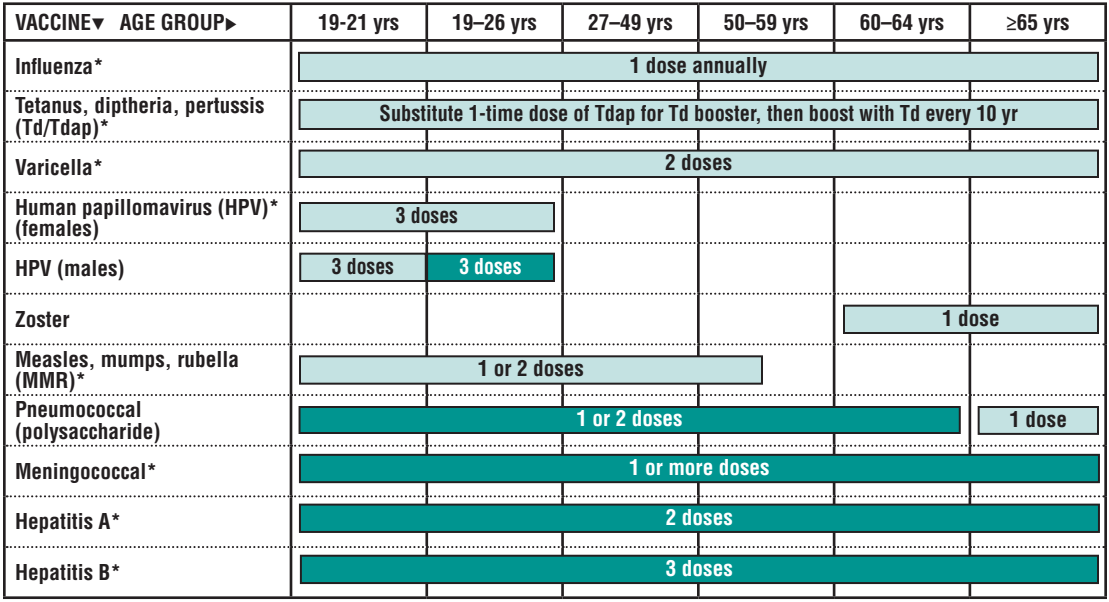
Kaiser Permanente: Promoting Evidence-Based Prescribing

DRUGS of CHOICE

PHARMACY SERVICES

KAISER PERMANENTE®

Recommended adult immunization schedule by vaccine and age group — United States, 2013



*Covered by the Vaccine Injury Compensation Program

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

Tdap recommended for ≥65 if contact with ≤12 month old child. Either Td or Tdap can be used if no contact.

No recommendation

Please refer to the CDC web site (www.cdc.gov/vaccines) for more information on the 2013 vaccine recommendations.

Condition	Treatment of Choice	Second-line Treatment
Cardiology		
Atrial Fib/Flutter		
Antithrombotic therapy[1]	High risk factor or >1 moderate risk factor: Warfarin (INR 2.0-3.0, target 2.5) One moderate risk factor: Aspirin 81-325 mg daily or Warfarin (INR 2.0-3.0, target 2.5) No risk factors: Aspirin 81-325 mg daily	
Rate control	Atenolol 25-100 mg daily Metoprolol 25-100 mg bid	Diltiazem ER 180-360 mg daily Verapamil ER 240-320 mg daily Digoxin 125-250 mcg daily[2]
Heart Failure		
Systolic dysfunction (LVEF <35-40%)	Lisinopril 5-40 mg daily Furosemide 20-200 mg daily-bid Carvedilol 3.125-25 mg bid or 50 mg bid in patients >85 kg Bisoprolol 2.5-20 mg daily Spironolactone 25 mg daily (class III and IV after ACEI titration)	Digoxin 125-250 mcg daily[2] Metoprolol Succinate 12.5-200 mg daily (titrate slowly) If ACEI intolerance due to cough, rash, or angioedema[3] use Losartan 25-100 mg daily In African Americans, or if ACEI intolerance due to rising SCr, use Hydralazine 25 mg tid PLUS Isosorbide Dinitrate 20-40 mg tid[4] OR Isosorbide Mononitrate 30-60 mg qam[4].
Diastolic dysfunction	Furosemide 20-200 mg daily-bid Lisinopril 5-40 mg daily Treat fluid retention, hypertension, rhythm abnormalities and ischemia.	If ACEI intolerance due to cough, rash, or angioedema[3] use Losartan 25-100 mg daily
Hypertension	Initial therapy: Lisinopril/HCTZ 20/25 mg[5] (Advance as needed) Start with ½ tablet → 1 tablet → 2 tablets daily If ACEI intolerant, replace w/ARB: Losartan 25 mg daily → 25 mg bid → 50 mg bid If BP still above goal: add Amlodipine 2.5 mg → 5 mg → 10 mg daily If BP still above goal: replace HCTZ with Chlorthalidone 25 mg daily	

