Topic # 22 **CANCER OF THE STOMACH**

Semester 3rd
 Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss the medical and nursing interventions for the person with stomach. 2. Develop a teaching plan for the client with a subtotal gastrectomy. 3. Discuss dumping syndrome and dietary modifications to avoid dumping. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 844-845 and 835-837</p> <p>(Review Chapter 21 Clients with Cancer and Chapter 20 Post op Care) Refer to Kaplan remediation sections Supplemental resources Critical Thinking Exercise –Case Study</p> <p>CANCER OF THE STOMACH OR GASTRIC CANCER Stomach cancers tend to develop slowly over many years. Before a true cancer develops, pre-cancerous changes often occur in the inner lining (mucosa) of the stomach. These early changes rarely cause symptoms and therefore often go undetected.</p> <p>Stomach cancer is uncommon in the United States, and the number of people diagnosed with the disease each year is declining. Stomach cancer is much more common in other areas of the world, particularly China and Japan.</p> <p>SYMPTOMS Stomach cancer is usually not found at an early stage because it often does not cause specific symptoms. When symptoms do occur, they may be vague and can include:</p> <ul style="list-style-type: none"> Pain or discomfort in the abdomen Feeling bloated after eating Feeling full after eating small amounts of food Heartburn that is severe and persistent Indigestion that is severe and unrelenting Nausea that is persistent and unexplained Diarrhea or constipation Nausea and vomiting, particularly vomiting up solid food shortly after eating or vomiting that is persistent Weight loss that is unintentional Loss of appetite Sensation of food getting stuck in the throat while eating <p>Symptoms of advanced stomach cancer may include</p> <ul style="list-style-type: none"> Weakness and fatigue Vomiting blood or having blood in the stool Unexplained weight loss <p>DIAGNOSIS In addition to a physical examination, the following tests may be used to diagnose stomach cancer:</p> <ul style="list-style-type: none"> Biopsy. Endoscopy.. X-ray, Barium swallow. CT scan. Magnetic resonance imaging (MRI) 	<p>Lecture Discussion Evaluation: Exam</p>

Laparoscopy

MEDICAL MANAGEMENT

Surgery

The goal of surgery is to remove all of the stomach cancer and a margin of healthy tissue, when possible. Options include:

Removing early-stage tumors from the stomach lining. Very small cancers limited to the inside lining of the stomach may be removed using endoscopy in a procedure called endoscopic mucosal resection.

Removing a portion of the stomach (subtotal gastrectomy). During subtotal gastrectomy, the surgeon removes only the portion of the stomach affected by cancer.

Removing the entire stomach (total gastrectomy). Total gastrectomy involves removing the entire stomach and some surrounding tissue.

The esophagus is then connected directly to the small intestine to allow food to move through your digestive system.

Palliative Surgery. Surgery to relieve signs and symptoms but not to cure.

Surgery carries a risk of bleeding and infection. If all or part of your stomach is removed, you may experience digestive problems.

Radiation therapy

Radiation therapy can be used before surgery to shrink a stomach tumor so that it's more easily removed. Radiation therapy can also be used after surgery to kill any cancer cells that might remain around your stomach.

Radiation is often combined with chemotherapy. In cases of advanced cancer, radiation therapy may be used to relieve side effects caused by a large tumor.

Radiation therapy to your stomach can cause diarrhea, indigestion, nausea and vomiting.

Chemotherapy can be given before surgery to help shrink a tumor so that it can be more easily removed. Chemotherapy is also used after surgery to kill any cancer cells that might remain in the body. Chemotherapy is often combined with radiation therapy. Chemotherapy may be used alone in people with advanced stomach cancer to help relieve signs and symptoms.

Chemotherapy side effects depend on which drugs are used. Review Chapter 20

Targeted therapy uses drugs that attack specific abnormalities within cancer cells. Targeted drugs used to treat stomach cancer include:

Trastuzumab (Herceptin) for stomach cancer cells that produce too much HER2.

Imatinib (Gleevec) for a rare form of stomach cancer called gastrointestinal stromal tumor.

Sunitinib (Sutent) for gastrointestinal stromal tumor.

NURSING MANAGEMENT

Monitor nutritional intake and weigh client regularly.

Monitor CBC and serum vitamin B12 levels to detect anemia, and monitor albumin and pre-albumin levels to determine if protein supplementation is needed.

Provide comfort measures and administer analgesics as ordered.

Frequently turn the client and encourage deep breathing to prevent pulmonary complications, to protect skin, and to promote comfort.

Maintain nasogastric suction to remove fluids and gas in the stomach and prevent painful distention.

Provide oral care to prevent dryness and ulceration.

Keep the client nothing by mouth as directed to promote gastric wound healing. Administer parenteral nutrition, if ordered.

When nasogastric drainage has decreased and bowel sounds have returned, begin oral fluids and progress slowly.

Avoid giving the client high-carbohydrate foods and fluids with meals, which may trigger dumping syndrome because of excessively rapid emptying of gastric contents.

Administer protein and vitamin supplements to foster wound repair and tissue building.

Eat small, frequent meals rather than three large meals.

Reduce fluids with meals, but take them between meals.

Stress the importance of long term vitamin B12 injections after gastrectomy to prevent surgically induced pernicious anemia.

Encourage follow-up visits with the health care provider and routine blood studies and other testing to detect complications or recurrence.

Dumping Syndrome Diet

Dumping syndrome sometimes happens after stomach surgery.

Dumping syndrome is caused by large amounts of food passing quickly into the small intestine. This causes symptoms like abdominal pain, cramping, nausea, diarrhea, dizziness, weakness, rapid heartbeat, and fatigue.

This diet will help stop the symptoms of dumping syndrome. Everyone tolerates foods differently. Avoid foods that you know cause you problems.

Eat small, frequent meals (at least six times every day). See sample menu on the last page.

Do not drink liquids with your meal. Instead, drink liquids

at least a half-hour to an hour after eating solid food.

Avoid simple sugars such as sweets, candy, soda, cakes, and cookies.

Lie down as soon as you finish eating. This reduces the symptoms of dumping syndrome by slowing the emptying of food from the stomach.

Avoid foods that are very hot or very cold. These can trigger symptoms.

Tell your doctor if you lose any weight.

Note: Dairy products such as milk, cottage cheese, ice cream, and pudding may cause diarrhea in some people after surgery. You may need to avoid milk products at first and then try them in small amounts as you advance your diet.

CRITICAL THINKING EXERCISE –CASE STUDY

George Harvey is a 61-year-old estate attorney who lives with his wife, Harriet. For the last 3 months, Mr. Harvey has had increasing anorexia and difficulty eating. He has lost 10 pounds. His physician has diagnosed gastric cancer, and Mr. Harvey is admitted for a partial gastrectomy and gastrojejunostomy. The oncologist has recommended postoperative chemotherapy and radiation. Mr. Harvey reports that the doctor told him “that will give me the best chance for cure.”

ASSESSMENT

On admission before surgery, Mr. Harvey tells his nurse, Lauren Walsh, that he has eaten very little in the past few weeks. He asks, “What will happen to my wife if something happens to me? I’m afraid this cancer will get me.” Mr. Harvey weighs 147 lb (67 kg) and is 72 inches (183 cm) tall. He is pale and thin; his vital signs are BP 148/86, P 92, R 18, and T 97.8° F PO. A firm mass is palpable in the left epigastric region. The rest of his physical assessment data are within normal limits. Mr. Harvey’s hemoglobin is 12.8 g/dL, hematocrit is 39%, and serum albumin level is 3.2 g/dL, indicating that he is mildly malnourished. All other preoperative laboratory and diagnostic studies are within normal limits.

DIAGNOSES

Imbalanced nutrition: Less than body requirements, related to anorexia and difficulty eating

Acute pain, related to surgical incision and manipulation of abdominal organs

Risk for ineffective airway clearance, related to upper abdominal surgery

•
Anticipatory grieving, related to recent diagnosis of cancer

EXPECTED OUTCOMES

- Maintain present weight during hospitalization.
- Resume a high-calorie, high-protein diet by time of discharge.
- Verbalize effective pain management, maintaining a reported pain level of 3 or less on a scale of 1 to 10.
- Maintain a patent airway and clear breath sounds.
- Verbalize feelings regarding diagnosis and participate in decision making.

PLANNING AND IMPLEMENTATION

- Weigh daily.
- Maintain nasogastric tube placement, patency, and suction as ordered.
- Maintain intravenous fluids and total parenteral nutrition as ordered until oral food intake is resumed.
- Arrange for diet teaching, including strategies to prevent dumping syndrome, before discharge.
- Maintain client-controlled analgesia (PCA) until able to take oral analgesics.
- Assess respiratory status including rate, depth, and breath sounds every hour initially, then every 4 hours.
- Assist to cough, deep breathe, and use incentive spirometer every 2 to 4 hours and as needed. Splint abdomen during coughing.
- Encourage verbalization of feelings about diagnosis and perceived losses.
- Encourage participation in decision making.

EVALUATION

Mr. Harvey’s weight remained stable through his hospitalization. On discharge he is taking a high-protein, high-calorie diet in six small feedings per day. He and his wife have reviewed his diet with the dietitian and are planning on using some dietary supplements at home to meet protein needs. He verbalizes an understanding of measures to prevent dumping syndrome, including separating his intake of solid foods and liquids. Mr. Harvey is using oral analgesics in the morning and at bedtime to control his pain. He and his wife have begun to discuss the meaning of his diagnosis. Mrs. Harvey tells the discharge nurse, “We are going to a support group called ‘Coping with Cancer’ when George is stronger.”

Critical Thinking in the Nursing Process

1. What is the rationale for maintaining nasogastric suction after gastrojejunostomy?
2. Develop a preoperative teaching plan for a client undergoing a partial gastrectomy.
3. Mr. Harvey calls you just before the initial dose of chemotherapy and says, “Everyone tells me that chemotherapy will cause vomiting, and I don’t think I can take being sick again.” How would you respond?
4. Design interventions to ensure adequate nutrition for people with advanced gastric cancer.

Supplemental resources

1 Critical Thinking Exercise –Case Study

Homework

Write out weekly objectives



Vocational Nursing

THIRD SEMESTER – WEEK 5

Gastrointestinal Part 2:
Lower GI Disorders; Impaction; TPN; Suppository

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<p>Clients with Disorders of the Gastrointestinal System</p> <p>Disorders of the Lower GI Tract Discussion includes"</p> <ul style="list-style-type: none"> • Assessment • Clinical Manifestations • Medical Management • Implications for Nursing <ol style="list-style-type: none"> 1. Constipation 2. Diarrhea 3. Irritable bowel syndrome (IBS) 4. Crohn's disease 5. Ulcerative colitis 6. Appendicitis 7. Peritonitis 8. Obstruction 	<p>Timby & Smith Introductory Medical Surgical Nursing Pages 844-875 TPN Pages 224-225</p> <p>Taylor's Clinical Nursing Skills Pages 257-261</p> <p>Kaplan remediation sections</p>	<p>Memory Notebook of Nursing Volume I&II</p> <p>Diverticular Disease, 6:15 min Published on Mar 26, 2012 https://www.youtube.com/watch?v=LmXLcOZjFO</p> <p>Case Study: A Client with Diverticulitis</p>

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
9. Diverticulitis and diverticulosis 10. Abdominal hernias 11. Cancer of the colon and rectum 12. Hemorrhoids 13. Anal fistula		
Drugs used to treat constipation 1. Chemical stimulants 2. Bulk stimulants 3. Lubricants Drugs To Treat Lower GI Disorders 1. Antidiarrheals 2. Laxatives, cathartics, bulk forming 3. Anti-inflammatory 5-Acetylsalicylic 4. Acid medications 5. Steroids 6. Immune modulating agents 7. Biologic agents		
Total Parenteral Nutrition 1. Indications for use 2. Intravenous therapy		
Inserting a Rectal Suppository 1. Check order against MAR 2. Remove medication from Pyxis 3. Hand hygiene 4. Identify client, explain procedure; provide privacy 5. Apply gloves 6. Assist client to Sims' position		

Topic	Reference/ Assignment	Supplemental Materials/ Learning Reinforcement Activity
<ol style="list-style-type: none"> 7. Remove from package and lubricate 8. Separate buttocks, insert suppository 9. Advise to retain as long as possible 10. Remove gloves, wash hands 11. Document administration and client response 		
<p>Removing a Fecal Impaction</p> <ol style="list-style-type: none"> 1. Verify order, collect equipment 2. Introduce self, identify client, provide privacy 3. Hand hygiene, apply gloves 4. Assist client to Sims' position 5. Apply lubricant and insert finger into rectum 6. Break up and remove stool and assess 7. Clean client, leave safe 8. Document procedure and client's response 		



Feeding Adult Patients

M.J. Bailey



Nutrition

- * **Nutrition** is an important treatment in any illness.
- * Type 2: non-insulin –dependent diabetes. Mellitus (NDDM).
- ❖ Mild hypertension.

Proper intake of food is essential for optimal health during illness & healing of wounds. The body needs ↑ nutrients at these times.

M.J. Bailey



Factors Influencing Dietary Patterns

1. Health status
 - A good appetite is a sign of health
 - Anorexia is usually a sign of disease or side effect of drugs
 - Nutritional support is an essential part of recovery from medical treatment

M.J. Bailey



Factors Influencing Dietary Patterns

2. Culture and religion.
 - Culture, ethnic, and religious patterns and restrictions re food must be considered.
 - Special foods and diets given when appropriate.
 - Older clients more apt to cling to ethnic food habits, esp. During illness.

M.J. Bailey



Factors Influencing Dietary Patterns

3. Socioeconomic status.
 - Food expenses fluctuate, spending depends on \$\$ available.
 - Whether someone is around to prepare the food determines the amount of convenience foods used.

M.J. Bailey



Factors Influencing Dietary Patterns

4. Personal preference
 - Individual likes and dislikes provide the strongest influence on diet
 - Foods associated with pleasant memories become favorite foods/ foods with unpleasant memories are avoided
 - Luxury foods = status
 - Individual preferences used to plan therapeutic diet

M.J. Bailey

Factors Influencing Dietary Patterns

5. Psychological factors.

- Individual motivations to eat balanced meals and individual perceptions about diet.
- Food has strong symbolic value.
 - Milk=helplessness.
 - Meat=strength.



M.J. Bailey

Factors Influencing Dietary Patterns

6. Alcohol and drugs

- Excess use contributes to nutritional deficiencies
- Excess alcohol affects GI organs
- Drugs that ↓ appetite ↓ intake of essential nutrients
- Drugs can deplete nutrient stores and ↓ absorption in the intestines

M.J. Bailey

Factors Influencing Dietary Patterns

7. Misinformation and food fads

- Food myths can be the result of cultural background, popular interest in natural foods, peer pressure, or desire to control diet choices
- Fads may involve erroneous beliefs certain foods are esp. Healthy
 - Yogurt better than milk
 - Oysters ↑ sexual potency
- Don't be condescending when giving nutritional guidance

M.J. Bailey

Factors Influencing Dietary Patterns

- *Physical Problems
 - Teeth
 - Loss of neuromuscular control
 - Poor state of health
- *Psychological Problems
 - High point of day
 - Very degrading

M.J. Bailey

Types of Diets

- * **Regular-** (full/house/DAT)
 - Allows client selection
- * **Clear Liquid-** clear, bland ie: broth, gelatin, apple juice (little residue, easily absorbed)
- * **Full Liquid** –foods that liquify at room or body temperature. Easily digested & absorbed.
 - Milk+ creamed, strained soups
 - Pre & post-op patients
 - Those who can't chew or tolerate solids

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Types of Diets

- * **Pureed-** easily swallowed foods, no chewing
- * **Mechanical or Dental Soft-** foods don't need chewing, avoid tough meats & fruits with tough skins
 - Chewing problems
 - Lack of teeth
 - Sore gums

M.J. Bailey



Types of Diets

- * **Soft-** low in fiber, easily digested easy to chew and simply cooked. No fatty, rich or fried foods (*Low Fiber Diet*)
- * **High Fiber-** Sufficient amt. of indigestible carbohydrates to :
 - relieve constipation
 - ↑ GI motility
 - ↑ stool weight

M J Bailey



Types of Diets

- * **Sodium Restricted**
 - Low levels of sodium = NO SALT
 - CHF, Renal failure, cirrhosis, hypertension
- * **Low Cholesterol**
 - Cholesterol intake ↓ 300mg/day
 - Fat intake ↓ 30-35%
 - Eliminate/reduce fatty foods

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Types of Diets

- * **Diabetic**
 - Exchange list of foods
 - Imp. For Type I and Type II

M J Bailey



Types of Diets

- * **Adults usually eat independently but may need to be fed in the presence of physical or cognitive limitations.**
 - Neurological
 - Neuromuscular
 - Orthopedic problems
- * **Loss of control & independence can lead to psychological problems and depression.**

M J Bailey



Terms re Feeding

- * **Dysphagia-** difficulty swallowing
 - Most common cause of aspiration in adults during feeding
- * **Aspiration-** the inhalation of foreign substance into the lungs
 - stroke

M J Bailey



Suspect Dysphagia when client

- * Coughs/ gags during eating
- * Exhibits multiple attempts @ swallowing
- * c/o food getting stuck in throat
- * Poor lip & tongue control

M J Bailey



Feeding the patient with dysphagia

- * Safety – choking/ aspiration
- * Symptoms of dysphagia
 - Coughing, choking, drooling, spilling food (pocketing)
 - Provide food that stimulates swallowing
 - Don't feed too quickly
 - Thickened foods easier to swallow

M J Bailey



Procedure for Feeding

- * Bedpan/washroom first
- * Wash hands
- * Prepare room
- * mid-to-high fowlers
- * Dentures
- * Bib/napkin
- * Prepare tray/food

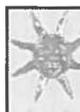
M J Bailey



Procedure for Feeding

- * Relaxed pace
- * Small bites/spoonfuls
- * Rocking motion of utensil on tongue
- * Maintain sitting 15-30 min. pc.

