

The MUST HAVE Systemic Medications

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The MUST-HAVE Orals Meds

- Augmentin
- Azithromycin
- Cephalosporin
- Doxycycline
- Famcyclovir
- Allegra
- Motrin (prescriptive strength)
- Vicodin
- Medrol dos-pak

Augmentin Indications/Dosage forms

- Indications:
- Preseptal cellulitis
- Dacryocystitis
- Pediatric Hemophilus
- Amoxicillin + Clavulanate @ @ @ @
- Dosage forms:
- 500 or 875mg tablets BID
- 125 or 250mg/5cc pediatric suspension

Augmentin Amoxicillin/Clavulanate

- Broad spectrum penicillin (Staph, Strep, Hemophilus)
- Effective against penicillinase producers @ @ @
- High therapeutic index
- Bacteriocidal
- Low GI side-effects
- Safe in pregnancy
- Watch out for allergy

“But Doctor, I’m Allergic to Penicillin”

15 Y/O female presents with mom-C/O red eye-Simple Right??

- Has seen one nurse practitioner
- Has seen Two Optometrists
- Tx with Ciloxan
- Tx with Tobradex
- Mom wonders why nobody can cure her daughter

Azithromycin
Indications/Dosage forms

- **Indications:**
- Drug of choice for Chlamydia
- Pediatric Hemophilus
- Penicillin substitute
- Dosage forms:
- 250mg Z-Pak (6 capsules)
- 1 gm packet
- 100 and 200mg/5ml ped. suspension

**The Second Generation
Cephalosporins are Good for
“HENPEK” Gram Negatives**

- **H: Hemophilus**
- **E: E. coli**
- **N: Neisseria**
- **P: Proteus**
- **E: Enterococci**
- **K: Klebsiella**

**What Causes Chronic Staph
Lid Inflammation?
Exotoxins Right??!**

**Staph epidemidis DOES NOT
produce exotoxins, but it does
produce a complex organic
molecule:**

Staph POO POO

- Metabolize lipids to fatty acids
- Fatty acids = Staph Poopy
- Produce inflammatory response
- Don't use Steroids-a short term cure for a chronic disease.....
- Use.....

Doxycycline
Indications/Dosage forms

- **Indications:**
- Back-up drug for Chlamydia
- Acne rosaceae/chronic Staph blepharitis
- Dosage forms:
- 50 and 100mg tablets/capsules
- 25mg/5ml suspension

For ALL Herpes It's the Drug of Choice

- Recurrent or resistant simplex
- ALL Zoster patients over 50@@@

Famvir Famcyclovir

- Third generation anti-viral medication
- Pro-drug
- Selective toxicity
- Excellent anti-herpetic activity
- Expensive, but cost-effective

Famvir Indications/Dosage forms

- Indications:
- Resistant ocular simplex or Type II simplex
- 125-250mg BID
- Hpes zoster 500mg TID
- Dosage forms:
- 125/250/500mg tablets

*“Doctor Onofrey, You changed
my life”*

Salagen Pilocarpine

- Oral parasympathomimetic agent@@@
- Stimulates exocrine gland secretion
- Monitor for GI upset@@@
- Don't use in asthmatics
- Expensive

Salagen Indications/Dosage forms

- Indications:
- Advanced, non-responsive Sjogrens@@@
- 5mg QID
- Dosage form:
- 5mg tablets

Evoxac: New and improved pilocarpine

- Parasympathomimetic
- Better tolerated
- 30mg TID
- No titration necessary
- NEVER in asthmatics

Flaxseed Oil and OSD

- A single 3 year study (200 patients) presented by CF Boerner at the American Society of Cataract and refractive surgery
- Report of 85% success of complete resolution of dry eye symptoms (burning and stinging)
- Marked decrease in artificial tear use

Flaxseed Oil and OSD

- Improved CL tolerance
- Improved VDT tolerance
- Improved post-op Lasik comfort
- Improved meibomian oil “quality”-clearer and less viscosity-less meibomian stasis
- Improvement in Rosacea blepharitis
- No help in Sjogrens or drug induced dry eye

Flaxseed oil and OSD

- Flaxseed oil composed of :
Alpha-linoleic acid omega 3 (57%)
Linoleic acid omega 6 (15%)
Oleic acid omega 9 (18%)

Too much of a good thing?

- Reduced platelet aggregation with:
• ASA
• Vitamin E
• Flaxseed oil
• Ginkgo

Allegra

- Non-sedating anti-histamine
- Good efficacy
- Minimal drug interactions
- No fatal interactions with erythromycin or ketaconazole (Seldane and Hismany) @ @ @ @
- Dose can be titrated

Allegra
Indications/Dosage forms

- **Indications:**
- Seasonal allergy not responsive to topical or nasal therapy
- **Dosage forms:**
- **60mg tablets-Adults BID**
- **Kids: 30mg tabs BID**
- **180mg SR once daily for adults**
- **Zyrtec and Claritin: Adult dose = Kids dose for 6 y/o and above@@@**

**ARE ORALS THE BEST WAY
TO TREAT ALLERGY?**

- Do what allergists do
- Nasal sprays before orals
- Mast cell inhibitors or long acting steroids
- Safe
- Effective
- Synergistic with eye drops
- Safer than orals

