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OLIVE VIEW-UCLA MEDICAL CENTER

Empiric Antibiotic Recommendations

2020-21

These are the agents generally preferred for first-line empiric therapy at Olive View-UCLA.
Circumstances of individual cases may dictate different antibiotic choices.

SITE	INFECTION/DIAGNOSIS	LIKELY PATHOGEN	INITIAL TREATMENT	COMMENTS
Abdomen	Spontaneous Bacterial Peritonitis	E.coli, other Enterobacteriaceae, Streptococci	Ceftriaxone 2g IV q24h	Paracentesis fluid WBC > 250 PMNs
	Intra-abdominal Infection (appendicitis, diverticulitis, secondary peritonitis, intra-abdominal abscess)	E. coli, other Enterobacteriaceae, Strep.viridans, Enterococci, anaerobes (B.fragilis)	Ceftriaxone 2g IV q24h + Metronidazole 500mg PO/IV q8h Or Cefoxitin 2g IV q6h (for mild to mod cases)	Source control most important
	Biliary Infection (cholecystitis, cholangitis)	E. coli, other Enterobacteriaceae, S.viridans, Enterococci	Ceftriaxone 2g IV q24h	Add metronidazole 500mg PO/IV q8h if biliary-enteric anastomosis or severe ileus
	Abdominal Sepsis (shock, healthcare-associated)	E. coli, other Enterobacteriaceae, S.viridans, Enterococci	Piperacillin/tazobactam 3.375g IV q8h (extended infusion) Or Cefepime 2g IV q8h + Metronidazole 500mg IV q8h	Add amikacin 15mg/kg IV q24h if septic shock
	Clostridium difficile colitis	C. difficile	Metronidazole 500mg PO q8h (for mild to mod cases)	Vanco 125mg PO q6h if metronidazole fails or severe C. diff (WBC ≥15, Scr ≥ 1.5x baseline/ICU level/megacolon) Vanco 500mg PO/GT q6h plus metronidazole 500mg IV q8h if septic shock/megacolon. Add vanco 500mg PR q6h if complete ileus
Bone	Osteomyelitis (NOT diabetic foot)	S. aureus	Vancomycin 1g IV q12h	See Skin-Diabetic Foot below for osteomyelitis in patients with diabetes
CNS	Meningitis	S. pneumoniae, N. meningitidis, H.flu, Listeria in infants, elderly, pregnant, immunosuppressed	Ceftriaxone 2g IV q12h -Add ampicillin 2g IV q4h if elderly, pregnant, immunosuppressed -Consider vancomycin 750mg IV q6h if CSF GS: GPC pairs/ chains and/or Biofire PCR detects S. pneumoniae	Consider dexamethasone 0.15 mg/kg IV q6h x 2-4 days if bacterial meningitis is confirmed or strongly suspected. Administer first dose prior to abx Vancomycin only necessary for full-PCN or ceftriaxone resistant S. pneumoniae