If BP still above goal: add beta-blocker or Spironolactone.
Atenolol 25 mg daily → 50 mg daily (keep HR 55-70 bpm) OR
Spironolactone 12.5 mg daily → 25 mg daily (if on thiazide therapy & eGFR ≥60 mL/min & K^+<4.5)

w/ CAD

Initial therapy: Atenolol 25 mg + Lisinopril 10 mg daily[4]
If BP still above goal: replace Lisinopril with Lisinopril/HCTZ 20/25 mg;
Start with ½ tablet → 1 tablet → 2 tablets daily
If ACEI intolerant, replace w/ ARB: Losartan 25 mg daily → 25 mg bid → 50 mg bid
If BP still above goal: optimize beta-blocker dose, increase Atenolol to 50 mg daily
If BP still above goal: add Amlodipine 2.5 mg → 5 mg → 10 mg daily
If BP still above goal: replace HCTZ with Chlorthalidone 25 mg daily
If BP still above goal: advance beta-blocker or use Spironolactone
Spironolactone 12.5 mg daily → 25 mg daily (if on thiazide therapy & eGFR ≥60 mL/min & K^+<4.5)

w/ Heart Failure

Systolic dysfunction

Lisinopril 5-40 mg daily
Furosemide 20-200 mg daily-bid
HCTZ 12.5-25 mg daily or
Chlorthalidone 12.5-25 mg daily
Lisinopril/HCTZ 10/12.5 mg or 20/25 mg daily
Carvedilol 3.125-25 mg bid or 50 mg bid in patients >85 kg
Bumetanide 0.5-2 mg daily
In African Americans, or if ACEI intolerance due to rising SCr, use Hydralazine 25 mg tid PLUS Isosorbide Dinitrate 20-40 mg tid[4] OR Isosorbide Mononitrate 30-60 mg qam[4].

Diastolic dysfunction

Atenolol 25-100 mg daily
Lisinopril 5-40 mg daily
Lisinopril/HCTZ 10/12.5 mg or 20/25 mg daily
Atenolol/Chlorthalidone 50/25 mg or 100/25 mg daily

1. High risk factors: prior CVA, TIA, or embolism; prosthetic heart valve. Moderate risk factors: Age ≥75, HTN, CHF, diabetes, ejection fraction ≤30%. Weaker risk factors: female, age 65-74, CAD, thyrotoxicosis. ACC/AHA/ESC 2006 Atrial Fibrillation Guidelines.
2. Avoid doses >125 mcg/day in those ≥65 years old.
3. If ACEI-induced angioedema is severe, use caution with ARBs.
4. A daily nitrate-free interval of at least 14 hours is advisable to minimize tolerance.
5. Verify effective contraception in women of child-bearing potential: use chlorthalidone or HCTZ. Use caution with ACEI if eGFR <30 ml/min or K+>5.5. Use ARBs if ACEI intolerant and HTN not controlled on thiazide alone.

Condition	Treatment of Choice	Second-line Treatment
Dermatology		
Acne		
Mild inflammatory and/or comedonal acne	Benzoyl peroxide/Erythromycin 5-3% gel daily-bid PLUS Tretinoin 0.025% cream qhs	OTC Benzoyl peroxide 5% daily-bid +/- Clindamycin 1% topical soln daily-bid PLUS Tretinoin 0.025% cream qhs
Moderate-severe acne or truncal involvement	Change from topical to oral antibiotic continue other treatments listed above: EES 400 mg bid	Doxycycline 100 mg bid[1]
Dermatitis	**Low potency (face and folds):** Hydrocortisone 1%, 2.5% **Medium potency:** Triamcinolone 0.1%	**Medium to High potency:** Fluocinonide 0.05% **High Potency:** Augmented betamethasone dip 0.05%
Fungal Infection	OTC Terbinafine cream	OTC Clotrimazole cream OTC Miconazole cream
Pediculosis (lice)	OTC Permethrin 1% rinse (Nix)[2]— leave on for 10 min, rinse well	Permethrin 5% cream (Elimite)[2]— apply to hair, cover w/ shower cap, leave on overnight, rinse well
Warts	OTC salicylic acid 40% plasters—change daily and scrape off dead skin before reapplying	

1. Use of tetracyclines should be avoided during tooth development (i.e., last half of pregnancy and children <8 years old) because it may cause permanent tooth discoloration.
2. Repeat in 7 days if nits are still present.

Endocrinology		
Diabetes (DM) Type 2	Metformin IR 500-1000 mg bid (max recommended is 2000 mg/day) Metformin ER 500-2000 mg once daily (max recommended 2000 mg/day) Glipizide 2.5-10 mg bid (max recommended is 20 mg/day)	Insulin glargine (Lantus **B, NF**) daily (**NF** Long acting insulins: Equivalent to NPH in blood sugar control. Consider if nocturnal hypoglycemia or new onset Type I DM)

	Insulin NPH (Humulin N) qhs Insulin regular (Humuiln R) bid ac Insulin NPH/insulin regular (Humulin 70/30) bid ac	
Hypercholesterolemia	Encourage added dietary changes Simvastatin 20-40 mg daily[1-3] Atorvastatin 40- 80 mg daily (consider for patients that require LDL-C reduction >41%) If intolerant to above: Lovastatin 40-80 mg daily Pravastatin 40-80 mg daily	If LDL not at goal: Ensure patient is adherent to statin Additional options include: Switch to a more potent statin Encourage added dietary changes & stop advancing therapy
Hypertriglyceridemia		
TG = 200-500 mg/dL	OTC Slo-Niacin 250-1000 mg bid, max 2000 mg/day[4]	
TG = 500-999 mg/dL	OTC omega-3 fish oil supplement 2-4 gm/day (EPA+DHA)	
TG = >1000 mg/dL	Fenofibrate 160 mg daily[6] (if eGFR <50 mL/min, reduce dose to 54 mg daily)	Gemfibrozil 600 mg bid[6] (If eGFR <50 mL/min, reduce dose to 300 mg bid)