Vicodin
Hydrocodone/acetaminophen

- Effective opiate analgesic agent
- Schedule III drug
- Good ratio of opiate to acetaminophen
- excellent synergism with ingredients
- Watch out for opiate (codeine) allergy
- Watch out for alcohol and drowsiness
- Constipation/GI upset

Vicodin
Indications/dosage form

- **Indications:**
- Moderate to severe pain
- Corneal injuries/burns
- **Procedures:**
- Cryo therapy/PRK/PTK/micropuncture
- **Dosage forms:**
- Fixed ratio of 5mg/500mg Hydrocodone/acetaminophen

That all fine and good butttt:

- My Patients a drug abuser
- My Patient's allergic to opiates
- I CAN'T prescribe Narcotic agents
- I don't want to prescribe narcotic agents
- My patient doesn't want to use dope

Ibuprofen/Acetaminophen
Indication/dosage forms

- **Indications:**
- Mild to severe pain
- **Dosage forms**
- 400-600mg motrin with 500-1000mg acetaminophen (Do not exceed 4 gms acetaminophen/day)
- No acetaminophen for persons that regularly consume daily alcohol

NSAID Fact Sheet

- Block cyclooxygenase@@@
- All NSAID's have equivalent efficacy in equal dosages and dose frequency@@@ ie 800mg motrin QID = 20mg of Feldene
- Allergic to one allergic to all
- Never give to diabetics

New NSAIDS

- New COX-2 inhibitors
- Only Vioxx for acute pain
- 50mg daily for 1 week max
- Celebrex is a sulfonamide@@@-Vioxx is NOT
- Fewer GI Side-effects@
@@@

Scleritis is Serious Inflammation STEROID VS NSAID

NSAIDS OF COURSE THEY'RE SAFER?

- Only anti-inflammatory in high doses
- Think RK good for -11.00 myope or LASIK
- GI ulceration
- Renal failure
- Congestive heart failure
- All diabetics/No No No
- POOR anti-inflammatory effect

Steroids Are Safer? You must be kidding

- Extremely effective anti-inflammatory effect
- Safe for short term use if.....
- No GI ulcer
- No psychotic
- No high BP
- No diabetes

Medrol Dospak Methyl prednisolone

- High potency oral corticosteroid
- Good anti-inflammatory activity (glucocorticoid)
- Low mineralocorticoid activity
- Convenient
- inexpensive
- Safe***

Medrol Dose-pak Indications/dosage forms

- Indications:
- Anterior uveitis/scleritis/Type I allergy
- Dosage form:
- Pre-labeled with descending dosage (automatic daily taper over 6 days of TX)
- Always take with food/avoid in diabetics/GI bleeders/blood thinners/NSAIDS/hypertension/psychosis

The 3 TOP REASONS FOR STEROIDS IN EYE DISEASE ARE:

1. TEMPORAL ARTERITIS
2. CRANIAL ARTERITIS
3. ARTERITIC ISCHEMIC OPTIC NEUROPATHY

No, you probably won't Tx it here, but you'd better not miss it
80-100mg prednisone daily

Special dosing formulas for special patients

- Age
- Weight
- Body Surface Area

Young's Rule

- Based on age
- $\frac{\text{Age (yrs)}}{\text{Age} + 12}$ X Adult dose = Pediatric dose
- Example: 6 y/o gets acetaminophen q 4h.
Adult dosage = 650mg q 4h
- $\frac{6}{6 + 12}$ X 650mg = 216 mg

Webster's Rule (Modified Young's)

- Based on age (modified- Kids are fatter now)
 $\frac{\text{Age} + 1}{\text{Age} + 7}$ X adult dose = Pediatric dose
- $\frac{\text{Age} + 1}{\text{Age} + 7}$
- Example:
- $\frac{6 + 1}{6 + 7}$ X 650 = 350mg

Clark's Rule

- Based on weight
- More realistic and individualized
- Kids are larger today/greater obesity
- $\frac{\text{Wt (Lbs)}}{150}$ X adult dose = Pediatric dosage
- Example: 50/60/70 lb 6 Y/O's/
acetaminophen at adult dose of 650mg q 4h
- $\frac{50/60/70}{150}$ X 650mg = 216/260/303mg

BSA example

- 3ft 3in tall child weighting 44 lbs has a BSA of:
- $\frac{39 \text{ in} \times 44 \text{ lbs}}{3131} = 0.548\text{-sq rt} = 0.74 \text{ sq meters}$
- $\frac{100 \text{ cm} \times 20 \text{ kg}}{3600} = 0.555\text{-sq rt} = 0.75 \text{ sq meters}$
- Quick BSA dose calculation =
Adult BSA = 1.73 sq M/adult dose acetaminophen = 650mg q 6h
- Child's dose = $\frac{0.74 \text{ sq. M}}{1.73 \text{ sq. M}} \times 650\text{mg} = 282\text{mg}$

Simple weight/dose calculations

- PDR/package insert/facts and comparisons lists dose by weight
- Weight is almost always in Kg
- Dose is the full 24 hour dose
- Must know the frequency of dosing/D
- Must know the concentration of liquid dosage forms
- Must know the strengths of all solid dosage forms

If the standard pediatric DAILY dosage of prednisolone is 1mg/kg in divided dosage Prescribe a standard dose for a 33 lb child to be administered TID

NOTE: PediaPred syrup contains 5mg/5ml prednisolone