

Pharmacy



Antibiotics

What is an antibiotic?

A drug that kills microbes (bacteria, yeast) and is used to treat infections.

Does not kill viruses.

Some side effects include GI upset (nausea, diarrhea).





Antibiotic Medications

Amikacin (Amiglyde-V) - [aminoglycoside], for serious gram-negative bacterial infections

Amoxicillin - [penicillin], broad-spectrum for bacterial infections, particularly anaerobic

Amoxicillin & Clavulanate (Clavamox) - [potentiated penicillin], broad-spectrum for bacterial infections and against microbial activity

Ampicillin - [penicillin], broad-spectrum for gram-positive & negative bacterial infections

Ampicillin & Sulbactam (Unasyn) - [amino-penicillin], for some resistant infections

Cefazolin - [cephalosporin], broad-spectrum for bacterial infections

Cefpodoxime (Simplicef) - [cephalosporin], broad-spectrum for bacterial infections



Antibiotic Medications

Cephalexin (Keflex) - [cephalosporin], broad-spectrum, esp. for skin or kidney infections

Clindamycin - [lincosamide], broad-spectrum for gram-positive bacteria, anaerobic bacteria, and some protozoal infections

Convenia - [cephalosporin], bacterial skin infections, wounds, abscesses (\$\$)

Doxycycline - [tetracycline], for respiratory, urinary, or oral infections, for tick-borne diseases

*for oral, follow with 5ml H₂O, can cause esophagitis/esophageal ulcers

*for injectable, dilute

Enrofloxacin (Baytril) - [fluoroquinolone], broad-spectrum for some bacterial infections (not anaerobic ones)

*for injectable, dilute 50/50 with NaCl, give slowly

Marbofloxacin (Zeniquin) - [fluoroquinolone], for some resistant bacterial infections, especially *Pseudomonas*, (not for anaerobic infections)



Antibiotic Medications

Metronidazole (Flagyl) - [nitroimidazole antimicrobial], for anaerobic bacterial infections and protozoal infections

*for injectable, protect from light and give slowly

***Sulfasalazine** - [anti-inflamm, anti-microbial], for colitis and other digestive tract

Steroids

What is a steroid?

Biological carbon-based compounds.

Naturally occurring or man-made.

Properties:

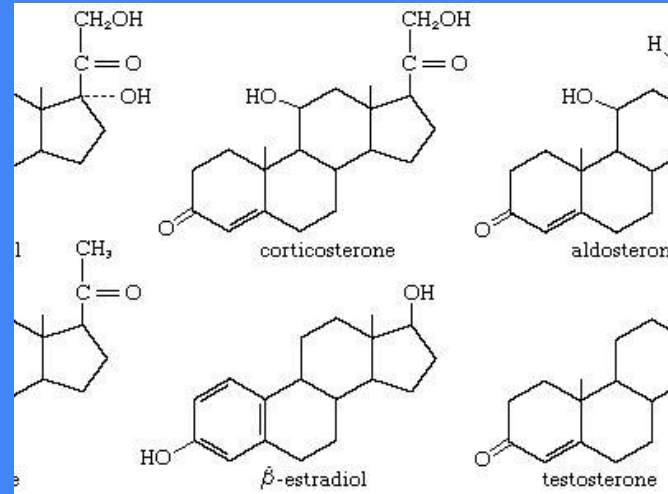
Corticosteroids

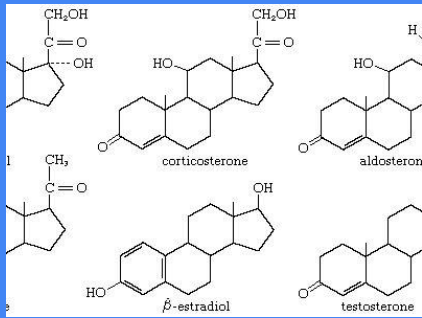
→ Glucocorticoids

- Anti-inflammatory
- Immune suppression (cortisol)

Sex steroids (estrogen, progesterone, testosterone)

Usually involves tapered dosing.