1. Simvastatin 80 mg or Vytorin 10/80 mg should not be initiated in any patients including those that are already taking lower doses.
2. A reduced initial simvastatin dose (5-10 mg) is suggested in patients with eGFR <30 mL/min.
3. Simvastatin should not be used with itraconazole, ketoconazole, posaconaozle, erythromycin, clarithromycin, telithromycin, HIV protease inhibitors, nefazodone, cyclosporine, gemfibrozil, or danazol. Do not use: >10 mg of simvastatin with dronedarone, verapamil, or diltiazem; or >20 mg simvastatin with amlodipine, amiodarone or ranolazine.
4. A maximum OTC Slo-Niacin dose of 1000 mg daily is recommended when used in combination with simvastatin 80 mg.
5. Clinical studies have failed to produce evidence that ezetimibe reduces morbidity/mortality.
6. Fenofibrate preferred when used in combination with a statin. Gemfibrozil is the preferred fibrate if eGFR ≤30 mL/min and patient is not on statin therapy. Avoid combining gemfibrozil with statins due to increased risk of myopathy and rhabdomyolysis.

Condition	Treatment of Choice	Second-line Treatment
Gastroenterology		
Diverticulitis	Ciprofloxacin 500 mg bid + Metronidazole 500 mg tid x 10-14 days TMP-SMX DS bid + Metronidazole 500 mg tid x 10-14 days	Amoxicillin/clavulante 875/125 mg BID x 10-14 days
GERD	Famotidine 20-40 mg bid **EXCLUDED**[2] Ranitidine 150-300 mg bid **EXCLUDED**[2]	Pantoprazole 20-40 mg daily[1] **EXCLUDED**[2] Omeprazole 20-60 mg daily[1] **EXCLUDED**[2] (Use if fails double dose H_2RA, or if esophageal ulcer/stricture)
PUD or Barrett's Esophagus	Pantoprazole 20-40 mg daily[1] **EXCLUDED**[2]	Omeprazole 20-60 mg daily[1] **EXCLUDED**[2]
H.Pylori Eradication	Omeprazole 20 mg bid[1] + Amoxicillin 1 gm bid + Clarithromycin 500 mg bid for 14 days Metronidazole 500 mg bid may be substituted for Amoxicillin in patients with PCN allergies.	
IBS	Dicyclomine 20 mg qid prn§ Hyoscyamine 0.125-0.25 mg SL tid-qid prn For constipation, options include: OTC psyllium (Konsyl or Metamucil) 1 tsp or 1 Tbsp (depending on product) up to tid (goal of stool large and soft) OTC Polyethylene glycol 17 g dissolved in 4-8 oz beverage daily For diarrhea: OTC Loperamide 4-8 mg/day	Nortriptyline§ 10-50 mg qhs[2,§]

1. Very low cost Rx and OTC Omperazole 20 mg capsules and Pantoprazole 20-40 mg tablets are available for purchase at KP internal pharmacies.
2. Proton-pump inhibitors (i.e., Omeprazole) and H_2-antagonists (i.e., Famotidine) are excluded from coverage under the Commercial prescription drug benefit and are only available to members for the cash price.

§ Avoid in adults ≥65 years old.

Infectious Diseases

Bronchitis	**NO ANTIBIOTIC INDICATED** OTC APAP 325 mg 1-2 tabs q6h prn OTC Robitussin DM 2 tsp q4h prn ↑ fluid intake	**If antibiotic indicated (acute bacterial exacerbation of chronic bronchitis):** Amoxicillin 500 mg tid x 10 days Doxycycline 100 mg bid x 10 days Azithromycin 500 mg x 1 day, then 250 mg daily x 4 more days
Cellulitis	Dicloxacillin 500 mg qid Cephalexin 500 mg qid	Clindamycin 300 mg q6h
MRSA cellulitis	Add TMP-SMX DS 1-2 tabs bid	Doxycycline 100 mg bid Clindamycin 300-450 mg tid
Diabetic Skin Infection		
With acute cellulitis	Dicloxacillin 500 mg qid Cephalexin 500 mg qid	Clindamycin 300 mg q6h
Deep ulcer (w/cellulitis or abscess)	Cephalexin 1 gm tid + Metronidazole 500 mg tid Amoxicillin/Clavulanate 875/125 mg bid	Ciprofloxacin 500 mg bid + Clindamycin 300 mg q6h
Deep ulcer (w/cellulitis or abscess) - suspect MRSA	Add TMP/SMX DS 1-2 tabs bid	Doxycycline 100 mg bid Clindamycin 300 mg q6h
Clostridium Difficile	Discontinue other antibiotics ASAP Metronidazole 500 mg q8h x 14 days[1]	Vancomycin 125 mg PO q6h x 14 days (Vancomycin 50 mg/ml soln is preferred)
Community-Acquired Pneumonia		
Risk Class I Males 18-40 yrs OR females 18-60 yrs with no comorbid conditions	Azithromycin 500 mg daily x 5 days Cefuroxime 500 mg bid x 7-10 days	Doxycycline 100 mg bid x 10 days

