ANTIMICROBIAL COST ANALYSIS

ANTIMICROBIAL	COST/DAY
CEPHALOSPORINS	
Ancef (cefazolin) 1gm IV Q8H	$3.00
Ceftin (cefuroxime) 500mg PO BID	$4.00
Zinacef (cefuroxime) 1.5gm IV Q8H	$10.00
Omnicef (cefdinir) 300mg PO BID	$2.00
Rocephin (ceftriaxone) 1gm IV Q24H	$3.00
Fortaz (ceftazidime) 1gm IV Q8H	$12.00
Maxipime (cefepime) 1gm IV Q6H	$24.00
Teflaro (ceftaroline) 600mg IV Q12H	**$250.00**
PENICILLINS	
Ampicillin 1gm IV Q6H	$8.00
Unasyn (amp/sulbac) 3gm IV Q6H	$9.00
Nafcillin 2gm IV Q4H	$53.00
Zosyn (pip/tazo) 3.375gm IV Q8H EI	$18.00
CARBAPENEMS	
Meropenem 500mg Q6H	$17.00
Invanz (ertapenem) 1gm Q24H	**$95.00**
QUINOLONES	
Levaquin 750mg PO Q24H	$0.35
Levaquin 750mg IV Q24H	$4.00
MACROLIDES	
Zithromax 500mg PO Q24H	$1.00
Zithromax 500mg IV Q24H	$5.00
Biaxin 500mg PO Q12H	$4.00
Erythromycin 250mg PO Q6H	$23.00
Erythromycin 250mg IV Q6H	**$123.00**
AMINOGLYCOSIDES	
Gentamicin 500mg IV Q24H	$6.00
Tobramycin 500mg IV Q24H	$13.00
Amikacin 500mg IV Q8H	$29.00
ANTIFUNGALS	
Diflucan 200mg PO Q24H	$1.00
Diflucan 200mg IV Q24H	$5.00
Voriconazole 200mg PO Q12H	$37.00
Voriconazole 200mg IV Q12H	**$167.00**
Mycamine 100mg IV Q24H	**$71.00**
Ambisome 300mg IV Q24H	**$360.00**
MISCELLANEOUS	
Azactam 1gm IV Q8H	**$82.00**
Vancomycin 1gm IV Q12H	$10.00
Zyvox 600mg PO Q12H	$5.00
Zyvox 600mg IV Q12H	**$80.00**
Cubicin ≤ 500mg IV Q24H	**$325.00**
Cubicin > 500mg IV Q24H	**$650.00**
Vibativ 750mg IV Q24H	**$374.00**
Dalvance 1500mg IV once	**$4,245.00**
Orbactiv 1200mg IV once	**$2,755.00**
Cleocin 600mg IV Q8H	$7.00
Bactrim DS PO BID	$0.15
Bactrim 800mg/160mg IV Q6H	$47.00
Doxycycline 100mg PO Q12H	$2.00
Doxycycline 100mg IV Q12H	$59.00
Polymyxin B 750,000 U IV Q12H	$27.00
Colistin 200mg Q12H	$35.00
Rifampin 600mg PO Q24H	$1.00
Rifampin 600mg IV Q24H	**$83.00**
Flagyl 500mg IV Q8H	$4.00
Macrobid 100mg PO BID	$4.00
Monurol (fosfomycin) 3gm sachet	$68.88/pckt

*For patients with non-anaphylactic/non life-threatening PCN allergy, the use of 2nd generation and higher cephalosporins and carbapenems is appropriate. PCN cross sensitivity with cephalosporins decreases as generation increases.

