

TJUH Therapeutic Interchange

Updated 12/19/2012

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Index by Class

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Index by Drug

Albuterol for mechanical ventilator
Albuterol/Ipratropium (Duoneb®) for mechanical ventilator
Atorvastatin (Lipitor®)
Beclomethasone (Beclovent®, Qvar®, Vanceril®) HFA
Beclomethasone (Beconase®) nasal
Bimatoprost (Lumigan®) ophthalmic
Budesonide (Pulmicort Flexhaler®) DPI
Budesonide (Pulmicort®) for mechanical ventilator
Budesonide (Rhinocort®) nasal
Carvedilol controlled release(Coreg® CR)
Cetirizine (Zyrtec®) oral
Ciclesonide (Alvesco®) MDI
Ciclesonide (Omnaris®) nasal
Cimetidine injection
Cimetidine (Tagamet®) oral
Desloratidine (Clarinet®) oral
Dexlansoprazole (Dexilant™) oral
DuoNeb (Albuterol / Ipratropium)
Eprosartan (Tevetan®) oral
Fenofibrate (Tricor®)
Fenofibrate (Triglide®)
Fenofibrate (Antara®)
Fenofibrate (Lofibra®)
Fenofibrate (Fenoglide®)
Fenofibrate (Lipofen®)
Fenofibric Acid (Trilipix®)
Fexofenadine (Allegra®) oral
Flunisolide (Aerobid®) MDI
Flunisolide (Nasarel®) nasal
Fluticasone (Flovent Diskus®) DPI
Fluticasone furoate (Veramyst®) nasal
Fluvastatin (Lescol®; Lescol® XL)
Glyburide (DiaBeta®; Glynase® PresTab®)
Granisetron (Kytril®) ** Bodine Infusion Center ONLY **
Insulin aspart protamine/aspart (Novolog®) 70/30
Ipratropium for mechanical ventilator
Irbesartan (Avapro®) oral
Lansoprazole (Prevacid®) oral
Levalbuterol (Xopenex) for mechanical ventilator
Levocetirizine (Xyzal®) oral
Levofloxacin (Quixin®) ophthalmic
Lovastatin (Altoprev®; Mevacor®)
Methylprednisolone (Solu-Medrol®) injection ** Wills Eye Hospital ONLY ** for giant cell arteritis
Mometasone (Nasonex®) nasal
Nizatidine (Axid®) oral
Ofloxacin (Floxin®) ophthalmic
Olmesartan (Benicar™) oral
Omeprazole (Prilosec®) oral
Ondansetron (Zofran®) ** Bodine Infusion Center ONLY **
Oxazepam (Serax®) oral
Pantoprazole (Protonix®) oral
Paroxetine controlled release (Paxil CR®) oral
Pitavastatin (Livalo)
Rabeprazole (Aciphex®) oral

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Ranitidine injection
Ranitidine (Zantac®) oral
Simvastatin (Zocor®) ** Concurrent amiodarone or HAART **
Telmisartan (Micardis®) oral
Travoprost (Travatan®) ophthalmic
Triamcinolone (Azmacort®) [discontinued]
Triamcinolone (Nasacort AQ®) nasal

Antihistamine Agents

Non-Sedating Antihistamine Therapeutic Interchange

Cetirizine (Zyrtec®) oral 5 mg or 10 mg daily	Loratadine (Claritin®) 10 mg daily
Desloratidine (Clarinex®) oral 5 mg daily	
Fexofenadine (Allegra®) oral 60 mg BID or 180mg daily	
Levocetirizine (Xyzal®) oral 2.5 mg to 5 mg daily	

Cardiovascular Agents

Angiotensin Receptor Antagonist Therapeutic Interchange

Patients will receive valsartan (Diovan®) as ordered. All ARBS **EXCEPT CANDESARTAN AND LOSARTAN** will be converted to valsartan (Diovan®)

Eprosartan (Tevetan®) oral 600 mg daily	Valsartan (Diovan®) 80 mg daily
Irbesartan (Avapro®) oral 75 mg daily 150 mg daily 300 mg daily	Valsartan (Diovan®) 40 mg daily 80 mg daily 160 mg daily
Olmesartan (Benicar™) oral 5 mg daily 20 mg daily 40 mg daily	Valsartan (Diovan®) 40 mg daily 160 mg daily 320 mg daily
Telmisartan (Micardis®) oral 20 mg daily 40 mg daily 80 mg daily	Valsartan (Diovan®) 40 mg daily 80 mg daily 160 mg daily

Beta Adrenergic Blocking Agents Therapeutic Interchange

Carvedilol controlled release(Coreg® CR) oral 10 mg daily 20 mg daily 40 mg daily 80 mg daily	Carvedilol immediate release(Coreg®) oral 3.125 mg twice daily 6.25 mg twice daily 12.5 mg twice daily 25 mg twice daily
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* When switching from carvedilol 12.5 mg or 25 mg twice daily, a starting dose of COREG CR 20 mg or 40 mg once daily, respectively, may be warranted for elderly patients or those at increased risk of hypotension, dizziness, or syncope. Subsequent titration to higher doses should, as appropriate, be made after an interval of at least 2 weeks.