1. Metronidazole is preferred for the treatment of mild to moderate C. diff colitis.

Condition	Treatment of Choice	Second-line Treatment
Infectious Diseases, cont.		
Community-Acquired Pneumonia		
Risk Class II-III	Cefuroxime 500 mg bid x 7-10 days + Azithromycin 500 mg daily x 5-7 days OR Doxycycline 100 mg bid x 7-10 days	Levofloxacin 750 mg daily x 5 days
Herpes Zoster	Acyclovir 800 mg 5 times daily x 7-10 days	Valacyclovir **NF** 1 gm tid x 7 days Famciclovir **NF** 500 mg tid x 7 days
Otitis Media	Amoxicillin 500 mg tid or 875 mg bid x 5 days	Cefuroxime 500 mg bid x 7 days Azithromycin 500 mg x 1 day, then 250 mg daily x 4 more days
Pertussis	Azithromycin 500 mg x 1 day then, 250 mg daily x 4 more days	Clarithromycin 500 mg bid x 7 days Erythromycin 500 mg qid x 14 days **If macrolide-intolerant**: TMP-SMX DS bid x 14 days
Pharyngitis		
Streptococcal	**Patient to fill prescription only after positive Strep. probe confirmed.** PCN VK 500 mg bid x 10 days PCN G Benzathine 1.2 million units IM x 1 dose	**If PCN-allergic:** Cephalexin 500 mg bid x 10 days Clindamycin 300 mg tid x 10 days Azithromycin 500 mg x 1 day, then 250 mg daily x 4 more days
Viral	OTC throat spray or lozenge	
Sexually Transmitted Diseases		
The Centers for Disease Control (CDC) recommends presumptive therapy for both gonococcal and Chlamydia infection when making one of these diagnoses.		
Gonorrhea and Chlamydia	Ceftriaxone 250 mg IM x 1 dose **PLUS** Azithromycin 1 gm x 1 dose (DOT)	**If patient has severe penicillin or cephalosporin allergy:** Azithromycin 2 gm x 1 dose (DOT)

Herpes Simplex (Genital Herpes)		
First clinical episode	Acyclovir 400 mg tid x 7-10 days or until clinical resolution	
Recurrent episodes	Acyclovir 400 mg tid x 5 days	Acyclovir 800 mg tid x 2 days
Suppressive therapy	Acyclovir 400 mg bid	
Sinusitis	**NO ANTIBIOTIC INDICATED** OTC saline nasal spray OTC decongestant **If antibiotic indicated:** Amoxicillin 1000 mg bid x 7 days	**If antibiotic indicated:** Doxycycline 100 mg bid x 7 days TMP/SMX DS bid x 7 days Azithromycin 500 mg daily x 3 days
Insomnia	Identify and treat the etiology of insomnia Non-pharmacological practices Overcoming™ Insomnia CBT program Sleep hygine (.piinsomnia)	If medication indicated, use short-term (<30 days) Trazodone 25-100 mg qhs prn Zolpidem 5 mg qhs prn[1] Zaleplon 5-20 mg qhs prn[1] Temazepam 15 mg qhs prn[§] Mirtazapine 7.5 mg -15 mg qhs prn Melatonin 3 mg -5 mg qhs prn

1. Avoid chronic use (>90 days per year) in adults ≥65 years old.
§ Avoid in adults ≥65 years old.

Neurology

Fibromyalgia	Amitriptyline 25-150 mg qhs[§] Tramadol 50-100 mg q4-6h prn Cyclobenzaprine 5-10 mg tid[§]	Nortriptyline 10-75 mg qhs[§]
Migraine	Sumatriptan 25-100 mg; may repeat after 2 hrs, max 200 mg/day	Naratriptan 2.5 mg; may repeat after 4 hrs, max 5 mg/day Rizatriptan 5 mg; may repeat after 2 hrs, max 30 mg/day
Migraine prevention	Propranolol 20 mg bid, ↑ up to 240 mg/day Valproic Acid 250 mg bid, ↑ to max 500 mg bid Divalproex delayed release (Depakote DR) 250 mg bid, ↑ to max 500 mg bid Nortriptyline 25-75 mg qhs[§]	Topiramate 25-100 mg daily

§ Avoid in adults ≥65 years old.

Condition[1]	Treatment of Choice	Second-line treatment
Neurology, cont.		
Neuropathic Pain	Amitriptyline 25-150 mg qhs[§] Tramadol 50-100 mg q4-6h prn Cyclobenzaprine 5-10 mg tid[§]	Nortriptyline 10-75 mg qhs[§] Venlafaxine ER 37.5 mg daily x 7 d, ↑ to 75 mg/d x 7 days, then ↑ by 37.5 mg/d up to 150 mg/d[2]
Restless Legs Syndrome	Ropinorole 0.25 mg once daily 1-3 hours before bedtime If needed, after 2 days, can ↑ dose to 0.5 mg; ↑ to 1 mg after first week; then ↑ by 0.5 mg weekly (up to 4 mg) Pramipexole 0.125 mg [½ of 0.25 mg] once daily 2-3 hours before bedtime If needed, double the dose every 4-7 days (up to 0.5 mg)	
OB/GYN – Women's Health		
Dysmenorrhea	Ibuprofen 600 mg q6h or 800 mg q8h Naproxen 500 mg initially, then 250 mg q6-8h (max 1250 mg/day)	Oral contraceptive (i.e., Levora, Microgestin 1/20)
Menopausal Symptoms[1]		
Non-Hormonal Therapy for Hot Flashes[2]**:**		Venlafaxine 37.5-150 mg/day Sertraline 25-50 mg daily[3,§] Citalopram 10-20 mg daily[4] Gabapentin up to 300 mg tid x 4 weeks
For Hot Flashes With or Without Vaginal Dryness:		
Uterus absent	Estradiol 0.5-1 mg daily[§]	Estradiol (Climara) transdermal patch 0.025-0.1 mg/24 hrs; Apply topically weekly[§]

1. Successful pain relief is defined as a 30-50% reduction in frequency and intensity from baseline on scale of 0-10
2. If pain is not relieved after 1 month of therapy at 150 mg/day, increase Venlafaxine dose to 225 mg/day. Venlafaxine should be taken with food. Daily doses can be divided bid or tid (if using Venlafaxine IR tablets) or one time daily (if using Venlafaxine ER capsules)

§ Avoid in adults ≥65 years old.

