

Phenobarbital & Phenytoin

solution:s

Indications:

AEDs, PB for sedation

Considerations:

- · Require AED drug level monitoring
- CYP-450 enzyme inducers: dosages of other Rx need to be monitored (AEDs, antidepressants & antipsychotics, benzos, CCBs, statins, OCPs & warfarin!)
- Lower doses in the elderly, or w/ renal or hepatic impairment
- PB not DOC d/t cognitive, sedating & behavioral SEs.
- PHT not for absence sz, it may increase them!

Medication	Systemic/Physical Effects	CNS Effects
Phenobarbital	Rash Sleep problems ↓ Vit D & K <u>Rare:</u> blood dyscrasias, liver toxicity	Sedation, Ataxia, dizziness Nystagmus ↓ concentration & cognition Behavior △, irritability (kids)
Phenytoin (Dilantin)	Hirsutism Acne Gingival hyperplasia (50%) ↓ folate/T4/Vitamin D & K levels Rash Osteomalacia ↑ LFTs Blood dyscrasias	Ataxia, dizziness Nystagmus

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COMMON MEDICATIONS	SOIUTIO
DONEPEZIL HCL - ARICEPT:	
INDICATIONS AND USAGE	
 Mild moderate dementia/Alzheimer's . 	
ARICEPT should be taken in the evening	
 ARICEPT can be taken with or without fo 	od.

 The 23 mg tablet should not be split, crushed or chewed because this may increase its rate of absorption.

 Allow ARICEPT ODT to dissolve on the tongue and follow with water.

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COMMON MEDICATIONS

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SIDE EFFECTS OF DONEPEZIL HCL – ARICEPT:

- Nausea
- Diarrhea
- · Not sleeping well
- Vomiting
- · Muscle cramps
- wuscle cramp
- Feeling tired
- Not wanting to eat
 Slow heartbeat and fainting
- Not wanting to eat
- More stomach acid. This raises the chance of ulcers and bleeding (NSAID)
- Worsening of lung problems in people with asthma or other lung disease
- · Seizures
- · Difficulty passing urine

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Rx for ADHD



Stimulants

- · Ritalin/ Concerta/ Methylphenidate
- · Dexedrine Dextroamphetamine
- · Adderall/ amphetamine salts

SNRI: Selective NE Reuptake Inhibitor

· Strattera/ Atomoxetine

Adrenergic

Clonidine

Stimulants

solution s

- Take effect within the first week (without mood/anxiety dx)
 - 75 % children
 - 25-78 % adults
- · Can increase anxiety
- · Should be taken with or after meals
- Dosage q. 2 6 h
- SE: anorexia (\(\psi \) wt), abdominal pain, insomnia, irritability, sadness, can increase tics & induce psychotic episodes (rare)
- · Check P, BP with ↑ dose

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Side Effects – Stimulants



- · Nervousness, irritability
- Insomnia
- · Anorexia & weight loss (*growth may be effected)
- · Headache
- · Hypertension, tachycardia
- Tics
- · Dry mouth, blurry vision

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Strattera: atomoxetine



- Blocks recapture of NE (†attention, ↓impulsivity, activity)
- · With/without meals
- · Takes effect in 4 weeks
- · No withdrawal symptoms noted
- SE: headache, N & V, abdominal discomfort, anorexia (weight loss), labile mood, fatigue
- Precautions: hypertension, cardiovascular disease, hypotension, liver disorders, glaucoma

0 Side Effects - Strattera **SOLUTION-S** N & V, abdominal discomfort · Loss of appetite · Headache, dizziness Insomnia · Fatigue, lethargy · Anticholinergic side effects · Irritability, aggressiveness Palpitations · Sexual dysfunction 0 Clonidine **SOLUTION'S** Vs hyperactivity & impulsivity • Inhibition of noradrenergic transmission - ADHD: 0,05-0,3mg/day - Aggression: 0,15-0,4mg/day - Anxiety: 0,15-0,5mg/day · Takes effect in: 30-60 minutes (patch: 2-3 days) · Duration: 8 hours (patch: 7 days) SE: fatigue, hypotension, vertigo, dermatitis (patch), agitation, depression · *withdrawal symptoms

COMMON MEDICATIONS:



NALTREXONE - REVIA:

