

## Lecture 9 • Mark Klimek • 56:14

Platelet and RBC (Continued from Lecture 8)

Lab	Range	“ABCD” Scheme
Platelet (PLT)	150,000 to 450,000	Level C if <90,000 Level D if <40,000
RBC (Red blood cell)	4 to 6 million	Level B if abnormal

### Neutropenic Precautions

- Strict hand washing
- Vital q4 hrs
- Dedicated stethoscope, BP cuff
- Reverse/protective isolation
- Shower BID with microbial soap
- Avoid crowds
- Private room
- Limit staff/visitors
- No fresh flowers/potted plants
- No raw fruits/veggies/undercooked meat
- No water pitcher standing for over 15 minutes
- Check WBC daily
- No indwelling catheters
- Do not reuse cups or disposable plates

### Five Deadly “Ds”

- The following are 5 priority pts based on their lab values
- The NCLEX exam will not put one of the followings against another
  - K<sup>+</sup> >6
  - pH in the 6s
  - CO<sub>2</sub> in the 60s
  - pO<sub>2</sub> <60
  - Platelets <40,000

### Psychiatric Drugs

**ALL** psychiatric drugs cause **low BP** and **weight changes**—usually weight gain

### Major Classes

#### Phenothiazines

- First generation or typical antipsychotics
- All end in “**ZINE**”
  - Example: Thoraz**ine**, Compaz**ine**
- They don’t cure ... They just reduce symptoms
- We use **ZINEs** for the **ZANY** (Cuckoos) ... Antipsychotics
- In small doses, they are antiemetics (to treat vomiting)

## Phenothiozines are major tranquilizers

- Major tranquilizers—big guns psych meds—are Antipsychotics
- **Analogy**
  - **Aminoglycoside** are to **Antibiotics** what **Phenothiazines** are to **Antipsychotics**
- Antipsychotics S/Es = “**ABCDEFG**”
  - **Anticholinergic** (dry mouth, urinary retention)
  - **Blurred vision**
  - **Constipation**
  - **Drowsiness**
  - **EPS** (tremors, Parkinson)
  - **Foto sensitivity**
  - **aGranulocytosis** (low WBC count, immunosuppressed)

Teach patient how to recognize and report sore throat and symptoms of infection

## Question

- What is the nursing action when someone presents with a **S/E**?
  - Educate

## Question

- What is the nursing action when someone presents with a **Toxic** effect?
  - **HOLD** the drug → Notify HCP

## Note

- The #1 nursing diagnosis for “**ABCDF**” S/Es is to teach pt about **SAFETY**
- The #1 nursing diagnosis for “**G**” S/Es is to teach pt to **report** signs of infections to HCP

## Decanoate or “Caprate” form of a medication

- The long-acting form of a drug
- Sometimes denoted with the letter “**D**”
- IM form given for non-compliance
- Often Court-ordered

## Tricyclic Antidepressants

- Grandfathered into the NSSRI (Non-selective serotonin reuptake inhibitor) group
- Mood elevators (Happy pills)
- Elavil (elevates), **Trofranal**, Aventyl, Desyrel
  - Elevates the mood
  - Side effects of TCA are
    - Anticholinergic** (especially, dry mouth)
    - Blurred Vision**
    - Constipation**
    - Drowsiness**
    - Euphoria** (happy)
- **Must take meds for 2 to 4 weeks for beneficial effects**
- So, after the first week of antidepressant therapy, pt will complain the drug is not working

- Teach pt that the medication takes about 2 to 4 weeks to reach therapeutic effects

### **Benzodiazepines**

- Anti-anxiety, minor tranquilizers
- Always have ZEP in the name
- Remember ZZzzs for falling/going to sleep
- Many benzodiazepines end in “**Pam**” or “**Lam**”
- Prototype: Valium, induction of anesthetic, muscle relaxant, alcohol
- Can be used as
  - Seizures medications
  - Preop induction of anesthesia
  - Muscle relaxants
  - EtOH withdrawal medications
  - Ventilation—medication to relax and calm down pts on a ventilator
- Benzos work quickly ... But do not take them for more than 2 to 4 weeks

### **Naming of antipsychotics**

- If you want to put someone asleep, give him the ZZzzs
- **Zines** for the Zany (major antipsychotics)
- **Zeps** for the minor antipsychotics
  - If you are old enough, you may answer that question ... What do you find at a **Zeppelin** concert?

### **Minors on tranquilizers**

Administer major and minor tranquilizers at the same time. Why?