Uterus present	Estradiol (oral or transdermal) + Medroxyprogesterone 2.5 mg daily, or 5 mg for 12 consecutive days monthly	Estradiol (oral or transdermal) + Norethindrone 0.35 mg daily, or 0.7 mg for 12 consecutive days monthly
For Isolated Vaginal Dryness:		
	Conjugated Estrogen (Premarin **B**) vaginal cream 0.5 g 2x/week	Estradiol (Estring **B**) vaginal ring 2 mg; one ring vaginally every 90 days
Oral Contraceptive[5]	**Monophasic** Aviane Levora[6] Microgestin Fe 1/20 Microgestin Fe 1.5/30 Necon 0.5/35 Necon 1/35 Reclipsen Sprintec (35 mcg EE + 0.25 mg Norgestimate) Kelnor 1/35 Cryselle 28	**Biphasic** Necon1/11 **Triphasic** Leena Nortrel 7/7/7 Tri-Sprintec Trivora
Osteoporosis[7,8]	Alendronate 70 mg once weekly	Ibandronate (generic Boniva, **NF**) 150 mg monthly
Yeast Infection	OTC vaginal antifungal	Fluconazole 150 mg x 1 dose

1. HRT should be discontinued while patient is hospitalized or at extended bed rest and restarted based on noncardiac benefits/risks. Do not start HRT in patients who have a recent history of CVD.
2. Off label use. There are no FDA-approved non-hormonal therapies for treatment of hot flashes. Data for the agents listed are some what limited.
3. Avoid if patient on concomitant tamoxifen. Drug interaction may reduce the effects of tamoxifen.
4. The maximum recommended dose of Citalopram is 20 mg per day for patients with hepatic impairment, >60 years of age, CYP2C19 poor metabolizers or taking concomitant CYP2C19 inhibitors.
5. Not listed as first and second line therapy, but listed alphabetically by phases.
6. Preferred formulary alternative for extended cycle regimen.
7. For osteopenia, refer to Fracture Risk Assessment (FRAX) tool to estimate individual fracture risk (www.shef.ac.uk/FRAX).
8. Total daily intake (from diet and supplements) of calcium 1,200 mg/day and vitamin D3 1,000 units/day is recommended for postmenopausal women and for men 50 years and older.

§ Avoid in adults ≥65 years old.

NF = Non-Formulary

B = Brand name drug – higher copay for tiered plans

Condition	Treatment of Choice	Second-line treatment
Ophthalmology		
Conjunctivitis		
Allergic	OTC Ketotifen (Zaditor) 0.025% soln 1 gtt bid OTC Naphazoline/Pheniramine (Opcon-A) 1 gtt qid	Fluorometholone 0.1% 1-2 gtt bid-qid Cromolyn 4% 1-2 drops q4-6 h **NF** Epinastine 0.05% 1 gtt bid **NF**
Infectious	Gentamicin soln 1 gtt tid Polymyxin B/TMP (Polytrim) soln 1 gtt qid	Bacitracin/Polymyxin-B ophth oint (Polysporin) ½ inch ribbon qid Ofloxacin ophthalmic drops 1 gtt qid
Pain		
Acute		
Inflammatory	Ibuprofen 400-800 mg tid[§] Naproxen 375-500 mg bid[§] Meloxicam 7.5-15 mg daily[§]	Etodolac 300-400 mg bid-tid[§] Nabumetone 500-1000 mg bid[§]
Non-inflammatory	OTC APAP 325-650 mg q6h[1] Hydrocodone/APAP 5/325 mg 1-2 tabs q6h[1]	
Severe pain	Hydrocodone/APAP 5/325 mg 1-2 tabs q6h[1] Oxycodone/APAP 5/325 mg 1-2 tabs q6h (C-II)[1]	Morphine IR 7.5–15 mg q3-4h prn pain (C-II) Hydromorphone 2-4 mg q3-4h prn severe pain (C-II)
Chronic	Morphine SR 15 mg qhs x 1 week, then 15 mg q12h (C-II) Fentanyl patch 12.5, 25, 50, 75, 100 mcg/hr q72h (C-II)	Methadone 2.5-10 mg q8-12h (C-II)[2]

Hydrocodone to Morphine SR

1 to 1.5 mg Hydrocodone = 1 mg morphine sulfate

Total Daily dose of HYDROCODONE	Approximate Daily Dose of Morphine	Equianalgesic dose of MORPHINE SR
20-30 mg	15-30 mg	15 mg daily-BID
40-60 mg	30-60 mg	15-30 mg BID
80-120 mg	60-120 mg	30-60 mg

1. Limit APAP dose to ≤3 gm/day; ≤2 gm/day for adults with liver dysfunction or history of alcohol use.
2. Use with caution. Avoid in opioid-naive patients & in those where long-term use may be required for non-cancer and non-post surgical conditions.
3. Other long-acting opioid options include transdermal Fentanyl (reserved for patients with chronic pain who are opioid-tolerant and/or unable to take oral medications) and methadone (associated with cardiac complications i.e., QTc prolongation and one must be familiar with the appropriate monitoring guidelines before initiating its use).
4. Start with short-acting opioid to determine appropriate dose and can substitute with equivalent dose of long-acting formulation (i.e., Morphine SR) if opioid is effective & well-tolerated.

§ Avoid in adults ≥65 years old.