M J Bailey



Indications for Enteral Feeding

- * Clients unable to eat
 - ie: comatose with functional GI system
 - Ventilated patients
 - Post-op oral, head or neck surgery
- * Clients who will not eat
 - Older adults
 - Confused clients
- * Unable to maintain adequate oral nutrition
 - Cancer, sepsis, infection, trauma, head injury

M J Bailey



Intubation

- * Placemnt of a tube into the stomach or intestine through the mouth, nasopharynx, (Nasogastric/Levine), or through an artificial opening made in the abdominal wall of the stomach (gastrostomy) or small intestine (jejunostomy)
- * Nasogastric= short term
- * Gastrostomy= long term, surgically inserted directly into the stomach(gastrostomy) or small intestine (jejunostomy)

M J Bailey



Nasogastric tube

- * Through nose into stomach (infants through the mouth, nostrils too small)
- * Only with a physician's order
- * Ensure correct tube placement
- * Purpose
 - Nutrition for clients with impaired swallowing, unconscious, or inability to ingest food

M J Bailey



Nasogastric tube

- * Small bore tube for tube feeding
- * Large bore tube for stomach decompression and irrigation

Formulas for tube feedings commercially prepared, provide complete nutritional balance and some do not require any digestion

Imp. If necessary to rest the bowel ie: Crohn's Disease

M J Bailey



Tube Feedings

- * Additional water post:
 - Feedings
 - Medications
 - Prescribed times
- * Medications
 - Liquid/ dissolved
 - No enteric coated or time released capsules
 - Do not mix meds with formula. *Give meds. prior to formula*

M J Bailey



Tube feeding schedule

- * Continuous
 - Over 24 hrs
- * Cyclic
 - Prescribed period (ie:16hrs)
- * Bolus
 - Prescribed volume over 30-60 min. 4-6 X/day.
 - Physician orders frequency, amount, & type of feeding

M J Bailey



Problems with tube feeding

- * Dry mouth
- * Sore mouth
- * Thirst
- * Feeling deprived

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Do's and don'ts re tube feeding

- * Do not hurry/force feeding
 - Abdominal distention & discomfort
- * Clean not sterile technique
- * Formula @ room temp.
 - Warm= bacterial growth
 - Cold= gastric cramping & discomfort, liquid is not warmed by the mouth and esophagus

M J Bailey



Do's and don'ts re tube feeding

- * Formula can hang for 8hrs. (check directions)
- * Change tubing q24hrs. Or according to policy
- * Check tube position q8hrs. And ac feeds/meds
- * Clamp b/t feedings
- * 30-60 ml water before and after feedings, meds, residual checks

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Procedure for checking tube placement

- * X-ray- best and most accurate
- * Air insertion and listen with stethoscope
- * Aspirate gastric contents
 - Determines tube placement and checks for digestion of previous feeding (should be less than 50mls) Note -any gastric contents should be returned to the stomach so the chemical balance is not disturbed.
 - Check pH of aspirate with pH paper

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Aspirate pH

- * Stomach is acidic 1-4
- * Intestine is 7 or greater
- * Pleural secretions \uparrow 6
- * Wait at least 1 hr after feedings to check

Feeding is not given if no bowel sounds are heard, abdomen is distended, too much residual, or tube dislodged

M J Bailey



Position for tube feeding

- * Fowlers before and after
 - Prevents aspiration
- * Regulate the flow of the feeding 6mls/min
- * Gravity/ feeding pump
- * Flush tube well post feeding
- * Clamp tube post flushing
- * Intake/output

Avoid introducing air into tubing

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Fluid Intake and Output

- * 3 main sources of fluids and electrolytes
 - Fluids ingested in liquids
 - Food that is eaten
 - H₂O as a byproduct of oxidation of foods and body substances

Total daily intake approximately
2100-2900mls

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Fluid Loss

- * Fluids are lost
 - Skin
 - Lungs
 - Feces
 - Urine output = majority
- * ***Total daily loss = 2100-2900mls***

M J Bailey



Regulation of Body Fluids

- * Fluid Intake primarily regulated by:
 - Thirst mechanism in hypothalamus
- * The thirst mechanism is affected by:
 - \uparrow plasma osmolality
 - \downarrow plasma volume
 - Dry mucus membranes
 - Other factors

M J Bailey



Regulation of Body Fluids

- * Those at risk for dehydration include:
 - Infants
 - Elderly
 - Neurologically impaired
 - Psychologically impaired
- * **Must be conscious and alert**

M J Bailey



Fluid Output

- * Kidneys
- * Lungs
- * Skin
- * GI tract

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Kidneys

- * Major regulators fluid balance
 - ↓ blood flow to kidneys ↓ urinary output
 - Amount of urine produced influenced by ADH & aldosterone (stimulated by changes in blood volume)
 - Urine output = 1.5L/day in adults or 60 mls/hr
 - *Where Na goes H₂O follows*

M J Bailey



Insensible Losses

- * Immeasurable
 - Evaporation through the skin
 - Affected by humidity
 - Lungs
 - Respiratory rate and depth
 - Fever
 - Loss through skin & lungs
- * **Infants lose more H₂O from their skin than adults**

M J Bailey



Sensible Losses

- * Measurable
- * Fluid losses from
 - Urination
 - Defecation
 - Wounds
 - Vomiting
- * Normally GI losses 100mls/day
- * In cases of severe diarrhea, losses may exceed 5,000ml/day

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Intake and Output Measurement

- * Many illnesses cause changes in the body's ability to maintain balance.
- * Require accurate measure In & Out
- * Institution policies
- * **Physician orders**
- * **RN initiates**
- * Data for assessment
- * Monitor patient's condition

M J Bailey



Indications for intake and output

- * Special medications (diuretics)
- * Post-op patients
- * I/V therapy
- * Indwelling catheters
- * Feeding tubes
- * Low oral intake
- * **Intake =output in 48-72hr. period**

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Indications for intake and output

- * Risk for Fluid Volume Deficit
 - Intake < output
- * Risk for Fluid Volume Excess
 - Intake > output

Urine output < 30 mls/hr x 2 consecutive hrs. indicates renal disease or dehydration

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Daily Weights

- * Deficient or Excess
- * Same time each day
- * Same scale
- * Same clothing

Fluid retention can be detected early b/c 5-10lbs of fluid is retained before edema appears.

5 lbs fluid= approx. 2.5 L fluid volume

M J Bailey



Intake Items include

- * Items that are liquid at room temperature
 - H2O, milk, juice, beverages, ice cream, jello, liquid part of soup
- * Tube feedings (not pureed foods, considered solids)
- * I/V fluids
- * Irrigating fluids that are not returned

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Output items

- * Urine
- * Diarrhea
- * Profuse diaphoresis
- * Vomit
- * Drainage from suction devices
- * Wound drainage
- * Bleeding

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Measurement

- * Wear gloves
- * Urine output
 - Mexican hat for females
 - Urinal for males
 - Mls. or cc's
 - Infants, weigh diaper, subtract wt. of dry diaper from wt. of wet diaper. Count # of wet diapers. Be cautious of weight of stool.

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Measurement

- * Patient participation
 - Instructions
 - Explanation
 - Equipment
 - Recording
 - Bedside record- individual items
 - Permanent record- totals for time frame designated by institutional policy Kept on chart.

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Fluids and Electrolyte Balance

- * H₂O – the indispensable nutrient
- * 60% total adult body weight
- * 70-80% total infant body weight
- * Body Fluids
 - H₂O and dissolved substances
 - H₂O major constituent of the body
 - H₂O = *Solvent in which substances are dissolved or suspended*

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Fluids and Electrolyte Balance

- * *Solutes = substances dissolved in a solution*
 - Electrolytes: Na, K, Cl
 - Minerals
 - Glucose
 - Urea
 - Bilirubin

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Functions of the Fluid System

- * Transportation of Nutrients to cells
- * Removing wastes from cells
- * Homeostasis- maintaining a stable physical & chemical environment in the body

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Body Fluid Distribution

- * 2 Basic Compartments
 - Intracellular- inside the cells, must be balanced with extracellular
 - Extracellular- outside the cells, further divided into
 - Interstitial fluid in the spaces b/t cells
 - Intravascular or plasma- liquid portion of blood, watery, colorless fluid portion in which blood cells are suspended
- * Hint: Inter= between
- * Intra= within/ inside

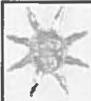
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Fluids and Electrolyte Balance

- * Many solutes in the intracellular fluid compartment are the same as those located in the extracellular fluid space. However the proportion of the substances is different
- * ie: K > intracellular
- * Body fluids & electrolytes shift from compartment to compartment to maintain Homeostasis

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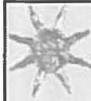


Fluids and Electrolyte Balance

* Homeostasis maintained by:

- Diffusion- solutes from areas \uparrow to \downarrow concentrations across semipermeable membrane until =
 - Remember in diffusion solutes move
- Osmosis- passive movement of fluid from areas with more fluid and fewer solutes to areas with less fluid and more solutes across a membrane
 - Remember in osmosis fluid moves
- Active transport
 - ATP(adenosine triphosphate) pushes against concentration gradient
 - Solutes from \downarrow concentration to \uparrow concentration

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Fluids and Electrolyte Balance

- Filtration-removing particles from a solution by allowing the liquid portion to pass through a membrane (ex. Nephron of the kidney)

*All body fluids contain similar substances although concentration may vary:

- Electrolytes
- Minerals
- Cells

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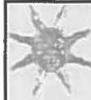


Fluids and Electrolyte Balance

* Electrolytes

- Substances which dissolve in solution
- Split into charged ions
- Conduct an electrical current
- + charged = cations(Na+, K+, Ca+)
- - charged = anions (Cl-)
- Vital for body functioning
 - Neuromuscular
 - Acid/base balance

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Fluids and Electrolyte Balance

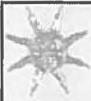
* Minerals

- Ingested
- Catalysts in nerve response, muscle contraction, regulating electrolyte balance

* Cells

- Basic units of all living tissue
- RBC's, WBC's
- Within body fluids

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Fluids and Electrolyte Balance

* Body fluids are not stagnant – fluids and electrolytes shift from compartment to compartment to facilitate body processes such as acid/ base balance.

* K⁺ most abundant intracellular cation

* Na⁺ most abundant in extraellular fluid

* Where Na⁺ goes \rightarrow H₂O follows

* Na⁺ retained \Rightarrow K⁺ excreted

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Variables Affecting Fluid and Electrolyte Balance

* Age

- Infants
 - have more H₂O
 - Greater risk for loss
 - Kidneys immature – not able to concentrate urine
- Elderly
 - Less body H₂O
 - Decreased renal function- not able to concentrate urine

* Body size

- Fat does not contain H₂O
- \downarrow body H₂O in females b/c more fat deposits in breasts and hips , obese have \downarrow body H₂O

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Fluids and Electrolyte Balance

- * Environmental Temperature –
 - ↑ temperature ↑ sweating ↑ fluid loss = loss of Na⁺ and Cl⁻ ions.
- * Life style
 - Inadequate diet-
 - body breaks down glycogen and fat stores.
 - Next destroys protein stores
 - Decrease in serum protein (hypoalbuminemia)
 - Decrease osmotic pressure and fluid shifts from circulating blood to interstitial spaces.
 - Stress-↑ fluid volume
 - Exercise-↑ insensible H₂O losses

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Fluids and Electrolyte Balance

- * Fluid Disturbances
 - Fluid Volume Deficit -H₂O and electrolytes are lost.
 - At Risk
 - Decreased oral intake
 - Vomiting
 - Diarrhea
 - Gastric suction
 - The very young and very old quickly affected by these losses.

M J Bailey



Fluids and Electrolyte Balance

- * Fluid Volume Excess
 - H₂O and Na⁺ are retained = Hypervolemia with unchanged levels of electrolytes
 - At Risk
 - Renal failure
 - CHF

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Fluids and Electrolyte Balance

- * *Healthy bodies maintain a very precise fluid, electrolyte and acid-base balance.*
- * *Factors that can disturb balance*
 - *Insufficient intake*
 - *GI and Kidney function disturbances*
 - *Excessive perspiration or evaporation*
 - *Volume losses*

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**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 5 Topic # 23 **CONSTIPATION, DIARRHEA AND
 IRRITABLE BOWEL SYNDROME**

Semester 3rd
 Hours _____

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. List factors contributing to constipation and diarrhea. 2. Discuss nursing interventions for the client with diarrhea and constipation 2. Explain the symptoms and nursing interventions for irritable bowel syndrome. 3. List specific nursing actions necessary to prevent the spread of C. Difficile infection 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 848-853</p> <p>Refer to Kaplan remediation sections Supplemental Resources: Bristol Stool Form Scale http://bowelcontrol.nih.gov/Bristol_Stool_Form_Scale_508.pdf</p> <p>CONSTIPATION Constipation is a common, yet complex problem; it is especially prevalent among the elderly.</p> <p>Constipation often accompanies pregnancy.</p> <p>Diet, exercise, and daily routine are important factors in maintaining normal bowel patterns.</p> <p>Too little fluid, too little fiber, inactivity or immobility, and disruption in daily routines can result in constipation.</p> <p>Use of medications, particularly narcotic analgesics or overuse of laxatives, can cause constipation.</p> <p>Overuse of enemas can cause constipation, as can ignoring the need to defecate.</p> <p>Psychological disorders such as stress and depression can cause constipation.</p> <p>Because privacy is an issue for most, being away from home, hospitalized, or otherwise being deprived of adequate privacy can result in constipation.</p> <p>Because "normal" patterns of bowel elimination vary so widely from individual to individual, some people believe they are constipated if a day passes without a bowel movement; for others, every third or fourth day is normal.</p> <p>Chronic constipation can result in the development of hemorrhoids; diverticulosis (particularly in the elderly who have a high incidence of diverticulitis); straining at stool, which can cause sudden death; and although rare, perforation of the colon.</p> <p>Constipation is usually episodic, although it can become a lifelong, chronic problem.</p> <p>Because tumors of the colon and rectum can result in obstipation (complete lack of passage of stool), it is important to rule out these possibilities.</p> <p>Dietary management (increasing fluid and fiber) remains the</p>	<p>Lecture Discussion Evaluation: Exam</p>

most effective treatment for constipation.

CAUSES

Constipation usually happens because the colon absorbs too much water from the fecal material. If the chyme moves through the digestive system too slowly, too much water may be absorbed. The bowel movements at the end of the digestive process are then too dry and hard.

Many things can cause or worsen constipation including:

- not eating enough fiber (fruit and vegetables, whole meal bread, high fiber cereals)
- not drinking enough - always drink more when you increase fiber in your diet
- not doing enough exercise
- anxiety, depression, grief
- delaying the urge to go to the toilet
- using laxatives for a long time
- the side effects of some medicines (even some common ones like pain killers or iron tablets)
- pregnancy
- being overweight
- not being able to go to the toilet because of poor mobility
- some nerve diseases
- some bowel problems like hemorrhoids, irritable bowel syndrome, or diverticulitis
- anorectal pain caused by hemorrhoids, fissures (tear in the skin of the anus) or birth trauma,

A slow transit bowel (slowdown in peristalsis) which means it takes longer for the feces to travel all the way to the rectum, so more water is removed over time and constipation is much more likely. This occurs where there is nerve damage such as with stroke, Parkinson's, multiple sclerosis or trauma

Severe constipation is the most common cause of fecal incontinence (or bowel leakage), especially in older people.

This is because hard bowel movements are difficult to pass and may cause a partial blockage high up the bowel, resulting in watery stool flowing around the constipated stool without warning. This is sometimes mistaken for diarrhea.

So, What is considered a "normal" BM? A MD in Bristol UK developed a chart, a visual aid to determine what is normal. Bristol Stool Chart: visual to check what bowel movements should look like. 1-2 constipated, 3-5 normal, 6-7 diarrhea. [http://bowelcontrol.nih.gov/Bristol Stool Form Scale 508.pdf](http://bowelcontrol.nih.gov/Bristol_Stool_Form_Scale_508.pdf)

ASSESSMENT

Assess usual pattern of elimination; compare with present pattern. Include size, frequency, color, and quality.

"Normal" frequency of passing stool varies from twice daily to once every third or fourth day. It is important to ascertain what is "normal" for each individual.

Evaluate laxative use, type, and frequency.

Chronic use of laxatives causes the muscles and nerves of the colon to function inadequately in producing an urge to defecate. Over time, the colon becomes atonic and

distended.

Evaluate reliance on enemas for elimination.

Abuse or overuse of cathartics and enemas can result in dependence on them for evacuation, because the colon becomes distended and does not respond normally to the presence of stool.

Evaluate usual dietary habits, eating habits, eating schedule, and liquid intake.

Change in mealtime, type of food, disruption of usual schedule, and anxiety can lead to constipation.

Assess activity level.

Prolonged bed rest, lack of exercise and inactivity contribute to constipation.

Evaluate current medication usage,

Which may contribute to constipation. Drugs that can cause constipation include the following: narcotics, antacids with calcium or aluminum base, antidepressants, anticholinergics, antihypertensive, and iron and calcium supplements.

Assess privacy for elimination (i.e., use of bedpan, access to bathroom facilities with privacy during work hours).

Many individuals report that being away from home limits their ability to have a bowel movement. Those who travel or require hospitalization may have difficulty having a bowel movement away from home.

Evaluate fear of pain.

Hemorrhoids, anal fissures, or other anorectal disorders that are painful can cause ignoring the urge to defecate, which results over time in a dilated rectum that no longer responds to the presence of stool.

Assess degree to which client's procrastination contributes to constipation.

Ignoring the defecation urge eventually leads to chronic constipation, because the rectum no longer senses, or responds to, the presence of stool. The longer the stool remains in the rectum, the drier and harder (and more difficult to pass) it becomes.

Assess for history of neurogenic diseases, such as multiple sclerosis, Parkinson's disease. Neurogenic disorders may alter the colon's ability to perform peristalsis.

NURSING MANAGEMENT

Encourage daily fluid intake of 2000 to 3000 ml per day, if not contraindicated medically. Clients, especially the elderly, may have cardiovascular limitations, which require that less fluid is taken.

Encourage increased fiber in diet (e.g., raw fruits, fresh vegetables); a minimum of 20 gm of dietary fiber per day is recommended.

Fiber passes through the intestine essentially unchanged. When it reaches the colon, it absorbs water and forms a gel, which adds bulk to the stool, and makes defecation easier.

Encourage client to consume prunes, prune juice, cold cereal, and bean products. These are "natural" cathartics because of their high-fiber content. Prune juice works especially well when warmed.

Encourage physical activity and regular exercise.
Ambulation and/or abdominal exercises strengthen abdominal muscles that facilitate defecation.

Encourage a regular time for elimination. Many persons defecate following first meal or coffee, as a result of the gastro-colic reflex; depending on the person's usual schedule, any time as long as it is regular, is fine.

Encourage isometric abdominal and gluteal exercises to strengthen muscles needed for evacuation unless contraindicated.

Digitally remove fecal impaction. Stool that remains in the rectum for long periods becomes dry and hard; debilitated clients, especially the elderly, may not be able to pass these stools without manual assistance.

Suggest the following measures to minimize rectal discomfort:

Warm sitz bath
Hemorrhoid preparations which shrink swollen hemorrhoidal tissue.

For hospitalized clients, the following should be employed:

Orient client to location of bathroom and encourage use, unless contraindicated.

A sitting position with knees flexed straightens the rectum, enhances use of abdominal muscles, and facilitates defecation.

Offer a warmed bedpan to bedridden clients; assist client to assume a high Fowler's position with knees flexed
Curtain off the area to provide privacy allow client time to relax.

DIARRHEA can be described as an abnormal increase in the frequency, volume or liquidity of your stools. The condition usually lasts a few hours to a couple of days. Diarrhea is typically associated with abdominal cramps due to increase peristalsis.

CAUSES.

Viral infections cause most cases of diarrhea and are typically associated with mild-to-moderate symptoms with frequent, watery bowel movements, abdominal cramps, and a low-grade fever. Viral diarrhea generally lasts about 3 to 7 days.

The following are the common causes of diarrhea caused by viral infections:

rotavirus is a common cause of diarrhea in infants;
Norovirus) is the most common cause of epidemics of diarrhea among adults and school age children.

For example, cruise ship infection, schools, nursing homes, day care facilities, and restaurants); and adenovirus infections are common in all age groups.

Bacterial infections cause the more serious cases of diarrhea. Typically, infection with bacteria occurs from contaminated food or drinks (food poisoning).

Bacterial infections also cause severe symptoms, often with vomiting, fever, and severe abdominal cramps or abdominal pain. Bowel movements occur frequently and may be watery.

The following are examples of diarrhea caused by bacterial infections:

In more serious cases, the stool may contain mucus, pus, or blood. Most of these infections are associated with local outbreaks of disease. Family members or others eating the same food may have similar illnesses.

Foreign travel is a common way for a person to contract traveler's diarrhea.

Campylobacter, salmonellae, and shigella organisms are the most common causes of bacterial diarrhea.

Less common causes are Escherichia coli (commonly called E coli) Yersinia, and listeria.

Use of antibiotics can lead to an overgrowth of Clostridium difficile (C diff) bacteria in the intestines.

Parasites cause infection of the digestive system by the use of contaminated water. Common parasitic causes of diarrhea include Giardia lamblia, and Cryptosporidium.

Intestinal disorders or diseases including inflammatory bowel disease, irritable bowel syndrome (IBS), diverticulitis, microscopic colitis, and celiac disease can cause diarrhea.

Intolerance to foods such as artificial sweeteners and lactose (the sugar found in milk) can cause diarrhea.

Fat malabsorption: Malabsorption of fat is the inability to digest or absorb fat. Fat malabsorption may occur because of reduced pancreatic secretions that are necessary for normal digestion of fat (for example, due to pancreatitis or pancreatic cancer) or by diseases of the lining of the small intestine that prevent the absorption of digested fat (for example, celiac disease or cystic fibrosis).

