

**Therapeutic Interchange for Anti-Infectives (For Inpatient Use)**

<b>AMINOGLYCOSIDES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Tobramycin</i>	<b>NonFormulary:</b> Auto-substitute to <i>Gentamicin</i> if organism is susceptible (Same dose and frequency).
<i>Amikacin (Amikin)</i>	<b>NonFormulary:</b> Auto-substitute to <i>Gentamicin</i> if organism is susceptible (or to <i>Tobramycin</i> if organism is resistant to <i>Gentamicin</i> but susceptible to <i>Tobramycin</i> ) with dosing per ' <b>Aminoglycoside Dosing and Monitoring by Pharmacists Policy</b> '. If organism is resistant to <i>Gentamicin</i> and <i>Tobramycin</i> <b>OR</b> if <i>Amikacin</i> is ordered by ID specialist, dispense as written.
<b>ANTIFUNGALS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Amphotericin B (Amphocin, Fungizone)</i>	<b>NonFormulary:</b> Auto-substitute to <i>Amphotericin B liposomal (AmBisome)</i> – 4 mg/kg/day
<i>Amphotericin B lipid complex (Abelcet)</i>	
<i>Caspofungin (Cancidas)</i>	<b>NonFormulary:</b> Auto-substitute to <i>Micafungin (Mycamine)</i> 100 mg IV q 24 hours for adults or 2 mg/kg/day IV for pediatric patients. <b>Micafungin is Restricted - ID Consult Required</b> , and inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.
<i>Voriconazole (Vfend)</i>	<b>Restricted - ID Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.
<b>CARBAPENEMS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Ertapenem (Invanz)</i>	<b>Restricted - ID Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours. <b>Exception:</b> One-time dose allowed without ID consult for surgical prophylaxis for colorectal surgeries only. <b>Exception:</b> See comment in meropenem section. If meropenem is ordered for non-pseudomonal ESBL infection (excluding uncomplicated UTI), can be substituted to ertapenem without ID consult.
<i>Meropenem (Merrem)</i>	<b>Restricted – ID or Pulmonary/Critical Care Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease or pulmonary/critical care consult must be initiated by the prescribing physician at the time the drug is

	<p>ordered to continue past the first 24 hours.</p> <p><b>Non-Pseudomonal ESBL Infections (Excluding UTIs – See Below)</b></p> <ul style="list-style-type: none"> <li>Automatically substitute meropenem to renally dose adjusted ertapenem (ID consult is not needed)</li> </ul> <p><b>Non-Pseudomonal ESBL UTIs</b></p> <ul style="list-style-type: none"> <li>Uncomplicated non-Pseudomonal ESBL UTIs: Automatically substitute meropenem to nitrofurantoin monohydrate/macrocrystals (Macrobid) 100 mg PO BID. If isolate is resistant to nitrofurantoin or nitrofurantoin is contraindicated, automatically substitute to fosfomycin 3 gm PO x 1 (ID consult is not needed) <ul style="list-style-type: none"> <li>Be aware that fosfomycin has limited or variable activity against <i>Acinetobacter baumannii</i>, <i>Morganella ssp</i>, <i>Pseudomonas aeruginosa</i>, <i>Stenotrophomonas maltophilia</i>, <i>Bacteroides fragilis</i>, and <i>Fusobacterium ssp</i>. and is not advised for these organisms</li> </ul> </li> <li>Complicated non-Pseudomonal ESBL UTIs: Automatically substitute meropenem to renally dose adjusted ertapenem (ID consult is not needed)</li> </ul>
<p><b>Doripenem (Doribax)</b> <b>Imipenem-Cilastatin (Primaxin)</b></p>	<p><b>NonFormulary:</b> Auto-substitute to <b>Meropenem (Merrem)</b> with dose adjusted based on indication and renal function.</p> <p><b>Meropenem (Merrem) is Restricted - ID or Pulmonary/Critical Care Consult is Required</b>, and inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease or pulmonary/critical care consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.</p>
<b>CEPHALOSPORINS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<b>First Generation - Oral</b>	
<p><b>Cefadroxil (Duricef)</b></p>	<p><b>NonFormulary:</b> Auto-substitute to <b>Cephalexin (Keflex)</b> – half the strength, twice as often</p>
<b>First Generation – Injectable</b>	
<p><b>Cefazolin (Ancef)</b> – q 6 hours</p>	<p>Auto-substitute to <b>Cefazolin (Ancef)</b> – q 8 hours</p> <p><b>Preoperative Doses:</b></p> <ul style="list-style-type: none"> <li>Patients &lt;120 kg – Autosubstitute to cefazolin 2</li> </ul>