- The major antipsychotics take a long time to start working
- The minor antipsychotics start working right away
- Both are administered at the same time
- Example: pt is usually put on Valium and Elavil at the same time
  - Valium is discontinued in 2 to 4 weeks once Elavil kicks in

### **Note**

A similar example for giving major and minor tranquilizers together is the concurrent use of Heparin and Coumadin (warfarin)

- Heparin works right away but a pt should not be on it for a long time
- Coumadin takes a few days to start working but a pt can be on it for the rest of his life

S/Es of Benzodiazepines are “ABCD”

- **A**nticholinergic
- **B**lurred Vision
- **C**onstipation
- **D**rowsiness

### **Monamine Oxidase (MAO) Inhibitors**

- Antidepressant
- Depression is thought to be caused by norepinephrine, dopamine, and serotonin in brain
- Name of MAOIs starts with
- MARplan, NARdil, PARnate the beginnings—all rhyme
- S/E of MAOIs
  - Anticholinergic

- **Blurred Vision**
- **Constipation**
- **Drowsiness**

### Teaching Points

- Avoid tyramine-containing food ... May cause Hypertensive Crisis
- Food with tyramine
  - Fruits/Veggies—Avoid salad **“BAR”**: **B**ananas, **A**vocados (guacamole), **R**aisins (dried fruit)
  - Grains—Ok to have, except Yeast
  - Meats—No organs liver, kidney, tripe, heart, no preserved meats (smoked, dried, cured, pickled, hot dogs)
  - Dairy—No cheeses except for mozzarella, cottage cheese (no aged cheese)
  - No EtOH, elixirs, tinctures (iodine/betadine) caffeine, chocolate, licorice, soy sauce

### Lithium

- Used for treating Bipolar disorder—*it decreases the mania* LI = BI
  - S/E: Very Unique—acts more like an electrolyte—think: Potassium/Lithium
  - The 3 Ps as S/Es
    - Peeing (Polyuria)
    - Pooping (diarrhea)
    - Paresthesia (earliest sign of electrolyte imbalance)
- The earliest sign of electrolyte imbalance is Paresthesias = Numbness and Tingling**

### Toxic effects of lithium

- Tremors
- Metallic taste
- Severe diarrhea

### Question

What is the #1 nursing intervention in a pt on lithium presenting with peeing/pooping all the time?

- #1 intervention
  - Give pt fluids
- The above S/Sx are S/Es—expected
- Monitor sodium
- Low sodium makes lithium toxic
- High makes lithium ineffective
- Sodium needs to be normal

### Question

What is the #1 nursing intervention in a pt on lithium presenting with metallic taste and severe diarrhea?

- #1 intervention
  - Give pt fluids

- Notify the HCP—this is a toxic effect

### **Prozac (fluoxetine)**

- **SSRI, mood elevator**
- Side effects of Prozac are
  - Anticholinergic
  - Blurred Vision
  - Constipation
  - Drowsiness
  - Euphoria (happy)
- **Causes insomnia so give before noon. If bid, give at 6 a.m. and noon**
- **When *changing* doses, watch for suicidal risk in *adolescents***
  - Must recently **change** the dose and be an **adolescent of young adult**

### **HALDOL (haloperidol)**

- Tranquilizers (basically same as Thorazine)
- S/E of Haldol
  - Anticholinergic (dry mouth, urinary retention)
  - Blurred vision
  - Constipation
  - Drowsiness
  - EPS (tremors, Parkinson)
  - Foto sensitivity
  - aGranulocytosis (low WBC count, immunosuppressed)

Teach patient how to recognize and report sore throat and symptoms of infection
- First generation antipsychotics
- Pts may develop NMS (neuroleptic malignant syndrome) from overdose
  - Seen in elderly and young white schizophrenic pts
  - High fever over 105
  - Their doses should be about ½ usual adult dose

### **Question**

A pt is being treated with an antipsychotic medication. Pt becomes anxious and presents with tremors. What is the nurse intervention to differentiate NMS (neuroleptic malignant syndrome) from EPS (extrapyramidal syndrome)?

- Measure the pts' temperature
  - If temperature is WNL, this is EPS
  - If temperature is 102 and rising, call the emergency response team and notify HCP ...  
NMS is lifethreatening
- NMS presents with anxiety and tremors, and so does EPS

**Note:** With Haldol, there are safety concerns related to the S/Es

### **Clozaril (clozapine)**

- Atypical antipsychotic

- Advantage it does not have A-F side effects
- Don't confuse it with Klonopin/Clonazepam!
- S/Es of clozapine
  - a**G**ranulocytosis! It is worse than cancer drugs and can trash the pt's bone marrow

**Note**

- Geodon (ziprasidone) has a black box warning
- Prolong the QT interval, which can cause sudden cardiac arrest
- Do not use in pts with cardiac condition

**Note:** Second generation antipsychotics end in "Zapine"

**Question**

What is the #1 nursing intervention in a pt taking Clozaril (clozapine)

- Monitor the WBC

**Zoloft (Sertraline)**

- Antidepressant
- Can cause insomnia
- Interact with the followings because they are not metabolized in the liver
  - St. John's Wort and cause serotonin syndrome
  - Warfarin and cause bleeding
- S/E of serotonin syndrome is "**SAD Head**"
  - **S**weating
  - **A**pprehensive (impending sense of doom)
  - **D**izzyness
  - **H**eadache

**Note:** The nurse should anticipate lowering the dose of sertraline (Zolof) of a pt on St. John's Wort and Warfarin