Steroid Medications

Depo-Medrol - (methylprednisolone acetate) anti-inflammatory for allergies, some skin conditions, arthritis

Dexamethasone - for shock, immune-mediated disease, allergic or inflammatory conditions

Dexamethasone SP - for allergies, inflammation, arthritis, immune suppression

Pred Acetate - for inflammation, immune suppression, hypoadrenocorticism (Addison's)

*injectable - suspension, shake before using, never give IV

Prednisolone - for inflammation, joint pain, decreases symptom of allergic reactions

Prednisone - for inflammation, immune suppression

***Solu-Medrol** - for inflammation, adrenal gland issues, immune-mediated diseases

Zycortal - for mineralocorticoid deficiency in dogs w/ hypoadrenocorticism (Addison's)

NSAIDs

What is an NSAID?

Non-Steroidal Anti-Inflammatory Drug

Block the production of chemicals that cause inflammation.

This will reduce associated pain.

Work similar to steroids, but without side effects.

Non-Steroidal Anti-Inflammatory Medications

Aspirin - for inflammation, anti-clotting, fever reduction, some pain control

Carprofen (Rimadyl) - for post-op inflammation and pain control, osteoarthritis

*oral, give with food, can cause GI ulceration

***Deracoxib** (Deramaxx) - for pain and inflammation associated with osteoarthritis

***Firocoxib** (Previcox) - for pain and inflammation from osteoarthritis, and orthopedic or soft-tissue surgery

Meloxicam (Metacam, Meloxidyl) - for pain, inflammation, not for chronic use

*repeated use in cats has been associated with acute renal failure and death

Robenacoxib (Onsior) - for post-operative pain in cats and dogs, approved for 3-day use

Pain Medications

Pain Medications

Buprenorphine (Buprenex) - [opioid]

Codeine - [opioid]

Fentanyl - [opioid]

Gabapentin - [anticonvulsant], for seizures and nerve pain, cat “chill pill”

Hydromorphone - [opioid]

***Methadone** - [opioid]

Tramadol - [opioid]

Sedatives and Anesthetic Medications

Sedatives and Anesthetic Medications

Acepromazine -

Alfaxalone - (Alfaxan)

Butorphanol (Torbugesic) -

Dexmedetomidine (DexDomitor) -

Diazepam (Valium) - benzodiazepine

Ketamine -

Midazolam - benzodiazepine

Sedatives and Anesthetic Medications

Telazol -

Trazodone -

Local* Anesthetic Medications

Bupivacaine (Marcaine) - slow-acting (onset 10-15, 20-30min), longer acting (4-6hr)

Lidocaine - fast-acting (onset 1-5, 10-15min), short-acting (1-2h) local or regional anesthesia

Lidocaine/Prilocaine (EMLA) - topical, onset after 60min, good for dermal analgesia

***Proparacaine** - eye anesthesia, absorbed better by conjunctiva than cornea, fewest side effects, though it DOES decrease IOP

Tetracaine - slower onset than lidocaine, but superior for nasal anesthesia (more potent, long-acting (>60min)) when applied on mucous membranes, can be for eyes (longer lasting, but may have side effects and DOES decrease IOP)

Reversal Medications

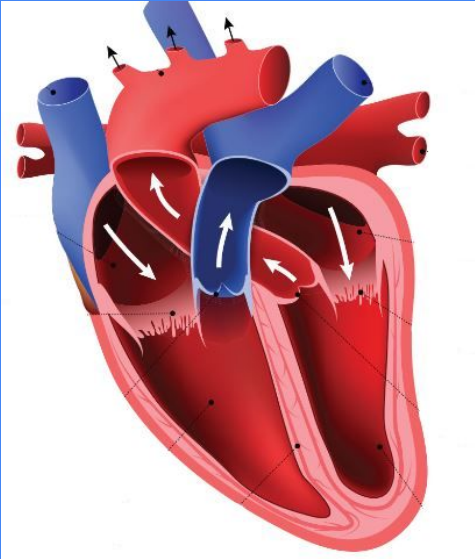
Atipamezole (Antisedan) - reverses Dexmedetomidine