Undigested fat enters the last part of the small intestine and colon where bacteria turn it into substances (chemicals) that cause water to be secreted by the small intestine and colon. Passage through the small intestine and colon also may be more rapid when there is malabsorption of fat.

Medications that most frequently cause diarrhea are antacids and nutritional supplements that contain magnesium. Other classes of medication that cause diarrhea include:

Nonsteroidal anti-inflammatory drugs (NSAID's)
Chemotherapy medications

Antibiotics—start with yogurt and/or probiotics
Medications to control irregular heartbeats (antiarrhythmics)
Medications for high blood pressure

A few examples of specific medications that commonly cause diarrhea are:

- misoprostol (Cytotec)
- quinidine (Quinaglute, Quinidex)
- olsalazine (Dipentum)
- colchicine (Colchicine)
- metoclopramide (Reglan)
- cisapride (Propulsid, Motilium)

SYMPTOMS

Watery, liquid stools: The stools may be any color. The passage of red stools suggests intestinal bleeding and could be a sign of a more severe infection. The passage of thick, tarry black stools suggests significant bleeding in the stomach or upper portions of the intestine and is not usually caused by acute infections.

Abdominal cramps: Occasionally diarrhea is accompanied with mild-to-moderate abdominal pain. Severe abdominal or stomach pain is not common and, if present, may suggest more severe disease.

Fever: A high fever is not common. If present, the affected person may have a more severe illness than acute diarrhea.

Dehydration: If diarrhea leads to dehydration, it is a sign of potentially serious disease.

Signs and symptoms of dehydration include:

Adults may be very thirsty and have a dry mouth.

The skin of older people may appear to be loose. The elderly may also become very sleepy or have behavioral changes and confusion when dehydrated.

Dehydrated infants and children may have sunken eyes, dry mouths, and urinate less frequently than usual. They may appear lethargic or may refuse to eat or drink.

Danger signs of dehydration in children include:

Hasn't had a wet diaper in three or more hours

Has a fever above 102 F (39 C)

Has bloody or black stools

Has a dry mouth or cries without tears

Is unusually sleepy, drowsy, unresponsive or irritable

Has a sunken appearance to the abdomen, eyes or cheeks, fontanel

Has skin that doesn't flatten if pinched and released

C. DIFFICILE INFECTION

The average human digestive tract is home to millions of microorganisms. Most of them are harmless -- or even helpful -- under normal circumstances.

But when something upsets the balance of these organisms in your gut, otherwise harmless bacteria can grow out of control and make you sick.

S. C. difficile is an anaerobic gram-positive bacteria that produces spores resistant to heat, drying, and many antiseptic solutions.

They are viable outside the gut for five months or longer, *C. difficile* is transmitted from person to person by the fecal-oral route. The virulence of the bacteria and spore resilience makes a CDI one of the most contagious diseases in healthcare facilities.

C. difficile bacteria are found throughout the environment — in soil, air, water, human and animal feces, and food products, such as processed meats. A small number of healthy people naturally carry the bacteria in their large intestine and don't have ill effects from the infection.

However, studies show increasing rates of community-associated *C. difficile* infection, which occurs among populations traditionally not considered high risk, such as children and people without a history of antibiotic use or recent hospitalization.

C. difficile bacteria are passed in feces and spread to food, surfaces and objects when people who are infected don't wash their hands thoroughly.

The bacteria produce spores that can persist in a room for weeks or months. If you touch a surface contaminated with *C. difficile*, you may then unknowingly swallow the bacteria.

Once established, *C. difficile* can produce toxins that attack the lining of the intestine. The toxins destroy cells and produce patches (plaques) of inflammatory cells and decaying cellular debris inside the colon and cause watery diarrhea.

An aggressive strain of *C. difficile* has emerged that produces far more toxins than other strains do. The new strain may be more resistant to certain medications and has shown up in people who haven't been in the hospital or taken antibiotics.

C. difficile infection can range from mild to life-threatening. Symptoms of mild cases include watery diarrhea, three or more times a day for several days, with abdominal pain or tenderness.

Symptoms of more severe *C. diff* infection include:

- Watery, foul smelling diarrhea, up to 15 times each day
- Severe abdominal pain
- Loss of appetite
- Fever
- Blood or pus in the stool
- Weight loss

In some cases, *C. diff* infection can lead to a hole in the intestines, which can be fatal if not treated immediately.

C. diff can be diagnosed by stool specimens tested for the toxins. In some cases, a colonoscopy may be needed for diagnosis and more tests ordered.

Risk Factors for *C. diff*

Although *C. diff* occasionally causes problems in healthy people, it is most likely to affect clients in hospitals or long-term care facilities.

Most have conditions that require long-term treatment with antibiotics, which kill off other intestinal bacteria that keep C. diff in check. While use of any antibiotic can potentially lead to C. diff overgrowth, it most commonly occurs with the use of an antibiotic that is broad-spectrum, or able to kill a wide variety of bacteria.

It also happens more often when multiple antibiotics are needed to fight infection and when the antibiotics need to be taken for a long period of time.

Other risk factors for C. diff infection include:

- Surgery of the gastrointestinal (GI) tract
- Diseases of the colon such as inflammatory bowel disease or colorectal cancer
- A weakened immune system
- Use of chemotherapy drugs
- Previous C. diff infection
- Advanced age -- 65 or older
- Kidney disease
- Use of drugs called proton-pump inhibitors, which lessen stomach acid

Treatments for C. diff

Doctors typically prescribe a 10-day course of one of the following antibiotics: metronidazole (Flagyl), Dificid (fidaxomicin), or vancomycin (Vancocin). Flagyl is usually tried first.

Improvement usually happens within 72 hours after starting antibiotics, but the diarrhea may return temporarily. Another round of antibiotics is needed in about 25% of cases.

In addition to prescribed medications, treatment may include:

Probiotics. Available in most drug and health food stores without a prescription, probiotics are "good" bacteria that colonize in the gut and may help keep C. diff. infection from recurring if taken along with prescribed medicines.

Fluids. Drinking plenty of water and other fluids or getting intravenous fluids can help guard against dehydration from diarrhea.

NURSING ACTIONS

Meticulous hand hygiene—using soap and water—and strict adherence to isolation protocols are therefore the foundation for effective C. difficile transmission prevention.

Hand washing and strict isolation should be observed when caring for clients even after resolution of CDI symptoms, as they are still capable of shedding spores long after clinical symptoms subside.

Typically, regular active cleansing ingredients in hospital disinfectants do not kill spores. The Centers for Disease Control (CDC) currently recommends a bleach-based solutions, for cleaning C. difficile-contaminated environmental surfaces and equipment.

Provided visitors of client/resident are healthy, there is no restriction on visiting, however, the following must be strictly adhered to:

Visitors must be directed to wash their hands with soap and water on entering and leaving the client/resident room

Visitors must use gown and gloves in addition to hand washing if they are providing close personal care.

Visitors must not visit public areas within the facility (unit kitchen, cafeteria, shops/kiosks in main entrance etc.) and SHALL NOT use the client/resident bathroom.

Private room (preferred where possible) , OR

Precautions in a multi-bed room

The client/resident must remain in their room unless attending another department for tests or procedures, however, if the test or procedure can be provided in the room this should be the first consideration

The client/resident must not visit public areas within the Facility (unit kitchen, cafeteria, shops/kiosks in main entrance etc.)

Ensure Contact Precautions sign is displayed at entrance to room /bedside

Dedicate client/resident toilet facilities and attach client/resident identification (e.g. MRN & Bed#)

Dedicate equipment to the client/resident and attach Client/resident identifier.

Equipment not dedicated must be thoroughly decontaminated before being removed from the client/resident 's bed space to be used by another Client/resident.

Ensure clean bed linens are used daily
Linen, garbage and dishes are treated as routine

Housekeeping Cleaning according to facility policy.
On discharge or transfer from the room, or discontinuation of precautions, notify housekeeping that a clean must be completed in a C.Diff room as a terminal cleaning with a bleach solution or bleach based disinfectant.

Periodically cleaning of keyboards on computers, computer stands and the nurse's station should also be done with leach based solutions.

IRRITABLE BOWEL SYNDROME (IBS) occurs when muscles in the large intestine contract faster or slower than normal. This causes pain, cramping, gassiness, sudden bouts of diarrhea, and constipation.

People may have alternating bouts of constipation and diarrhea, or diarrhea-predominant IBS or constipation-predominant IBS. Although the symptoms can be hard to live with, IBS doesn't cause permanent damage to your intestine.

. IBS often starts in teens or young adults, but it can occur at any age and is often associated with stress. It affects almost twice as many women as men.

DIAGNOSIS

Diagnosis is based mainly on clients' symptoms; there is no specific test to diagnose IBS.

SIGNS AND SYMPTOMS may include:

- Cramping pain in your lower abdomen
- Bloating and gas
- Diarrhea or constipation, or bouts of both
- Immediate need to move your bowels when you wake up or during or after meals
- Relief of pain after bowel movements
- Feeling of incomplete emptying after bowel movements
- Mucus in your stool

Up to 60% of people with IBS have psychological symptoms, such as anxiety and depression. Some people with IBS have low levels of the brain chemical serotonin.

IBS may affect how the body is able to absorb nutrients, so that some people may not be getting all of the nutrients they need.

CAUSES

Researchers don't know what causes IBS, and the intestines of people with IBS appear normal when examined. It may be caused by a disturbance in the muscle movement of the intestine or a lower tolerance for stretching and movement of the intestine.

Risk factors may include a low-fiber diet, emotional stress, use of laxatives, a bout of infectious diarrhea, or other temporary bowel inflammation.

Diet is also plays a major role in IBS. Some doctors believe that food allergies cause some cases of IBS, although studies have been mixed.

Fatty foods, artificial sweeteners (sucralose or Splenda and saccharine or Sweet'N Low), chemical additives (dyes and preservatives), red meat, dairy products (such as milk, cheese, and sour cream), chocolate, alcohol, and carbonated beverages (sodas) may trigger or aggravate episodes in some people. Gluten contained in wheat and barley can also be a problem for some people with IBS.

TREATMENT

The goal of treatment is to relieve symptoms. For some people, changing their diet may reduce symptoms. Adding more fiber and avoiding stimulants such as caffeine may help.

Reducing anxiety by getting regular exercise and seeking counseling may also be helpful. Alternative and complementary therapies -- including herbs, supplements, and lifestyle changes -- may help relieve symptoms as well.

DRUG THERAPIES

Anticholinergic medications -- help relax the muscles in the intestine and relive pain from bowel spasm. Anticholinergic drugs include hyoscyamine (Levsin and Levsinex) and dicyclomine (Bentyl).

Antiflatulents -- reduce gas. Antiflatulents include

simethicone (Phazyme or Mylicon).

Antidiarrheal medications -- help decrease and stop diarrhea. Antidiarrheal drugs include loperamide (Imodium) and a combination of diphenoxylate & atropine (Lomotil).

Fiber supplements -- such as psyllium (Metamucil) may help with diarrhea or constipation.

Antidepressants -- may be prescribed to treat pain or depression.

Two drugs are approved specifically to treat IBS. They are used cautiously and only when other treatments have failed.

Lubiprostone (Amitiza) -- increases fluid in the intestine to help speed the passage of stool. It is approved only for women with IBS who predominantly have severe constipation and have failed all other treatments.

Alosetron (Lotronex) -- helps relax the intestine and slow passage of stool. This drug was removed from the market for a while because it was associated with serious side effects. Now it is allowed to be sold only with restrictions. The doctor must be enrolled in a special program to prescribe the drug, and it is approved only for women with IBS who predominantly have diarrhea and have failed all other treatments. Alosetron should not be prescribed for men.

COMPLEMENTARY AND ALTERNATIVE THERAPIES

Irritable bowel syndrome (IBS) is often treated with alternative therapies. Stress reduction techniques, such as biofeedback, hypnosis, dietary changes, or counseling, may help.

NUTRITION

Eating a healthy diet that includes mainly fruits, vegetables, and whole grains may help. If gas is a problem, they may want to avoid beans, cabbage, broccoli, cauliflower, apple juice, grape juice, bananas, nuts, and raisins.

Avoid refined foods such as white breads, pastas, and sugar.

Eat fewer red meats and more lean meats, cold-water fish, tofu (soy, if no allergy) or beans for protein.

Use healthy cooking oils, such as olive oil or vegetable oil.

Reduce or eliminate trans-fatty acids, found in commercially baked goods such as cookies, crackers, cakes, French fries, onion rings, donuts, processed foods, and margarine

Take fiber supplements to help reduce pain, cramping, and gas.

Avoid caffeine, alcohol, chocolate, and tobacco.

Stay away from sugar substitutes (such as sorbitol and mannitol), which can trigger symptoms in some people.

Drink 6 - 8 glasses of filtered water daily.

Exercise 30 minutes daily, 5 days a week.

Supplemental Resources:

1. Bristol Stool Form Scale

[http://bowelcontrol.nih.gov/Bristol Stool Form Scale 508.pdf](http://bowelcontrol.nih.gov/Bristol_Stool_Form_Scale_508.pdf)

Homework

1. Write up weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**

Semester 3rd

Week # 5 Topic # 24

**CROHN'S DISEASE AND
ULCERATIVE COLITIS**

Hours

Page 1 of 6

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe etiology, symptoms, medical and nursing interventions for the client with Crohn's disease. 2. Describe etiology, symptoms, medical and nursing interventions for the client with for ulcerative colitis 2. Make a nursing care plan for a client with a chronic gastrointestinal problem. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 854-860 Refer to Kaplan remediation Supplemental resources Memory Notebook of Nursing handout</p> <p>INFLAMMATORY BOWEL DISEASE (IBD): Collectively known as inflammatory bowel disease (IBD), Crohn disease and ulcerative colitis affect 1.5 million Americans, according to the Crohn's and Colitis Foundation of America.</p> <p>IBD is a disorder that produces chronic, uncontrolled inflammation of the intestinal mucosa, which can affect any part of the gastrointestinal (GI) tract, causing edema, ulceration, bleeding, and profound fluid and electrolyte losses. Crohn disease and ulcerative colitis are collectively known as IBD.</p> <p>When reading about inflammatory bowel diseases, it is important to know that Crohn's disease is not the same thing as ulcerative colitis, another type of IBD. The symptoms of these two illnesses are quite similar, but the areas affected in the gastrointestinal tract are different.</p> <p>Crohn's most commonly affects the end of the small bowel (the ileum) and the beginning of the colon, but it may affect any part of the gastrointestinal (GI) tract, from the mouth to the anus. Ulcerative colitis is limited to the colon.</p> <p>Crohn's disease can also affect the entire thickness of the bowel wall, while ulcerative colitis only involves the innermost lining of the colon. Finally, in Crohn's disease, the inflammation of the intestine can "skip"-- leaving normal areas in between patches of diseased intestine. In ulcerative colitis this does not occur.</p> <p>The underlying cause of IBD isn't clearly understood. However, the research evidence suggests that bacteria and viruses or proteins (antibodies) cause the immune system to overreact and produce inflammation in the GI tract.</p> <p>One antibody is a diagnostic marker for Crohn disease, whereas the other is more likely to be identified in the serum of clients with ulcerative colitis.</p> <p>CROHN'S DISEASE: Primarily seen in adolescents, young adults, and older adults, Crohn disease is an inflammatory disorder affecting mostly the distal ileum and colon.</p> <p>The intestinal lining ulcerates and scar tissue. These areas of ulceration are separated by normal tissue, fistulas, fissures, and abscesses form. The wall of the bowel thickens and becomes fibrotic (hardened), which causes a</p>	<p>Lecture Discussion Evaluation: Exam</p>

narrowing of the bowel lumen-the space through which food passes.

Formation of granulomas, inflammatory masses, occurs in many clients.

Sometimes the lesions have a "cobblestone" appearance. A fibrotic bowel with abscesses and granulomas can lead to obstruction and perforation.

Crohn disease results in the malabsorption of water and nutrients, which may lead to fluid and electrolyte imbalances.

Clients experience abdominal pain and cramping in the right lower quadrant of the abdomen, especially after a meal.

Inflammation in the intestinal mucosa prevents water absorption, and the client may experience more than 10 bloody diarrhea episodes each day.

Anorexia, weight loss, cachexia, weakness, and fatigue are common.

Fever may be present from the inflammatory process and/or infection.

Anemia often results secondary to poor dietary intake and/or absorption of vitamins and nutrients.

Lesions that bleed may also lead to anemia. Bright red blood may be observed in the stool because of bleeding lesions and/or excoriation of the anal mucosa due to the frequency and amount of diarrhea.

Diagnostic endoscopy (colonoscopy and sigmoidoscopy) confirms the presence of intestinal lesions.

A barium study of the upper GI tract will commonly show a constriction of the terminal ileum in the client with Crohn disease. This constriction is known as the "string sign."

SYMPTOMS

Symptoms related to inflammation of the GI tract:

- Persistent Diarrhea
- Rectal bleeding
- Urgent need to move bowels
- Abdominal cramps and pain
- Sensation of incomplete evacuation
- Constipation (can lead to bowel obstruction)

General symptoms that may also be associated with IBD:

- Fever
- Loss of appetite
- Weight Loss
- Fatigue
- Night sweats
- Loss of normal menstrual cycle

Among younger children, Crohn's may delay growth and development.

TREATMENT

Medication

Medication treating Crohn's disease is designed to suppress the immune system's abnormal inflammatory response that

is causing symptoms.

Suppressing inflammation not only offers relief from common symptoms like fever, diarrhea, and pain, it also allows intestinal tissues to heal.

In addition to controlling and suppressing symptoms (inducing remission), medication can also be used to decrease the frequency of symptom flare ups (maintaining remission). With proper treatment over time, periods of remission can be extended and periods of symptom flare ups can be reduced.

Several types of medication are being used to treat Crohn's disease today.

Aminosalicylates (5-ASA)

.These drugs are not specially approved by FDA for use in Crohn's

However, they can work at the level of the lining of the GI tract to decrease inflammation.

They are thought to be effective in treating mild-to-moderate episodes of Crohn's disease and useful as a maintenance treatment in preventing relapses of the disease.

They work best in the colon and are not particularly effective if the disease is limited to the small intestine.

Corticosteroids

Prednisone and methylprednisolone are available orally and rectally. Corticosteroids nonspecifically suppress the immune system and are used to treat moderate to severely active Crohn's disease.

These drugs have significant short- and long-term side effects and should not be used as a maintenance medication..

Immunomodulators

This class of medications modulates or suppresses the body's immune system response so it cannot cause ongoing inflammation.

Immunomodulators generally are used in people for whom aminosalicylates and corticosteroids haven't been effective or have been only partially effective.

They may be useful in reducing or eliminating the need for corticosteroids. They also may be effective in maintaining remission in people who haven't responded to other medications given for this purpose. Immunomodulators may take several months to begin working.

Antibiotics

Antibiotics may be used when infections—such as abscesses—occur in Crohn's disease. They can also be helpful with fistulas around the anal canal and vagina. Antibiotics used to treat bacterial infection in the GI tract include metronidazole, ampicillin, ciprofloxacin, others.

Biologic Therapies

These medications represent the latest class of therapy used for people with Crohn's disease who have not responded well to conventional therapy.

These medications are antibodies grown in the laboratory that stop certain proteins in the body from causing inflammation.

DIET & NUTRITION

For people diagnosed with Crohn's disease, it is essential to maintain good nutrition because Crohn's often reduces appetite while increasing body's energy needs.

Additionally, common Crohn's symptoms like diarrhea can reduce the body's ability to absorb protein, fat, carbohydrates, as well as water, vitamins, and minerals.

Many people who experience Crohn's disease flare ups find that soft, bland foods cause less discomfort than spicy or high-fiber foods.

