OXYGENATION Drug Class	Action/ Used For	SE/AE	Assess	Pt. Teaching
NSAIDS – 356-3[illegible] **prostaglandin inhibitors (NZ cox 1 or 2)** **ASA, ibuprofen etc**	Relief of mild-moderate pain Anti inflammatory Antipyretic anticoagulant	GI ups[illegible] – bleeding Bronchospasm Tinnitus Vertigo Liver/kidney toxicity	Gi history H&H –bleeding Liver/kidney fxn	Take w/ fo[illegible] Avoid alcoho[illegible]
Anti-infective– Bactrim-trimethoprim – chronic bronchitis, PCP **Aminoglycoside-narrow therapeutic window** Gentamicin (nephrotoxic and ototoxic) Azithromycin – zpak- respiratoy infection **Antifungal** - nystatin see fund handout	**Gentamicin**- for serious gram neg infections. For when penicillin contraindicated. Use caution: renal, elderly, HF, neuromuscular disorders Ototoxic, hepatoxic, nephrotoxic, thrombocytopenia, visual disturbances, tremors, photosensitivity, muscle cramps	GENERAL SE/AE: Hypersensitivity, superinfection, organ toxicity (esp renal and hepatic) Vancomycin is super toxic Ototoxicity, tinnitus; N, V, & D; photosensitivity	IV compatibility, peak and trough, give on time, watch for anaphylaxis, super infection, toxicity Lower and more spread out dose for renal pts.	Finish all medication
Anti-tuberculers 461-470 **Aggressive tx w/ at least 2 of the following:** 5 Primary: INH- Isoniazide, rifampin, pyrazidnamid:, rifabutin, ~~Nydrazid~~ ethan Other drugs are used for tx of resistant strains or if pt develops toxicity to primary drugs. Second-line drugs carry a higher risk of toxicity. Aminoglycosides can be used as adjuncts Also Ciprofloxicin	Tx or prophylactic tb med Bacterialcidal Tb – acid fast bacilli Give w/ B6 to limit peripheral neuropathy	Not for severe liver/kid disease or alcoholics, or dm retinopathy pts. Isoniazide (INH), rifampin and pyrazinamide: hepatitis. LFT monitored Q3months. INH- neurotoxic side effects (numbness, tingling), B6 neuritis, hypersensitivity: rash, arthralgia, fever Ethambutol: optic neuritis (visual loss), GI upset, nephorotoxicity	Psychosis, peripheral neuro, vit B6 def Liver fxn, dyscrasias, seizure, photosens, tinnitus Preg? No ethambutol or rifampin. Rifampin-orangesweat, tears, urine, feces	Take 1hr before or 2 hr meals Avoid antacids **Compliance essential**
Antitussives 597-600 Suppress cough reflex in medulla (relax smooth muscle) Non-narc, narc (Codeine, hydrocodene), combo. OTC-dextromethorphan (DM), robitussin, sucrets, denydryl **expectorants** OTC- guafenesin- robitussin Humibid, antituss, glycotuss, mucinex	To relieve pain and fatigue of irritating non productive cough Usually only used initially (if at all), not great to repress cough reflex w/ lower respiratory issues loosen mucous	Narcs, barbs, anti-deppressants, alcohol, MAOIs may up toxicity	Assess for HTN Hallucinations Sedation Dizziness, HA, drowsy	
Beta-adrenergic agonists 602-606 Short acting bronchodialators Epinephrine - SQ albuterol- Proventin, Ventolin xopenex –albuterol derivative Alupent- moderate duration Long acting bronchodialators Serevent diskus – Advair – serevent + Flovent (steroid) terbutaline – Brethair-PO longterm SQ or inhaled for short term	Short term/rescue broncospasm For asthma, COPD Epi – ER TX bronchospasm Long acting: maintenance/prevent Ephedrine for allergies Serevent – asthma, EIA Advair - asthma	Tachycardia, tremors, nervousness, insomnia, HA, hypertension, HypoK+, hyperglycemia, paradoxical bronchospasm Caution w/ CV, HTN, DM, &, glaucoma pts No tachycardia w/ xopenex ~~Less tachycardia w/ spiriva~~	Pre/post admin:BP, HR. BS & freq of urination, vision	Tacycardia, tremors, nervousness,anxiety, in[illegible] Rinse mouth Rule of thumb: Use rescue before ster[illegible] anticholingerics, use st[illegible] before anticholingerics

