Clinical Pharmacology – pps400, pps2014

You can only compound medications that are not commercially available

Benzodiapines – long acting – clonazepam

Short acting – alprazolam, lorazepam

Aero chamber – otc? (board questions)

High fructose corn syrup

Semi sterile compounding – expiration frozen 45 days

Poison prevention packaging act – sublingual nitroglycerin

Adjust watch as soon as you get on the plane for your new timezone

Tramadol – schedule IV – aug 18, 2014

Vicodin – 10/6 becomes controlled II

Metoclopramide – 30 min before meals, diabetic gastoparesis, lactation induction

Fluconazole – cyp3a4 inhibitor

Topamax – paresthesia 21-40% depending on dose

Thyroid – 1:14 liothyronine to levothyroxine, t3 has more stimulant like effects

Lamotrigine – rash - 7-14% of patients develop a rash (slow titration to avoid rash, pharmacist letter)

Statins – metabolized by cyp3a4

Acetazolamide – is commonly used for altitude sickness to increase ventilation and increase oxygen binding to hemoglobin but is a diuretic (altitude sickness – headaches, nausea, fatigue, dizziness, SOB)

Cyclobenzaprine – dry mouth, drowsiness

Arava

1% - 10mg/ml, 100% solution = 1gm/1ml or 1000mg/1ml

Mirtazepine – for tremor

Amiodarone – 37% by weight iodine

Cavediolol – blood pressure, heart failure

Cardiovascular effects of beta blockers — decrease myocardial oxygen demand. The heart rate, contractility, and left ventricular wall stress is diminished by beta blockade. The decrease in wall stress is mediated in part by the antihypertensive action of these drugs.

Some beta blockers have intrinsic sympathomimetic activity (ISA) also known as partial agonist activity causing low grade beta stimulation at rest but acting as a typical beta blocker when sympathetic activity is high. reduction in the exercise heart rate that is of primary importance.

TYPES OF CALCIUM CHANNEL BLOCKERS — The dihydropyridines (nifedipine, amlodipine, felodipine), which are predominantly vasodilator; and the non-dihydropyridines ([verapamil](http://www.uptodate.com/contents/verapamil-drug-information?source=see_link) and [diltiazem](http://www.uptodate.com/contents/diltiazem-drug-information?source=see_link)), which reduce vascular permeability and affect cardiac contractility and conduction

Indomethacin – nsaid that Michael robinson hurt his kidneys with.

Nifedipine er – used for premature labor

Different reference products are not AB rated and their might be a problem with bioequivalence.

Nifedipine – adalat cc, Procardia xl

Verapamil – calan

Diltiazem – Cardizem, cartia, dilacor, tiazac – side effects constipation

Preeclampsia – sever hypertension in pregnancy due to hypoperfusion of the fetus

Doxycycline monohydrate (monodox) vs doxycycline hyclate (vibramycin)

Both formulations are equally effective but doxycycline monohydrate may cause less upset stomach due to slower dissolution. The bioavailability of doxycycline monohydrate may be lower at high stomach ph thus patients on acid suppressive therapy or gastric bypass may absorb less drug. Recommend using doxycycline hyclate in most cases. Take with food if it upsets the stomach.

Hydroxyzine – Vistaril (hydroxyzine pamoate) vs Atarax (hydroxyzine HCL)

No significant clinical difference. Vistaril was originally the injectable formulation thus was used for anxiety. While atarax was the tablet formulation and used for itch. Both medications are equally as effective but it has be taught for ages that vistaril is for anxiety and atarax is for itch.

Orapred, Pediapred vs Prelone

All oral prednisolone products are distasteful. Prelone is the least palatable potentially due to the alcohol. If the choice is ambiguous stick with orapred/pediapred. Crushed prednisone tablets are a cheap alternative and can be mixed with applesauce.

Macrodantin vs Macrobid

Macrodantin (100% macrocrystals),

Macrobid (75% monohydrate/ 25% macrocrystals)

Macrodantin is absorbed slower and may decrease GI upset but is dosed QID. Macrobid dosed BID. Both equally effective. Macrobid dosing is easier.