SURGERY

Even with proper medication and diet, as many as two-thirds to three-quarters of people with Crohn's disease will require surgery at some point during their lives.

While surgery does not cure Crohn's disease, it can conserve portions of their GI tract and return clients to the best possible quality of life.

Surgery becomes necessary when medications can no longer control symptoms, or if they develop a fistula, fissure, or intestinal obstruction.

Surgery often involves removal of the diseased segment of bowel (resection), the two ends of healthy bowel are then joined together (anastomosis). While these procedures may cause symptoms to disappear for many years, Crohn's frequently recurs later in life.

NURSING MANAGEMENT

Provide emotional support to the client and his family.

Schedule client care to include rest periods throughout the day.

If the client is receiving parenteral nutrition, provide meticulous site care.

Give iron supplements and blood transfusion as ordered.
Administer medications as ordered.

Provide good client hygiene and meticulous oral care if the client is restricted to nothing by mouth.

Monitor Electrolytes

Record fluid intake and output, weigh the client daily.

If the client is receiving TPN, monitor his condition closely.

Evaluate the effectiveness of medication administration.

Emphasize the importance of adequate rest.

Give the client a list of foods to avoid, including lactose-

containing milk products, spicy or fried high-residue foods.

Teach the client about the prescribed medications, their desired effects and possible adverse reactions

ULCERATIVE COLITIS:

In ulcerative colitis, inflammation begins in the rectum and extends proximally in an uninterrupted pattern to the proximal colon, eventually involving the entire length of the large intestine.

The rectum is always involved. There are no "skip areas," meaning that the inflammatory lesions are continuous, unlike in Crohn disease.

The intestinal lining ulcerates, bleeds, and becomes thickened and edematous. The bowel narrows and shortens.

Granulomas, perforations, and abscesses can occur. The colon eventually loses its elasticity and its absorptive ability is reduced.

Ulcerative colitis results in malabsorption of water and nutrients, which may lead to fluid and electrolyte imbalances.

Clients experience abdominal cramping pain with diarrhea, nausea, dehydration, weight loss, cachexia, and anemia.

There may be a frequent urge to defecate followed by diarrhea stool that may contain blood.

In fact, the client may experience an average of 5 to 10 diarrhea stools each day that also contain mucus leading to anemia, hypovolemia, and malnutrition.

Anemia is related to active bleeding and poor intake and/or absorption of nutrients. Chronic inflammation tends to destroy mature red blood cells and inhibit the production of new ones by decreasing the production of a hormone called erythropoietin, which stimulates red blood cell production.

Diagnostic endoscopy confirms the presence of intestinal lesions in ulcerative colitis.

A barium enema can be used to identify ulcerations in the mucosa. The "stovepipe sign," which is a rigid shortened appearance of the colon, may be seen during a barium enema in a client with chronic ulcerative colitis.

SYMPTOMS

- bowel movements become looser and more urgent
- persistent diarrhea accompanied by abdominal pain and blood in the stool
- stool is generally bloody
- crampy abdominal pain

People suffering from ulcerative colitis often experience loss of appetite and may lose weight as a result. A feeling of low energy and fatigue is also common. Among younger children, ulcerative colitis may delay growth and development.

The symptoms of ulcerative colitis do tend to come and go, with fairly long periods in between flare-ups in which clients may experience no distress at all. These periods of remission can span months or even years, although symptoms do eventually return.

The unpredictable course of ulcerative colitis may make it difficult for physicians to evaluate whether a particular course of treatment has been effective or not.

TREATMENT

The primary goal in treating ulcerative colitis is to help clients regulate their immune system better.

While there is no known cure for ulcerative colitis and flare ups may recur, a combination of treatment options can help them stay in control of their disease.

Medication are the same as for Crohn's Disease

Diet & Nutrition is the same as for Crohn's Disease

Surgery

In one-quarter to one-third of clients with ulcerative colitis, medical therapy is not completely successful or complications arise.

Under these circumstances, surgery may be considered. This operation involves the removal of the colon (colectomy). Unlike Crohn's disease, which can recur after surgery, ulcerative colitis is "cured" once the colon is removed.

Depending on a number of factors, including the extent of the disease and the client's age and overall health, one of two surgical approaches may be recommended.

The first involves the removal of the entire colon and rectum, with the creation of an ileostomy.

Today, many people are able to take advantage of new surgical techniques, which have been developed to offer another option. This procedure also calls for removal of the colon, but it avoids an ileostomy.

By creating an internal pouch from the small bowel and attaching it to the anal sphincter muscle, the surgeon can preserve bowel integrity and eliminate the need for the client to wear an external ostomy appliance.

NURSING MANAGEMENT

Same as for Crohn's Disease

Supplemental resources

1. Memory Notebook of Nursing – handout

Homework

1. Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 6 Topic # 25 **APPENDICITIS AND PERITONITIS**

Semester 3rd
Hours _____

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe symptoms, nursing interventions for appendicitis 2. Describe, symptoms, nursing interventions for peritonitis. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 861-863 Refer to Kaplan remediation sections</p> <p>Supplemental resources Memory Notebook of Nursing Volume I&II handouts</p> <p>APPENDICITIS: The appendix is a small, finger-like appendage attached to the cecum just below the ileocecal valve. Because the appendix empties into the colon inefficiently and its lumen is small, it is prone to becoming obstructed and is vulnerable to infection (appendicitis).</p> <p>The obstructed appendix becomes inflamed and edematous and eventually fills with pus. It is the most common cause of acute inflammation in the right lower quadrant of the abdominal cavity and the most common cause of emergency abdominal surgery. Although it can occur at any age, it more commonly occurs between the ages of 10 and 30 years.</p> <p>SIGNS AND SYMPTOMS The first symptom is often pain around the belly button. Pain may be minor at first, but becomes more sharp and severe.</p> <p>The pain tends to move into the right lower quadrant. The pain tends to focus at a spot directly above the appendix called McBurney's point. This most often occurs 12 to 24 hours after the illness starts</p> <ul style="list-style-type: none"> · Lower right quadrant pain is usually accompanied by low-grade fever, nausea, and sometimes vomiting. · Rebound tenderness may be present; location of appendix dictates amount of tenderness, muscle spasm, and occurrence of constipation or diarrhea. · Rovsing's sign (elicited by palpating left lower quadrant, which paradoxically causes pain in right lower quadrant). · If appendix ruptures, pain becomes more diffuse; abdominal distention develops from paralytic ileus, and condition worsens. <p>ASSESSMENT AND DIAGNOSTIC METHOD</p> <ul style="list-style-type: none"> · Diagnosis is based on a complete physical examination and laboratory and radiologic tests. · Leukocyte count greater than 10,000/mm³; neutrophil count greater than 75%; abdominal radiographs, ultrasound studies, and CT scans may reveal right lower quadrant density or localized distention of the bowel. <p>GERONTOLOGIC CONSIDERATIONS</p>	<p>Lecture Discussion Evaluation: Exam</p>

In the elderly, signs and symptoms of appendicitis may vary greatly. Signs may be very vague and suggestive of bowel obstruction or another process; some clients may experience no symptoms until the appendix ruptures.

The incidence of perforated appendix is higher in the elderly because many of these people do not seek health care as quickly as younger people.

MEDICAL MANAGEMENT

- Surgery is indicated if appendicitis is diagnosed and should be performed as soon as possible to decrease risk of perforation.
- Administer antibiotics and intravenous fluids until surgery is performed.
- Analgesic agents can be given after diagnosis is made.

COMPLICATIONS OF APPENDECTOMY

- The major complication is perforation of the appendix, which can lead to peritonitis or an abscess.
- Perforation generally occurs 24 hours after onset of pain (symptoms include fever (37.7°C [100°F] or greater), toxic appearance, and continued pain or tenderness).

NURSING MANAGEMENT

- Nursing goals include relieving pain, preventing fluid volume deficit, reducing anxiety, eliminating infection due to the potential or actual disruption of the gastrointestinal tract, maintaining skin integrity, and attaining optimum nutrition.
- Preoperatively, prepare client for surgery, start intravenous line, administer antibiotic, and insert nasogastric tube (if evidence of paralytic ileus). Do not administer an enema or laxative (could cause perforation).
- Postoperatively, place client in semi-Fowler's position, give narcotic analgesic as ordered, administer oral fluids when tolerated, give food as desired on day of surgery (if tolerated). If dehydrated before surgery, administer intravenous fluids.
- If a drain is left in place at the area of the incision, monitor carefully for signs of intestinal obstruction, secondary hemorrhage, or secondary abscesses (eg. fever, tachycardia, and increased leukocyte count).

PERITONITIS is the inflammation of the peritoneum, the membrane lining the abdominal cavity and covering the viscera.

RISK FACTORS

- Bacterial invasion of the peritoneum (ruptured appendicitis or sepsis)
- Chemical irritation (rupture of the bladder, ovary, or fallopian tube)
- Bile spillage (ruptured gallbladder or gangrenous cholecystitis)
- Contamination of the with surgical glove powder, talc, particles of suture material, or lint from surgical drapes
- Penetrating abdominal wound or bowel strangulation

PATHOPHYSIOLOGY

Peritoneal contamination may be localized in an abscess or diffused throughout peritoneum, depending on its origin and on the effectiveness of the client's defenses.

	<p>The infectious process shunts blood to the inflamed area, leading to fluid shifts. Paralytic ileus develops in early stages. As ileus and fluid shifting progress, dehydration and possibly acidosis occur.</p> <p>Life-threatening complications of peritonitis include bowel obstruction, renal failure, respiratory insufficiency, shock and in some cases liver failure.</p> <p>SIGNS AND SYMPTOMS Localized or diffuse abdominal pain with or without guarding</p> <p>Rebound tenderness</p> <p>Rigid and board like abdomen</p> <p>Paralytic ileus process abdominal distention, usually with nausea and vomiting, possibly with diarrhea.</p> <p>Bowel sounds are decreased or absent.</p> <p>Fever, tachycardia, chills</p> <p>Shallow, guarded respirations suggest diaphragmatic involvement</p> <p>Signs of dehydration and acidosis are late indications</p> <p>DIAGNOSIS White blood cell count may reveal leukocytosis and possibly show leukopenia in severe cases.</p> <p>Paracentesis identifies the causative organism</p> <p>Radiograph shows abnormal findings which may reveal location of the perforation</p> <p>TREATMENT Antibiotics. The type and duration of r antibiotic therapy depend on the severity of their condition and the kind of peritonitis the client has.</p> <p>Surgery. Surgical treatment is often necessary to remove infected tissue, treat the underlying cause of the infection and prevent the infection from spreading.</p> <p>Peritoneal Dialysis For the client with peritonitis, their doctor may recommend dialysis in another way for several days while their body heals from the infection. If peritonitis persists or recurs, they may need to stop having peritoneal dialysis entirely and switch to a different form of dialysis.</p> <p>NURSING MANAGEMENT Administer medications, which may include antibiotics, antiemetics, and opioid analgesics Monitor respiratory status closely. Minimize pain. Position the client to maximize comfort. Assess pain frequently. Take steps to reduce and prevent the spread of infections. Provide general preoperative and postoperative care if surgery is indicated.</p>	
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Supplemental resources
Memory Notebook of Nursing Volume I&II handouts

Homework
Write up weekly objectives

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe symptoms, nursing interventions for appendicitis 2. Describe, symptoms, nursing interventions for peritonitis. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Page 861-863 Refer to Kaplan remediation sections</p> <p>Supplemental resources Memory Notebook of Nursing Volume I&II handouts</p> <p>APPENDICITIS: The appendix is a small, finger-like appendage attached to the cecum just below the ileocecal valve. Because the appendix empties into the colon inefficiently and its lumen is small, it is prone to becoming obstructed and is vulnerable to infection (appendicitis).</p> <p>The obstructed appendix becomes inflamed and edematous and eventually fills with pus. It is the most common cause of acute inflammation in the right lower quadrant of the abdominal cavity and the most common cause of emergency abdominal surgery. Although it can occur at any age, it more commonly occurs between the ages of 10 and 30 years.</p> <p>SIGNS AND SYMPTOMS The first symptom is often pain around the belly button. Pain may be minor at first, but becomes more sharp and severe.</p> <p>The pain tends to move into the right lower quadrant. The pain tends to focus at a spot directly above the appendix called McBurney's point. This most often occurs 12 to 24 hours after the illness starts</p> <ul style="list-style-type: none"> · Lower right quadrant pain is usually accompanied by low-grade fever, nausea, and sometimes vomiting. · Rebound tenderness may be present; location of appendix dictates amount of tenderness, muscle spasm, and occurrence of constipation or diarrhea. · Rovsing's sign (elicited by palpating left lower quadrant, which paradoxically causes pain in right lower quadrant). · If appendix ruptures, pain becomes more diffuse; abdominal distention develops from paralytic ileus, and condition worsens. <p>ASSESSMENT AND DIAGNOSTIC METHOD</p> <ul style="list-style-type: none"> · Diagnosis is based on a complete physical examination and laboratory and radiologic tests. · Leukocyte count greater than 10,000/mm³; neutrophil count greater than 75%; abdominal radiographs, ultrasound studies, and CT scans may reveal right lower quadrant density or localized distention of the bowel. <p>GERONTOLOGIC CONSIDERATIONS</p>	<p>Lecture Discussion Evaluation: Exam</p>

In the elderly, signs and symptoms of appendicitis may vary greatly. Signs may be very vague and suggestive of bowel obstruction or another process; some clients may experience no symptoms until the appendix ruptures.

The incidence of perforated appendix is higher in the elderly because many of these people do not seek health care as quickly as younger people.

MEDICAL MANAGEMENT

- Surgery is indicated if appendicitis is diagnosed and should be performed as soon as possible to decrease risk of perforation.
- Administer antibiotics and intravenous fluids until surgery is performed.
- Analgesic agents can be given after diagnosis is made.

COMPLICATIONS OF APPENDECTOMY

- The major complication is perforation of the appendix, which can lead to peritonitis or an abscess.
- Perforation generally occurs 24 hours after onset of pain (symptoms include fever (37.7°C [100°F] or greater), toxic appearance, and continued pain or tenderness).

NURSING MANAGEMENT

- Nursing goals include relieving pain, preventing fluid volume deficit, reducing anxiety, eliminating infection due to the potential or actual disruption of the gastrointestinal tract, maintaining skin integrity, and attaining optimum nutrition.
- Preoperatively, prepare client for surgery, start intravenous line, administer antibiotic, and insert nasogastric tube (if evidence of paralytic ileus). Do not administer an enema or laxative (could cause perforation).
- Postoperatively, place client in semi-Fowler's position, give narcotic analgesic as ordered, administer oral fluids when tolerated, give food as desired on day of surgery (if tolerated). If dehydrated before surgery, administer intravenous fluids.
- If a drain is left in place at the area of the incision, monitor carefully for signs of intestinal obstruction, secondary hemorrhage, or secondary abscesses (eg. fever, tachycardia, and increased leukocyte count).

PERITONITIS is the inflammation of the peritoneum, the membrane lining the abdominal cavity and covering the viscera.

RISK FACTORS

- Bacterial invasion of the peritoneum (ruptured appendicitis or sepsis)
- Chemical irritation (rupture of the bladder, ovary, or fallopian tube)
- Bile spillage (ruptured gallbladder or gangrenous cholecystitis)
- Contamination of the with surgical glove powder, talc, particles of suture material, or lint from surgical drapes
- Penetrating abdominal wound or bowel strangulation

PATHOPHYSIOLOGY

Peritoneal contamination may be localized in an abscess or diffused throughout peritoneum, depending on its origin and on the effectiveness of the client's defenses.

The infectious process shunts blood to the inflamed area, leading to fluid shifts. Paralytic ileus develops in early stages.

As ileus and fluid shifting progress, dehydration and possibly acidosis occur.

Life-threatening complications of peritonitis include bowel obstruction, renal failure, respiratory insufficiency, shock and in some cases liver failure.

SIGNS AND SYMPTOMS

Localized or diffuse abdominal pain with or without guarding

Rebound tenderness

Rigid and board like abdomen

Paralytic ileus process abdominal distention, usually with nausea and vomiting, possibly with diarrhea.

Bowel sounds are decreased or absent.

Fever, tachycardia, chills

Shallow, guarded respirations suggest diaphragmatic involvement

Signs of dehydration and acidosis are late indications

DIAGNOSIS

White blood cell count may reveal leukocytosis and possibly show leukopenia in severe cases.

Paracentesis identifies the causative organism

Radiograph shows abnormal findings which may reveal location of the perforation

TREATMENT

Antibiotics. The type and duration of antibiotic therapy depend on the severity of their condition and the kind of peritonitis the client has.

Surgery. Surgical treatment is often necessary to remove infected tissue, treat the underlying cause of the infection and prevent the infection from spreading.

Peritoneal Dialysis

For the client with peritonitis, their doctor may recommend dialysis in another way for several days while their body heals from the infection. If peritonitis persists or recurs, they may need to stop having peritoneal dialysis entirely and switch to a different form of dialysis.

NURSING MANAGEMENT

Administer medications, which may include antibiotics, antiemetics, and opioid analgesics

Monitor respiratory status closely.

Minimize pain. Position the client to maximize comfort.

Assess pain frequently.

Take steps to reduce and prevent the spread of infections.

Provide general preoperative and postoperative care if surgery is indicated.

Supplemental resources
Memory Notebook of Nursing Volume I&II handouts

Homework
Write up weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 6 Topic # 26 **INTESTINAL OBSTRUCTION**

Semester **3rd**
Hours _____

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss symptoms and nursing management for a client with intestinal obstruction. 2. Discuss five causes of intestinal obstruction. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 863-865 Refer to Kaplan remediation section. Supplemental resource Memory Notebook of Nursing handouts</p> <p>INTESTINAL OBSTRUCTION is a partial or complete blockage of the bowel that prevents the contents of the intestine from passing through.</p> <p>ALTERNATIVE NAMES Paralytic ileus; Intestinal volvulus; Bowel obstruction; Ileus; Pseudo-obstruction - intestinal; Colonic ileus</p> <p>CAUSES Obstruction of the bowel may due to:</p> <p style="padding-left: 20px;">A mechanical cause, which means something is in the way Ileus, a condition in which the bowel doesn't work correctly but there is no structural problem</p> <p>Paralytic ileus, also called pseudo-obstruction, is one of the major causes of intestinal obstruction in infants and children.</p> <p>Causes of paralytic ileus may include: Bacteria or viruses that cause intestinal infections (gastroenteritis) Chemical, electrolyte, or mineral imbalances (such as decreased potassium levels) Complications of abdominal surgery Decreased blood supply to the intestines (mesenteric ischemia) Infections inside the abdomen, such as appendicitis Kidney or lung disease Use of certain medications, especially narcotics</p> <p>Mechanical causes of intestinal obstruction may include: Adhesions or scar tissue that forms after surgery Foreign bodies (eaten materials that block the intestines) Gallstones (rare) Hernias Impacted stool Intussusception (telescoping of one segment of bowel into another) Tumors blocking the intestines Volvulus (twisted intestine)</p> <p>SYMPTOMS Abdominal swelling (distention), abdominal fullness, gas Abdominal pain and cramping Breath odor - sometimes fecal Constipation, Diarrhea, Vomiting</p>	<p>Lecture Discussion Evaluation: Exam</p>

Inability to pass gas

During a physical exam, the health care provider may find bloating, tenderness, or hernias in the abdomen.

DIAGNOSIS

Tests that show obstruction include

- Abdominal CT scan
- Abdominal x-ray
- Barium enema
- Upper GI and small bowel series

TREATMENT

Treatment involves placing an NG tube into the stomach or intestine to help relieve abdominal swelling (distention) and vomiting.

Volvulus of the large bowel may be treated by passing a tube into the rectum.

Surgery may be needed to relieve the obstruction if the tube does not relieve the symptoms, or if there are signs of tissue death.