Psychiatry

Anxiety

Acute	Lorazepam 0.5-1 mg bid prn§	Alprazolam 0.5 mg tid prn§
Chronic	Fluoxetine 10-40 mg daily§ Citalopram 10-40 mg daily[1] Paroxetine10-20 mg daily	Buspirone 5-10 mg bid-tid (max 60 mg/day) Sertraline 25-100 mg daily Venlafaxine 37.5-75 mg daily
Depression	Fluoxetine 10-60 mg daily (max 80 mg/day)§ Citalopram 10-40 mg daily (max 40 mg/day)[1] Sertraline 50-100 mg daily (max 200 mg/day) Escitalopram 5-20 mg daily (max 20 mg/day)[1] Paroxetine 20-40 mg daily (max 50mg/day)	Venlafaxine 37.5 mg/day x 7 days, ↑ to 75 mg/day x 7 days, then ↑ to 150 mg/day (max 375 mg/day) Bupropion SR 150 mg qam x 3 days, ↑ to 150 mg bid x several weeks (max 400 mg/day) Mirtazapine 15-45 mg qhs (max 45 mg/day)

1. The maximum recommended dose of Citalopram is 20 mg per day and Escitalopram is 10 mg per day for patients with hepatic impairment, >60 years of age, CYP2C19 poor metabolizers or taking concomitant CYP2C19 inhibitors.

§ Avoid in adults ≥65 years old, short term only.

Condition	Treatment of Choice	Second-line Treatment
Psychiatry, cont.		
Psychosis	Risperidone 0.25-8 mg/day (dosed qhs or bid) Quetiapine 25 mg bid, titrate up to maintenance dose of 200-800 mg/day Ziprasidone 40-80 mg bid	Olanzapine 2.5-20 mg daily Aripiprazole (Abilify **B**) 10-30 mg day (½ tab dosing)
Respiratory		
Allergic Rhinitis	Fluticasone 1-2 sprays each nostril daily Flunisolide 2 sprays each nostril bid	OTC Loratadine 10 mg daily[1] OTC Cetirizine 5-10 mg daily[1] OTC Fexofenadine 60 mg bid or 180 mg daily[1]
Asthma (persistent)[2]	**Albuterol prn for acute symptoms**[3] **+ long acting controller** **Inhaled Cortiosteroids (ICSs):** Beclomethasone HFA (QVAR **B**) 80 mcg 1-2 puffs bid, max 4 puffs bid Mometasone furoate (Asmanex **B**) 220 mcg 1 inh in the evening - 2 inh bid	**Combination ICS/LABA:** Mometasone furoate/formoterol (Dulera **B, NF**) 100/5 mcg or 200/5 mcg - 2 inh bid
COPD (mild)	Albuterol 1-2 puffs q4-6h prn AND/OR Tiotropium (Spiriva **B**) 18 mcg 1 inhalation daily	Salmeterol (Serevent **B**) 50 mcg 1 puff BID Ipratropium HFA (Atrovent HFA **B**) 2 puffs qid
Smoking Cessation[4]	**0-5 cigarettes/day:** OTC Nicotine gum or lozenge 2 mg x 12 wks **6-10 cigarettes/day:** OTC Nicotine patch taper 14 mg/d x 2 wks, then 7 mg/d x 2 wks **11-20 cigarettes/day:** OTC Nicotine patch taper 21 mg/d x 4 wks, 14 mg /d x 2 wks, then 7 mg/d x 2 wks PLUS OTC Nicotine gum or lozenge prn for breakthrough cravings **21-30 cigarettes/day:** - OTC Nicotine patch taper PLUS OTC Nicotine gum or lozenge prn for breakthrough cravings OR - OTC Nicotine patch taper PLUS Bupropion SR 150 mg BID x 8 wks[5] OR - Triple therapy (option for refractory patients who have history of severe withdrawal symptoms): OTC Nicotine patch taper + OTC Nicotine gum or lozenge + Bupropion SR[5]	

1. Venlafaxine should be taken with food. Daily doses can be divided to bid or tid (if using Venlafaxine IR tablets) or once daily (if using Venlafaxine ER capsules).

31-40 cigarettes/day: OTC Nicotine patch (high dose) 35 mg/day [21 mg + 14 mg] x 4 wks, 21 mg/d x 2 wks, 14 mg/d x 2 wks, 7 mg/d x 2 wks + OTC Nicotine gum or lozenge + Bupropion SR[5]

>40 cigarettes/day: OTC Nicotine patch (high dose) 42 mg/day [2 x 21 mg] x 4 wks, 21 mg/d x 2 wks, 14 mg/d x 2 wks, 7 mg/d x 2 wks + OTC Nicotine gum or lozenge + Bupropion SR[5]

1. Antihistamines can be used for mild or breakthrough symptoms or in combination with an intranasal steroid.
2. Stepwise approach to therapy is recommended. The goal of therapy is to maintain long-term control with the least amount of medication, thereby exposing the patient to the least risk for medication adverse effects. For more information on therapy options, please refer to the Adult Asthma guidelines on cl.kp.org.
3. Use of albuterol more than 2 days per week for symptom relief (not prevention of exercise induced bronchospasm) generally indicates inadequate control and the need to step-up treatment.
4. Final selection and dosage of medication may depend on patient preference, contraindications, potential for ADEs, and previous experience.
5. Bupropion therapy should begin one week prior to quit date.