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	Brain Abscess	Streptococci, Bacteroides, oral anaerobes, Enterobacteriaceae	Ceftriaxone 2g IV q24h + Metronidazole 500mg PO/IV q8h	Need neurosurgery for drainage if size >2.5 cm
CV	Endocarditis Native valve	S. aureus, Strep. viridans, Enterococci	Ceftriaxone 2g IV q24h + Vancomycin 1g IV q12h	Need TEE
	Endocarditis Prosthetic valve	S. epidermidis, S aureus, Strep. viridans	Vancomycin 1g IV q12h + Gentamicin 1mg/kg IV q8h + Rifampin 300mg PO TID	Need TEE
ENT	Sinusitis/otitis media/mastoiditis	S. pneumoniae, H. flu, Moraxella	Ampicillin/sulbactam 3g IV q6h	
	Odontogenic Infection	Strep. viridans, oral anaerobes	Ampicillin/sulbactam 3g IV q6h	
	Malignant Otitis Externa	Pseudomonas aeruginosa	Cefepime 2g IV q8h	ENT consultation
GU	Pelvic Inflammatory Disease	Chlamydia, N. gonorrhoeae, E. coli, streptococci, anaerobes	Cefoxitin 2g IV q6h + Doxycycline 100mg PO q12h	Complete STD public health report form
	Pyelonephritis - Uncomplicated	Enterobacteriaceae, (E. coli, Klebsiella, Proteus), Enterococcus	Ceftriaxone 1-2g IV q24h	Use amikacin 15mg/kg IV q24h^ if risk factors for ESBL (recent UTI, recent antibiotic exposure, history of ESBL, from nursing home) and/or urosepsis/ICU
	Pyelonephritis - Complicated (Foley, nephrostomy tube, urologic instrumentation)	Enterobacteriaceae (E. coli, Klebsiella, Proteus), Pseudomonas, Enterococci, Staph spp	Piperacillin/tazobactam 3.375g IV q8h (extended infusion)	Use amikacin 15mg/kg IV q24h^ if risk factors for ESBL (recent UTI, recent antibiotic exposure, history of ESBL, from nursing home) and/or urosepsis/ICU. Remove/change foley/nephrostomy tube
Joint	Septic Arthritis	S. aureus, β-hemolytic streptococci, N. gonorrhoeae	Ceftriaxone 2g IV q24h + Vancomycin 1g IV q12h	Consider urethral, pharyngeal, rectal cultures if GC suspected.
Lung	Community-Acquired Pneumonia (CAP)	S. pneumoniae, H. flu, Chlamydophila pneumoniae, Mycoplasma pneumoniae, Legionella	Ceftriaxone 1g IV q24h + Azithromycin 500mg PO q24h or Doxycycline 100mg PO q12h	Consider fungi (Cocci, Crypto), mycobacterial (TB), viral (influenza), or non-infectious causes of pneumonia if fail empiric therapy
	Severe Community-Acquired Pneumonia (ICU)	S. pneumoniae, S. aureus (incl CA-MRSA), Klebsiella, Legionella	Ceftriaxone 1-2g IV q24h + Azithromycin 500mg PO/IV q24h + Vancomycin 1g IV q12h	Severe CAP - RR > 30/min, severe resp. failure, shock, vasopressors
	Hospital-Acquired PNA/Ventilator-Associated PNA/Nursing Home PNA	S. aureus, Pseudomonas, Enterobacteriaceae, Acinetobacter	Cefepime 2gm IV q8h + Vancomycin 1g IV q12h	Consider adding amikacin 15mg/kg IV q24h if severe sepsis/septic shock (ICU)

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Score

	Aspiration/Anaerobic Pneumonia	Strep viridans, oral anaerobes	Ceftriaxone 1g IV q24h	Add metronidazole 500mg PO q8h if true aspiration pneumonia (subacute necrotizing PNA, often with cavitation, abscess, and empyema formation)
	AIDS Pneumonia	PCP, S. pneumoniae, H. flu, fungi (Cryptococcus, Cocci, Histoplasma), Mycobacteria (TB, MAC)	Ceftriaxone 1g IV q24h + Azithromycin 500mg PO q24h + Bactrim 15-20mg/kg/day PO/IV divided q8h	Isolate and initiate TB evaluation. If no etiology by sputum studies, need bronchoscopy
	Acute Exacerbation of Chronic Bronchiectasis/ Cystic Fibrosis	S. pneumoniae, H. flu, P. aeruginosa	Cefepime 2g IV q8h	Antibiotics not indicated for acute bronchitis.
Skin	Cellulitis (No pus)	β-hemolytic strep (GAS), S. aureus	Cefazolin 1-2g IV q8h	
	Cellulitis with abscess or purulent drainage	S. aureus, including MRSA	Vancomycin 1g IV q12h	Outpatient treatment depends on bacteria susceptibilities from wound culture.
	Bite Infections	Pasteurella (cat, dog) Eikenella (human) streptococci, S. aureus, oral anaerobes	Ampicillin/sulbactam 3g IV q6h	
	Necrotizing Fasciitis	Type 2: Group A strep Type 1: Strep, GNR, anaerobes 3rd Type: S. aureus (CA-MRSA)	Ceftriaxone 2g IV q24h + Vancomycin 1g IV q12h + Metronidazole 500mg IV/PO q8h	Early surgical consultation If documented Group A Strep (GAS), change to PCN G 4 mil units IV q4h + Clindamycin 900mg IV q8h 3rd type involving CA-MRSA is uncommon and has more sub-acute course
	Fournier's Gangrene	Streptococci, GNR, anaerobes	Ceftriaxone 2g IV q24h + Metronidazole 500mg IV/PO q8h - Add vancomycin 1g IV q12h if severe sepsis	Urology consult for debridement
	Diabetic Foot Infection – Cellulitis	Streptococci (esp Group B strep), S. aureus	Cefazolin 2g IV q8h	
	Diabetic Foot infection – Acute ulcer (< 14 days)	Streptococci (esp Group B strep), S. aureus	Cefazolin 2g IV q8h	If significant osteomyelitis by MRI and no amputation, need longer IV therapy (approximately 6 weeks)
	Diabetic Foot Infection-Chronic ulcer	Streptococci (esp Group B strep), S. aureus, GNR	Ceftriaxone 2g IV q24h - Add metronidazole 500mg PO q8h if necrotic tissue or e/o gas on XR	If osteomyelitis, anaerobic coverage (with metronidazole) not necessary for entire duration If s/p debridement with no e/o necrotic/ dead tissue and no gas on XR, metronidazole not needed