- · Opioid receptor antagonist
- Approved by the Food and Drug Administration for alcohol and opioid dependence.
- Case reports noted efficacy in impulse control disorders and self-injury, particularly in populations with developmental delay
- Newer research suggests that response to naltrexone may be predicted by elevated betaendorphin levels following SIB

COMMON MEDICATIONS

solution:s

SIDE EFFECTS OF NALTREXONE - REVIA:

- Abdominal or stomach cramping or pain (mild or moderate)
- Anxiety, nervousness, restlessness or trouble sleeping
- Headache

- · Chills
- Constipation
- Cough, hoarseness, runny or stuffy nose, sinus problems, sneezing or sore throat
- Diarrhea
- Dizziness

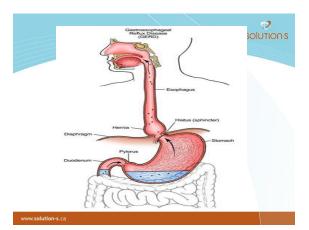
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COMMON MEDICATIONS

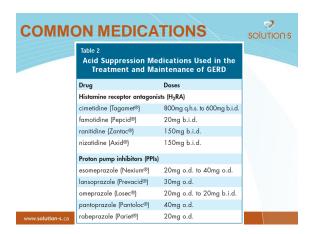


SIDE EFFECTS OF NALTREXONE - REVIA:

- · Joint or muscle pain
- · Nausea or vomiting
- Unusual tiredness
- · HR irregularities
- Increased thirst
- Irritability
- · Loss of appetite
- Sexual problems in males



OMMON M	EDICATION	SOIUTION
Generic	Brand name	Use/monitoring
Calcium Carbonate	Tums	Antacids
Sodium bicarbonate	Alka Selzter	Antacid
Calcium carbonate and alginic acid	Gaviscon	Antacid
Ranitidine	Zantac	H2 blocker
Famotidine	Pepcid AC	H2 blocker
Esomeprazole	Nexium	PPI
Lansoprazole	Prevacid	PPI
Omeprazole	Losec	PPI
Pantoprazole	Pantaloc	PPI
Rabeprazole	Pariet	PPI
Domperidone	Motilium	Motility agent



Considerations: • May lead to slightly increased risk of gastrointestinal infections such as Salmonella and Campylobacter and possible C. difficile • Hypomagnesia • Increased risk of osteoporosis • Profound and long lasting inhibition of gastric acid secretion will impact any medications that required this to be metabolized

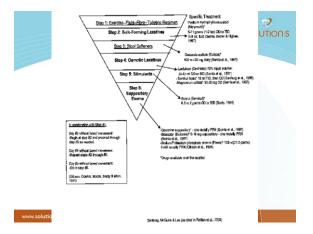
COMMON MEDICATIONS



More Considerations:

- Withdrawal of long term PPI therapy can lead to aggravation of acid related symptoms and may result in Rebound Acid Hyper-secretion
- Food **reduces** the peak concentration

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COMMON MEDICATIONS



- Bulk-forming
- · Hyper-osmotic agents
- Lubricants
- · Osmotic saline agents
- · Stool softeners
- Stimulants





COMMON MEDICATIONS



Relievers:

- ß-agonists (e.g., Ventolin, Berotec, Bricanyl)
- Anti-cholinergics (e.g., **Atrovent**)
- Combination: **Combivent** (ipratropium bromide and albuterol sulfate)

Side Effects:

Increased HR, headache, dizziness, nausea, dry mouth, shaking (tremors), or nervousness

COMMON MEDICATIO		
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Preventers:

- Long acting ß-agonists (e.g., Serevent)
- Corticosteroids (e.g., Prednisone)
- Inhaled Corticosteroids (e.g., Beclovent
- Pulmicort, Becloforte, Flovent, Bronalide)

Side Effects: hoarseness, thrush**.

**Rinsing the mouth, gargling after use

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COMMON MEDICATIONS



- Increased colonization of the oropharynx with C. albicans is common in patients using ICS
- ICS should not be discontinued abruptly
- Decreases in bone density have been demonstrated with long-term use of high doses of ICS
- Dysphonia (hoarseness, temporary or permanent change in voice) and throat irritation are not uncommon.