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Fibrate Derivatives Therapeutic Interchange

Fenofibrate, micronized capsules (Antara®) 43 mg daily 130 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily
Fenofibrate tablets (Fenoglide®) 40 mg daily 120 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily
Fenofibrate capsules (Lipofen®) 50 mg daily 150 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily
Fenofibrate micronized capsules (Lofibra®) 67 mg daily 134 mg daily 200 mg daily	Fenofibrate tablets (generic) 54 mg daily 108 mg daily (2 x 54 mg) 160 mg daily
Fenofibrate tablets (Tricor®) 48 mg daily 145 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily
Fenofibrate tablets (Triglide®) 50 mg daily 160 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily
Fenofibric Acid capsules (Trilipix®) 45 mg daily 135 mg daily	Fenofibrate tablets (generic) 54 mg daily 160 mg daily

HMG-CoA Reductase Inhibitor Therapeutic Interchange

Formulary Preferred: atorvastatin (Lipitor®). Patients receiving atorvastatin as an outpatient will be continued on that agent.

Formulary Reserved: rosuvastatin (Crestor®) and pravastatin (Pravachol®). Patients receiving either rosuvastatin or pravastatin as an outpatient will be continued on that agent. Inpatients will not be initiated on the reserved agents, UNLESS they are required due to drug-drug interactions or previous intolerances to other HMG-CoA reductase inhibitors. This should be confirmed with the prescribing physician.

Non-formulary: simvastatin, pitavastatin, fluvastatin, lovastatin. Due to drug interactions and risk of myalgias, simvastatin was removed from formulary, per the recommendation of the Cardiology and Thrombosis Subcommittee.

Non-formulary statin	Formulary statin <i>at same frequency</i>
Fluvastatin 20 mg	Atorvastatin 10 mg
Fluvastatin 40 mg	Atorvastatin 10 mg
Fluvastatin 80 mg	Atorvastatin 10 mg
Pitavastatin 1 mg	Atorvastatin 10 mg
Pitavastatin 2 mg	Atorvastatin 10 mg
Pitavastatin 4 mg	Atorvastatin 20 mg
Lovastatin 10 mg	Atorvastatin 10 mg
Lovastatin 20 mg	Atorvastatin 10 mg
Lovastatin 40 or 80 mg	Atorvastatin 10 mg
Lovastatin ER 60 mg (Altoprev)	Atorvastatin 20 mg
Simvastatin 5 mg	Atorvastatin 10 mg
Simvastatin 10 mg	Atorvastatin 10 mg
Simvastatin 20 mg	Atorvastatin 10 mg
Simvastatin 40 mg	Atorvastatin 20 mg
Simvastatin 80 mg	Atorvastatin 40 mg

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Please incorporate the preferred versus reserved statins into your practice. As with all therapeutic interchanges, please ensure patients are therapeutically interchanged back to their home statin and dose at discharge, if necessary.

Source: <http://www.fda.gov/Drugs/DrugSafety/ucm256581.htm>

Atorva	Fluva	Pitava	Lova	Prava	Rosuva	Vytorin*	Simva	%↓ LDL-C
-----	40 mg	1 mg	20 mg	20 mg	-----	-----	10 mg	30%
10 mg	80 mg	2 mg	40 or 80 mg	40 mg	-----	-----	20 mg	38%
20 mg	-----	4 mg	80 mg	80 mg	5 mg	10/10 mg	40 mg	41%
40 mg	-----		-----	-----	10 mg	10/20 mg	80 mg	47%
80 mg	-----		-----	-----	20 mg	10/40 mg	-----	55%
	-----		-----	-----	40 mg	10/80 mg	-----	63%

Central Nervous System Agents

Benzodiazepine Therapeutic Interchange

Oxazepam (Serax®) oral 15 mg 30 mg	Lorazepam (Ativan®) <i>at same frequency</i> 1 mg 2 mg
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Selective Serotonin Reuptake Inhibitor Therapeutic Interchange

Paroxetine controlled release (Paxil CR®) oral 12.5 mg 25 mg 37.5 mg	Paroxetine (Paxil®) <i>at same frequency</i> 10 mg 20 mg 30 mg
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Endocrine/Hormones and Synthetic Agents