*IM injection only

Flumazenil - reverses benzodiazepines

Naloxone - reverses opioids

Cardiac and Blood Pressure Medications



Some cardiac medication terms:

Contractility - ability of the heart muscle to contract

Inotrope - a medication that changes the force of the heart's contractions

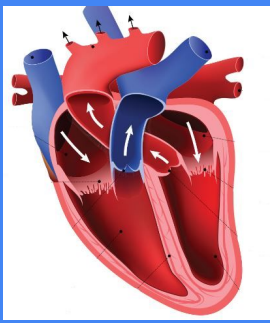
Positive inotrope = stronger contractions

Negative inotrope = weaker contractions

Hypo-/hypertension - lower/higher than normal BP

Vasodilator - a medication which widens blood vessels by relaxing smooth muscle

Vasoconstrictor - a medication which narrows blood vessels by causing smooth muscle to contract



Cardiac and Blood Pressure Medications

Amlodipine (Norvasc) - [calcium-channel blocker] for hypertension

Atenolol - [beta-blocker] for heart disease, hypertension, certain arrhythmias (SVT, VPC)

Clopidogrel (Plavix) - [anti-platelet] platelet aggregation inhibitor

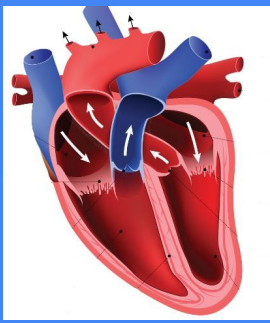
Digoxin - affects electrical conduction & improves contractility, for CHF, some arrhythmias

Diltiazem - [calcium-channel blocker], for hypertension, HCM, certain arrhythmias

Dobutamine - [positive inotrope], pressor for hypotension

Dopamine - [positive inotrope], pressor for hypotension

Enalapril - [ACE-inhibitor], for CHF and hypertension, acts by relaxing/widening vessels



Cardiac and Blood Pressure Medications

Furosemide (Lasix) - [loop diuretic], for CHF, pulmonary edema, some renal diseases

*always provide H₂O to patients

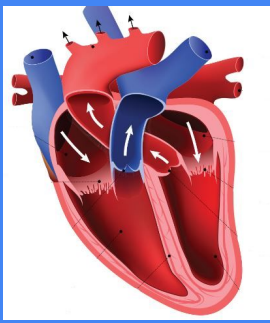
Hydralazine - [vasodilator], for hypertension, some causes of heart failure

Lidocaine - [antiarrhythmic], for acute ventricular arrhythmias (not SVT)

Mexiletine - [sodium-channel blocker], for chronic ventricular arrhythmias (VPCs, V-tach)

Norepinephrine - [inotrope and vasopressor], pressor for hypotension

Phenylephrine - [alpha-1 agonist], for hypotension resulting from vasodilation of anesthesia



Cardiac and Blood Pressure Medications

Pimobendan (Vetmedin) - [inodilator], for CHF from DCM or with MVD, increases contractility and vasodilation

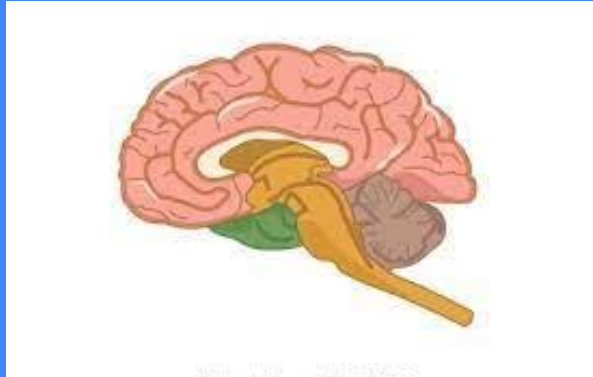
Propranolol - [beta-blocker], for certain arrhythmias, hypertension, and HCM

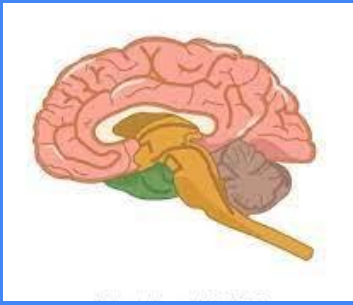
Telmisartan (Semintra) - [angiotensin receptor blocker], for feline hypertension