	<p>gm</p> <ul style="list-style-type: none"> <li>- Patients <math>\geq</math>120 kg – Autosubstitute to cefazolin 3 gm IV</li> </ul>
<b>Second Generation – Oral</b>	
<b>Cefaclor (Ceclor)</b> <b>Cefprozil (Cefzil)</b>	<b>NonFormulary:</b> Auto-substitute to <b>Cefuroxime axetil (Ceftin)</b> 500 mg PO q 12 hours
<b>Second Generation – Injectable</b>	
<b>Cefoxitin (Mefoxin)</b>	<b>NonFormulary:</b> Auto-substitute to <b>Cefotetan (Cefotan)</b> at same dose given q 12 hours
<b>Third Generation – Oral</b>	
<b>Cefpodoxime (Vantin)</b> <b>Ceftibuten (Cedax)</b>	<b>NonFormulary:</b> Auto-substitute to <b>Cefdinir (Omnicef)</b> – 300 mg PO q 12 hours
<b>Third Generation – Injectable</b>	
<b>Cefotaxime (Claforan)</b>	<p><b>Restricted to Pediatric Patients:</b></p> <p><b>For Adults -</b> Auto-substitute to <b>Ceftriaxone (Rocephin)</b> –</p> <ul style="list-style-type: none"> <li>-If patient &gt; 80 kg: 2 gm IV daily</li> <li>-If patient <math>\leq</math> 80 kg: 1 gm IV daily</li> </ul>
<b>Fourth Generation – Injectable</b>	
<b>Cefepime (Maxipime)</b>	<b>NonFormulary:</b> Auto-substitute to <b>Ceftazidime (Fortaz)</b> with dose adjusted based on indication and renal function.
<b>Fifth Generation – Injectable</b>	
<b>Ceftaroline (Teflaro)</b>	<b>NonFormulary:</b> Inform prescriber that this product is a non-formulary item and recommend ceftazidime IV (see dosing recommendations above) and the addition of vancomycin IV per pharmacy dosing if MRSA coverage is desired. An ID Consult must be obtained and an order received from an ID provider prior to dispensing <b>Ceftaroline (Teflaro)</b> .
<b>CYCLIC LIPOPEPTIDES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<b>Daptomycin (Cubicin)</b>	<p><b>Restricted - ID Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.</p> <p>If patient's actual body weight is greater than 120% of ideal body weight, use adjusted body weight to dose daptomycin.</p>
<b>FLUOROQUINOLONES</b>	
<b>Ordered As</b>	<b>Auto-Substitute To</b>
<b>Ciprofloxacin (Cipro)</b>	<b>Levofloxacin (Levaquin)</b> with dose adjusted based on

	renal function.
250 mg PO bid	500 mg PO daily
500 mg PO bid	500 mg PO daily
750 mg PO bid	750 mg PO daily
500 mg PO daily (SBP prophylaxis)	500 mg PO daily
200 mg IV bid	500 mg IV daily
400 mg IV bid	750 mg IV daily
<b>Moxifloxacin (Avelox)</b>	<b>Levofloxacin (Levaquin)</b> with dose adjusted based on renal function.
400 mg PO daily	750 mg PO daily
400 mg IV daily	750 mg IV daily
<b>Norfloxacin (Noroxin)</b>	<b>Levofloxacin (Levaquin)</b> with dose adjusted based on renal function.
400 mg PO bid	750 mg PO daily
400 mg IV daily	750 mg IV daily
<b>Ofloxacin (Floxin)</b>	<b>Levofloxacin (Levaquin)</b> with dose adjusted based on renal function.
200 mg PO bid	500 mg PO daily
300 mg PO bid	500 mg PO daily
400 mg PO bid	750 mg PO daily
200 mg IV bid	500 mg IV daily
400 mg IV bid	750 mg IV daily
<b>GLYCOPEPTIDES</b>	
<b>Dalbavancin (Dalvance)</b>	<b>Restricted to ID Specialists:</b> For inpatient use, an ID Consult must be obtained and an order received from an ID provider prior to dispensing <b>Emergency Department Use:</b> May be used in the ED for patients NOT being admitted to the hospital if patient meets approved criteria for use (see FormWeb). No ID consult required if following approved criteria for use. Confirm patient is not being admitted prior to dispensing.
<b>Vancomycin (Vancocin)</b>	<b>Vancomycin (Vancocin)</b>
250 mg PO qid	125 mg PO qid
<b>GLYCYLCYCLINES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<b>Tigecycline (Tygacil)</b>	<b>NonFormulary:</b> Inform prescriber that this product is a non-formulary item and recommend ceftazidime IV (see dosing recommendations previously stated) and the addition of vancomycin IV per pharmacy dosing if MRSA coverage is desired. An ID Consult must be obtained and an order received from an ID provider prior to dispensing <b>Tigecycline (Tygacil)</b> .
<b>LINCOSAMIDES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<b>Clindamycin (Cleocin)</b>	<b>Clindamycin (Cleocin)</b>
300 mg IV q 6 hours	600 mg IV q 8 hours
600 mg IV q 6 hours	900 mg IV q 8 hours