COMPLICATIONS

Complications may include or may lead to:

- Electrolyte or blood chemistries imbalances
- Dehydration
- Perforation in the intestine
- Infection
- Jaundice

If the obstruction blocks the blood supply to the intestine, it may cause infection and tissue death (gangrene).

Risks for tissue death are related to the cause of the blockage and how long it has been present. Hernias, volvulus, and intussusception carry a higher gangrene risk.

In a newborn, paralytic ileus that destroys the bowel wall (necrotizing enterocolitis) is life-threatening and may lead to blood and lung infections.

NURSING MANAGEMENT

- Allow the client nothing by mouth, as ordered.
- Insert a nasogastric tube to decompress the bowel as ordered.
- Begin and maintain I.V. therapy as ordered.
- Administer analgesics, broad spectrum antibiotics, and other medication, as ordered.
- Keep the client in semi-Fowler's or Fowler's position as much as possible to promote pulmonary ventilation.
- Look for signs of dehydration.
- Monitor nasogastric tube drainage for color, consistency, and amount.
- Monitor intake and output.
- Monitor vital signs frequently.
- When administering medication, monitor the client for the desired effects and for adverse reactions.
- Continually assess the client's pain.
- Monitor urine output carefully to assess renal function, circulating blood volume, and possible urine retention due to

bladder compression by the distended intestine.

Teach the client about his disorder, focusing on his type of intestinal obstruction, its cause, and signs and symptoms.

Emphasize the importance of following a structured bowel regimen, particularly if the client had a mechanical obstruction from fecal impaction.

Supplemental resource
Memory Notebook of Nursing- handouts

Homework
Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 6 Topic # 27 **DIVERTICULAR DISEASE**

Semester 3rd
Hours _____

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Describe etiology, symptoms, medical and nursing interventions for diverticulitis. 2. Develop a teaching plan for the client with diverticulitis, including dietary modifications. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 865-866 Refer to Kaplan remediation sections</p> <p>Supplemental resources: Diverticular Disease, 6:15 min Published on Mar 26, 2012 https://www.youtube.com/watch?v=-LmXLcOZjF0 Critical thinking case study</p> <p>DIVERTICULAR DISEASE in general affects various parts of the intestines and may involve the sigmoid, ascending, descending or transverse colon.</p> <p>Although the exact cause of diverticular disease is not known, it has been linked to a low-fiber diet, red meat consumption and constipation.</p> <p>The most serious form of diverticular disease is diverticulitis because the diverticula become inflamed and may result in infection. Clients with diverticulitis are at risk for developing serious complications including peritonitis, bowel perforation, obstruction, bleeding and abscesses.</p> <p>Diverticulitis is an inflammatory infectious condition that occurs when food or bacteria becomes trapped in the diverticula.</p> <p>Small pouches (diverticula) in the walls of the intestines become inflamed or infected. The exact cause of diverticulitis is not known, but many clients initially develop diverticulosis, which is caused by outpunching (diverticula) in the walls of the intestines.</p> <p>Diverticulosis is a noninflammatory condition that produces mild symptoms, such as abdominal pain or changes in bowel movements, or no symptoms.</p> <p>SYMPTOMS Diverticulosis is not an inflammatory process and its symptoms are generally less serious than those associated with diverticulitis. Common diverticulosis symptoms include: mild to moderate abdominal pain bloating flatulence Irregular defecation.</p> <p>Diverticulitis is often divided into two categories, complicated and uncomplicated.</p> <p>Complicated diverticulitis, which affects 25% of clients with diverticulitis, may be due to bowel perforation, abscess, obstruction or fistula. These clients often require surgery.</p>	<p>Lecture Discussion Evaluation: Exam</p>

Uncomplicated diverticulitis affects approximately 75% of clients with diverticulitis and is most often treated with out-patient medical therapy (e.g., antibiotics, pain meds and liquid diet). However, at least 30% of these clients may eventually require surgical intervention.

Clients with diverticulitis complain of mild to severe left-sided lower abdominal pain that is present for several days prior to admission to a hospital. Other symptoms of diverticulitis include:

- nausea and vomiting
- diarrhea
- constipation
- urinary problems
- weight loss
- anorexia
- elevated white blood count
- Fever and chills.

COMPLICATIONS

The most common complications of diverticulitis are
bowel perforation,
peritonitis,
abscesses,
fistulas,
GI bleeding
Obstructions.

These are medical emergencies that require immediate treatment; most cases require surgical intervention along with intravenous antibiotic therapy, anti-inflammatory agents, dietary restrictions and rest

A **perforation** in the intestinal tract is an opening that allows bacteria to escape from the intestine and spread through the peritoneal cavity.

The most common symptom is abdominal pain over the location of the perforation.

This perforation may cause peritonitis and widespread infection, and the client is at risk for developing septic shocks. **Symptoms of peritonitis** include a rigid, painful abdomen and absent bowel sounds.

An **abscess** is a pus-filled swollen area along the intestinal wall. The client with an intestinal abscess typically develops a fever, elevated white blood cell count and a tender, palpable mass in the affected area.

TREATMENT includes
hospitalization,
IV antibiotics,
possible surgery and
continuous assessment for signs of peritonitis.

A **colovesical fistula** between the bowel and bladder may form, potentially causing fecal matter to enter the bladder and result in a urinary tract infection.

Symptoms of a colovesical fistula include
dysuria,
elevated body temperature,
leakage of gas or fecal material,

nausea and vomiting, and
Abdominal pain.

TREATMENT includes surgical repair and antibiotic therapy.

Bleeding in the lower gastrointestinal tract may occur in diverticulitis as a result of inflammation that spreads through the intestinal wall. Depending on the amount and location of the bleed, clients may experience

bloody stools,
fatigue,
fluid volume deficit, and
a drop in hemoglobin and hematocrit.

TREATMENT may include

surgery,
bowel rest
blood and fluid replacement, and
prevention of hypovolemic shock.

When infections develop, an intestinal obstruction may occur as a result of intestinal wall narrowing.

Partial obstructions cause

abdominal pain,
bloating and
difficult bowel movements with
Thin, ribbon-like stool.

Full obstructions are a medical emergency. These cause the same symptoms, except the client is unable to have bowel movements. Bowel sounds may be high pitched initially, then absent. This condition must be treated immediately, and the client will require NPO status, gastric decompression and most likely surgery.

DIAGNOSIS

Several diagnostic tools can help confirm a diagnosis of diverticulitis.

A

thorough history and physical,

A CT scan with contrast is the gold standard to diagnose diverticulitis.

Barium enemas are sometimes used but have an associated risk of perforation.

Abdominal x-rays are commonly ordered to identify free air from a perforation.

Blood testing can evaluate the client for anemia, infections, inflammation, and fluid and electrolyte imbalances. In acute cases of diverticulitis, Elevated white blood cell count with left shift and Erythrocyte sedimentation rate usually elevated.

SURGICAL TREATMENT

Some clients are candidates for surgery because of multiple, severe attacks of diverticulitis in the course of one or more years;

a narrowed or partially blocked colon;
repeated bleeding in the colon;
an ulcerous opening (fistula) from the colon to nearby tissue or organs.

Clients who need surgery because of complications also include those who have a
diverticulum that has ruptured;
infection that has spread into the abdomen or into the blood;
an obstructed bowel;
Severe bleeding.

In operations to treat these conditions, the surgeon removes the deformed and inflamed portion of the large intestine (an operation called a partial colectomy, sigmoid resection, or segmental resection) and then reconnects the ends of the intestine to

The laparoscopic approach means less blood loss, a shorter hospital stay, quicker healing, less pain, faster recovery (including of bowel function), and more prompt return to activities, when compared to open colon resection. Clients with more extensive inflammation, however, may need a traditional, open operation.

NURSING MANAGEMENT for uncomplicated diverticulitis
Provide measures to rest the colon during an acute exacerbation, which results when food or bacteria in the diverticula cause inflammation.

- Administer nothing by mouth
- Administer IV fluids
- Institute nasogastric suctioning
- Keep the client on bed rest

Help restore the client's normal bowel elimination pattern by administering one or more of the following:

- Bulk laxatives
- Stimulant laxatives
- Stool softeners (typically used for elderly clients because they are gentle and less likely to cause laxative dependence)
- Saline laxatives
- At least 8 oz of water with any agent

Help prevent constipation.

Encourage daily exercise such as walking, which increases bowel peristalsis.

Teach the client about nursing care.

Inform the client that all nursing interventions for diverticulitis are aimed at moving the stool through the colon as easily and with as little irritation as possible.

Administer medications, which may include antibiotics, opioid analgesics, and antispasmodics.

Provide return to normal bowel elimination patterns as symptoms subside.

Slowly increase oral intake until the client is drinking six to eight glasses of water daily.

Offer a low-fiber diet until signs of infection decrease; then gradually increase fiber until the client is eating a high-fiber diet. If a high-fiber diet alone prevents constipation, encourage medication with caution, especially in elderly clients.

Nursing Management of Surgery: review chapter 20

DIET FOR DIVERTICULOSIS

High-fiber diet when you have diverticulosis. Fiber softens the stool and helps prevent constipation. It also can help decrease pressure in the colon and help prevent flare-ups of diverticulitis

High-fiber foods include:

- Beans and legumes
- Bran, whole wheat bread and whole grain cereals such as oatmeal
- Brown and wild rice
- Fruits such as apples, bananas and pears
- Vegetables such as broccoli, carrots, corn and squash
- Whole wheat pasta

If you currently don't have a diet high in fiber, you should add fiber gradually. This helps avoid bloating and abdominal discomfort. The target is to eat 25 to 30 grams of fiber daily.

Drink at least 8 cups of fluid daily. Fluid will help soften your stool. Exercise also promotes bowel movement and helps prevent constipation.

When the colon is not inflamed, eat popcorn, nuts and seeds as tolerated.

DIET FOR DIVERTICULITIS

During flare ups of diverticulitis, follow a clear liquid diet. Your doctor will let you know when to progress from clear liquids to low fiber solids and then back to your normal diet.

A **clear liquid diet** means no solid foods. Juices should have no pulp. During the clear liquid diet, you may consume:

- Broth
- Clear juices such as apple, cranberry and grape. (Avoid orange juice)
- Jell-O
- Popsicles

When you're able to eat solid food, choose **low fiber** foods while healing. Low fiber foods include:

- Canned or cooked fruit without seeds or skin, such as applesauce and melon
- Canned or well cooked vegetables without seeds and skin
- Dairy products such as cheese, milk and yogurt
- Eggs
- Low-fiber cereal
- Meat that is ground or tender and well cooked
- Pasta
- White bread and white rice

After symptoms improve, usually within two to four days, you may add 5 to 15 grams of fiber a day back into your diet. Resume your high fiber diet when you no longer have symptoms.

A Critical Thinking Exercise: A Client with Diverticulitis

Rosaline Ukiah is a 45-year-old married school teacher who has two children. For the past 2 days, she has experienced intermittent abdominal pain and bloating. The pain increased in severity over the past 9 to 10 hours and she developed nausea, lower back pain, and discomfort radiating into the perineal region. Mrs. Ukiah reports having had no bowel movement for the past 2 days. The emergency department nurse, Jasmine Sarino, RN, completes her admission assessment.

ASSESSMENT

Mrs. Ukiah relates a 10-year history of chronic irritable bowel symptoms, including alternating constipation and diarrhea and intermittent abdominal cramping. She states that she thought these symptoms were due to the stress of teaching middle school and that they never became severe enough to seek medical advice. When questioned about her diet, she calls it a typical American high-fat, fast-food diet, usually consisting of a sweet roll and coffee for breakfast, a hamburger or sandwich and soft drink for lunch, and a balanced dinner, usually including meat, a vegetable or salad, and potatoes or pasta, "except on pizza night!"

Physical assessment findings include T 101°F (38.3°C), P 92, R 24, and BP 118/70. Abdomen is slightly distended and tender to light palpation. Bowel sounds are diminished. Diagnostic tests include the following abnormal results: WBC 19,900/mm³ (normal 3500 to 11,000/mm³) with increased immature and mature neutrophils on differential; hemoglobin 12.8 g/dL (normal 13.3 to 17.7g/dL); hematocrit, 37.1% (normal 40% to 52%). Abdominal X-ray films show slight to moderate distention of the large and small bowel with suggestion of possible early ileus. A small amount of free air is noted in the peritoneal cavity. The diagnosis of probable diverticulitis with diverticular rupture is made, and Mrs. Ukiah is admitted to the medical unit for intravenous fluids, antibiotic therapy, and bowel rest.

DIAGNOSIS

The nurses caring for Mrs. Ukiah identify the following nursing diagnoses

- Pain related to inflamed bowel and possible peritonitis
- Risk for deficient fluid volume related to inflammation
- Impaired tissue integrity: Gastrointestinal related to perforated diverticulum
- Deficient knowledge related to disease process and dietary management

EXPECTED OUTCOMES

The expected outcomes for the plan of care specify that Mrs. Ukiah will:

- Verbalize adequate pain relief.
- Experience no adverse effects of prescribed bed rest.
- Maintain adequate fluid balance while hospitalized, as demonstrated by balanced intake and output, stable weight, good skin turgor and mucous membrane moisture, and laboratory values within the normal range.
- Heal adequately without further evidence of peritonitis.
- Verbalize understanding of the recommended high-fiber diet and the need to increase physical activity and fluid intake to promote optimal bowel function at home.

PLANNING AND IMPLEMENTATION

The nurses plan and implement the following nursing interventions for Mrs. Ukiah.

- Assess comfort status frequently, providing analgesics as needed.
- Maintain intravenous infusion as prescribed.
- Measure intake and output; weigh daily
- Provide mouth care every 2 to 4 hours until oral intake resumes, then every 4 hours until client assumes self-care.
- Measure temperature every 4 hours.
- Advance diet from clear liquids to low-residue diet when allowed.
- Provide instruction and dietary consultation for high-fiber diet.

EVALUATION

On discharge, Mrs. Ukiah is afebrile, and her abdomen is flat and only slightly tender to palpation. She is taking food and fluids well and has resumed a normal pattern of bowel elimination. She will continue oral antibiotic therapy for another 2 weeks at home.

She verbalizes an understanding of the need to continue her low-residue diet for the next week, and maintain a high-fiber diet thereafter. She says she is glad her problem turned out to be diverticulosis instead of cancer as she had feared, and states that she can deal with this now that she knows how.

Critical Thinking in the Nursing Process

1. Why was Mrs. Ukiah hospitalized immediately and placed on intravenous fluids and antibiotics?
2. Mrs. Ukiah reports, "I had a small bowel movement of mucus. Is this normal, or is something wrong?" What would be your response?
3. How did Mrs. Ukiah's previous diet contribute to her diverticular disease and diverticulitis? Did the symptoms of irritable bow syndrome also contribute? How?
4. Develop a teaching plan to instruct clients with diverticular disease about dietary recommendations.

Supplemental resources:

1. Diverticular Disease, 6:15 min Published on Mar 26, 2012

<https://www.youtube.com/watch?v=-LmXLcOZjF0>

2. Critical thinking case study

Homework

1. Write up weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 6 Topic # 28 **ABDOMINAL HERNIAS**

Semester 3rd
Hours _____

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BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <p>1. Describe symptoms, medical and nursing interventions for hernias.</p>	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 867-868 Supplemental resources Memory Notebook for Nursing Volume I&II</p> <p>ABDOMINAL HERNIAS An abdominal wall hernia is a protrusion of the intestine through an opening or area of weakness in the abdominal wall.</p> <p style="padding-left: 40px;">An abdominal wall hernia causes a noticeable bulging but little discomfort. The diagnosis is made by physical examination and sometimes ultrasonography or CT scan. Treatment involves surgery to repair the hernia.</p> <p>Abdominal hernias are very common, particularly among men. Hernias are usually named for the area in which they occur.</p> <p>The abdominal wall is thick and tough in most places, so hernias usually occur in an area of weakness where a previous opening has closed. Heavy lifting or straining may make a hernia more obvious but does not cause a hernia to form.</p> <p>Inguinal Hernia: Inguinal hernias appear in the crease of the groin or in the scrotum. They are more common among men. There are two types, direct and indirect, depending on exactly where the hernia occurs.</p> <p>Umbilical Hernia: Umbilical hernias occur around the navel (umbilicus). Many babies have a small umbilical hernia because the opening for the umbilical cord blood vessels did not close completely. In younger children, doctors sometimes monitor umbilical hernias to see whether they close on their own. Some adults have an umbilical hernia because of obesity, pregnancy, or excess fluid in the abdomen (ascites).</p> <p>Femoral Hernia: A hernia may develop just below the crease of the groin in the middle of the thigh where the femoral artery and vein leave the abdomen to go into the leg. This type of hernia is more common among women.</p> <p>Incisional Hernia: Sometimes hernias form through a surgical incision in the abdominal wall. This type of hernia may develop many years after surgery.</p>	<p>Lecture Discussion Evaluation: Exam</p>

Incarceration and Strangulation:

Sometimes, a loop of intestine becomes stuck in the hernia, a condition called incarceration. An incarcerated hernia can block (obstruct) the intestine.

Rarely, the hernia traps the intestine so tightly that it cuts off the blood supply, a condition called strangulation. With strangulation, the trapped piece of intestine can develop gangrene in as few as 6 hours.

With gangrene, the intestinal wall dies, usually causing rupture, which leads to peritonitis (inflammation and usually infection of the abdominal cavity), shock, and, if untreated, death.

SYMPTOMS**Reducible hernia**

It may appear as a new lump in the groin or other abdominal area.

It may ache but is not tender when touched.

Sometimes pain precedes the discovery of the lump.

The lump increases in size when standing or when abdominal pressure is increased (such as coughing).

It may be reduced (pushed back into the abdomen) unless very large.

Incarcerated hernia

It may be an occasionally painful enlargement of a previously reducible hernia that cannot be returned into the abdominal cavity on its own or when you push it.

Some may be chronic (occur over a long term) without pain.

It can lead to strangulation (blood supply being cut off to tissue in the hernia).

Signs and symptoms of bowel obstruction may occur, such as nausea and vomiting.

Strangulated hernia

This is an irreducible hernia in which the entrapped intestine has its blood supply cut off.

Pain is always present, followed quickly by tenderness and sometimes symptoms of bowel obstruction (nausea and vomiting).

The affected person may appear ill with or without fever.

This condition is a surgical emergency.

TREATMENT

In general, all hernias should be repaired unless severe preexisting medical conditions make surgery unsafe. The possible exception to this is a hernia with a large opening. Trusses and surgical belts or bindings may be helpful in holding back the protrusion of selected hernias when surgery is not possible or must be delayed. However, they should never be used in the case of femoral hernias.

Avoid activities that increase intra-abdominal pressure (lifting, coughing, or straining) that may cause the hernia to increase in size.

NURSING MANAGEMENT

Pre-op

Apply a truss only after a hernia has been reduced. For best results, apply it in the morning before the client gets out of bed.

Assess the skin daily and apply powder for protection because the truss may be irritating.

Watch for and immediately report signs of incarceration and strangulation.

Closely monitor vital signs and provide routine preoperative preparation.

After surgery,

Provide routine postoperative care.

Don't allow the client to cough, but do encourage deep breathing and frequent turning.

For inguinal repair: apply ice bags to the scrotum to reduce swelling and relieve pain; elevating the scrotum on rolled towels also reduces swelling.

Administer analgesics as necessary.

In males, a jock strap or suspensory bandage may be used to provide support.

Client teaching

Tell the postoperative client that he'll probably be able to return to work or school and resume all normal activities within 2 to 4 weeks.

No baths, pools or hot tubs for two weeks, shower 24-36 hours after surgery

Explain that he or she can resume normal activities 2 to 4 weeks after surgery.

Remind him to obtain his physician's permission before returning to work or completely resuming his normal activities.

Usually you will be able to drive when you have not needed the narcotic (prescription) pain medications for two days. Rule of thumb: if you can slam on the break without thinking of abdominal pain you can drive.