Sildenafil (Viagra) - [vasodilator], for pulmonary hypertension

Sotalol - [beta-blocker, antiarrhythmic], for certain tachycardias

Seizure and Neuro Medications





Seizure and Neuro Medications

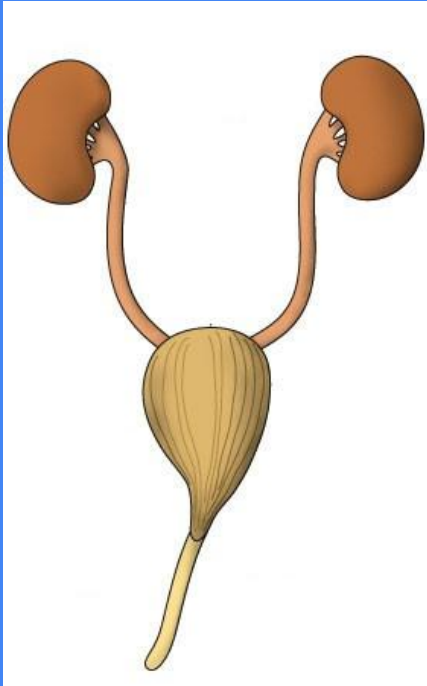
Levetiracetam (Keppra) - [anticonvulsant] for seizures, epilepsy

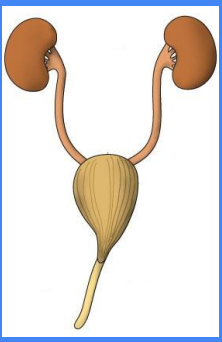
*can come in extended release format

Phenobarbital - [anticonvulsant] for seizures, decreases & stabilizes brain neuron activity

***Zonisamide** - [anticonvulsant] for seizures, epilepsy

Urinary Medications



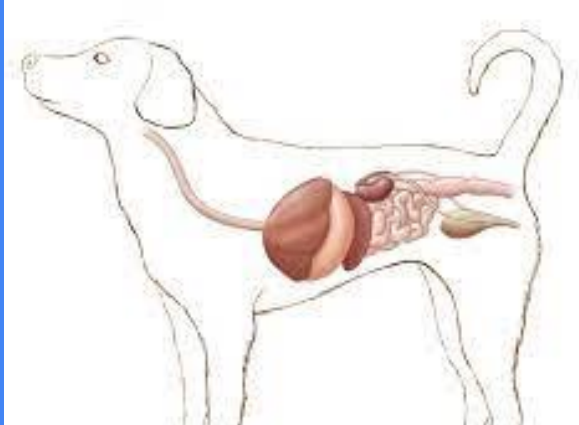


Urinary Medications

Bethanechol - [cholinergic] for urine retention, works by increasing bladder muscle tone

Prazosin - [alpha-1 adrenergic blocker] relaxes urethral sphincter and reduces spasms

Gastrointestinal Medications



Some gastrointestinal medication terms:

Prokinetic - class of medications that increases gut motility (movement) by strengthening contractions

Peristalsis - rhythmic muscle contractions and relaxations that propel food/ingesta



Gastrointestinal Medications

Chlorpromazine - [phenothiazine derivative] reduces nausea and vomiting, motion sickness (cats), can cause sedation

Cisapride - [GI prokinetic] improves gut motility by increasing peristalsis

Famotidine (Pepcid) - [acid reducer] decreases stomach acid, for ulcers, gastritis, esophagitis

Loperamide (Imodium) - [antidiarrheal] increases small intestine tone & H₂O absorption

Maropitant (Cerenia) - [antiemetic] for vomiting, nausea, motion sickness

Metoclopramide (Reglan) - [prokinetic] for stomach and upper GI motility, for nausea

Misoprostol (Cytotec) - [prostaglandin analog] for stomach ulcers

*may cause miscarriage in women - do not handle (wear gloves)