Bupropion – immediate release, sustained release, extended release (IR, SR, XL) different dosing

Fortamet vs Glucophage XR – not ab rated

Warfarin – big 4 interactions Bactrim, metronidazole, amiodarone, fluconazole – potential to double INR quickly, usually need to call Dr and clarify interaction, medications may still be given together

Sulfa allergies – albuterol sulfate? furosemide, celecoxib, Bactrim DS (sulfonamide moiety is key)

Non-drowsy antihistamine – loratidine, desloratidine, fexofenadine (loratidine peak onset 8-12 hours)

Keppra (levetiracetam) – Do no break tablets (taste)

Insulin conversions – insulin duration chart

Metoprolol tartrate (immediate release) vs Metoprolol succinate (extended release) – extended release can be cut on the score of the tablet

Lidocaine patch – only patch that can be cut, max time 12 hours on due to toxicity

Medrol dose pak – standard instructions

Lovenox 1mg/kg/bid SC for DVT treatment

OTC insulin – novolin/humuilin

Levothyroxine – AB ratings and expiration is usually short

Epipen/Epipen jr – 30kg< use epipen jr. Expiration is usually short. Children less <15kg risk vs. benefit

Depakote (by definition is Depakote DR), Depakote ER (depakote extended release), Depakene (immediate release valproic acid)

Amoxicillin – max dosing 90mg/kg/day, max dosing 875 bid (sometimes the 875 bid is exceeded in children with pneumonia)

Acetaminophen – 15mg/kg/dose q 4-6hr

Bactrim – 20mg/kg/day max

Ibuprofen – 10mg/kg/dose q 6 hours

CII – The parts of the prescription that cannot be changed: patients name, drug, Dr signature

Hipaa – do not leave any information on a message besides your name and a number to call back

PPI – mnemonic – OLEP- omeprazole 20mg/lansoprazole 30mg/esomeprazole 20-40mg/pantoprazole 40mg

Omeprazole/Plavix interaction – is it clinically significant?

Statin – mnemonic – RASLF – (round ass still looking fine) – rosuvastatin 2.5mg/atorvastatin 5mg/simvastatin 10mg/lovastatin 20mg/fluvastatin 40mg

OTC counseling – OLDCART – onset, location, duration, characteristics, aggravating factors, relieving factors, treatments tried, allergies, current medications. (you probably use SCHOLAR MAC)

Victoza pen – measurements are in milligrams

Spiriva handihaler

Steroids vs quinolone – black box interaction – tendon rupture

Statins side effects – no grapefruit juice – muscle pain bilaterally (is this a clinically significant interaction)

ACEi- side effect cough 10%

Optichambers – small/medium/large

Vancomycin – oral not absorbed treats c. diff. review compounding procedure

Eye drops – solution 20 drops/ml, suspension 15 drops/ml

Pseudoephedrine – 3.6gm per transaction, 9gm per 30 days

High concentration narcotics – morphine, oxycodone (potentially very dangerous)

REMS programs – Accutane, tikosyn, etc

Keflex 50mg/kg uti children bid?

Renocaps - replaces water soluble vitamins b vitamin, folic acid, vitamin c, removed during dialysis

Ebola – spread through blood or body fluid when in contact with broken skin or mucus membranes

Folic acid in patients taking methotrexate – prevents oral sores, nausea, vomiting, and liver toxicity

PTH – parathyroid hormone – active vitamin d plays in important role in maintaining normal PTH levels and bone health. High PTH level cause inflammation of bones, muscles, and tendons. It also leads to a loss of bone calcium and phosphorous. In chronic kidney disease the kidneys do not sufficiently convert enough vitamin D to its active form thus PTH level will rise. Elevated PTH levels will pull calcium and phosphorus out of the bones. Oral active vitamin d (calcitriol) can help prevent high PTH levels in patient with chronic kidney disease. Sensipar a calcimemetic also lowers high PTH levels.

Phosphorus binders (phoslo) because the kidneys are unable to secret phosphorus in chronic kidney disease. The unsecreted phosphorus binds with calcium and precipitates in small blood vessels in the feet, intestines, and heart. Renagel/renvela bind with phosphorus as well

Clonidine – used for BP but also used for drug withdrawals – sweating/nausea/cramps/anxiety/tremor/chills