Fold

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	Diabetic Foot Infection - Severe (ICU), limb/life-threatening, wet gangrenous/ fetid foot	S. aureus, streptococci, GNR, anaerobes	Ceftriaxone 2g IV q24h + Vancomycin 1g IV q12h + Metronidazole 500mg IV/PO q8h	
Systemic	Neutropenic Fever	E. coli, Pseudomonas, Klebsiella, Streptococci, Candida	Cefepime 2g IV q8h - Add vancomycin 1g IV q12h if central line, soft tissue source, severe pneumonia, and/or severe sepsis (ICU) - Add amikacin 15mg/kg IV q24h if severe sepsis (ICU)	Add anaerobic coverage (metronidazole 500mg PO/IV q8h) to cefepime if suspect abdominal source (diarrhea, abdominal pain, typhlitis)
	Sepsis - Immunocompetent No obvious source	Strep. pneumoniae, E. coli, S. aureus	Ceftriaxone 2g IV q24h + Vancomycin 1g IV q12h + /- Metronidazole 500mg PO/IV q8h	Evaluate the abdomen (eg CT abd) for sepsis without obvious source - If nosocomial, use pip/tazo 3.375g IV q8h (extended infusion) instead of ceftriaxone/metronidazole
	Line-related infection	S. aureus, coag-negative Staphylococci	Vancomycin 1g IV q12h - Consider Cefepime 2g IV q8h if severe sepsis/septic shock	Removal of line is important for all bacteria (except possibly coag-neg Staph)
Fungal Infection	Candidemia	C. albicans, C. glabrata, C. krusei, C. parapsilosis, other Candida spp	Micafungin 100mg IV q24h or Fluconazole 800mg IV/PO x1, then 400mg IV/PO q24h if clinically stable, no recent azole antifungal exposure, and no hx of fluconazole-resistant Candida	Removal of line is important If started on micafungin, consider transition to fluconazole if clinically stable, negative repeat Bcx, and isolate susceptible (if C. glabrata or C. krusei, consider transition to voriconazole) Fluconazole: C. glabrata highly resistant (dose-dependent) and C. krusei inherently resistant
	Candiduria	C. albicans, C. glabrata, C. krusei, C. parapsilosis, other Candida spp	If asymptomatic: Remove foley (if present) and no treatment indicated (except for: neutropenia, plan for urologic manipulation) If symptomatic with pyuria: Remove foley (if present) and start Fluconazole 200-400mg PO q24h	Removal of foley, nephrostomy tube important If symptomatic with pyuria after foley removal and Ucx +C. krusei or C. glabrata, consult ID for antifungal recommendations

*^Doses listed above are based on normal renal/hepatic function; dose adjust accordingly

Olive View-UCLA Medical Center

RESTRICTED ANTIBIOTICS

*****PRE-APPROVED Restricted Antibiotics*****

CEFEPIME
- Neutropenic Fever
- Nosocomial PNA – HAP/VAP/Nursing Home Pneumonia
- Catheter-Associated UTI

PIPERACILLIN/TAZOBACTAM (ZOSYN®)
- Neutropenic Fever
- Nosocomial PNA – HAP/VAP/Nursing Home Pneumonia
- Catheter-Associated UTI

VANCOMYCIN
- Severe Community Acquired Pneumonia*
- Nosocomial PNA – HAP/VAP/Nursing Home Pneumonia
- Endocarditis
- Line/Catheter-Associated Infection
- Cellulitis w/ Abscess or Purulent Drainage
- Necrotizing Fasciitis
- Septic Arthritis
- Bacterial Meningitis
- Pregnant with +GBS and Severe PCN Allergy