Before discharge, Instruct him to watch for signs of infection (oozing, tenderness, warmth, redness) at the incision site. Tell him to keep the incision clean and covered until the sutures are removed.

Inform the postoperative client that the risk of recurrence depends on the success of the surgery, his general health, and his lifestyle.

Caution the client against lifting and straining.

(For ventral repair) The first bowel movement may occur anywhere from 1-5 days after surgery – as long as client is not nauseated or having abdominal pain this variation is acceptable.

Some clients also find that they have diarrhea or "loose bowels" for the first days after their hernia repair – in the vast majority of cases, the bowel function normalizes with time. Constipation may also be common due to the pain medication

Some clients find that their hernia "returns" right after surgery. Don't worry – this is a normal feeling and/or appearance. The hernia repair did not fail – the place where the hernia contents was can sometimes fill up with post-operative fluid – this fluid is a normal result of dissection and will usually be absorbed by the body in several weeks.

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Supplemental resources

Memory Notebook for Nursing Volume I&II handout

Homework

Write out weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
 Week # 6 Topic # 29 **CANCER OF THE COLON AND RECTUM**
TOTAL PARENTERAL NUTRITION

Semester 3rd
 Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Discuss the medical and nursing interventions with the client with cancer of the colon and rectum. 2. Describe risk factors and warning signs of colorectal cancer. 3 Identify the access routes for administration of TPN. 4. Describe the assessments involved for clients on TPN 5. State the complications associated with TPN Administration. 6. State how to document TPN administration intervention. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 868-870 TPN Pages 224-225</p> <p>Refer to Kaplan remediation section</p> <p>COLORECTAL CANCER: Colon cancer is cancer of the large intestine (colon). Rectal cancer is cancer of the last several inches of the colon. Together, they're often referred to as colorectal cancers.</p> <p>Most cases of colon cancer begin as small, noncancerous (benign) clumps of cells called adenomatous polyps. Over time some of these polyps become colon cancers.</p> <p>Polyps may be small and produce few, if any, symptoms. For this reason, doctors recommend regular screening tests to help prevent colon cancer by identifying polyps before they become colon cancer</p> <p>COLORECTAL CANCER RISK FACTORS</p> <p>General Age: Although colorectal cancer can occur at any age, the chances of developing the disease dramatically increase after the age of 50.</p> <p>Body Obesity: Being overweight increases your risk of developing colorectal cancer.</p> <p>Genetics Family history of colorectal cancer: Although the reasons are not clear in all cases, inherited genes, shared environmental factors, or a combination of these factors can increase your colorectal cancer risks.</p> <p>Lifestyle</p> <p>Diet: Diets that are high in red and processed meats (e.g., beef, lamb, hot dogs) can increase your colorectal cancer risks. Frying, grilling, broiling or other methods of cooking meats at very high temperatures create chemicals that may also contribute to an increased risk.</p> <p>Inactive lifestyle: Individuals that live a sedentary lifestyle without physical activity have an increased chance of developing colorectal cancer.</p> <p>Smoking: Some of the cancer-causing substances associated with smoking are swallowed and can increase the risk of developing this disease.</p> <p>Alcohol use: Heavy alcohol use can lead to an increased risk of colorectal cancer.</p>	<p>Lecture Discussion Evaluation: Exam</p>

Other Conditions

Personal history of colorectal cancer or polyps:

If you have had colorectal cancer before, you are more likely to develop cancer in other areas of the colon and rectum.

History of inflammatory bowel disease (IBD): Having IBD, including ulcerative colitis and Crohn's disease, increases your chances for developing colorectal cancer.

Type II diabetes: There may be an increased risk for rectal cancer associated with type II diabetes. This condition may also affect the prognosis (outlook).

SYMPTOMS & WARNING SIGNS

In its early stage, colorectal cancer usually produces no symptoms. The most likely **warning signs** include:

A change in your bowel habits, including diarrhea or constipation or a change in the consistency of your stool

Rectal bleeding or blood in your stool

Persistent abdominal discomfort, such as cramps, gas or pain

A feeling that your bowel doesn't empty completely

Weakness or fatigue

Unexplained weight loss

Jaundice sclera

Many people with colon cancer experience no symptoms in the early stages of the disease. When symptoms appear, they'll likely vary, depending on the cancer's size and location in your large intestine

SCREENING

How do you know if you need a colonoscopy?

Are over age 50 without symptoms

Are over age 40 with a family history of colon cancer

Have a change in bowel habits

Have rectal bleeding

Have abdominal pain

DIAGNOSIS

Colonoscopy uses a long, flexible and slender tube attached to a video camera and monitor to view your entire colon and rectum. If any suspicious areas are found, tissue samples for biopsies are taken.

Using multiple CT images to create a picture of the colon. CT colonography, also called virtual colonoscopy, combines multiple CT scan images to create a detailed picture of the inside of the colon.

CBC to identify anemia due to local blood loss

Chemistry panel to determine advanced disease. Elevated liver enzymes may indicate metastasis to the liver.

Carcinoembryonic antigen (CEA) test. If the client's blood CEA level is elevated before surgical removal of the tumor, monitoring postoperative CEA levels can be useful to detect tumor recurrence after resection.

TREATMENT FOR RECTAL CANCER

Surgery is the main treatment for all stages of rectal cancer, although radiation, chemotherapy, or both are often recommended in combination.

Depending on the location, stage and size of the tumor, the doctor will remove the cancer with one of the following methods:

Local excision — This surgical approach is used for very early stage cancers. It involves inserting a tube through the rectum into the colon and removing the cancer, rather than making a cut in the abdominal wall. If the cancer is found in a polyp, the procedure is called a Polypectomy.

Resection and anastomosis — This approach is used for larger and more advanced cancers and involves removing the portion of the rectum containing the cancer, as well as the fatty tissue that surrounds the rectum and contains the lymph nodes. Afterwards, the doctor will sew the colon to the remaining rectum or the anus, during a procedure called an anastomosis.

Resection and colostomy — This approach is used when the rectum cannot be sewn back together. In these cases, a colostomy is performed. The colostomy may be temporary, although if the entire rectum is removed, it is permanent.

Radiation Therapy

Radiation may come as external radiation therapy, or from, called internal radiation therapy, in the intestine area. Radiation can be used alone or in addition to surgery and chemotherapy.

Radiation therapy may be used after surgery to kill any remaining areas of cancer or before surgery to shrink the tumor. Radiation also can be used to prevent cancer from coming back to the place it started and to relieve symptoms of advanced cancer.

Chemotherapy

Chemotherapy may be taken as a pill, or it may be IV. A client may be given chemotherapy through a tube that will be left in the vein while a small pump gives the client constant treatment over a period of weeks.

If the cancer has spread, the client may be given chemotherapy directly into the artery going to the newly infected part of the body.

If the doctor removes all the cancer that can be seen at the time of the operation, the client may be given chemotherapy after surgery to kill any cancer cells that are left.

Biological Treatment

Biological treatment, also called immunotherapy, tries to make your body fight against the cancer. It uses materials made by the body or made in a laboratory to boost, direct, or restore the body's natural defenses against disease.

TREATMENT FOR COLON CANCER

Surgery offers the best chance of cure for colon cancer, but the type and extent depends on the cancer location and stage.

The aim of surgery for colon cancer is to achieve cure, if possible, and to prevent recurrence. Although surgery is the main treatment, it may not be an option for some older adults with other serious health issues, especially cardiovascular or respiratory disease.

The standard surgical treatment for colon cancer is a colectomy (sometimes called a hemicolectomy or segmental resection), which involves removing part of the colon, as well as nearby lymph nodes with primary anastomosis (suturing or stapling the two remaining ends of the intestine together).

To accurately determine the extent of lymph node involvement, the surgeon will remove 12 to 15 lymph nodes and send them for pathologic examination

clients who undergo surgery for colon cancer rarely need a permanent colostomy; however, if the colon was perforated, the client may require a colostomy until the resected area heals.

**Chemotherapy **

Radiation / As above

Targeted therapy with monoclonal antibodies

Targeted therapy, also known as biological therapy, is designed to stop cancer cell growth.

It may be used alone or with chemotherapy.

Monoclonal antibodies are a type of targeted therapy developed to recognize and attack specific structures on cancer cells.

A wave of clinical trials is focusing on the use of these targeted agents to combat colon cancer. Antibodies such as cetuximab and panitumumab, which target epidermal growth factor receptor, and bevacizumab, which targets vascular endothelial growth factor, have been effective against metastatic disease

NURSING MANAGEMENT

General treatment for client undergoing resection with temporary colostomy.

. The goal is to remove the cancer, allow the mucosal tissue time to heal, and then resection the colon in order to return normal bowel function. The newly formed opening of the intestinal tissue through the abdominis muscle is used to create an ostomy.

This is a gastrointestinal stoma, or an artificially made opening of the bowels. This permits the client to retain bowel function while the intestinal tissue heals. The stool is affected by the site of the stoma. An ileostomy will produce a stool with thinner consistency.

Preoperative Preparation

clients are usually given oral antibiotics and a bowel cleanse with a goal to reduce the amount of colonic and rectal bacteria

This therapy is aimed at the prevention of anastomotic leakage of bacteria in addition to decrease the risks of post-op infection and abscess

The nurse usually has a role in verifying that these actions were performed correctly prior to surgery

The nurse can help prepare the client for surgery by offering guidelines on what can be expected from general anesthesia, intubation, and the management of postoperative pain

Post-Surgical Consideration

Careful monitoring of vitals is critical as the client regains consciousness from general anesthesia

Labs will be drawn and should be reviewed to assess for signs of electrolyte imbalance

Fluid overload is also a concern, especially as the client has a history of cardiac issues

The stoma site must be monitored and cared for by using aseptic techniques to prevent infection

The catheter will need to be removed as soon as it's indicated to do so to reduce the risks of a hospital acquired infection.

Due to the length of the procedure, respiratory function will be monitored closely to assess for signs of lung deflation and fluid retention

Long term hormonal replacement therapy may be considered- but the risks and benefits should be considered before a decision is made for this treatment.

Total Parenteral Nutrition (TPN) also called hyperalimentation (HA) is the primary method for providing complete nutrients by the parenteral or IV route.

TPN is indicated for clients with severe burns who are in negative nitrogen balance; clients with GI disorders, when the GI tract needs a complete rest; and clients with debilitating diseases such as metastatic cancer or acquired immunodeficiency syndrome (AIDS).

ASSESSMENT

Obtain baseline vital signs for future comparison.

Confirm baseline weight.

Determine laboratory results. Electrolytes, glucose, and protein levels frequently change during TPN therapy. Early laboratory results are useful for future comparison.

Check urine output. Report abnormal findings.

Read the label on the TPN solution. Compare the solution with the order.

PLANNING

Client's nutrient needs will be met via TPN.

The common complication from TPN therapy infection will be avoided.

NURSING INTERVENTIONS

Check vital signs. Report changes.

Determine body weight and compare with baseline weight.

Monitor laboratory results and report abnormal findings, especially electrolytes, protein, glucose. Compare laboratory changes with the baseline findings.

Measure intake and output. Fluid volume deficit or excess could occur. Because the TPN solution is hyperosmolar, fluid shifts occurs, which can cause osmotic diuresis.

Monitor temperature changes for possible infection or febrile state. Use aseptic technique when changing dressings and solution bottles or bags.

Check blood glucose level periodically. When TPN therapy is started, there may be a transient elevated glucose level until the beta cells adjust to the secretion of insulin. If this occurs, the flow rate of TPN should be started slowly and gradually increased as the blood glucose level decreases. Regular insulin may be added to the TPN fluids to correct elevated glucose levels.

Refrigerate TPN solution that is not in use. High glucose concentration is an excellent medium for bacterial growth.

Monitor the flow rate of TPN. Start with 60 to 80 ml/hour and increase the rate slowly to the ordered level to avoid hyperglycemia.

Have client perform the Valsalva maneuver to avoid air embolism by taking a breath, holding it, and bearing down. If the line is opened to air when changing the solution bag or bottle and IV tubing, an air embolism could occur.

Observe cardiac status because the Valsalva's maneuver can cause cardiac dysrhythmias.

Check signs and symptoms of overhydration, including coughing, dyspnea, neck vein engorgement, or chest rales. Report findings.

Follow the institution's procedure for changing dressing and tubing. Usually, the tubing is changed daily and the dressing is changed every 24 hours for the first 10 days and then every 48 hours thereafter.

Do not draw blood, give medications, or check central venous pressure via TPN line. Results could be invalid.

CLIENT TEACHING

Provide emotional support to client and family before and during TPN therapy.

Be available to discuss client's concerns or refer client to the appropriate health care provider.

Instruct client to notify the health care provider immediately with any discomforts or reactions.

Keep client informed of progress and effectiveness of TPN.

EVALUATION

Evaluate client's positive and negative response to the TPN therapy.

Determine periodically whether client's serum electrolytes, protein, and glucose levels are within desired ranges.

Evaluate nutritional status by weight changes, energy

Homework
Write up weekly objectives

**Palo Verde College Vocational Nursing Program
Lesson Plans**

****CLASS MEETS 1X A WEEK FOR 6.5 HOURS WITH A 40 MINUTE LUNCH AND 10 MINUTE BREAK PER HOUR****

Course Title: **Medical Surgical Nursing II**
Week # 6 Topic # 30 **HEMORRHOIDS**

Semester 3rd
Hours _____

Page 1 of

BEHAVIORAL OBJECTIVES	LESSON-ASSIGNMENT	METHODOLOGY/ STANDARDS
<p>Upon completion of lessons the learner will be able to:</p> <ol style="list-style-type: none"> 1. Contrast conservative treatments with the different surgical procedures used to correct hemorrhoids. 2. Develop a teaching plan for the client with hemorrhoids using over the counter treatment methods. 	<p>Text: Introduction to Medical Surgical Nursing, Timby and Smith. Pages 870 -875</p> <p>HEMORRHOIDS are painful, swollen veins in the lower portion of the rectum or anus. Sometimes referred to as Rectal lump; Piles; Lump in the rectum</p> <p>CAUSES, INCIDENCE, AND RISK FACTORS Hemorrhoids are very common, especially during pregnancy and after childbirth. They result from increased pressure in the veins of the anus. The pressure causes the veins to swell, making them painful, particularly when you are sitting.</p> <p>The most common cause is straining during BMs.</p> <p>Hemorrhoids may be caused by: Straining during bowel movements Constipation Sitting for long periods of time Anal infections Certain diseases, such as liver cirrhosis</p> <p>Hemorrhoids may be inside or outside the body Internal hemorrhoids occur just inside the anus, at the beginning of the rectum. External hemorrhoids occur at the anal opening and may hang outside the anus.</p> <p>SYMPTOMS Anal itching Anal ache or pain, especially while sitting Bright red blood on toilet tissue, stool, or in the toilet bowl Pain during bowel movements One or more hard tender lumps near the anus</p> <p>DIAGNOSIS A doctor can often diagnose hemorrhoids simply by examining the rectal area. If necessary, tests that may help diagnose the problem include:</p> <p>Stool guaiac (shows the presence of blood) Sigmoidoscopy Anoscopy</p> <p>TREATMENT – conservative Over-the-counter corticosteroid creams to help reduce pain and swelling Hemorrhoid creams with lidocaine to help reduce pain Preparation H to shrink the size of hemorrhoid Stool softeners help reduce straining and constipation Witch hazel (applied with cotton swabs) can reduce itching. Tucks Pads, kept in refrigerator</p>	<p>Lecture Discussion Evaluation: Exam</p>

Other steps to reduce this itching include:

- Wear cotton undergarments.
- Avoid toilet tissue with perfumes or colors, use baby wipes instead.
- Try not to scratch the area.

Sitz baths can help. Sit in warm water for 10 to 15 minutes 2-3 times per day

If hemorrhoids do not get better with home treatments, the doctor may try a type of heat treatment to shrink the hemorrhoids. This is called infrared coagulation. This may help avoid surgery.

Infrared photocoagulation (also called coagulation therapy) is a medical procedure used to treat small- and medium-sized hemorrhoids.

During the procedure, the doctor uses a device that creates an intense beam of infrared light. Heat created by the infrared light cause's scar tissue, which cuts off the blood supply to the hemorrhoid.

The hemorrhoid dies, and a scar forms on the wall of the anal canal. The scar tissue holds nearby veins in place so they don't bulge into the anal canal.

Only one hemorrhoid can be treated at a time. Other hemorrhoids may be treated at 10- to 14-day intervals.

This medical procedure may be done with other devices, such as a laser or electrical current that also cut off a hemorrhoid's blood supply.

Infrared photocoagulation is done in a doctor's office

Surgery that may be done to treat hemorrhoids includes rubber band ligation or surgical hemorrhoidectomy. These procedures are generally used for clients with severe pain or bleeding who have not responded to other therapy.

Hemorrhoidectomy

Hemorrhoid surgery is often done in an outpatient clinic or doctor's office, with little or no anesthesia.

Hemorrhoids can be surgically removed using a special stapler or sutures. After the hemorrhoid is removed, you may have stitches that dissolve on their own and gauze packing to reduce bleeding.

Other treatments may include:

- A shot into the hemorrhoid to reduce swelling (sclerotherapy)
- A rubber band around the hemorrhoid to cut off its blood supply
- Shrinking the hemorrhoid with heat, or freeze it with liquid nitrogen
- Minor surgery to treat the hemorrhoid, hemorrhoidectomy

Smaller hemorrhoids may not need surgery.

Most small hemorrhoids can be managed with lifestyle changes and diet.

Your doctor may recommend hemorrhoid surgery if lifestyle and diet changes and medicines have not worked.

Risks for any surgery

- Bleeding
- Infection

Risks for any anesthesia are:

- Reactions to medications
- Breathing problems
- pneumonia
- Heart problems

Risks for hemorrhoid surgery add to the above

- Leaking a small amount of stool (long-term problems are rare)
- Problems passing urine because of the pain

NURSING MANAGEMENT

Administer local anesthetic as prescribed.

As needed, provide warm sitz baths or cold compresses to reduce local pain, swelling, and inflammation.

Provide the client with high fiber diet and encourage adequate fluid intake and exercise to prevent constipation.

Monitor the client's pain level and the effectiveness of the prescribed medications.

Check for signs and symptoms of anal infection, such as increases pain and foul smelling anal drainage.

Teach the client about hemorrhoidal development, predisposing factors, and tests.

Encourage the client to eat high fiber diet to promote regular bowel movement. Stool softener or psyllium daily.

Emphasize the need for good anal hygiene. Caution against vigorous wiping with washcloths and using harsh soaps.

Encourage the use of medicated astringent pads and toilet paper without dyes or perfumes.

Homework:
Write up weekly objectives

Section 2530(f) of the Vocational Nursing Rules and Regulations states:

“The program’s instructional plan shall be available to all faculty.”

Required Action

Provide each Board approved instructor with a copy of the Board approved instructional plan. Provide a dated document with instructor’s signatures verifying each instructor has received a copy of the Board approved instructional plan by **January 16, 2015**.

Resolution

The current faculty have received a copy of the instruction plan submitted to the Board.

The signed acknowledgments are attached. A copy of the signed acknowledgment will be kept in the Department of Nursing faculty files.



Palo Verde College

Department of Nursing and Allied Health

Acknowledge Receipt – Approved Instructional Plan

I have received a copy of Palo Verde College Instructional Plan on December 18, 2014. I had the opportunity to discuss and review the Instruction Plan with the Director and Faculty on December 29, 2014 and January 6, 2015

Signature

Cheryl Bruno- Mofu

1/6/15

Date

Signature

Derek Copple

1/6/15

Date

Section 2530(i) of the Vocational Nursing Rules and Regulations states:

“The school shall evaluate student performance to determine the need for remediation or removal from the program.”

