

## Chapter 13

### a. How do we come up with names of drugs?

United States Adopted Name Council (USAN)- The assignment of a drug to a drug class is proposed when the sponsor of the drug makes an application to the USAN council for an adopted name.

Please review Stems and Classes on page 419 – reviewing these stems will help you learn the pharmacological classes of drugs.

### b. Classification of drugs

Drugs can be classified by their effects on --- a DISORDER, a BODY SYSTEM, TYPE of RECEPTOR acted on, TYPE of ACTION

### c. Agonists vs. Antagonist

Agonists activate receptors while Antagonists block receptors

An example of an Antagonist is a **BETA BLOCKER** – like the drug PROPRANOLOL

An example of an Agonist is a **BETA AGONIST** – ALBUTEROL

### d. Drug example of Agonist vs. Antagonist

**Example of Antagonist:** Propranolol's main effect is to non-selectively block beta receptors in the body. There are beta receptors in the heart -- thus there is a decrease in the person's heart rate and blood pressure.

**Example of Agonist:** Albuterol's main effect is to relax smooth muscle by action on the beta 2 receptor.

*The gist is that Propranolol Blocks the Beta Receptor while Albuterol Activates the Beta Receptor*

**e. Understanding the Mechanism of Action of a drug helps us figure out how to appropriately classify a drug**

Decrease Pain – NSAIDS, Opiates

Anti-infectives – Antivirals, Antibiotics, Antifungals

Decrease Blood Pressure and Heart Rates – Beta Blockers, Antihypertensives

Please continue to review pg. 421, reading over this page will help you begin understanding classification by a drugs **MECHANISM of ACTION** in the body.

**f. In the workbook please review the Top 200 Most Prescribed Drugs by Classification on pages 268-273**

Notice how you can begin learning these drugs by focusing on the Classification – Mechanism of Action of the drug in the body

Classification/Generic Name/Brand Name

Quiz 2 will cover brand and generic names on Workbook page 268,269, 270 please review to be ready for your Quiz.

## **Chapter 6**

**a. Measurement**

Please review conversions on page 155 and 156 page 194 and 195

Frequently used conversions in community pharmacy are as follows:

1kg = 2.2 lbs

1 fl oz = 30 ml

1 tsp = 5ml

1 tbsp = 15ml

1 pt = 16 fl oz

## **b. Calculations**

A prescription reads as follows:

Baby Girl Roberts 22lbs NKA (No Known Allergies)

Cefdinir 125mg/5ml

Give 1.2 tsp po qd for 10 days

Dispense 2 ounces

- i) Convert dispensed quantity from ounces to ml
- ii) What is Baby Girl Robert's dose in mg is this dose appropriate for her weight? (In pediatrics dosing is often dependent upon the child's weight)
- iii) Convert the weight of Baby Girl Roberts from pounds to kg
- iv) Convert Baby Girl Roberts dose from tsp to ml
- v) Calculate Days Supply

A prescription reads as follows:

Janet Jackson

Amoxicillin 500mg

1 PO TID for 7 days

qs (quantity sufficient)

- i) What quantity should be dispensed and why
- ii) Is there any information about Janet Jackson missing on this prescription that the Pharmacy Technician should ask?

A prescription reads as follows:

Henry Ford NKA (No Known Allergies)  
Magic Mouthwash (equal parts Lidocaine/Benadryl/Nystatin)  
Swish and spit 1 tablespoon qid  
qs (quantity sufficient) 10 days

- i) What quantity should be dispensed and why
  
- ii) How should the product be compounded? And why?
  - Review page 174
  - Weight to volume
  - Volume to volume

A prescription reads as follows:

Jim Doe NKA (No Known Allergies)  
Acyclovir 4% ointment compounded  
Qs 30 grams petrolatum

- i) You have Acyclovir 400mg tablets on the shelf, how would you compound this product?
  
- ii) This problem is an example of weight to weight

### **c. Alligation**

Lets review the example from page 185 together