VORICONAZOLE
- Anti-fungal prophylaxis for AML, ALL, or aplastic anemia/MDS, during the duration of neutropenia (ANC <500) – **COMMENTS SECTION MUST INCLUDE DIAGNOSIS, "PROPHYLAXIS" AND "NEUTROPENIA"**

*****FULLY Restricted Antibiotics*****

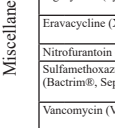
- **Aztreonam**
- **Amphotericin B Liposomal (Ambisome®)**
- **Amphotericin B Lipid Complex (Abelcet®)**
- **Ceftaroline**
- **Ceftazidime**
- **Ceftolozane/tazobactam (Zerbaxa®)**
- **Cidofovir**
- **Colistin®**
- **Dalfopristin/Quinupristin**
- **Daptomycin**
- **Foscarnet**
- **Ganciclovir**
- **Isavuconazole**
- **Linezolid**
- **Meropenem**
- **Meropenem/vaborbactam (Vabomere®)**
- **Moxifloxacin**
- **Micafungin**
- **Oritavancin**
- **Posaconazole**
- **Tigecycline**

*ICU level, intubation, or severe sepsis/septic shock

Score

HOW TO GET THE ANTIBIOTICS YOUR PATIENTS NEED:

PRE-APPROVED RESTRICTED ANTIBOTICS:	FULLY RESTRICTED ANTIBIOTICS:
Cefepime Piperacillin/tazobactam Vancomycin Voriconazole	Aztreonam, Amphotericin B Liposomal, Amphotericin B Lipid Complex, Ceftaroline, Ceftazidime, Cidofovir, Colistin®, Dalfopristin/Quinupristin, Daptomycin, Foscarnet, Ganciclovir, Isavuconazole, Linezolid, Meropenem, Vabomere®, Moxifloxacin, Micafungin, Oritavancin, Posaconazole, Tigecycline, Zerbaxa®



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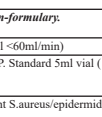

NO first doses released unless appropriate steps followed:

All will get a 1st dose, but no subsequent doses unless appropriate steps followed:

PRE-APPROVED RESTRICTED ANTIBOTICS:
ORCHID order needs to include the "Pre-Approved Indication" for release

FULLY RESTRICTED ANTIBIOTICS:
Verbal ID approval required; name of approving ID Pharmacist or ID Physician must be entered on order

Restricted Antibiotics Approval Pager:

818-313-0154

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Antimicrobial Dosing and Cost

