

## GUIDE • Mark Klimek's Lecture

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| <p><b>Lecture 1—</b> Acid-Base Balance<br/>Ventilators</p>   | <p>Dumping/HH<br/>Electrolytes: K<sup>+</sup>, CA, MG,<br/>and NA<br/>TX for HyperKalemia</p>   |
| <p><b>Lecture 2—</b> Alcohol<br/>Wernicke<br/>Overdose and Withdrawal<br/>S/Sx<br/>Aminoglycosides<br/>Peak and Trough</p>   | <p><b>Lecture 7—</b> Thyroid (Hyper-, Hypo-)<br/>Adrenal Cortex (Addison<br/>Disease, Cushing)<br/>Toys<br/>Laminectomy</p>   |
| <p><b>Lecture 3—</b> Drug Toxicities (Lithium,<br/>Lanoxin, Dilantin, Bilirubin,<br/>Aminophylline)<br/>Kernicterus<br/>Dumping/HH<br/>Electrolytes: K<sup>+</sup>, CA, MG,<br/>and NA<br/>TX for HyperKalemia</p> | <p><b>Lecture 8—</b> Lab Values<br/>Five Deadly Ds<br/>Neutropenic Precaution</p>   |
| <p><b>Lecture 4—</b> Crutches<br/>Canes<br/>Walkers<br/>Delusions<br/>Hallucinations<br/>Psychosis<br/>Psychotic and Non-Psychotic<br/>Hallucination<br/>Illusion<br/>Delusion</p>                                 | <p><b>Lecture 9—</b> Psych Drugs<br/>Tri<br/>Benzo<br/>MAOI<br/>Lithium<br/>Prozac<br/>Haldol<br/>Clozaril<br/>Zoloft</p>   |
| <p><b>Lecture 5—</b> Diabetes Mellitus<br/>Diabetes Insipidus<br/>SIADH<br/>Insulin<br/>DKA<br/>HHNK</p>   | <p><b>Lecture 10—</b> Maternity and Neonatology</p>   |
| <p><b>Lecture 6—</b> Drug Toxicities (Lithium,<br/>Lanoxin, Dilantin, Bilirubin,<br/>Aminophylline)<br/>Kernicterus</p>  | <p><b>Lecture 11—</b> Fetal Complications<br/>Stages of Labor<br/>Assessments<br/>Variations for NB<br/>Maternity Meds<br/>Medication Hints<br/>Psych Tips<br/>Operational Stages</p> |
|  | <p><b>Lecture 12—</b> Prioritization<br/>Delegation<br/>Staff Management<br/>Guessing Strategies</p>  |

In this question, the priority action for the nurse is to submerge the end of the tube under sterile water because doing so prevents air from getting into the chest. At the same time, this allows air or blood from the chest to get out

- This solves the problem by reestablishing the water seal

### Note

Clamping, unclamping, and placing the tube under water must be done in 15 seconds or less

### Question

You notice on the monitor that a pt has v-fib. Pt is unresponsive and there is no pulse. What is the **first** step in the management of this pt?

- a. Place a backboard under pt's back while pt is supine
- b. Start chest compression

The first step is to place the backboard under pt's back. "First" is about order.

### Question

You notice on the monitor that a pt has v-fib. Pt is unresponsive and there is no pulse. What is the **best** step in the management of this pt?

- a. Place a backboard under pt's back while pt is supine
- b. Start chest compression

"Best" is about what is the priority. Chest compression is the priority action.

### If a chest tube gets pulled out ...

1. Take a **gloved hand** and cover the opening (**first step**)
2. Take a **sterile Vaseline gauze** and tape 3 sides (**best step**)

**Chest tube is bubbling ...** Ask (1) **where** it is bubbling, and (2) **when** it is bubbling?

Ask the following 2 questions

- Bubbling ... Where? In the **water seal chamber**
  - If it is **intermittent**, it is **good** (document it)
  - If it is **continuous**, it is **bad** and indicates a break/leak in the system (find it and tape it)
- Bubbling ... Where? In the **suction control chamber**
  - If it is **intermittent**, suction pressure is **too low** (increase it at the wall until it is continuous)
  - If it is **continuous**, it is **good** (document it)

### Analogies

- A **straight catheter** is to a **Foley catheter**, as a **thoracocentesis** is to a **chest tube**
  - A **straight catheter** goes **in and out** ... A Foley goes in, secure it, and continuous drainage
  - **Thoracocentesis** = **go in and out** ... Chest tubes = go in, secure it, and leave it in place
- A Foley has a higher risk of infection than a straight cath
- A chest tube has a higher risk of infection than thoracocentesis

## Treatment of Dumping Syndrome

- Can do 3 things, as shown below
  1. Lower HOB (head of bed) during meals and turn pt on the side
  2. Decrease the amount of fluids 1 or 2 hours before or after meals
  3. Decrease the amount of Carb content
    - These 3 things prevent the stomach to empty quickly or dump its content into the duodenum
- Dumping syndrome ... Everything **low**

## What is protein is added in the diet?

- Protein does the opposite of carbohydrate
- Protein bulks gastric content, takes longer to digest, and moves slower through the gut
- Therefore, give
  - Low protein in hiatal hernia
  - High protein for dumping syndrome