Insulin Therapeutic Interchange

Insulin aspart protamine/aspart (Novolog®) 70/30 1 unit	Insulin lispro protamine/lispro (Humalog®) 75/25 1 unit
Insulin regular/insulin NPH (Humulin®, Novolin®) 70/30 1 unit	Insulin lispro protamine/lispro (Humalog®) 75/25 1 unit

Sulfonylurea Agents Therapeutic Interchange

NOTE: Once the daily dose has reached GLYburide 10 mg/day or GLIPizide 20 mg/day the dose is usually split into two divided doses

Glyburide (DiaBeta®) 1.25 mg/day 2.5 mg/day 5 mg/day 10 mg/day 20 mg/day	Glipizide 2.5 mg/day 5 mg/day 10 mg/day 20 mg/day (<i>divided in 2 doses</i>) 40 mg/day (<i>divided in 2 doses</i>)
Glyburide (Glynase® PresTab®) micronized 0.75 mg/day 1.5 mg/day 3 mg/day 6 mg/day 12 mg/day	Glipizide 2.5 mg/day 5 mg/day 10 mg/day 20 mg/day (<i>divided in 2 doses</i>) 40 mg/day (<i>divided in 2 doses</i>)

Inhaled Corticosteroid Therapeutic Interchange

The preferred inhaled corticosteroid on the TJUH formulary is mometasone (Asmanex®). Orders for other inhaled corticosteroid will be dispensed as an equivalent dose of mometasone unless the patient is ventilated. Patients with a tracheostomy and/or ventilated will use beclomethasone HFA. The equivalent dose for beclomethasone and mometasone can be derived from the following table.														
Total number of puffs per day													Therapeutic Interchange Preferred Formulary Agent	Therapeutic Interchange for Ventilated Patients
	Beclomethasone (Beclovent®, Vanceril®) HFA (Qvar®)		Budesonide (Pulmicort Flexhaler®) DPI		Ciclesonide (Alvesco®) MDI		Flunisolide (Aerobid®)	Fluticasone (Flovent®) DPI	Fluticasone (Flovent®) HFA			Triamcinolone (Azmacort®)	Mometasone (Asmanex®) DPI	Beclomethasone (Beclovent®, Vanceril®) HFA (Qvar®)
	40 mcg	80 mcg	90 mcg	180 mcg	80 mcg	160 mcg	250 mcg	50 mcg	44 mcg	110 mcg	220 mcg	100 mcg	220 mcg	80 mcg
Low dose (puffs/day)	2 to 6	1 to 3	1 to 4	1	2 to 4	1 to 2	2 to 4	2 to 6	1 to 5	1 to 2	1	4 to 10	1 to 2	4 puffs BID
Medium Dose (puffs/day)	6 to 12	3 to 6	4 to 6	1 to 2	4 to 8	2 to 4	4 to 8	3 to 6	6 to 10	3 to 4	1 to 2	10 to 20	2 to 3	
High dose (puffs/day)	>12	> 6	>6	>2	8	4	>8	>6	11 to 15	5 to 6	3	> 20	> 3	

Nasal Corticosteroid Therapeutic Interchange

Beclomethasone (Beconase®) nasal 1 or 2 sprays in each nostril BID	Fluticasone propionate (Flonase®) 2 sprays in each nostril daily
Budesonide (Rhinocort®) nasal 1 to 4 sprays in each nostril daily	
Ciclesonide (Omnaris®) nasal 2 sprays in each nostril daily	
Flunisolide (Nasarel®) nasal 2 sprays in each nostril BID or TID	
Fluticasone furoate (Veramyst®) nasal 2 sprays in each nostril daily	
Mometasone (Nasonex®) nasal 2 sprays in each nostril daily	
Triamcinolone (Nasacort AQ®) nasal 1 to 2 sprays in each nostril daily	

Inhaled Beta-2 Agonist Therapeutic Interchange

Nebulized Administration	
Levalbuterol (Xopenex)	Albuterol (Proventil, Ventolin)
0.63 mg / 3 mL	2.5 mg / 3 mL at the same frequency levalbuterol was ordered
1.25 mg / 3 mL	2.5 mg / 3 mL at the same frequency levalbuterol was ordered
MDI Administration	
Levalbuterol (Xopenex)	Albuterol (Proventil, Ventolin)
45 mcg / actuation (puff)	90 mcg / actuation (puff) at the same frequency levalbuterol was ordered