INJECTABLE Cost range per day: $<20, $$=20-45, $$$=45-70, $$$$=70-120, $$$$$>120

ORAL Cost range per day: $<2, $$=2-4, $$$=4-6, $$$$=6-10, $$$$$>10

CLASS		ANTIBIOTIC (Generic/Brand)	USUAL ADULT DOSE	COMMENTS	COST PER DAY
Penicillins		Ampicillin	IV/IM:1-2 gm q4-6h PO: not on formulary	Active against Gm (+) cocci, some Shigella, Salmonella, P. mirabilis & E. coli.	IV:$
		Ampicillin/Sulbactam (Unasyn®)	IV/IM: 1.5-3 gm q6h	Extends spectrum of ampicillin to include ß-lactamase producing strains of H. influenzae, M. catarrhalis, S. aureus, Neisseria & Bacteroides spp. Not usually active against P. aeruginosa, Serratia or Enterobacter.	IV:$
		Oxacillin	IV: 1-2 gm q4-6h	Penicillinase-resistant penicillin. Good anti-staphylococcal activity	IV: $$-$$$
		Penicillin	PO (pen VK): 250-500 mg q6h IV: 2- 4 million units q4-6h	CNS reactions (seizures) can occur with high doses (>20 MU/day) and renal failure.	IV:$-$$ PO:$
		Piperacillin/Tazobactam (Zosyn®)	IV: 3.375 gm q8h extended infusion over 4h	Antipseudomonal, broad spectrum. ***Restricted Antibiotic with Pre-approved Indications for use***	IV:$$
Cephalosporin	1st Gen	Cefazolin (Ancef®, Kefzol®)	IV/IM: 1-2 gm q8h	Active against Gm (+) cocci, E. Coli, S. pneumoniae, Proteus mirabilis. (Not effective against enterococci or MRSA)	IV:$
	2nd Gen	Cefoxitin (Mefoxin®)	IV/IM: 1-2 gm q6-8h	Improved Gm (-) coverage over 1st gen. & good anaerobic activity.	IV:$ -$$
	3rd Gen	Ceftriaxone (Rocephin®)	IV/IM: 1-2 gm q24h 2 gm q12h for meningitis	Good Gm (-) & H. influenza, N. gonorrhea coverage. *Cefotaxime Restricted to Pediatrics or ID*	IV:$
	3rd Gen	Ceftazidime (Fortaz®)	IV/IM: 1-2 gm q8h	Antipseudomonal cephalosporin. Good Gm (-), poor Gm (+), poor anaerobic activity. ***Fully Restricted to ID; obtain ID approval for use***	IV:$-$$
	3rd Gen	Ceftazidime/avibactam (Avycaz®)	IV: 2.5 gm q8h	Cephalosporin/β-lactamase inhibitor combination. Similar to ceftazidime, but with activity against ESBL and carbapenemase producing organisms. ***Non-formulary. Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
	4th	Cefepime (Maxipime®)	IV: 1-2 gm q8-12 h	Antipseudomonal cephalosporin. Good Gm (-) and Gm (+) coverage. ***Restricted Antibiotic with Pre-approved Indications for use***	IV:$
	5th	Ceftaroline (Teflaro®)	IV: 600 mg q12h (up to 600mg q8h)	Cephaloporin with activity against MRSA. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
	Novel	Ceftolozane/tazobactam (Zerbaxa®)	IV: 1.5 gm q8h (up to 3 gm q8h)	Cephalosporin/β-lactamase inhibitor combination. Activity against Pseudomonas and ESBL organisms. Degraded by carbapenemase. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
Carbapenems		Ertapenem (Invanz®)	IV: 1gm q24h	Similar to meropenem, but no activity against Pseudomonas or Entercocci. ***Requires Prior Authorization***	IV:$$$
		Meropenem (Merrem®)	IV: 500 mg-1,000 mg q8h, (2 gm IV q8h for meningitis)	Broad spectrum antibiotic with activity against Pseudomonas and ESBL producing organisms. ***Fully Restricted to ID; obtain ID approval for use***	IV:$-$$
		Meropenem/vaborbactam (Vabomere®)	IV: 4 gm q8h	Carbapenem/β-lactamase inhibitor combination. Activity against ESBL organisms and KPC. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
Fluoro-quinolones		Ciprofloxacin (Cipro®)	PO: 250-750 mg BID IV: 400mg q12h	Ciprofloxacin preferred over levofloxacin for UTI	IV:$ PO:$
		Levofloxacin (Levaquin®)	PO: 250-750 mg daily IV: 250-750 mg daily	Activity against S. pneumoniae and other respiratory pathogens. Use 750mg dose for pneumonia (based on normal renal function)	IV:$ PO:$
AMG		Amikacin	IV/IM: 15 mg/kg q24h	Check baseline Scr to evaluate renal function. For once daily dosing, check a single level 8 to12 hours after the start of infusion. For traditional and synergy dosing, check peak and trough level around the fourth dose. Contact pharmacy for dosing recommendations.	IV:$
		Gentamicin	IV/IM: 5-7 mg/kg q24h Gm (+) synergy: 1mg/kg q8h		
		Tobramycin	IV/IM: 5-7 mg/kg q24h		