## Electrolytes

- **Memorize these 3 sentences**
  1. Kalemias do the same as the prefix (hypo-, hyper-), except for HR and urine output which go opposite
  2. Calcemias do the opposite as the prefix
  3. Magnesemias do the opposite as the prefix
- Natremias
  - HypoNatremia = Volume overload ... HyperNatremia = Dehydration

## Kalemia(s)

- Go in the **same** direction as the prefix, except for **HR** and **urine output (UO)**, which go in the **opposite** direction
- Hypo—Symptoms go **low** with hypo, except HR and UO
- Hyper—Symptoms go **high** with hyper, except HR and UO

## Some S/Sx of Hyperkalemia

- Brain: seizures, agitation, irritability, loud down
- Heart: tented T waves, ST elevated, tachypnea
- Bowel: diarrhea, borborygmi
- Muscle: spasticity, increase tone, hyperreflexia (3+, 4+)
- Heart rate: down (bradycardia)
- UO: down (oliguria)

## Some S/Sx of Hypokalemia

- Lethargy, bradypnea, paralytic ileus, constipation, muscle flaccidity, hyporeflexia (0, 1+)
- Tachycardia (HR is up)
- Polyuria (UO is up)

## Maternity and Neonatology

### Determining the estimated date of delivery

- Use the Naegele rule—take first day of last menstrual period (LMP), add 7 days and subtract 3 months from it
  - For instance, if the last menstrual period of a pt was between June 10 and 15
  - The estimated date of delivery = March 17

### Weight gained during pregnancy

- 1st trimester (12 weeks)
  - 1 lb per month = Total of 3 lbs
- 2nd and 3rd trimesters
  - Add 1 lb every week
- The ideal weight gained during pregnancy
  - **28 lbs**, plus or minus 3
  - Between 25 to 31 lbs

If weight gained during pregnancy is within

- $\pm 1$  to 2 lbs of the ideal weight for the gestational week ... Pt is WNL

If weight gained is within

- $\pm 3$  lbs ... Assess her
- $\pm 4$  lbs or more... There is trouble
  - perform a BPP on the fetus

### Alternative method

A quick and dirty way to come up with the ideal weight gained during pregnancy is to

- Take the number of weeks gestation minus 9

### Question

A woman is in her 28th week gestation. She gained 22 lbs, what is your impression?

- Using the long method
  - First trimester (12 weeks) ... She gained 3 lbs
  - 28 weeks minus 12 weeks = 16 weeks
  - Therefore, she would add an extra 16 lbs on her weight
  - $3 + 16 = 19$  lbs ... She has 3 lbs extra than her ideal weight
  - Therefore, assess the pt
- Alternatively, subtract 9 from the number of weeks gestation
  - $28 - 9 = 19$  lbs

### Question

A pregnant woman at 31 weeks gestation gained 15 lbs. what is your impression?

- Using the short method, this pt ideal weight should be
  - $31 - 9 = 22$  lbs
  - However,  $22 - 15 = 7$  lbs less than the ideal
  - Therefore, the nurse needs to assess the biophysical profile (BPP) on the fetus

**Memorize for the following 3 questions**

Uterine contraction should be **no longer than 90 seconds** and **no closer than 2 minutes**

**Questions**

What is a sign of uterine tetany?

- **No longer than 90 seconds** and **no closer than 2 minutes**

What parameters regarding uterine contraction would make you stop Pitocin?

- **No longer than 90 seconds** and **no closer than 2 minutes**

What is uterine hyperstimulation?

- **No longer than 90 seconds** and **no closer than 2 minutes**

**Know that phrase**

- **No longer than 90 seconds** and **no closer than 2 minutes**

**Assessment of frequency of contraction**

- Frequency is from the beginning of one contraction and beginning of the next

**Assessment of duration of contraction**

- Duration of contraction is from the beginning to end of one contraction

**Intensity of labor**

- Assessment of intensity of labor is purely subjective
- **Teach her how to palpate with one hand over the fundus with the pads of the fingers**

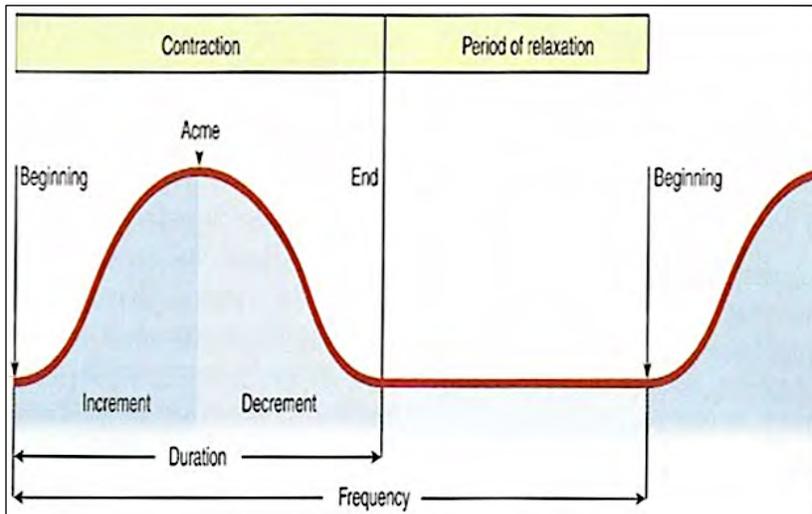
**Complications of labor**

- There are 18 complications
- Know them all
- But only 3 protocols—focus on the 3 protocols

Painful Back pain—“**OP**” = Oh Pain. What do you do?