Nebulized Medication Therapeutic Interchange

Ventilated Patients	
Drug	Aerogen Aerogen System Neb Treatment
Combivent MDI 8 puffs	DuoNeb* 2.5 – 0.5 mg / 3 mL at the same frequency as Combivent and not more often than Q 4 hours
Albuterol MDI 8 puffs	Albuterol 2.5 mg / 0.5 mL at same frequency
Ipratropium MDI 8 puffs	Ipratropium 0.5 mg / 2.5 mL at the same frequency and not more often than Q 4 hours.
All Patients	
Albuterol 2.5 mg / 3 mL neb with Ipratropium 0.5 mg / 2.5 mL neb	DuoNeb 2.5 – 0.5 mg / 3 mL at the same frequency as albuterol and not more often than Q 4 hours.
Albuterol MDI PRN order	Albuterol nebulization PRN (at same frequency of MDI order) ⁺
Ipratropium MDI PRN order	Ipratropium nebulization PRN (at same frequency of MDI order) ⁺
Combivent MDI PRN order	DuoNeb nebulization PRN (at same frequency of MDI order) ⁺
Budesonide	Beclomethasone MDI (80mcg) 4 puffs Q 12 hours

*DuoNeb contains 2.5 mg albuterol with ipratropium 0.5 mg in 3 mL

⁺**Exception:** patients may receive MDI PRN if they also have a standing (around-the-clock) order for the same MDI.

Gastrointestinal Agents

Antiemetic Therapeutic Interchange

**** Bodine Infusion Center ONLY ****

Granisetron (Kytril®) 1 mg IV/PO 2 mg IV/PO	Palonosetron (Aloxi®) 0.25mg IV Push over 30 seconds
Ondansetron (Zofran®) 8 mg IV/PO 16 mg IV/PO 24 mg IV/PO 32 mg IV/PO	

H-2 Antagonist Therapeutic Interchange

Cimetidine injection 300 – 400 mg q 6-8 h IV 300 mg q 12 h IV	Famotidine injection 20 mg q 12 h IV 20 mg q 24 h IV
Cimetidine (Tagamet®) oral 300 or 400 mg PO daily 600 or 800 mg PO daily	Famotidine (Pepcid®) 20 mg PO daily 40 mg PO daily
Nizatidine (Axid®) oral 150 mg PO daily 300 mg PO daily	Famotidine (Pepcid®) 20 mg PO daily 40 mg PO daily
Ranitidine injection 50 mg q 6-8 h IV 50 mg q 12 h IV	Famotidine injection 20 mg q 12 h IV 20 mg q 24 h IV
Ranitidine (Zantac®) oral 150 mg PO daily 300 mg PO daily	Famotidine (Pepcid®) 20 mg PO daily 40 mg PO daily

Proton Pump Inhibitor Therapeutic Interchange

Dexlansoprazole (Dexilant™) 30 mg daily 30 mg BID or 60 mg daily	Pantoprazole (Protonix®) 40 mg daily 40 mg BID
Esomeprazole (Nexium®) oral 20 mg daily 40 mg daily 80 mg daily	Pantoprazole (Protonix®) 40 mg daily 40 mg BID 80 mg BID
Lansoprazole (Prevacid®) oral 15 mg or 30 mg daily 30 mg BID 60 mg BID	Pantoprazole (Protonix®) 40 mg daily 40 mg BID 80 mg BID
Omeprazole (Prilosec®) oral 10 mg or 20 mg daily 20 mg BID or 40 mg daily 40 mg BID	Pantoprazole (Protonix®) 40 mg daily 40 mg BID 80 mg BID
Rabeprazole (Aciphex®) oral 20 mg daily 20 mg BID or 40 mg daily 40 mg BID	Pantoprazole (Protonix®) 40 mg daily 40 mg BID 80 mg BID

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Ophthalmic Agents (adopted from Wills Eye Hospital)

Prostaglandin Agonist Ophthalmics Therapeutic Interchange

Bimatoprost (Lumigan®) ophthalmic 0.03% 1 drop affected eye(s) QHS	Latanoprost (Xalatan®) 0.005% 1 drop affected eye(s) QHS
Travoprost (Travatan®) ophthalmic 0.004% 1 drop affected eye(s) QHS	

Antibiotic Ophthalmics Therapeutic Interchange

Levofloxacin (Quixin®) ophthalmic 0.5% 1 drop affected eye(s)	Moxifloxacin (Vigamox®) 0.5% 1 drop affected eye(s)
Ofloxacin (Floxin®) ophthalmic 0.3% 1 drop affected eye(s)	
Ciprofloxacin ophthalmic solution and ointment will not be interchanged when prescribed for treatment of Pseudomonas sp. Infections.	

Systemic Corticosteroid Therapeutic Interchange

**** Wills Eye Hospital ONLY ** for giant cell arteritis**

Methylprednisolone (Solu Medrol®) injection 250 mg IV Q 6 hours	Dexamethasone injection 50 mg / 50 ml NSS IVPB Q 6 hours
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