Required Action

Provide a remediation evaluation tool (1) which includes specific objectives to be achieved, dates of follow up and criteria for termination of remediation. **Provide proof of implementation (2) by January 16, 2015.**

Resolution

1. **ATTACHMENT A: REMEDIATION PLAN FOR STUDENT**
2. **Proof of Implementation**

At present, the Nursing Program is on hiatus for the end-of-semester break. Consequently there are no students that require remediation at this time. However, the remediation process has been presented at the Jan. 15, 2015, faculty meeting. Effective at the start of the upcoming semester start (Semester 3), the process will be in effect for all nursing students.



Palo Verde College

Department of Nursing and Allied Health

Remediation Policy Acknowledgment

Purpose

Palo Verde College encourages any student to fully utilize the learning resources available. Students who need clarification of course material are encouraged to contact the course instructor for assistance.

The intent of the Remediation Policy is to provide learning opportunities to those students who require additional assistance to achieve the required 75% standard on individual exams and/or overall course progress.

Policy

At the 4-week, 8-week, and 12-week periods, the instructor will provide written notification to students who are not at 75% mastery of their exams. Exam results will be provided within 7 days following the exam date. The course Lead Instructor will establish the remediation structure for their course.

Students who do not demonstrate 75% mastery at the designated periods are required to adhere to the remediation structure established by the Lead Instructor. Students are responsible to self-identify after receiving an exam result of <75% and to self-direct themselves to contact the Instructor to seek remediation.

By signing, the student acknowledges the intent of the Remediation Policy as well as the responsibility of the instructor and student. If the student requires additional clarification, the student should contact the course instructor immediately.

Student Signature

Date

Student Name (Print)



Palo Verde College

Department of Nursing and Allied Health

Remediation & Follow- up Plan

Date	
Student	Faculty
Issue/Problem Identified	Supportive Evidence of Problem
<input type="checkbox"/> Absenteeism <input type="checkbox"/> Tardiness	
<input type="checkbox"/> Exam Failure	
<input type="checkbox"/> Unprepared for Clinical <ul style="list-style-type: none"> <input type="checkbox"/> Unsatisfactory Plan of Client Care <input type="checkbox"/> Did not research client problems/DX, lab Value, medications, potential complications 	
<input type="checkbox"/> Unsafe Clinical Practice <ul style="list-style-type: none"> <input type="checkbox"/> Did not demonstrate mastery of skills <input type="checkbox"/> Medication Error <input type="checkbox"/> Other 	
<input type="checkbox"/> Noncompliance with Nursing Department Policies	
<input type="checkbox"/> Unprofessional behavior <ul style="list-style-type: none"> <input type="checkbox"/> Violation of confidentiality <input type="checkbox"/> Demonstrates irresponsible behavior <input type="checkbox"/> Communicates ineffectively with clients, staff, faculty and peers. <input type="checkbox"/> Does not follow directions of faculty <input type="checkbox"/> Other 	
<input type="checkbox"/> Other	

<p style="text-align: center;">Plan</p>	<input type="checkbox"/> Improve academic/clinical preparation <input type="checkbox"/> Skills lab remediation <input type="checkbox"/> Attend review session <input type="checkbox"/> Seek Counseling for personal or academic concerns <input type="checkbox"/> Must meet with faculty on a _____ (frequency) basis <input type="checkbox"/> Other
<p style="text-align: center;">Evaluation</p> <input type="checkbox"/> Student met unexpected outcome (s) <input type="checkbox"/> Student did not met unexpected outcome(s)	<p style="text-align: center;">Specify unmet outcomes</p>
<p style="text-align: center;">Follow-Up</p> <input type="checkbox"/> No follow up required <input type="checkbox"/> Follow-up by (date) _____	

Student Signature _____

Date: _____

Instructor Signature: _____

Student Signature _____

Date: _____

Instructor Signature: _____

Student Signature _____

Date: _____

Instructor Signature: _____

Section 2533(f) of the Vocational Nursing Rules and Regulations states:

“All curricular changes that significantly alter the program philosophy, conceptual framework, content, objectives, or other written documentation as required in Section 2526, shall be approved by the Board prior to implementation.”

Required Action

Submit a **copy of the Board-approved instructional plan (1)**, as designated in Violation #2 above and, **verification of intent to follow the plan (2)** as Board approved; and, **submit an instructional calendar (3)** that demonstrates curricular presentation consistent with the Board-approved instructional plan by **January 16, 2015**.

Resolution

1. Board-approved instructional plan: **ATTACHMENT A: BOARD-APPROVED IP, APRIL 1995.**
2. Intent to follow Board-approved IP

As a result of the recent onsite visit by the Nursing Consultants, intensive efforts were made to locate an Instructional Plan. It appears that in 2005 (or so), various areas of content were reconstructed to be stand alone courses so the course could be offered to all students regardless of the discipline. Under the 1995 IP, these content areas were integrated into the nursing curriculum. As a result, the nursing program underwent a structural change in the delivery of content, but the integrity of required nursing content was maintained. For example, growth and development requirement may now be met by completion of *PSY 201 Lifespan Development* or *NUR 114 Understanding Human Growth & Development for LVNs*, whereas under the 1995 IP, it was offered daily along with nursing care content. Other content affected under this course “reorganization” and are now offered as stand alone courses include: growth and development; anatomy and physiology; general psychology; nutrition; and pharmacology.

The April 1995 IP reflects an integrated program with the above courses being taught concurrently with nursing care courses. Under the current structure, the above mentioned courses may be taken at any time it is offered and cannot be taught concurrently or integrated with nursing care courses (Fundamentals or Medical-Surgical). Presently, under the current college processes, reverting to the 1995 curriculum is not immediately possible for the current class.

Consequently, a review and analysis comparing the 1995, 2015 catalog, and current course hours was performed. The data indicated that although the timing of the delivery of content has been modified, the hours dedicated to the content areas meet or exceed the 1995 instructional plan. Again, it is acknowledged there is no evidence of submission to nor approval by the Board.

ATTACHMENT B: COMPARISON OF PALO VERDE COLLEGE CATALOG HOURS AND CURRENT PROGRAM HOURS

3. **Instructional Calendar: ATTACHMENT C: SEMESTER 3 COURSE CALENDAR**

The proposed calendar for the current program structure is provided.

Attachment A

Board-approved Instructional Plan

Attachment A

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<u>Week 1</u>		<u>Week 2</u>		<u>Week 3</u>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Fundamentals of Nursing Health and Microbiology/Universal Precautions	3	Fundamentals of Nursing Enemas	1
Fundamentals of Nursing Introduction to Basic Needs Introduction to Nursing Process	5	Fundamentals of Nursing Basic Human Needs and Patient Education	3	Fundamentals of Nursing Nursing Process/Charting/Reporting	4
Pharmacology Review Basic math	1	Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Fundamentals of Nursing Introduction to Nursing and Allied Health	3
Fundamentals of Nursing CPR and CNA Review	3	Pharmacology Review of Basic Math	1	Pharmacology Systems and Measurements	1
Anatomy and Physiology Body Planes/Sections/Cavities	4	Fundamentals of Nursing CPR and CNA Review	3	Fundamentals of Nursing CPR and CNA Review	3
		Anatomy and Physiology Physiology of Cells	4	Anatomy and Physiology Body Tissues	4
Total	17	Total	18	Total	16
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Orientation to Fundamentals Laboratory CNA Review (lab)	8	Fundamentals of Nursing Universal Precautions (lab) CNA Review (lab)	8	Fundamentals of Nursing Enemas (lab) CNA Review (lab)	8
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

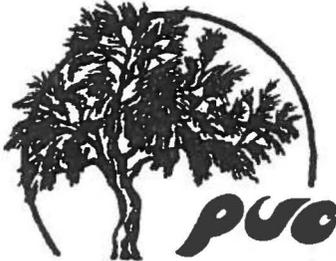
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 4</i>		<i>Week 5</i>		<i>Week 6</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Specimens	1	Fundamentals of Nursing Surgical Asepsis	1	Fundamentals of Nursing Admission and Discharge	1
Fundamentals of Nursing Introduction to Nursing and Allied Health	3	Fundamentals of Nursing Introduction to Nursing and Allied Health	4	Pharmacology Measurement Equipment	1
Pharmacology Conversions	1	Pharmacology Conversions	1	Fundamentals of Nursing CPR and CNA Review and Assessment	3
Fundamentals of Nursing CPR and CNA Review and Assessment	3	Fundamentals of Nursing CPR and CNA Review and Assessment	3	Anatomy and Physiology Muscular System	4
Anatomy and Physiology Integumentary	4	Anatomy and Physiology Skeletal System	4		
Total	12	Total	13	Total	9
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Fundamentals of Nursing Specimens (lab)	2	Fundamentals of Nursing Surgical Asepsis (lab)	2	Fundamentals of Nursing Admission and Discharge (lab)	2
Fundamentals of Nursing Start Clinical	8	Fundamentals of Nursing	8	Fundamentals of Nursing	8
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

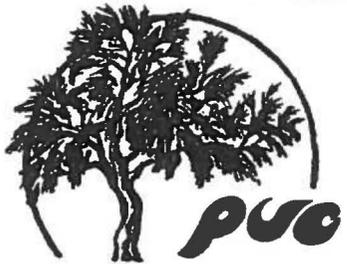
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<u>Week 7</u>		<u>Week 8</u>		<u>Week 9</u>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing Urinary Catherization	1	Fundamentals of Nursing Bladder Irrigation	1	Fundamentals of Nursing Irrigation	1
Pharmacology Interpreting Drug Orders	1	Pharmacology Understanding Drug Labels	2	Fundamentals of Nursing CPR and CNA Review and Assessment Mid Term	2 1
Fundamentals of Nursing CPR and CNA Review and Assessment	3	Fundamentals of Nursing CPR and CNA Review and Assessment	3	Pharmacology Oral Dosage Calculations Mid Term	1
Anatomy and Physiology Nervous System	3	Anatomy and Physiology Nervous System	3	Anatomy and Physiology Special Senses Mid Term	2 1
Total	8	Total	9	Total	8
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Fundamentals of Nursing Urinary Catherization (lab)	2	Fundamentals of Nursing Bladder Irrigation (lab)	2	Fundamentals of Nursing Irrigation (lab)	2
Gerontology	8	Gerontology	8	Fundamentals of Nursing Fundamentals of Nursing	8 7
A&P.....Anatomy and Physiology		NP.....Nursing Process			
CD.....Communicable Diseases		NUT.....Nutrition			
COM.....Communication		PE.....Patient Education			
FUN.....Fundamentals of Nursing		PEDS.....Pediatrics			
G&D.....Growth and Development		PHARM.....Pharmacology			
GER.....Gerontology		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		SUP.....Supervisor			
M/S.....Medical Surgical					

Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week 1-18 First Semester

<i>Week 13</i>		<i>Week 14</i>		<i>Week 15</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Fundamentals of Nursing N/G Feedings	1	Fundamentals of Nursing Care of Terminally Ill	1	Fundamentals of Nursing Post Mortem Care	1
Fundamental of Nursing Meeting Basic Needs of Preoperative Patients	3	Fundamentals of Nursing Meeting the Basic Needs of Pre-Operative Patients	3	Fundamentals of Nursing Meeting the Needs of Post Operative Patients	3
Pharmacology Pediatric Dosage Calculations	1	Pharmacology Pediatric Dosage Calculations	1	Pharmacology IV Calculations	1
Anatomy and Physiology Respiratory System	3	Anatomy and Physiology Digestive System	3	Anatomy and Physiology Urinary System	3
Total	8	Total	8	Total	8
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Fundamentals of Nursing	8	Fundamentals of Nursing	8	Fundamentals of Nursing	8
NG Feedings (lab)	1	Fundamentals of Nursing Care of Terminally Ill (lab)	2	Fundamentals of Nursing Post Mortem Care (lab)	2
Calculation and Administration (lab)	7	Start administration of Medications in clinical areas			
With 2 hour practice lab	2				
A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology LDR.....Leadership MAT.....Maternal Nursing M/S.....Medical Surgical		NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing SUP.....Supervisor			

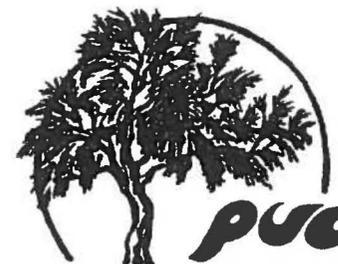
Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 4</i>	<i>Week 5</i>	<i>Week 6</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical Needs of the Person with Communicable Disease/HIV 6 Needs of the Person with Endocrine Problems 3 Pharmacology Drugs for the Musculoskeletal Patient 2 Growth and Development Theories of Human Dev. 1 Nutrition Needs of the Person with Musculoskeletal Problems 1 Psychology Therapeutic Communication 2 Total 12	Medical Surgical Needs of the Person with Communicable Disease/HIV 3 Pharmacology Anti-infectives 2 Growth and Development 1 Theories of Human Development 1 Nutrition Needs of the Person with a Communicable Disease 1 Psychology Therapeutic Communication 2 Total 12	Medical Surgical Needs of Person with Endocrine Problems 6 Pharmacology Drugs for Chemotherapy 2 Growth and Development Theories of Human Dev. 1 Nutrition Needs of the Person with Endocrine Problems 1 Psychology Nurse/Client Relationship 2 Total 12
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Musculoskeletal Disease 5 Communicable Disease 11 *includes medication administration	Medical Surgical Communicable Disease 16 *includes medication administration	Medical Surgical Endocrine 16 *includes medication administration

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NP.....Nursing Process
 NUT.....Nutrition
 PE.....Patient Education
 PEDS.....Pediatrics
 PHARM.....Pharmacology
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 SUP.....Supervisor
 U.....Urinary



Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 7</i>	<i>Week 8</i>	<i>Week 9</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical Needs of the Person with Endocrine Problems 6 Nutrition Meeting Nutritional Needs of Endocrine Problems 1 Pharmacology Drugs for Endocrine Problems 2 Psychology Stress and Adaption 2 G&D Positive and Personal Growth 1 Total 12	Medical Surgical Needs of the Person with Endocrine Problems 3 Needs of the Person with Cardiovascular Problems 3 Pharmacology Drugs for Cardiovascular Problems Psychology Stress and Adaptation 2 Defense Mechanisms Nutrition Meeting Nutritional Needs of Endocrine Pts 1 G&D Positive and Personal Growth 1 Total 12	Medical Surgical Needs of the Person with Cardiovascular Problems 6 Nutrition Meeting Nutritional Needs of Cardiovascular Problems 2 Pharmacology Drugs for Cardiovascular Problems 2 Psychology Maslow Human Needs Theory 2 G&D Positive and Personal Growth 1 Total 12
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Endocrine 16 *includes medication administration	Medical Surgical Endocrine 16 *includes medication administration	Medical Surgical Endocrine 6 Cardio 10 *includes medication administration

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Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 10</i>	<i>Week 11</i>	<i>Week 12</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical Needs of Person with Cardiovascular Problems 6 Pharmacology Drugs for Respiratory Problems 2 Psychology Psychosocial Assessment 2 Nutrition Needs of the Person with Cardio Problems 1 <div style="text-align: right;">Psychology</div>	Medical Surgical Needs of the Person with Cardiovascular Problems 3 Needs of the Person with Urinary Problems 3 Pharmacology Drugs for Neurosensory Problems 2 Nutrition Needs of the Person with Cardiovascular Problems 1 Psychology Group Process 2	Medical Surgical Needs of the Person with Urinary Problems 6 Pharmacology Drugs for Neurosensory Problems 2 Nutrition Needs of the Person with Urinary Problems 1 Psychology Crisis Intervention 2
Total 11	Total 11	Total 11
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Cardiovascular 16 *includes 3 hours medication administration	Medical Surgical Cardiovascular 16	Medical Surgical Cardiovascular 12 Genitourinary 4

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Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 13</i>	<i>Week 14</i>	<i>Week 15</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical Needs of the Person with Urinary Problems 6 Pharmacology Drugs for Gastrointestinal Problems 2 Nutrition Needs of the Person with Genitourinary Problems 1 Psychology Loss and Grief 2 Total 11	Medical Surgical Needs of the Person with Urinary Problems 3 Needs of the Geriatric Person 3 Pharmacology Drugs for Urinary Problems 2 Psychology Concept of Anxiety, Anger, Hostility, Loneliness, Guilt, Powerlessness 2 Nutrition Needs of the Person with Genitourinary Problems 1 Total 11	Medical Surgical Needs of the Geriatric Person 6 Pharmacology Drugs for Integumentary Problems 2 Psychology Client with Special Problems 2 Nutrition Needs of the Geriatric Person 1 Total 11
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Genitourinary 16	Medical Surgical Genitourinary 16	Medical Surgical Genitourinary 18 Geriatric 6

A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology LDR.....Leadership MAT.....Maternal Nursing MED SURG.....Medical Surgical NEURO.....Neurosensory	NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing REPRO.....Reproductive SUP.....Supervisor U.....Urinary
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Palo Verde College
Instructional Plan for Vocational Nursing Program

Nursing Week: Second Semester

<i>Week 16</i>	<i>Week 17</i>	<i>Week 18</i>
Theory Hrs.	Theory Hrs.	Theory Hrs.
Medical Surgical/Gerontology Needs of the Geriatric Client 6 Nutrition Psychology Needs of the Geriatric Client 1 Pharmacology Medications and the Elderly 2 Psychology Therapeutic Plans and Treatments 2	Medical Surgical/Gerontology Needs of the Geriatric Client 2 Needs of the Geriatric Person 1 Pharmacology Medication and the Elderly 2 Psychology Therapeutic Plans and Treatment 2	Medical Surgical Final Exam 1 Final Exam 2 Pharmacology Final Exam 2 Nutrition Final 1
Total 11	Total 7	Total 6
Clinical Hrs.	Clinical Hrs.	Clinical Hrs.
Medical Surgical Geriatric 24	Medical Surgical Geriatric 24	Make-up

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Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 1</i>		<i>Week 2</i>		<i>Week 3</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Respiratory Problems/Trach	6	Needs of the Person with Respiratory Problems	6	Needs of the Person with Respiratory Problems	6
Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2
Growth and Development		Growth and Development		Nutrition	
Life Span Approach	2	Prenatal Development	2	Nutritional Needs of the Respiratory Patient	1
		Growth and Development		Introduction to Developmental Stages	2
Total	10	Total	10	Total	11
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Medical Surgical		Medical Surgical		Medical Surgical	
Respiratory	14	Respiratory	16	Respiratory	16
Trach Care (lab)	1				
A&P.....	Anatomy and Physiology	NEURO.....	Neurosensory		
CD.....	Communicable Diseases	NP.....	Nursing Process		
COM.....	Communication	NUT.....	Nutrition		
FUN.....	Fundamentals of Nursing	PE.....	Patient Education		
G&D.....	Growth and Development	PEDS.....	Pediatrics		
GER.....	Gerontology	PHARM.....	Pharmacology		
GU.....	Genital Urinary	PSY.....	Psychology		
LDR.....	Leadership	REH.....	Rehabilitation Nursing		
MAT.....	Maternal Nursing	REPRO.....	Reproductive		
MED SURG.....	Medical Surgical	SUP.....	Supervisor		

Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

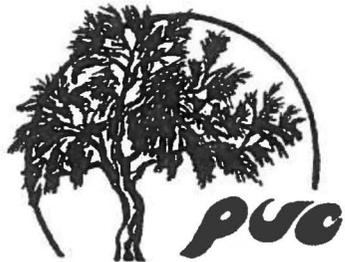
<i>Week 4</i>		<i>Week 5</i>		<i>Week 6</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical		Medical Surgical		Medical Surgical	
Needs of the Person with Gastrointestinal Problems	6	Needs of the Person with Gastrointestinal Problems	6	Needs of the Person with Gastrointestinal Problems	6
Needs of the Person with Reproductive Problems	2	*includes fluid and electrolyte problems		*includes fluid and electrolyte problems	
		Needs of the Person with Reproductive Problems	2	Needs of the Person with Reproductive Problems	2
Growth and Development		Growth and Development		Growth and Development	
Infancy and Basic Trust	2	Childhood: Toddler and Preschool	2	Childhood: School Age	2
				Nutrition	
				Needs of the person with GI/Fluid and Electrolyte Problems	1
Total	10	Total	10	Total	11
Clinical	Hrs.	Clinical	Hrs.	Clinical	Hrs.
Medical Surgical Gastrointestinal	16	Medical Surgical Gastrointestinal	16	Medical Surgical Gastrointestinal	16