- Position—Push
- What position?
  - KNEE-CHEST position then
  - PUSH with fist into sacrum to use counter pressure

“**OP**” ... Anything (right or left) occiput posterior



## Port wine stain

Port-wine stain or nevus flammeus is seen at birth and is composed of a plexus of newly formed capillaries in the papillary layer of the corium

- Commonly found on the face and neck
- Red to purple, varies in size, shape and location
- Does not blanch on pressure

## OB Medications—6

- Terbutaline (Brethine)
- Mag sulfate
- Pitocin
- Methergine
- Bexamethasone
- Surfactant

### 1. Tocolytics (Stop contractions, stop labor)

- Tocolytics are given to women in premature labor that must be stopped
- Terbutaline (Brethine)
  - S/E: maternal *tachycardia* (don't give with cardiac disease)
- Mag sulfate
  - Treatment with Mag sulfate will induce hypermagnesemia, which will cause everything to go down
  - HR will go down, BP go down, **Reflexes go down, RR go down**, LOC go down

### Question

So, what is the nursing intervention for hypermagnesemia due to mag sulfate treatment?

- Monitor respiration
  - If RR <12, decrease dose of Mag sulfate
- Assess for reflexes
  - Normal reflex is 2+
  - If reflexes are 0 or 1+ ... Decrease dose of mag sulfate
  - If reflexes are 3+ or 4+ ... Increase dose of mag sulfate

### 2. Oxytocics (Stimulate and strengthen labor)

- Pitocin (Oxytocin)
  - S/Es: Uterine hyperstimulation (defined as longer than 90 seconds, closer than 2 minutes)  
The nursing intervention is to **lower the dose of pitocin** in case of uterine hyperstimulation
- Methergine
  - Causes HTN—if it contracts blood vessels it makes sense that this increases BP

### 3. Fetal/Neonatal Lung Meds

- Betamethasone (steroid)
  - Given to **mother IM**

- Growth curve around preschool year plateaus ... Toddlers growth curve goes up
3. Pharmacology
- Memorize S/E
  - Don't memorize dosage, route
  - If you know what a drug does but don't know the S/E, how do you proceed? ... Pick the "S/E in the same body system the drug is working"
    - For instance, if you have a GI drug, and drowsiness, tachycardia, and diarrhea are part of the answer choices. What S/E will you pick? Pick "**diarrhea**"
    - From the same above list ... For cardiac drug, pick "**tachycardia**"
    - For CNS drug, pick "**drowsiness**"
    - If you have no idea what the drug is ... and the drug is PO, pick a GI side-effect
  - Never tell a child a "medication is candy"
    - The child may give grandma's valium to other children thinking the pill is candy
4. OB: check "fetal heart rate"
5. Med/Surge
- What is the **first thing to assess?** "Check for LOC (level of consciousness)"—not airway
    - Think about a code or you find a pt on the floor ... LOC is always checked first
    - "Sir, Sir, Sir! Are you ok? Can you hear me?" If there is no response, A-B-C is then done next
  - What is the **first thing to do?** "Establish an airway"
6. Pediatrics
- For growth and development, you can always narrow down your answer to three rules, which goes along "giving the child more time"
    - **Rule #1:** When in doubt, "**call it normal**" ... Example: Some six year olds can read. Some can and some can't. Pick the answer that says, "Give the child more time" ... There is no doubt that a 13-year-old who not potty-trained is normal
    - **Rule #2:** When in doubt, pick the "**older age**" in the 2 that it could be ... In what age can the child walk? Both 12 months and 14 months are right ... Pick 14 months. In that case, you give the child more time
    - **Rule #3:** When in doubt, pick the "**easier task**" ... At 6 months, a baby can roll over or sit with support ... Pick "**roll over**" as your answer because it is the easier task.
  - In growth and development, there are always two correct answers. The mantra is to give the child more time ... Chant in your head: "NORMAL, OLDER, EASIER"
7. General guessing skills
- "Rule out absolutes" ... That is if you are guessing. However, it is commonly known to never push potassium
  - Avoid answer choices that say the same thing ... Neither one is correct. For instance, the following 2 answer choices are the same. Answer choice #1: Increased bowel sounds ... Answer choice #2: borborygmi. Pick a different one
  - If two answers are opposite, one is probably correct
  - Umbrella strategy ... Find more than one correct answer? Find the global answer. Ex: Use safety and good body mechanics if possible
8. Prioritization of pt needs
- Pt is need with the **worst outcome** has the highest priority—in other words, pick the Worst Consequences Game
    - For example: Which is highest priority for suicidal patient? (a) Don't give tranquilizer. (b)