Gastrointestinal Medications

Omeprazole (Prilosec) - [proton pump inhibitor] for stomach and upper GI ulcers, decreases acid production

Ondansetron (Zofran) - [antiemetic], for severe nausea and vomiting

Pantoprazole (Protonix) - [prostaglandin analog], for stomach ulcers & gastric acid-related issues

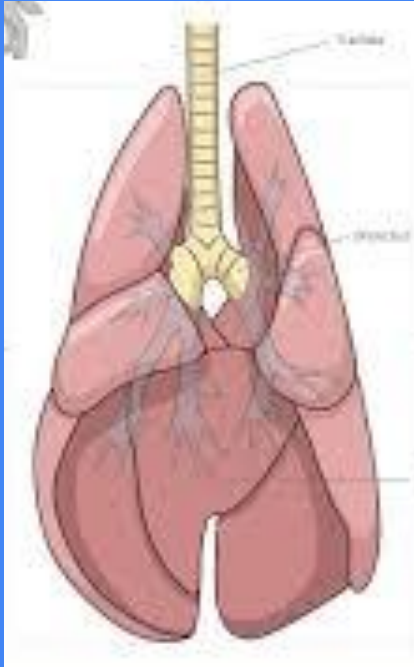
Provable - [probiotic supplement], beneficial pre- & probiotics to restore GI microflora

Simethicone (Gas-X) - [antifoaming agent], allows gas bubbles to combine and be passed easily to reduce bloating and cramping

Sucralfate (Carafate) - [mucosal adherent], for upper GI erosion and ulceration

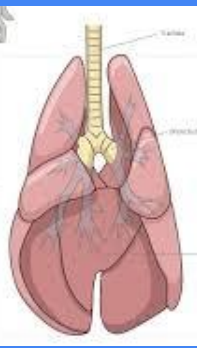
*do not give with other medications

Respiratory Medications



Some respiratory medication terms:

Bronchodilator - a medication that dilates the bronchi and bronchioles to increase airflow to the lungs



Respiratory Medications

Hydrocodone bitartrate (Tussigon, Hycodan) - [opiate], for cough suppression, pain

Terbutaline (Brethine) - [bronchodilator] for airway diseases like asthma or bronchitis

Theophylline - [bronchodilator] for bronchoconstriction and inflammation from lower airway disease or asthma

*also have an extended release (ER)

Inhalants:

Albuterol - [bronchodilator], treats or prevents bronchospasms

Fluticasone (Flovent) - [corticosteroid], reduces airway inflammation

Endocrine and Hormonal Medications

Some hormone medication terms:

Endocrine and Hormonal Medications

Corsyntropin (Cortrosyn) - hormonal diagnostic agent for ACTH stim test

*short shelf-life once reconstituted (21 days)

Insulin - converts blood sugar to energy, for when pancreas does not produce adequate insulin

Short-acting = Humulin R

Long-acting = Humulin N, ProZinc, Lantus, Glargine

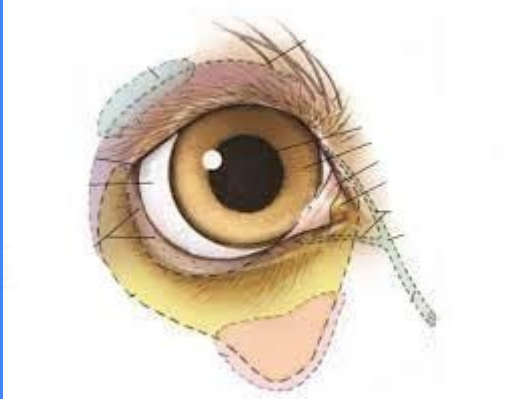
*need to resuspend - be gentle! Roll bottle between hands

Levothyroxine - thyroid hormone replacement for hypothyroidism

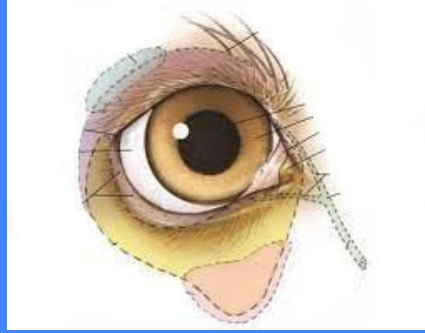
Methimazole - antithyroid medication for hyperthyroidism (in cats)