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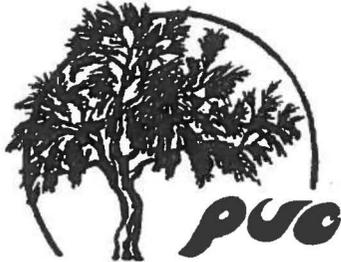
Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 7</i>		<i>Week 8</i>		<i>Week 9</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Needs of the Person with Maternal Problems 5 Needs of the Person with Reproductive Problems 2 Growth and Development Preadolescent and Adolescent 3 Nutrition Needs of the Person with GI/Fluid and Electrolyte 1		Medical Surgical Needs of the Person with Maternal Problems 4 Needs of the Person with Reproductive Problems 2 Growth and Development Young Adulthood 2 Nutrition Needs of the Person with Maternal Problems 1		Medical Surgical Pediatric Problems of Infants and Toddlers 6 Needs of the Person with Reproductive Problems 2 Growth and Development Mid Term Exam 1 Nutrition Needs of the Person with Reproductive Problems 1	
Total	11	Total	9	Total	10
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Maternal Nursing 16		Maternal Nursing 24		Nursery 24	
A&P.....Anatomy and Physiology CD.....Communicable Diseases COM.....Communication FUN.....Fundamentals of Nursing G&D.....Growth and Development GER.....Gerontology GU.....Genital Urinary LDR.....Leadership MAT.....Maternal Nursing MED SURG.....Medical Surgical		NEURO.....Neurosensory NP.....Nursing Process NUT.....Nutrition PE.....Patient Education PEDS.....Pediatrics PHARM.....Pharmacology PSY.....Psychology REH.....Rehabilitation Nursing REPRO.....Reproductive SUP.....Supervisor			

Palo Verde College
Instructional Plan for Vocational Nursing Program
Semester

Nursing Week: Third Semester

<i>Week 16</i>		<i>Week 17</i>		<i>Week 18</i>	
Theory Hrs.		Theory Hrs.		Theory Hrs.	
Medical Surgical Rehabilitation	3	Medical Surgical Supervision/Review	4	Medical Surgical Finals	2
Medical Surgical Leadership	3	Growth and Development Review	1	Growth and Development Finals	1
Growth and Development Dysfunctional Abusive Behavior: Elderly	2				
Total	8	Total	5	Total	3
Clinical Hrs.		Clinical Hrs.		Clinical Hrs.	
Medical Surgical Leadership	24	Medical Surgical Supervision	24	Makeup	
A&P.....Anatomy and Physiology		NEURO.....Neurosensory			
CD.....Communicable Diseases		NP.....Nursing Process			
COM.....Communication		NUT.....Nutrition			
FUN.....Fundamentals of Nursing		PE.....Patient Education			
G&D.....Growth and Development		PEDS.....Pediatrics			
GER.....Gerontology		PHARM.....Pharmacology			
GU.....Genital Urinary		PSY.....Psychology			
LDR.....Leadership		REH.....Rehabilitation Nursing			
MAT.....Maternal Nursing		REPRO.....Reproductive			
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Palo Verde College Vocational Nursing Program

Course #	Course Title	Hours / PVC Catalog	Hours / Current
NUR 102	Intro to Anatomy and Physiology for Allied Health	54	54
PSY 101	General Psychology	54	54
PSY 201	Human Growth and Development	54	54
NUR 117	Nutrition	27	27
NUR 103	Intro to Pharmacology	27	27
NUR 120	Fundamentals of Nursing – Lecture	104	108
NUR 121	Fundamentals of Nursing – Clinical	256	288
NUR 106	Pharmacology II	27	27
NUR 109	Medical-Surgical Nursing I – Lecture	104	108
NUR 124	Medical-Surgical Nursing I - Clinical	256	288
NUR 112	Medical-Surgical Nursing II – Lecture	104	108
NUR 127	Medical-Surgical Nursing II - Clinical	384	432
	Total	1451	1575

The Nursing Program has permission to increase instruction hours to meet learning objectives to meet BVNPT theory and clinical requirements. Consequently, the discrepancy between catalog hours and actual program hours always indicates an increase in the nursing program hours.

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ATTACHMENT C-1



Department of Nursing and Allied Health
Semester 1-Template

Theory 108
 Clinical 288
 Total 396

	Monday	Tuesday	Wednesday	Thursday	Friday
		Theory 8:30a to 15:00 p	Clinical 06;30a to 1500p/Evenings 14:00 to 22:30 p (hours vary depending on clinical rotation)		
Week 1 T – 6 C -16		Historic/Definitions Nursing Nurse Practice Trends Cultural Diversity Concept of Health, Wellness, Disease	Clinical	Clinical	
Week 2 T – 6 C – 16		Maslow’s hierarchy Family Structure Community Nursing Knowledge /Theory Ethics /Legal	Clinical	Clinical	
Week 3 T – 6 C- 16		Healthcare Settings/Types of care Admission/Discharge Planning	Clinical	Clinical	
Week 4 T- 6 C- 16		Nursing Process	Clinical	Clinical	

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 5 T - 6 C - 16		Outcomes/ Nursing DX Interventions Implementation	Clinical	Clinical	
Week 6 T - 6 C - 16		Evaluation Nursing Process QI Documentation Confidentiality Patient Records	Clinical	Clinical	
Week 7 T - 6 C - 16		Growth & Development Common Theories Differences Across the Life Span	Clinical	Clinical	
Week 8 T - 6 C - 16		Communication & Techniques	Clinical	Clinical	
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 9 T - 6 C - 16		Physiological Process & Assessment Health Hx. Physical Assessment	Clinical	Clinical	
Week 10 T - 6 C - 16		Safety Infection Control	Clinical	Clinical	

Week 11		Alternative/Allopathic Medicine Surgical Experience Pre-Op & Post-Op	Clinical	Clinical	
T - 6 C - 16					
Week 12		Personal Hygiene Wound Healing	Clinical	Clinical	
T - 6 C - 16					
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 13		Skeletal, Muscular, Nervous System Exercise Sleep Pain	Clinical	Clinical	
T - 6 C - 16					
Week 14		Urinary System Assessment & Testing Bowel Habits Respiratory Basics	Clinical	Clinical	
T - 6 C - 16					
Week 15		Self-Concept/Esteem Stress	Clinical	Clinical	
T - 6 C - 16					

Week 16 T- 6 C- 16		Types of Loss/ Grief Dying Factors	Clinical	Clinical	
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 17 T - 6 C - 16		Basic Male and Female Reproductive Sexuality	Clinical	Clinical	
Week 18 T - 6 C - 16		Review	Clinical	Clinical	Final



Palo Verde College

Department of Nursing and Allied Health

Semester 2-Template

Theory 108
Clinical 288
Total 396

	Monday	Tuesday	Wednesday	Thursday	Friday
		Theory 8:30a to 15:00 p	Clinical 06;30a to 1500p/Evenings 14:00 to 22:30 p (hours vary depending on clinical rotation)		
Week 1 T – 6 C -16		Integumentary System Intro and assessment Pressure Ulcers Diagnostic Test – Skin Medical – Surgical Techniques for skin Skin Disorders	Clinical	Clinical	
Week 2 T – 6 C – 16		Musculoskeletal System Intro and assessment Diagnostic/Laboratory Assessment Splints, Braces, Casts Joint Replacements Contusions, Sprain, FX	Clinical	Clinical	
Week 3 T – 6 C- 16		Infection Control Immune System Immune System Disorder Aids	Clinical	Clinical	
Week 4 T- 6 C- 16		Pathophysiology Cancer Factors and Warning Signs TX, Methods of Managing Nursing Process –CA	Clinical	Clinical	

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 5 T - 6 C - 16		Hematopoietic/Lymphatic System Intro Physical Assessment Laboratory and Diagnostic tests	Clinical	Clinical	
Week 6 T - 6 C - 16		Endocrine System Intro Physical Assessment Endocrine Laboratory/Diagnostic	Clinical	Clinical	
Week 7 T - 6 C - 16		Endocrine System Disorders	Clinical	Clinical	
Week 8 T - 6 C - 16		Diabetes Mellitus Laboratory Methods Hypo and Hyperglycemia	Clinical	Clinical	

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 9 T - 6 C - 16		Mid-term Exam	Clinical	Clinical	

Week 10		Cardiovascular Intro Physical Assessment Diagnostic Tests Cardiovascular Disorders	Clinical	Clinical	
T - 6 C - 16					
Week 11		Common dysrhythmia and TX. Pacemaker Cardiovascular Disorders Nursing Management	Clinical	Clinical	
T - 6 C - 16					
Week 12		Hematology Intro Blood Groups/Transfusion Laboratory/Diagnostic Nursing Management	Clinical	Clinical	
T - 6 C - 16					

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 13		Hematology Cont. Hematology Disorders	Clinical	Clinical	
T - 6 C - 16					
Week 14		Urinary and Renal Disease Intro Lab and Diagnostic Urinary & Renal Disorders	Clinical	Clinical	
T - 6 C - 16					
Week 15		continued	Clinical	Clinical	
T - 6 C - 16					
Week 16		Psychosocial Disorders Intro	Clinical	Clinical	

T- 6 C- 16		Nursing Management Types of Drugs Risk for Suicide			
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 17 T - 6 C - 16		Psychosocial Problems Alcohol and Substance Abuse, Tobacco Alzheimer's Schizophrenia	Clinical	Clinical	
Week 18 T - 6 C - 16		Review	Clinical	Clinical	Final Exam



Palo Verde College
 Department of Nursing and Allied Health
Semester 3 Template

ATTACHMENT C-3

Theory	108
Clinical	432
Total	540

	Monday	Tuesday	Wednesday	Thursday	Friday
	Theory Class 8:30 am to 15:00 pm	Clinical Days: 6:30am to 1500 pm / Evenings 14:00pm to 21:30 pm Schedule depends on facility rotation)			
Week 1	Respiratory Intro Assessment	Clinical	Clinical	Clinical	
T- 6	Upper Respiratory disorders				
C- 24	Laryngeal CA Bronchitis/Pneumonia				
Week 2	Pulmonary TB COPD/Asthma	Clinical	Clinical	Clinical	
T- 6	Cystic Fibrosis				
C- 24	Pulmonary Hypertension				
Week 3	Respiratory Malignant Respiratory Failure	Clinical	Clinical	Clinical	
T- 6	Thoracic Trauma				
C- 24	Chest Tubes Thoracic Surgery				
Week 4	GI Intro/ Assessment	Clinical	Clinical	Clinical	
T 6	Anorexia, N&V				
Clinical 24	Tube Feedings GERD, Hiatal Hernia Esophagus CA				

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 5	Gastric/Peptic Ulcer CA of Stomach	Clinical	Clinical	Clinical	
T- 6 C- 24	Constipation/Diarrhea/IBS Crohn's /Ulcerative Colitis				
Week 6	Ileostomy/Colostomy Disorders of Liver	Clinical	Clinical	Clinical	
T- 6 C- 24	Disorders of Gallbladder Disorders of Pancreas				
Week 7	Nervous System Intro Assessment	Clinical	Clinical	Clinical	
T-6 C-24	CNS & PNS Disorders				
Week 8	CNS & PNS Disorder cont. Cerebrovascular Disorders	Clinical	Clinical	Clinical	
T- 6 C- 24	Head Injury				
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 9	Sensory System Intro /Assessment	Clinical	Clinical	Clinical	
T- 6 C - 24	Infections/Inflammation of the eye Disorders of the eye Disorders of the ear				
Week 10	Female Reproductive Overview & Disorders	Clinical	Clinical	Clinical	
T- 6 C- 24	Male Reproductive Overview				

Week 11	Female Reproductive cont Inflammatory disorders . Structural Abnormalities Tumors Breast Disorder	Clinical	Clinical	Clinical	
T-6 C-24					
Week 12	Male Reproductive cont. Structural Disorders Infectious/Inflammatory Disorders Normal Process of Labor & Delivery Intrapartum Nursing Care	Clinical	Clinical	Clinical	
T- 6 C – 24					
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 13	Pediatric	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	
T- 6 C- 24					
Week 14	History Maternity Nursing Nursing & Statistics Female Reproductive Prenatal Care & Education Pain Management Nutrition, Exercise Pain Management	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	
T- 6 C- 24					
Week 15	Obstetrics Procedures Intrapartum Postpartum	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	
T- 6 C- 24					

Week 16 T- 6 C- 24	Pediatric	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	
	Monday	Tuesday	Wednesday	Thursday	Friday
Week 17 T- 6 C- 24	Pediatric	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	Clinical Maternal & Pediatric Rotation	
Week 18 T-6 C- 24	Styles of Leadership Generational Divides Team Leading Management/ Stress/Burnout	Clinical –Skills Lab	Clinical –Skills Lab	Clinical –Skills Lab	

Section 2533(f) of the Vocational Nursing Rules and Regulations states:

“Schools are responsible for the continuous review of clinical facilities to determine if the student’s clinical objectives for each facility are being met.”

Required Action

Provide the Board with a **clinical facility evaluation tool (1)** and a **timeline for evaluating (2)** all Board approved clinical facilities by **January 16, 2015**.

Resolution

1. **ATTACHMENT A: CLINICAL FACILITY EVALUATION TOOL**
2. **ATTACHMENT B: STATUS (TIMELINE) FOR COMPLETING BOARD-APPROVED CLINICAL FACILITIES**



CLINICAL FACILITY EVALUATION

Instructor _____ Facility _____ Rotation Dates _____

Directions

- 1. The evaluation is to be completed by each faculty person who supervised students at the facility.**
2. Provide a general statement regarding the experience and recommendations to improve facility relations or the student experience at the facility.
3. The faculty must also review the student feedback and meet with PD to discuss areas of concern (rating 3 or less) and areas of strength for use of the clinical site.
4. Forward the completed CLINICAL FACILITY EVALUATION form to the Program Director.
5. Reminder: Faculty must report any incident raised by the clinical site as soon as possible after it has occurred. The PD will determine if immediate intervention with the site is warranted.

SECTION I

Note: Any rating of "No" requires a comment.

TOPIC	1 = Yes 3 = Sometimes 5 = No	Comments
The environment was clean and provides for student/patient safety.		
Supplies are readily available.		
Facility staff appear aware of course clinical objectives.		
Staff are willing to assist students.		
Staff provide good care to patients and are good role models.		
Staff appear to promote the well-being of patients and are advocates when necessary.		
Facility policies/procedures and safety manuals are available for student use.		
Staff shows respect for students.		
Additional comments/recommendations:		

SECTION II Student evaluations reviewed? Yes No

SECTION III Issues/Concerns

Issue/Concern	Recommendation	Resolution/Follow-Up

Status of Clinical Facility Evaluations

As of January 15, 2015

Facility Name	Clinical Group	Annual/ Post Rotation	Status
Blythe Family Clinic	Sem 3 -Mat & Peds	Annual Post-rotation	Confirmed Thur, Jan 20, 10 am June 2015
Blythe Nursing Care Center	Sem Varies	Annual Post-rotation	Confirmed Jan 20, 12 pm
Desert Urgent Care	Sem 2 -Med-Surg	Post-Rotation Annual	Completed By March 15
Indian Health Service – Parker Unit	Sem All – Med Surg	Annual or Post-Rotation	No appt for 30 days (undergoing renovation)
John F Kennedy Memorial Hospital (JFK)	Sem 2 -Med-Surg Sem 3 – Mat & Peds	Post-rotation Annual	Completed – Sem 2 By Mar 15
La Paz Regional Hospital	Sem 1-3 - Med-Surg	Post Rotation Annual	Completed Confirmed Jan 16, 12:30 pm
Palo Verde Child Care Center (Headstart)	Peds	Post-rotation Annual	June 2015 Confirmed Jan 21, 2:45 pm
Palo Verde College Child Development Center	Peds	Post-rotation Annual	June 2015 Confirmed Jan 21, 12 pm
Sheltering Wings	Sem 1 - Med-Surg	Post-rotation Annual	December 2015 Confirmed Jan 21, 4 pm

Section 2535 of the Vocational Nursing Rules and Regulations

“Each school shall have a policy, approved by the Board for giving credit toward the curriculum requirements.”

Required Actions

Provide the Board with the following forms to be utilized to evaluate credit for previous education as prescribed by regulation by January 9, 2015.

1. **Required Action:** Create a document that will be utilized to inform students of the school’s Board approved credit granting policy in which the student may choose to have their credit evaluated or decline.

Resolution: Attachment A: Credit Granting Policy

Palo Verde College has an established credit granting policy in which the College Admissions reviews all requests and grants credit for non-nursing courses. Requests for credit granting for nursing courses are forwarded to the Program Director for review. Courses are reviewed for critical elements that include: theory hours, clinical hours, skill competencies, and content areas. The policy and procedure has now been formalized to include additional documentation specific to requests regarding nursing coursework.

2. **Required Action:** Create a form to be utilized to evaluate credit for previous education and/or experience.

Resolution: Attachment B: Credit Granting Request Form.

The document includes the requirement that the original or copy be filed in the student’s Vocational Nursing Program files.

3. **Required Action:** Create a timeline for implementation.

Resolution: The general Credit Granting Policy for Palo Verde College is currently implemented. The procedure addressing Credit Granting, along with the procedure for documentation, specifically for the Vocational Nursing Program will be implemented **effective February 1, 2015.**



Palo Verde College
Department of Nursing and Allied Health

Credit Granting Policy

Policy

A general policy of the Palo Verde College Vocational Nursing Program is to provide the opportunity of all students to be given credit for the nursing knowledge and skills they have already acquired, and placed at a level that will assure successful attainment of educational goals

Credit Granting shall be given for applicants with previous education from an accredited institution who have satisfactorily completed with a grade of C: or better, within the last five years. This includes courses from:

1. Armed Services
2. Licensed psychiatric technician or psychiatric technician courses
3. Vocational or practical nursing courses
4. Registered Nursing courses
5. Certified Nurse Assistant Course
6. Other courses the school determines are equivalent to courses in the program.

All students in the Vocational Nursing Program must complete the **Credit Granting** form whether they request or decline any credit granting. **Each nursing student file must contain a signed Credit Granting form.**

Procedure

If the applicant requests Credit Granting, the following procedure applies.

1. The student must submit official school transcripts indicating satisfactory grades, "C" or above, to include an official description of program hours and subject descriptions to the Registrar's office, along with the "Request for Transcript Evaluation" form.
2. The Registrar's office will evaluate courses submitted and provide the Nursing and Allied Health Department and the requesting student a "Transcript Evaluation Report."
3. The student, upon receiving the "Transcript Evaluation Report" from the Registrar's office, will then submit a request for "Credit Granting Form" to the Nursing and Allied Health Department.
4. The Director of the Vocational Nursing Program will make the final decision regarding approval of previous credit. Upon approval or denial, the "Credit Granting Form" will be placed in the student file in the nursing department and a copy will be given to the student.



Palo Verde College

Department of Nursing and Allied Health

Credit Granting Request Form

Student: (print) _____ **Signature** _____ **Date:** _____

- I do not request credit for previous education or training
- I request credit for previous education or training for the following courses.

Please list the courses or education for credit granting.

School / Technical or Military Training	Previous Course	Palo Verde Course	# of units taken	Credit Approved or Denied

Director Signature _____ **Date:** _____

Student Signature: _____ **Date:** _____ **(Provide copy to student.)**

**Note: This form must be completed and signed by each student whether or not credit granting is requested.
The signed form must be filed in the student's nursing department file.**