

## 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+ >6
  - pH in the 6s
  - CO2 in the 60s
  - pO2 <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: Thorazine, Compazine
- 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)

## **Phenothiazines are major tranquilizers**

- Major tranquilizers—big guns psych meds—are Antipsychotics
- **Analogy**
  - Aminoglycoside are to **Antibiotics** what **Phenothiazines** are to **Antipsychotics**
- Antipsychotics S/E's = “ABCDEF”
  - 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/E's is to teach pt about **SAFETY**
- The #1 nursing diagnosis for “G” S/E's 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), **Trofranil**, 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 ZZzs 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 ZZzs
- **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/E of Benzodiazepines are “ABCD”

- Anticholinergic
- Blurred Vision
- Constipation
- Drowsiness

### 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”: Bananas, Avocados (guacamole), Raisins (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 or 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
  - aGranulocytosis! 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**”
  - Sweating
  - Apprehensive (impending sense of doom)
  - Dizziness
  - Headache

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