Oxytocin - stimulates uterine contraction to facilitate birth/parturition

Ophthalmic Medications



Some ophthalmic medication terms:



Ophthalmic Medications

Atropine - [anticholinergic], to dilate the pupil, mild pain control by relaxing muscles

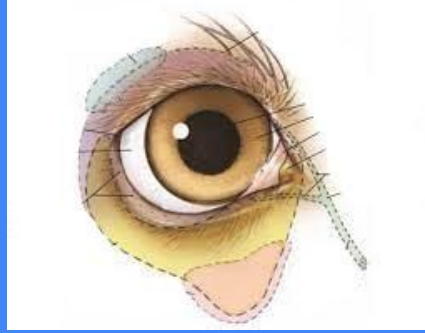
Diclofenac - [NSAID] reduces eye swelling and pain, decreases light sensitivity

Dorzolamide & Timolol (Cosopt) - [carbonic anhydrase inhibitor, beta-blocker], reduces increased eye pressure and treats glaucoma by decreasing fluid production

Erythromycin - [macrolide antibiotic] for some bacterial infections of the eye/eyelid

Flurbiprofen - [NSAID] prevents pupil narrowing, good for pre-op cataract surgery

Ketorolac - [NSAID] for eye inflammation



Ophthalmic Medications

Latanoprost - [prostaglandin] reduces eye pressure and treats glaucoma by increasing fluid outflow

*kept in refrigerator

NeoPolyBac - [antibiotic] for bacterial infections of the eye/eyelid

*READ carefully! We also have:

NeoPoly + Dex - [antibiotic + steroid] for bacterial infections and inflammation

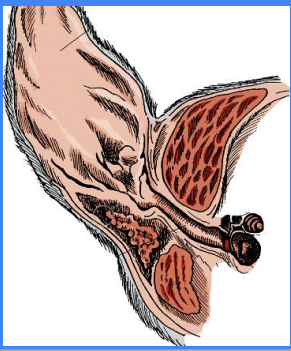
NeoPolyBac + Hydrocortisone - [antibiotic + steroid] for eye inflammation and infection from uveitis, or other injury

OptixCare - [lubricant] for dry eye and irritation, used for eye care during anesthesia

Tobramycin - [antibiotic] for bacterial infections of the eye

Otic Medications





Otic Medications

EpiOtic - [cleanser, drying agent] for routine ear cleaning

Otomax - [triple action medication] antibacterial, anti-inflammatory, antifungal effects
(Gentamicin, Betamethasone, Clotrimazole)

Tresaderm - [triple action medication] antibacterial, anti-inflammatory, antifungal
(Neomycin, Dexamethasone, Thiabendazole)

*kept in refrigerator

Vitamins and Supplement

Some medication terms:

Vitamins and Supplements

Vitamin B complex - [vitamin] nutritional supplement of water-soluble B-vitamins for deficiencies to help promote energy conversion

*light sensitive

Vitamin B1/Thiamine - [vitamin] for deficiencies, to promote carbohydrate metabolism

Vitamin B12/Cobalamin - [vitamin] for deficiencies, to promote health of nervous, immune, and digestive systems

Calcium Gluconate - [calcium salt] for hypocalcemia, eclampsia and dystocia

*give slowly and monitor heart rate

Dextrose - [sugar] counteract hypoglycemia, source of calories, can decrease excessive pressure of spinal brain fluid

*dilute 1-to-1 when giving bolus to make a 25% solution

Vitamins and Supplements

Vitamin K (phytonadione) - [vitamin] activates coagulation factors, reverses anticoagulant effect of rodenticide

Potassium Chloride (KCl) - [electrolyte supplement] for hypokalemia

Potassium Phosphate (KPhos) - [electrolyte supplement] for hypokalemia and hypophosphatemia