Rheumatology

Gout (Acute)	Indomethacin 50 mg tid x 3 days, then 50 mg bid x 4-7 days (or until resolved)§ Ibuprofen 800 mg tid x 2 days, then 400 mg tid for 4-7 days (or until resolved)§	Prednisone 40 mg daily x 3 days, 30 mg daily x 3 days 20 mg daily x 3 days, 10 mg x 3 days, then 5 mg x 3 days (or until resolved) IM or intra-articular corticosteroid injection (i.e., methylprednisolone, triamcinolone)
Gout (Prevention)[1] Urate-lowering therapy	Non-pharmacological practices (i.e., diet) Allopurinol 100 mg, ↑ by 100 mg/day every 2-4 weeks until serum uric acid level <6 mg/dl[2] (max 800 mg/day)	Probenecid 250 mg bid x 1 week, ↑ to 500 mg bid[3] (max 400 mg/day)
Gout (Prophylaxis)[4]	Indomethacin 50 mg daily-bid§	Naproxen 500 mg daily§ Colchicine (Colcrys **B, NF**) 0.6 mg daily-bid[4]

1. Urate lowering therapy is indicated for patients with recurrent gout attacks, chronic gouty arthropathy, tophi, and uric acid stones.
2. Start with allopurinol 50 mg daily in patients with CKD stage 4 or 5.
3. Probenecid is not an option for patients who are under-excretors of uric acid and in those resistant to, or intolerant of allopurinol. It should not be used in patients with renal impairment or a history of nephrolithiasis.
4. Prophylaxis therapy should be initiated with urate lowering therapy and continued for 4-6 months after uric acid target (<6 mg/dL) is achieved. Colchicine dose should be adjusted in those with eGFR <50 mL/min and avoided in patients with eGFR <10 mL/min.

§ Avoid in adults ≥65 years old.

Condition	Treatment of Choice	Second-line Treatment
Urology		
BPH	Terazosin 2 mg qhs; if ineffective may increase by 2 mg every week to a max of 10 mg/day Doxazosin **NF** 1 mg qhs; if ineffective may increase by 1 mg every week to a max of 4 mg/day	Tamsulosin 0.4 mg daily 30 min after the same meal[1]
Hyperactive Bladder (Urge incontinence)	Behavioral modifications (i.e., kegels, timed voiding, bladder training) Oxybutynin 2.5-5 mg bid-tid[§] Oxybutynin ER 5-15 mg/day[2,§]	Oxybutynin transdermal patch (Oxytrol, **OTC**) 3.9 mg/day One patch twice weekly (every 3-4 days)[§] Trospium IR 20 mg bid[3] (20 mg daily in those ≥75 years)
Prostatitis, Acute[4]		
Young sexually active men	Ceftriaxone 250 mg IM x 1 dose PLUS Azithromycin 1000 mg x 1 dose	
Older patients	TMP-SMX DS bid up to 6 weeks Ciprofloxacin 500 mg bid up to 6 weeks	
Urinary Tract Infection[5]		
Uncomplicated cystitis in non-pregnant women	**No antibiotic indicated for asymptomatic bacteriuria in non-pregnant women** TMP-SMX DS bid x 3 days	Ciprofloxacin 250 mg bid x 3 days[6] Nitrofurantoin 100 mg bid x 7 days[7]
Cystitis in pregnancy	Cephalexin 500 mg bid x 3-7 days	Nitrofurantoin 100 mg bid x 5 days[3]
Pyelonephritis	Ciprofloxacin 500 mg bid x 10 days	TMP/SMX DS bid x 14 days[8] (if organism is susceptible)

1. Tamsulosin is associated with increased complications during cataract surgery (Intraoperative Floppy Iris Syndrome [IFIS]). Consider non-selective alpha-blockers (i.e., Terazosin, Doxazosin) for patients diagnosed with cataracts and who have not undergone cataract surgery.
2. May be preferred in adults ≥65 years because of improved side effect profile. May be preferred for elderly patients with dementia.
3. If duration of symptoms >3 weeks, treat for 21-28 days.
4. Therapeutic options for UTI maybe limited and should be based on known or local patterns of susceptibility for the causative pathogen(s).

5. Consider Cephalexin therapy in areas with high rates (>20%) of E. coli resistant to TMP/SMX.
6. Caution should be used when using Ciprofloxacin in the elderly due to the risk of tendonitis and tendon rupture.
7. Nitrofurantoin is contraindicated in patients with significant renal impairment (eGFR <60 mL/min). Avoid chronic use in adults ≥65 years old.
8. Avoid use in 1st and 3rd trimester of pregnancy.

§ Avoid in adults ≥65 years old.

Pediatrics

Allergic Rhinitis

≥4 yrs: Fluticasone 1-2 sprays each nostril daily
≥6 yrs: Flunisolide 2 sprays each nostril bid

OTC Loratadine 5 mg/5 mL liquid
OTC Cetirizine 5 mg/5 mL liquid
OTC Fexofenadine 30 mg/5 mL liquid
OTC Brompheniramine + PE (Dimetapp)[1]
Chlorpheniramine 2 mg/5 mL syrup[1]

Asthma (persistent) [2]

Albuterol prn for acute symptoms[3] **+ long acting controller**

<5 yrs:
Fluticaonse HFA (Flovent **B**) 44 mcg only
44 mcg 1-2 puffs bid, max 2 puffs bid[4]

If unable to use inhaler, consider budesonide nebulizer suspension

5-11 years:
Beclomethasone HFA (QVAR **B**)
40 mcg 1-2 puffs bid, max 2 puffs bid

4-11 yrs:
Mometasone (Asmanex **B**) 110 mcg 1 inh qpm

≥12 years:
Beclomethasone HFA (QVAR **B**)
80 mcg 1-2 puffs bid, max 4 puffs bid

Mometasone (Asmanex **B**) 220 mcg 1 inh qpm - 2 inh bid

1. FDA cautions against the use of cough and cold medicines in children under 4 years of age.
2. For asthma not controlled on ICS therapy alone, addition of montelukast (generic Singulair) is a potential option. For asthma not controlled on low-to-medium dose ICS in older kids, consider change to combination ICS/LABA therapy. For more information on therapy options, please refer to the Asthma guidelines on cl.kp.org.
3. Use of albuterol more than 2 days per week for symptom relief (not prevention of exercise induced bronchospasm) generally indicates inadequate control and the need to Step-Up therapy.
4. Reserve use for pediatric patients <5 years or patient >5 years who have failed, or who are intolerant to beclomethasone HFA (QVAR).

