DEFINITIONS

- Pharmacology - The study of body functions to chemical changes.
- United States Pharmacopeia - Generic names of drugs and official list of drugs. Like an encyclopedia.

TO BE A DRUG

- Has to do one or more; treat, prevent, and/or diagnose.

DRUG TERMS

- Indication - when to give the drug.
- Action - what the drug does to the body.
- Dose - amount to be given.
- Contraindication - harmful or fatal if given. Do not give.
- Side effects - a known effect that has nothing to do with the reason for taking the drug.

DRUG TYPES

- Over the counter.
- Prescription.

DRUG NAMES
• Generic - lots of letters. First letter should be lower case. Generic name is always listed with a trade name, if trade name is available.

• Trade Name - given by a manufacturer. Lots of marketing so people can remember it and it's use.

DRUG FORMS

• Tablet - powders pressed to pill form.

• Pill - solid sheet of drug cut into easy to swallow shapes. Like minerals and vitamins - a "horse" pill because it is large.

• Gels - Liquid/gel form.

• Gelatin Capsule - a carrier with drug inside. Helps for time delay or taste

• Sublingual Spray - Liquid spray placed under tongue

• Suspensions - two liquids that separate. Need to be shaken first.

• Gases - like oxygen.

DRUG ROUTES

• Intramuscular Injection (IM) - needle placed in middle of large muscle. Needle is 90 degree angle to the skin.

• Subcutaneous Injection (SQ or SubQ) - Drug delivered in fat layer. Needle is 45 degree angle to the skin.

• Intravenous (IV) - Fastest and most accurate way to get a drug into circulation.
- Oral (PO)- most medications take 20 to 30 minutes to see benefits. Some drugs like Tylenol and alcohol are absorbed very quickly.

- Rectal (PR) - Liquid or gel form medication. Benefits in about 30 minutes.

- Sublingual - easy to give and relatively fast. Minutes into circulation.

- Inhalation - second fastest into circulation.

- Intraosseous (IO) Needle into bone marrow of long bone. Just as fast as IV.

- Topical - placed on the skin - a patch.

5 "Rights"

- 1) Right patient
- 2) Right drug
- 3) Right route
- 4) Right date
- 5) Right amount
- Right form

Nitroglycerin

- Generic: Nitroglycerin  Trade: NitroStat, Nitro Paste, and many others
• **Indication:** chest pain

• **Action:** smooth muscle dilator, dilated coronary vessels.

• **Side Effects:** head ache, bitter taste, burning under tongue.

• **Route:** Sublingual - tablet, spray

• **Dose:** .4mg every 5 minutes up to three times.

• **Contraindicated:** BP less than 100mmHg. Max dose given.

**Oral Glucose**

• **Generic:** Oral Glucose  Trade: Glucose and many others

• **Indication:** Low glucose levels

• **Action:** increases blood sugar in blood stream

• **Side Effects:** none in emergency

• **Route:** mucus membranes

• **Dose:** 25 to 50 grams

• **Contraindicated:** not given if nauseated, confused to when the patient cannot follow directions.

**Activated Charcoal**

• **Generic:** Activated Charcoal  Trade: ActiDose and many others.

• **Indication:** oral overdose/poisoning.
• Action: stops absorption of substance thru GI track.

• Side Effects: tar stool, N/V.

• Route: Oral.

• Dose: Suspension 25 to 50 grams or .5 to 1 gram/kg. If the patient vomits the first dose may give once again.

• Contraindicated: if nauseated prior to giving any charcoal, not able to follow directions or ingestion of heavy metals or corrosive substance.

Epi-Pen

• Generic: Adrenalin   Trade: Epinephrine.

• Indication: Severe allergic reaction. Dyspnea and lowering Bp.


• Side Effects: tachycardia, anxiety.

• Route: IM Lateral thigh.

• Dose: .3 adult .15 pedi.

• Contraindicated: none in emergency.

Syrup of Ipecac

• Indication: Oral poisoning or overdose.
• Action: makes patient vomit in about 20 minutes.

• Side Effects: none, because they are suppose to have N/V.

• Route: oral.

• Dose: 30mL in 8oz glass of water.

• Contraindicated: if nauseated prior to giving any charcoal, not able to follow directions or ingestion of heavy metals or corrosive substance.

Oxygen

• Indication: Dyspnea.

• Action: increase available O2.

• Side Effects: none in emergency.

• Route: inhalation.

• Dose: dependent on condition.

• Contraindicated: none in emergency.

Albuterol

• Generic: Albuterol  Trade: Ventoin, preventil, and many others.

• Indication: dyspnea to bronchospasms or congestion.

• Action: B2 dilates smooth muscles of lungs.
• Side Effects: anxiety, tachycardia, hypertension, shaking, nausea, vomiting, sleeplessness, dry mouth.

• Route: MDI or Nebulizer.

• Dose: MDI total 180mcg or Nebulizer 2.5mg in 3mL.

• Contraindicated: none in emergency.

Aspirin (ASA)

• Generic Name: acetylsalicylic acid (pronounced a-SET-al-sal-i-SIL-ik, abbreviated ASA).

• Trade Name: Aspirin, St. Josephs, Bayer, and many others.

• Indication: MI.

• Action: slows platelet clumping therefore reduces vessel blockages, reduces fever, pain, headaches and sore throat pains.

• Side Effects: bleeding.

• Route: oral - chew and swallow.

• Dose: 325mg in emergency. 82mg if taken daily if recommended by doctor.

• Contraindicated: allergic to ASA. No ASA for kids under 12 years of age with a fever present.

HOW TO GIVE DRUGS

• Get order and repeat word by word.

• Ask Patient 1) if ok to give, 2) if they have allergies, 3) if they have had any lately.
• Get drug and do 5 "rights".

• Make sure you recheck a drug at least once before giving drug.