900 mg IV q 6 hours	900 mg IV q 8 hours
<b>MACROLIDES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Erythromycin base</i> - Tabs	<i>Erythromycin (Ery-Tab)</i> - Same dose and frequency PO
<i>Erythromycin ethylsuccinate (EES)</i> - Tabs	<b>NonFormulary:</b> Auto-substitute to <i>Erythromycin (Ery-Tab)</i> - Convert dose (400 mg EES = 250 mg Ery-Tab base); same frequency PO
<i>Erythromycin (PCE)</i>	<b>NonFormulary:</b> Auto-substitute to <i>Erythromycin (Ery-Tab)</i> - Same dose and frequency PO
<i>Clarithromycin XL (Biaxin XL)</i> - 1000 mg PO daily	<b>NonFormulary:</b> <i>Clarithromycin (Biaxin)</i> - 500 mg PO q 12 hours
<i>Fidaxomicin (Dificid)</i>	<b>Restricted - ID or GI Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided; however, an infectious disease or GI consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.
<b>MISCELLANEOUS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Fosfomycin (Monurol)</i>	<p><b>Restricted to ID Specialists:</b> An ID Consult must be obtained and an order received from an ID provider prior to dispensing</p> <p><b>Non-Pseudomonal ESBL UTIs</b></p> <ul style="list-style-type: none"> <li>• Uncomplicated non-Pseudomonal ESBL UTIs: Automatically substitute meropenem to nitrofurantoin monohydrate/macrocrystals (Macrobid) 100 mg PO BID. If isolate is resistant to nitrofurantoin or nitrofurantoin is contraindicated, automatically substitute to fosfomycin 3 gm PO x 1 (ID consult is not needed) <ul style="list-style-type: none"> <li>○ Be aware that fosfomycin has limited or variable activity against <i>Acinetobacter baumannii</i>, <i>Morganella</i> ssp, <i>Pseudomonas aeruginosa</i>, <i>Stenotrophomonas maltophilia</i>, <i>Bacteroides fragilis</i>, and <i>Fusobacterium</i> ssp. and is not advised for these organisms</li> </ul> </li> </ul>
<i>Metronidazole (Flagyl)</i> - 500 mg IV/PO Q6 hours	<i>Metronidazole (Flagyl)</i> - 500 mg IV/PO Q8 hours. For intra-abdominal infections, consider recommending metronidazole 500 mg IV/PO Q12h to the provider.
<b>OXAZOLIDINONES</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Linezolid (Zyvox)</i>	<b>Restricted - ID Consult Required:</b> Inform prescriber that the first 24 hours of doses will be provided;

	however, an infectious disease consult must be initiated by the prescribing physician at the time the drug is ordered to continue past the first 24 hours.
<b>PENICILLINS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Ampicillin</i> – PO q 6 hours	<i>Amoxicillin</i> – same dose PO q 8 hours
<i>Penicillin G Sodium</i>	<i>Penicillin G Potassium</i> – <b>same dose and frequency.</b>
<i>Oxacillin</i>	<b>NonFormulary:</b> Auto-substitute to <i>Nafcillin</i> – same dose and frequency ( <i>Nafcillin</i> is the anti-staphylococcal penicillin of choice)
<i>Piperacillin-tazobactam (Zosyn)</i>	<b>Inpatient Orders:</b> Auto-substitute to <i>Piperacillin-tazobactam (Zosyn)</i> 3.375 gm extended interval q8h with dose adjusted for renal function.
<i>Ticarcillin-clavulanate (Timentin)</i>	<b>NonFormulary:</b> Auto-substitute to <i>Piperacillin-tazobactam (Zosyn)</i> 3.375 gm extended interval q8h with dose adjusted for renal function
<b>STREPTOGRAMINS</b>	
<b>Ordered As</b>	<b>Substitute</b>
<i>Quinupristin-dalfopristin (Synercid)</i>	<b>NonFormulary:</b> Inform prescriber that this product is a non-formulary item and recommend vancomycin IV per pharmacy dosing. An ID Consult must be obtained and an order received from an ID provider prior to dispensing <i>Quinupristin-dalfopristin (Synercid)</i> .