Potassium Gluconate (Tumil-K, Renal Care) - [electrolyte supplement] for hypokalemia and kidney health

Yunnan Baiyao - [herbal supplement] increases blood coagulation

Grab Bag

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Some medication terms:

Dewormers and Anti-parasitic Medications

Fenbendazole (Panacur) - [anti-parasitic] dewormer, for roundworms, hookworms, whipworms, and tapeworms

Ivermectin - [anti-parasitic] heartworm preventative, treats demodex mange, scabies, ear mites

Praziquantel (Droncit) - [anti-parasitic] dewormer, primarily for tapeworms

Pyrantel Pamoate (Strongid) - [anti-helminthic] dewormer, for roundworms, hookworms, and stomach worm parasites

Sulfadimethoxine (Albon) - [antimicrobial] for intestinal coccidiosis (protozoal infection)

Antihistamines Medications

Cyproheptadine - [antihistamine] used primarily for appetite stimulation

Diphenhydramine (Benadryl) - [antihistamine] for allergies, atopy (allergic rhinitis, asthma, atopic dermatitis), can help with motion sickness (dogs)

Hydroxyzine - [antihistamine] for acute inflammatory and allergic conditions, has anti-nausea effects for motion sickness and mild sedative properties

Meclizine - [antihistamine] prevents and treats motion sickness, often used for vestibular patients

Topical Medications

Burow's solution- astringent and antibacterial properties, treats inflammation of insect bites and stings, rashes, moist dermatitis, chronic ear infections

Gentocin spray (GenOne) - [antibiotic] for topical bacterial infections, infections from skin conditions

Silver Sulfadiazene Cream (SSD) - [antibacterial] for topical burns to prevent and treat bacterial and yeast infections

Appetite Stimulant Medications

Capromorelin (Entyce) - appetite stimulant (in dogs)

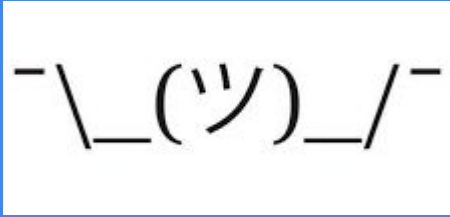
Mirtazapine (Mirataz) - appetite stimulant, can help with nausea and vomiting (in cats)

*wear gloves when giving transdermal

Emergency/CPR Medications

Atropine - [anticholinergic] pre-anesthetic/anesthetic to maintain appropriate heart rate (increases heart rate, BP, and cardiac activity), treatment of organophosphate toxicity

Epinephrine - [bronchodilator, alpha & beta agonist] for emergency allergic reactions/anaphylaxis, used in cardiac resuscitation



Grab Bag Medications

Acetylcysteine - [mucolytic] used to treat acetaminophen toxicity

*injectable - must dilute and use filter

*when given orally - dilute with Dextrose to mask terrible taste

Apomorphine - [D2 dopamine receptor agonist] to induce vomiting (in dogs)

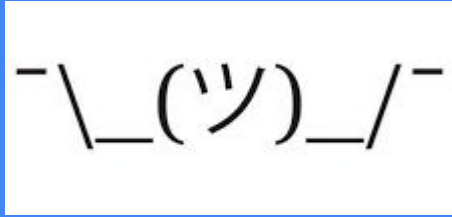
Cyclosporine (Atopica) - [systemic immunosuppressant], for atopic dermatitis

Denamarin (SAME) - [antidote] S-Adenosylmethionine improves liver function, helps with detoxification (acetaminophen, xylitol)

Fomepizole - [antidote] for ethylene glycol toxicity, prevents breakdown into toxins

*injectable - must dilute and use filter

Heparin - [glycosaminoglycan] blocks clotting pathways, does not dissolve clots



Grab Bag Medications

Methocarbamol (Robaxin) - [muscle relaxant] works on CNS for IVDD and traumatic muscle strains (tetanus, permethrin toxicity in cats)

Ursodiol - [bile acid] for gallbladder or bile-related liver diseases (mucocele, cholestasis, chronic hepatitis), reduces cholesterol produced and absorbed, speeds its breakdown