Covenant School of Nursing
Instructional Module 3 Learning Guide
Topic
Gas Exchange

Learning Goals/Outcomes

Upon completion of this lesson, you will be able to:

1. Recognize the impact of Gas exchange, and identify the causative factors, clinical manifestations, and nursing and collaborative management in pneumonia, chronic obstructive lung disease, tuberculosis, and obstructive sleep apnea.
2. Develop a plan of care for a patient with the altered need for oxygenation.
3. Identify the name, purpose, action, side effects, normal dosing, frequency, and adverse reactions to medication used to treat pulmonary diseases.
4. Describe the etiology and pathophysiology of pneumonia, COPD, TB, pneumonia, and sleep apnea and how to assess the pulmonary system.
5. Identify components and systems that help regulate acid-base, identify the normal ranges for each component and how to evaluate results.
6. Apply professional nursing interventions for basic management of closed-chest drainage systems in simulated experiences, and when available, for patients in the clinical area.

Pre-Class Preparation

- Required:
- Medical-Surgical Nursing Lewis
- Sections about Pneumonia, Tuberculosis, Chapter on Emphysema, Chronic Bronchitis, and Obstructive Sleep Apnea, and Chest Tube, and Review PowerPoint slides

Additional Resources:

- Assigned out of class work
- Medication reference apps (ex. Micromedex, Up to Date)
- Lehne's Pharmacology for Nursing Care 9th ed

Learning Activities

Classroom Activities:

Participation in discussion and lecture
Case studies
Videos

Laboratory/Clinical:

Giving patient-centered care in the clinical setting for a patient with gas exchange problems.
Demonstrate an assessment on a patient at risk for gas exchange diseases.
Assisting in patient-centered care in the clinical setting for a patient with chest tube.
Understand what to assess when patient has chest tube in place. .

Develop a plan to decrease the occurrence of gas exchange disease on a patient at risk

Online/Out-of-Class:

- https://www.youtube.com/watch?v=G_X-9577rxs
- https://www.youtube.com/watch?v=9Rr-7PMEhiU
- https://www.youtube.com/watch?v=rIuqrajlKis
- https://www.youtube.com/watch?v=JB-CqwMyrTM
- Complete skill sections below from the HESI module: under respiratory care collection
- * Arterial Blood Gas Interpretation
- * Chest Tube: Closed Drainage System
- * Flexible Bronchoscopy
- * Incentive Spirometry
- * Asthma Education

FOR SOME REASON WHEN YOU COPY VIDEO LINKS IT ADDS THINGS BEFORE THE HTTPS PLEASE DELET THOSE LETTERS IF YOU ARE HAVING TROUBLE VIEWING AND OR SWITCH BROWSER

- For the HESI skill sections you must complete test with an average of 80 on the score.
- Written Assessment (Exam)

Texas DECs	***QSEN Competencies***
Knowledge II.A.1.a; 2a, b.,3; II.B.2, 4, 5, 6, 7, 8, 11, 12; II.C, 3, 4b. 5, 6, 7, 8; II.D. 1a, 1b, 1c, 3b, 4c,5a; II.E, 1a, 1b, 2, 4a,4b, 5, 6b, 12, 13; II.F, 2; IIG, 2a, 2b, 3a, 3b IV.C, 1, 3, 5, 8, **Clinical Judgments and Behaviors** I.A.1, 2, 3a, 3b, B.2.a, 2.b, 3.a, 3.b, 3.c, 4.a, 4.b, 5.a, 5.c, 6.a, 6.b, 6.c; II.A, 1, 2.a, 2.b, 3, 4; II.B, 1, 2, 3.a, 3.b, 4, 5, 6, 7, 8, 9, II.C.1, 2, 3.a, 4, 5, 6, 7; II.D.1, 2.a, 2.c, 2.d, ,3.a, 3.b,3.c; II.E.1, 2.a, 2.b, 2.c, 3.b, 4, 5.a, 6.a, 6.c, 6.d, 9, 10, 11, 12.b; II.F.1.a, 1.b, 1.c, 2.a, 2.b,5.a, 5.b; II.G.1,2a, 2b, 3, 4, 5a, 5b, 6, 7; II.H.6; III.A., 2, 3, 4, 5a; III.B.1, 2, 3.a, 3.b, 3.c, 4, 5, 8, 9; III.C.2.a, 2.b, III.D.1, 2, 3; III.E.1, 3; III.F.1; IV.A.1, IV.B.1.a, 2; IV.C.1.a, 2.b; IV.D.1.b, 3.b, IV.E.1.b, 1.c, 2.b, 2.c, 4;	PCC,T&C,EBP,SAFTEY, Informatics
IM Student Learning Outcomes	***NCLEX Test Plan***
1,2, 3,5,6,7	MOC (continuity of care, establishing priorities);S&IC (home safety);HP&P (health promotion/disease prevention, health screening, high risk behaviors, lifestyle choices, self-care, techniques of physical assessment); Psych int. (stress management, therapeutic communication); BC&C (nutrition); RRP (diag. tests, lab values, potential alt. in body systems, the potential for complications of diag. Test/treatments/procedures, system specific assessments; Phys. Adaption (alterations in body systems, hemodynamics, illness management)
Concepts	***Faculty***
Gas exchange	C. Thomas, MSN, RN
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