2017 EMPIRIC ANTIBIOTIC GUIDELINE

UTI or Urosepsis Community Acquired *E.coli, Proteus* IDSA 2011	Moderate and Severe	Rocephin* Nitrite (-), suspect *Entercoccus*: Ampicillin ± Gentamicin *Anaphylactic* β-lactam allergy: Levaquin
UTI or Urosepsis Health-care Acquired *E.coli, Enterococcus, Klebsiella* IDSA 2011	Mild, Moderate, and Severe	Zosyn PCN allergy: Cefepime* Nitrite (-), suspect *Entercoccus*: Ampicillin ± Gentamicin *Anaphylactic* β-lactam allergy: Levaquin
AVOID EMPIRIC USE OF FLUOROQUINOLONES FOR UTIs. New FDA black box warning in 2016: FQs should not be used for uncomplicated UTIs when other treatment options are available due to risks of tendon rupture, irreversible peripheral neuropathy, and other adverse effects. Most common urine isolates from WRMC in 2016: *E. coli* (44%), *Klebsiella* (10%), *E. faecalis* (10%), and *P. mirabilis* (5%) with respective Levaquin susceptibilities of 69%, 95%, 68%, and 77%.		
Catheter-associated UTI IDSA 2010	Rule out asymptomatic bacteriuria	If symptomatic, treat as a Health-care acquired UTI. If asymptomatic, guidelines recommend no antibiotics unless pregnant.
SSTI Purulent MRSA>MSSA IDSA 2014	Mild	I&D only
	Moderate	PO Bactrim or Doxycycline MRSA, MSSA, S. epidermis susceptibilities to clindamycin are 63%, 78%, and 48% respectively
	Severe	Vancomycin or PO Linezolid Oritavancin or Dalbavancin (requires PA, OUTPT only)
SSTI Nonpurulent *Strep.pyogenes* IDSA 2014	Mild	PO Keflex or PO Clindamycin
	Moderate	IV Rocephin* or IV Clindamycin
	Severe	Vancomycin + Zosyn
Diabetic Foot IDSA 2012	SSTI organisms ± *Pseudomonas* and anaerobes	Vancomycin ± Zosyn May consider PO Linezolid in place of vancomycin if anticipated duration is ≤ 14 days
Sepsis Surviving Sepsis Campaign 2012		Vancomycin + Zosyn
	β-lactam allergy	Vancomycin + Cefepime* + Flagyl Alternative: Vancomycin + Meropenem*
	Intra-abd focus or neutropenia	Add Gentamicin
	KNOWN CAP	Add Levaquin or Zithromax
Intra-abdominal *E. coli,* anaerobes, *Klebsiella, Streptococcus, Enterococcus, Pseudomonas* IDSA 2010	Mild-Moderate	Zosyn monotherapy Alternative: Rocephin* + Flagyl
	Severe Must include *Pseudomonas coverage*	Zosyn monotherapy Alternative: Cefepime* + Flagyl May consider Meropenem* monotherapy if life threatening
	Per IDSA guidelines: FQs should not be used when *E. coli* susceptibility is < 90%. *E. coli* susceptibility to FQs at WRMC in 2016 was 69%.	
CAP *Streptococcus,* atypicals, *H.influenzae,* viruses IDSA/ATS 2007	Pediatric CAP (>3 months)	Fully immunized: Ampicillin + Zithromax Not fully immunized: Rocephin* + Zithromax
	Adult Non-ICU	Levaquin monotherapy Alternative: Rocephin* + Zithromax
	Adult ICU	Levaquin + Rocephin* PCN allergy: Levaquin + Cefepime* β-lactam *anaphylaxis*: Levaquin + Azactam
HAP/VAP MRSA, MDR Gram(-) including *P.aeruginosa* IDSA/ATS 2016	Vanc + Zosyn ± Levaquin **or** Vanc + Zosyn ± Tobramycin PCN allergy: Vanc + Meropenem* ± Levaquin **or** Tobramycin β-lactam *anaphylaxis*: Vanc + Azactam ± Levaquin **or** Tobramycin A second agent for Gram negative coverage (e.g. Levaquin or Tobramycin), is indicated in patients at high risk of mortality or a history IV of antibiotics in the previous 90 days.	
Meningitis *Neisseria meningitidis, S. pneumo.,H. influ.* IDSA 2004	2-50 yrs	Vancomycin + Rocephin
	> 50 yrs	Vancomycin + Rocephin + Ampicillin
	Alternative	Vancomycin + Meropenem
CDIF IDSA 2010	WBC < 15,000 or SCr < 1.5 x baseline	Flagyl 500 mg PO or IV TID x 10-14 days
	WBC ≥ 15,000 or SCr ≥ 1.5 x baseline	Vancomycin 250 mg PO QID x 10-14 days, may add Flagyl 500 mg IV Q8H if complicated
Fungal IDSA 2016	Urine	Diflucan (Mycamine does not penetrate)
	Blood	Mycamine until identification, de-escalate to Diflucan if *Candida* species other than *krusei* or *glabrata* results
	Respiratory	Growth of *Candida* from respiratory secretions (including BAL) almost always indicates colonization. A decision to initiate therapy should not be made on the basis of respiratory tract culture alone, but should include the presence of multiple pulmonary nodules on CT. *NEW IDSA 2016 UPDATE*
Surgical Prophylaxis: See Recommendation Document		