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COMMON MEDICATIONS SOlUTIONS

COMMON N	MEDICATION	S solutions
ACTION	MEDICATION NAME	MONITORING
B/P LOWERING (Diuretic ACE-I: angiotensin- conversion enzyme inhibitor)	HCTZ, RAMIPRIL ("PRIL")	Hypotension, cough, headache, dizziness, angioedema have been reported with the use of ACE inhibitors. Vomiting, diarrhea, excessive perspiration or dehydration can cause hypotension, Multiple drug-drug interactions.
LIPID LOWERING (statin drugs)	SIMVASTATIN 'STATIN'	Used with caution. Patients who consume large quantities of alcohol and/or have hx liver disease, myalgias, including muscle pain or weakness common.

ACTION	MEDICATION NAME	MONITORING
Decrease HR (8-blocker)	METOPROLOL ('LOL')	Diarrhea, N/V, rash stomach cramps, fatigue leg cramps, headaches, shortness of breath, wheezing, bronchospasm, status asthmaticus, rhinitis.
Anti-coagulant/plasma	WARFARIN, ASA	Increased bleeding risk, falls, multiple drug-drug interactions



COMMON OTC MEDICATIONS SOLUTIONS



- · Common medications used for "cold/flu/allergy"
- · Cold: Acetaminophen, Ibuprofen
- Cough: Dextromethorphan (DXM or DM)
- · Allergy: Phenylephrine
- **BEWARE of COMBINATION products!
- **READ THE LABELS CLOSELY!

COMMON MEDICATIONS



- SIDE EFFECTS:
 - ANTICHOLINERGIC: CAN'T SEE, CAN'T PEE, CAN'T SPIT, CAN'T
 - Be aware that all drugs have this potential
 - Increased risk for constipation, dehydration
 - Other SE include increased blood pressure (Ibuprophen), heart rate (phenylephrine)

Anticholinergic Side Effects



- · Blurry vision
- Nasal congestion
- Dry mouth
- · Urinary retention
- Constipation



OMMON	MEDI	ICATIONS SOIUTION
GENERIC	TRADE	MONITORING
Acetaminophen	Tylenol	Common cold meds have acetaminophen already! Consumers should not exceed 4g/day & elderly 3g/day Acetaminophen should not be taken for pain for more than 5 days, for fever for more than 3 days or if new symptoms appear
Dextromethorphan Cough suppressant (anti- tussive) (found in over 120 OTC medications!)	DXM or DM	Interactions MAOIs *Risk of abuse in teens: euphoria & hallucinogenic at higher doses

OMMON	MEDI	CATIONS SOIUTIO
GENERIC	TRADE	MONITORING
Diphenhydramine	Benadryl	Drowsiness: alcohol, sedatives and tranquilizers may increase the drowsiness effect. Concern with serious kidney or liver disease, high blood pressure, heart or thyroid disease, diabetes, chronic lung disease, glaucoma or difficulty in urinating due to enlargement of the prostate gland. Do not use with MAOI
Ibuprofen	Advil	BP, GI problems, such as dyspepsia, esophagitis, multiple drug-drug interactions, kidney function
Dimenhydrinate	Gravol	Drowsiness, ataxia, disorientation, nystagmus, convulsions, stupor, coma and respiratory depression
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OMMON	MEDICATIO	NS solutio
Garlic	Reduces atherosclerosis & lowers BP	Nausea, halitosis, body odor, burning sensation in mouth/throat/stomach
St John's Wort	Relieves mild depression	Photosensitivity, dry mouth, dizziness, confusion **can lead to serotonin syndrome if also taking SSRI!
Ginseng	Increases energy	Anorexia, rash, changes in BP, headache
Ginkgo	Improves circulation	Nausea, dyspepsia, headache, heart palpitations
Echinacea	Enhances immunity	Fatigue, dizziness, GI sx
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Table 1	
DRUG/HERBAL INTERACTIONS	
Prescription Medicine	Examples of Interacting Herbal Supplements
Anticoagulants, nonsteroidal anti-inflammatory drugs, antiplatelet agents	Garlic, ginkgo, St John's wort, ginseng, saw palmetto, ginger, cranberry
Hypoglycemic agents	Garlic, ginkgo, ginseng, cranberry
Anticonvulsants	Ginkgo, St John's wort, valerian
Digoxin	St John's wort, ginseng, ginger
Diuretics	Ginkgo, ginseng, kava, cranberry
Antiviral medications for HIV infection	Garlic, St John's wort, ginseng, cranberry
Oral contraceptives	St John's wort, kava
Chemotherapy	St John's wort, ginseng, kava, cranberry