Condition	Treatment of Choice	Second-line Treatment
Pediatrics, cont.		
Conjunctivitis		
Allergic	OTC Ketotifen (Zaditor) 0.025% soln 1 gtt bid OTC Naphazoline/Pheniramine (Opcon-A) 1 gtt qid	Ketorolac 0.5% 1 gtt qid
Infectious	Gentamicin soln 1 gtt tid Polymyxin B/TMP (Polytrim) soln 1 gtt tid Sulfacetamide soln 1 gtt tid	Ofloxacin ophthalmic drops 1 gtt qid
Otitis Media[2]	**Antibiotics are not indicated for otitis media with effusion only (OME).** Amoxicillin 80-90 mg/kg/day ÷ bid x 10 days **Adolescents:** Amoxicillin 1000 mg bid x 5-7 days Azithromycin 500 mg daily x 1 day, then 250 mg daily x 4 more days **If PCN Allergic:** Non-Type 1 hypersensitivity: Cefdinir susp 14 mg/kg/day daily or ÷ bid x 10 days Type 1 hypersensitivity: Azithromycin 10 mg/kg/day daily (max 500 mg) x 1 day then, 5 mg/kg/day daily (max 250 mg) x 4 more days Clarithromycin 15 mg/kg/day ÷ bid x 7-10 days	Failure of treatment after 48-72 hrs or recurrence: Amoxicillin/Clavulanate ES 90 mg/kg/d ÷ bid x 10 days Cefdinir susp 14 mg/kg/day daily or ÷ bid x 10 days Clindamycin 30-40 mg/kg/day ÷ tid x 10 days Ceftriaxone 50 mg/kg/d IM daily x 1-3 days **Adolescents:** Cefuroxime 500 mg bid x 7 days Amoxicillin/Clavulanate 875/125 mg bid x 7 days
Pertussis	Azithromycin 10 mg/kg x 1 day, then 5 mg/kg daily for 4 more days	Clarithromycin 15 mg/kg/day ÷ bid x 7 days Erythromycin 40-50 mg/kg/day ÷ qid x 14 days **If macrolide-intolerant:** TMP-SMX 8 mg/kg/day ÷ bid x 14 days

Pharyngitis
Streptococcal

Patient to fill prescription only after positive strep. probe confirmed.

PCN VK
<27 kg 250 mg bid x 10 days
≥27 kg 500 mg bid x 10 days
Amoxicillin 45 mg/kg/day ÷ bid x 10 days (max 10000 mg/day)

PCN G benzathine
<27 kg 600,000 units IM x 1 dose
≥27 kg 1.2 million units IM x 1 dose

If PCN-allergic:
Cephalexin
<27 kg 250 mg bid x 10 days
≥27 kg 500 mg bid x 10 days
Clindamycin 15-30 mg/kg/day ÷ tid x 10 days
Azithromycin 12 mg/kg/day x 5 days

Sinusitis
Acute bacterial

Amoxicillin/Clavulanate 45 mg/kg/day ÷ bid x 10-14 days

Adolescents:
Amoxicillin/Clavulanate 1000 mg bid x 10-14 days
Doxycycline 100 mg bid x 10-14 days

If PCN allergic:
Non-Type 1 hypersensitivity (use combination therapy):
Cefdinir susp 14 mg/kg/day daily or ÷ bid **-PLUS-**
Clindamycin 30-40 mg/kg/day ÷ tid x 10-14 days
Type 1 hypersensitivity:
Levofloxacin 10-20 mg/kg/day daily or ÷ bid x 10-14 days

URI

Treat symptoms
OTC PSE, APAP, or Chlorpheniramine[1]

1. FDA recommends that over-the-counter (OTC) cough and cold medicines not be used for children under 2 years of age.
2. A shorter treatment course of 5-7 days may be considered for children ≥ 2 years old.

Abbreviations

APAP	Acetaminophen
ACEI	Angiotensin Converting Enzyme Inhibitors
ARB	Angiotensin II Receptor Blocker
BPH	Benign Prostatic Hyperplasia
CBT	Cognitive Behavioral Therapy
COPD	Chronic Obstructive Pulmonary Disease
CKD	Chronic Kidney Disease
CVA	Cerebrovascular accident
EES	Erythromycin Ethylsuccinate
GERD	Gastroesophageal Reflux Disease
eGFR	Estimated Glomerular Filtration Rate
HRT	Hormone Replacement Therapy
HTN	Hypertension
IBS	Irritable Bowel Syndrome
LVEF	Left Ventricular Ejection Fraction
MRSA	Methicillin-resistant Staph. aureus
PCN	Penicillin
PE	Phenylephrine
PSE	Pseudoephedrine
SMX	Sulfamethoxazole
TCA	Tricyclic antidepressant
TIA	Transient Ischemic Attack
TMP	Trimethoprim
URI	Upper Respiratory Infection

Drugs of Choice format originated by: William Elliott, MD & Jocelyn Chan, PharmD
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