OXYGENATION Drug Class	Action/ Used For	SE/AE	Assess	Pt. Teaching
Anti-cholengeri… 607 Long acting bronchodialators Atrovent – ipratrpium bromide Combivent- albuterol + atrovent Tiotropium- Spiriva Atropine –also tx bradyarrhythymia	Long term tx bronchospasm Dries secretions Asthma COPD Spiriva – COPD Atropine -EIA (may use c̄ theophylline)	Dry co…, bad taste, flushed skin Hypo/Hyper-tension, paradoxical bronchospasm Caution w/ CV & glaucoma pts Less tachycardia c̄ spiriva	No tachycardia Assess: BP, HR, dysrythymias, lung sounds, vision	5 min after… ue or bt Rinse mouth
Xanthines (bronchodialators) 607-610 Theophyline –PO maintenance Aminophyline- IV – acute	Broncho, coronary & pulmon vessels dilate. Stima CNS to stim RR Asthma, COPD But not used that much anymore due to horrible side effects	Hyper vent, tachycardia, syncope, palpitations, dysrrhythymias, seizures, Hypotension, convulsions, resp collapse, diuresis	HR, BP	Avoid caffeine (has xan
Antiinflammatories 611 leukotrienne antagonist-singulair, Accolate. cromolyn – Intal- nonsteroid, mast cell stabilizer glucocorticoids- long acting- dexamethasone –Decadron, moderate acting prednisone PO, flonase/flovent, Methylpredinisilone –IV & lg dose for acute	Leuks for Asthma/EIA Maintenance/prev bronchospasm If unresponsive to other tx Steroids: pneumonia, asthma, COPD	Leuk – nasal conges, sore throat, cough, gi upset, fatigue, poss bronchospasm Steroids – short term local effects, drying, irritating, fungus. Long term: Up glucose, up BP, insomnia, HA	Liver levels	Take leuks w/ food use steroid first, wait 5 … then anticholengeric. U… rescue first then steroid take in am

Antibiotic Therapy

Bacteriostatic – inhibits growth, interferes w/ meta...
Bactericidal – kills/lysis

Penicillins: (examples-amoxicillin, carbenicillin, nafcillin, methicillin) inhibits cell wall synthesis

Bacteriocidal, interferes with cell wall synthesis. More effective with gram positive organisms. Considered safe and effective. * If allergic to penicillin, may be allergic to Cephalosporins. Used for upper respiratory infections, sinusitis, UTIS Nephro, Hep, WBC

Nursing responsibilities

- Monitor for rash, hives, itching, fever, anaphylaxis. Nausea vomiting, diarrhea
- Observe patient for 30 minutes with the first dose.
- Check for allergies before giving.
- Assess for superinfection- teach patient to report white patches in mouth or vaginal itching or discharge.
- Poor absorption by mouth, Given IV for achieving best blood level
- Give with a full glass of water, 1 hour before or 2 hours after food (except Amoxicillin which is not affected by food.
- Monitor labs –BUN, liver enzymes, WBC,

Cephalosporins: (examples cephalexin (Keflex), ceftriazone (Rocephrin), cefepime (Maxipime)

Bactericidal

Inhibit cell wall synthesis, work similar to penicillins. Effective against gram negative and gram positive organisms. 10% of those who are allergic to penicillin are allergic to cephalosporins. 4 generations of cephalsporins, each have slightly different activity.

- Same as penicillin

Macrolides : (examples Zithromax, Biaxin, erythromycin)

Bactericidal

Broad spectrum antibiotic, active against gram positive, some gram negative, not affected by food. Treat respiratory infection, skin infections like impetigo, diphtheria, STDS, mycoplasmic pneumonia, Legionaire's Disease.

Nursing-
Can increase serum levels of theophylline and warfarin (Coumadin)
See penicillins.

Lincosamides: (examples clindomycin)
Inhibit bacterial wall synthesis. Effective against Gram positive like staph aureus

Vancomycin-
Inhibits bacterial cell wall synthesis, Only effective against gram positive organisms, Staph and c. difficile, If given for c diff, it is given orally and stays in the GI tract, not systemic.

- Risk for ototoxicity, nephrotoxity- maintain safe blood levels, check BUN, creatinine.
- Peak and Trough for safe dosing
- Rapid IV dosing can cause "red man syndrome", reddened blotchy skin due to toxicity, not allergy.

Tetracyclines
Used to treat respiratory and skin infections, STDs pustules related to rosacea in adults.
Can cause photosensitivity, teeth discoloration in children. Contraindicated with pregnant women.
Avoid milk or antacids 2 hours before or after dose.

Aminoglycocides – gentamicin, streptomycin, Neomycin

Bacteriocidal, effective against gram negative organisms. Often combines withpenicillins for a broad spectrum effect. * ototoxicity, nephrotoxicity especially in older adults and patients with renal disease.

- Monitor renal function
- Assess for tinnitus
- Watch for IV incompatibilities
- Peak and trough for safe dose.

Fluroquinolones: (ciprofloxacin (Cipro), levofloxacin (Levaquin)
Effective against gram neg and some gram pos bacteria. Used for respiratory, GI, and urinary tract infections. hepatoxic nephrotoxic photosensitivity

- Increase fluids to 2 to 3 liters/day
- Monitor for elevated liver enzymes and BUN, creatinine
- Avoid exposure to sunlight
- Avoid milk or antacids 2 hours before or after dose

Sulfonamides- bacteriostatic
Often combined with trimethoprim, a urinary tract antiinfective(example, Bactrim) to treat UTI, Pneumocysitis carini. ← PCP – immunocomprimised

- Check for Sulfa allergy
- Give with a full glass of water, increase fluid intake
- Watch for rash, photosensitivity, blood dyscrasias (leukemia, aplastic anemia)
- Take 1 hour before or 2 hours after a meal