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CLASS		ANTIBIOTIC (Generic/Brand)	USUAL ADULT DOSE	COMMENTS	COST PER DAY
Miscellaneous Antibiotics		Azithromycin (Zithromax®)	IV/PO: 500 mg daily	Macrolide antibiotic, better activity vs. H. influenzae compared to erythromycin, with better GI tolerance.	IV:$ PO:$
		Clindamycin (Cleocin®)	IV: 600-900 mg q8h PO: 150-450 mg q8-6h	Good Gm (+) cocci & anaerobic coverage. Can cause severe diarrhea and pseudomembranous colitis.	IV:$ PO:$
		Daptomycin (Cubicin®)	IV: 4-6 mg/kg q24h (up to 8-12 mg/kg q24h)	Covers Gm (+) including MRSA. Not to be used for pneumonia. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$
		Doxycycline	IV/PO: 100mg q12h	Tetracycline antibiotic	IV:$$ PO:$
		Fosfomycin (Monurol®)	PO: 3gm q48h x3 doses	Oral powder, mix in 3 oz of water. ***Requires Prior Authorization***	PO:$$$$$
		Linezolid (Zyvox®)	IV/PO: 600 mg q12h	Used only for gram-positive infections resistant to other agents. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$ PO:$$
		Metronidazole (Flagyl®)	IV: 500mg q6-8h PO: 500mg TID (750mg q8h for amebic disease)	Very good anaerobic coverage. Agent of choice for pseudomembranous enterocolitis caused by Clostridium difficile (oral form).	IV:$ PO:$
		Tigecycline (Tygacil®)	IV: 100 mg x1 (LD), then 50 mg q12h	Activity against MDR pathogens, incl ESBL, VRE, and MRSA. Extensive tissue distribution, but not plasma/urine spaces	IV:$$$$
		Eravacycline (Xerava®)	IV: 1 mg/kg q12h	Dose adjust with concomitant strong CYP3A inducers. ***Non-formulary.*** ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
		Nitrofurantoin (Macrobid®)	PO: 100 mg bid (macrocrystals)	Not recommended with significant renal dysfunction. (CrCl <60ml/min)	PO:$
		Sulfamethoxazole/Trimethoprim (Bactrim®, Septra®)	PO: 1 DS tab BID PO/IV: *Pneumocystis* 15-20 mg/kg/day of TMP in 3-4 div doses	Double strength tab contains 800mg SMX and 160mg TMP. Standard 5ml vial (1 amp) contains 400mg SMX & 80mg TMP	IV:$$-$$$ PO:$
		Vancomycin (Vancocin®)	IV: 1 gm q12h PO: 125-500 mg q6h	Drug of choice for infections caused by methicillin-resistant S.aureus/epidermidis. PO form not for systemic infections. ***Restricted Antibiotic with Pre-approved Indications for use***	IV:$-$$ PO:$$$$$
		Oritavancin (Orbactiv®)	IV: 1,200 mg as a single dose	Activity against Gm (+) organisms including MRSA. Long-acting (half-life ~245 hrs), thus given as a single dose over 3 hrs. Caution: may falsely elevate aPTT. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$
Antifungals	Azoles	Fluconazole (Diflucan®)	IV/PO: 200-400 mg q24h	Active against Candida spp, Coccidioides, and Crypto; dose-dependent sensitivity to C. glabrata, resistant to C. krusei. Good urinary tract penetration. Caution multiple DDI (inhibits CYP3A4)	IV:$ PO:$-$$
	Azoles	Voriconazole (Vfend®)	IV: 6 mg/kg q12h x 2 doses (LD), then 4 mg/kg q12h (MD) PO: 400 mg q12h x 2 doses (LD), then 200 mg q12h (MD)	Highly active against Aspergillus, active against C. glabrata, C. krusei. IV contains cyclodextrin; caution use in renal impairment due to risk for accumulation. Caution multiple DDI (inhibits CYP3A4). ***Restricted Antifungal with Pre-approved Indications for use***	IV:$$$ PO:$$$
	Azoles	Isavuconazole (Cresemba®)	IV/PO: 372 mg q8h x 6 doses (LD), then 372 mg q24h (MD)	Active against Aspergillus and Mucor. Do not shake IV solution and must use in-line filter for infusion. Caution multiple DDI (inhibits CYP3A4). ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$$$ PO:$$$$$
		Echinocandins			
		Micafungin (Mycamine®)	IV: 100 mg q24h	Active against Candida spp, incl C. glabrata and C. krusei. Poor urinary tract penetration/ concentration. ***Fully Restricted to ID; obtain ID approval for use***	IV:$$$
		Polyenes			
		Amphotericin B Liposomal (Ambisome®)	IV: 4-6 mg/kg q24h	Broad antifungal activity, incl Crypto, Aspergillus, and Mucor. May cause renal impairment and electrolyte abnormalities; maintain adequate hydration and replete K+, Mg2+ accordingly. ***Fully Restricted to ID; obtain ID approval for use.*** **Caution: may be confused with Amphotericin B Lipid Complex (Abelcet®)**	IV:$$$$$
		Amphotericin B Lipid Complex (Abelcet®)	IV: 3-5 mg/kg q24h	Broad antifungal activity, incl Crypto, Aspergillus, and Mucor. Distributes well into tissue spaces with high concentrations. May cause renal impairment and electrolyte abnormalities; maintain adequate hydration and replete K+, Mg2+ accordingly. ***Fully Restricted to ID; obtain ID approval for use.*** **Caution: may be confused with Amphotericin B Liposomal (Ambisome®)**	IV:$$$$$