ADVANCED MED SURG 1 SMITH CONTENT REVIEW

Lung Functions	
Explain FiO2. What does it mean when the patient's FiO2 keeps going up?	
MAP – What is it? Why is this important?	
PaO2/FiO2 ratio. 1. Figure the ratio and explain what lung classification this patient has. a. PaO2 80 mmHg and 21% FiO2 b. PaO2 80 mmHg and 80% FiO2 c. PaO2 90 mmHg and 35% FiO2 2. What would you do for each patient?	
PaO2 – List types of hypoxemia	

Identify the clinical manifestations of respiratory failure What assessments or interventions would you do for each?	
Early	**Late**

Briefly describe the patho of what happens with each process					
Pulmonary Edema (ARDS)	**Pulmonary Embolus**	**Pneumothorax Hemothorax**	**Chronic Obstructive Pulmonary Disease (COPD)**	**Tuberculosis (Active vs Latent)**	**Pneumonia**

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Nursing Management		
	What would you expect to find?	**What nursing interventions are appropriate?**
ARDS		
PE		
PNEUMO/HEMO		
COPD		
TB		
Pneumonia		

Identify 3 education topics you would provide about each.					
ARDS	**Pulmonary Embolus**	**Pneumothorax Hemothorax**	**Chronic Obstructive Pulmonary Disease (COPD)**	**Tuberculosis (Active vs Latent)**	**Pneumonia**

Chest Tubes (CT) 1. What is expected or unexpected to see in each chamber?			
Suction chamber		**Drainage chamber**	**Water Seal chamber**
DRY CT			
WET CT			
2. What action(s) should the nurse take if the CT becomes dislodged?			
3. What safety items should be considered for a patient with a CT?			
4. What assessments should the nurse perform?			
5. List expected findings			
6. List unexpected findings			

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PHARMACOLOGY				
	What does this med do for the patient?	**What are the routes this med can be given?**	**What is expected and unexpected to happen?**	**What is the main teaching for this medication?**
Anticholinergics *Ipratropium* *tiotropium*				
Anticoagulants *heparin* *warfarin* *apixaban* *rivaroxaban*				
Anti-Inflammatory (Steroid) *methylprednisolone* *dexamethasone* *prednisone* *fluticasone* *beclomethasone* *budesonide*				
Beta 2 Agonists *albuterol* *formoterol* *salmeterol*				
Diuretics *furosemide* *spironolactone* *hydrochlorothiazide*				

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bumetanide				
Tuberculosis Medications **1st line Meds:** *ethambutol* *isoniazid* *pyrazinamide* *rifampin* **2nd line Meds:** *fluoroquinolone*				

ABG INTERPRETATION

1

ASK YOURSELF:

1. Is this a respiratory or metabolic problem?
2. Do we have acidosis or alkalosis?
3. Do we have compensation?

2

ROME: For pH and CO_2/HCO_3

Respiratory — CO_2↑ pH↓ = Respiratory **Acidosis**

Opposite — CO_2↓ pH↑ = Respiratory **Alkalosis**

Metabolic — HCO_3↓ pH↓ = Metabolic **Acidosis**

Equal — HCO_3↑ pH↑ = Metabolic **Alkalosis**

KEY: If we are *only* determining respiratory/metabolic alkalosis/acidosis, we can *stop here*. If we need to determine compensation (situations when *both* CO2 and HCO3 are out of range), continue to Step 3.

3

COMPENSATION: Look at pH!

- Uncompensated = if CO_2 *or* HCO_3 are in range
  EX: pH: 7.30, CO_2: 50mmHg, HCO_3: 24mEq/L → the bicarbonate is *not* attempting to correct the respiratory acidosis issue at all
- Partially Compensated = if CO_2 *and* HCO_3 are both out of range
  EX: pH: 7.30, CO_2: 50mmHg, HCO_3: 30mEq/L → the bicarbonate is *partially* attempting to compensate the respiratory acidosis issue (pH level is acidic, and bicarb is basic → so we see the effort form bicarb here)
- Fully Compensated = if pH is within range!
  EX: pH: 7.35, CO_2: 50mmHg, HCO_3: 35mEq/L → the bicarbonate is *fully*

	ACIDOSIS	NORMAL	ALKALOSIS
pH	<7.35	7.35-7.45	>7.45
CO_2	>45	35-45	<35
HCO_3	<22	22-26	>26

TIP: HCO_3= BICARB, people 22-26 years old LOVE CARBS

Metabolic Acidosis	Metabolic Alkalosis
Dx: DKA, shock, renal failure, diarrhea, starvation **S/S:** weakness, fatigue, headache, dysrhythmias, **Kussmaul respirations, SOB** **Tx:** , Bicarbonate, fluids; DKA: IV Insulin, normal saline, K+ & D50	**Dx:** vomiting, hypokalemia, suctioning, TPN food, Tums **S/S:** dizziness, decreased respirations, numbness in toes and fingers **Tx:** fluid and electrolyte repletion, decrease N/V
Respiratory Acidosis	**Respiratory Alkalosis**
Dx: Respiratory failure, COPD, hypoventilation, PNA, sedatives, coma, thoracic injury **S/S:** anxiety, confusion, headache, restless, blurry vision **Tx:** Bronchodilators,	**Dx:** Hyperventilation, increased altitude, PNA, anxiety attack, PTX, blood transfusion **S/S:** dizziness, dry mouth, numbness/tingling in fingers and toes **Tx:** Reventilate (paper bag), oxygen, antianxiety/sedative

ADVANCED MED SURG 1 SMITH CONTENT REVIEW

MECHANICAL VENTILATION	
What does PEEP do?	
Explain Assist Control Mode	
Explain SIMV Mode	
Assessment and management of a patient with a tracheostomy	
Assessments and management of a patient intubated with an endotracheal tube (ETT)	
List complications of ETT	
List complications associated with mechanical ventilation	
How to prevent VAP	
Prone positioning – benefits and side effects	
Weaning from vent – what should the patient be able to do?	
Accidental extubation – what do you do?	
Low pressure alarms caused by what? What do you do?	
High pressure alarms caused by what? What do you do?	
Restraints – what assessments are needed?	

ARTERIAL LINE	
What assessments should be done?	
List complications of arterial line	
How does the nurse level an arterial line?	
What steps do you take to discontinue an arterial line?	