

SUGGESTED FORMULARY

DRUG	USUAL DOSE	(ACQUISITION COST/24H)	ADJUSTMENTS FOR RENAL FAILURE		
			50-80	10-50	<10
Beta-Lactams					
Ampicillin	2gm q 4-6h	(≤ \$10)	usual	q 6-12h	q 12-24h
Nafcillin	2gm q 4-6h	(≤ \$20)	usual	usual	usual
Unasyn	1.5-3gm q 6h	(\$44)	q 8h	q 8h	q 12h
Zosyn	4.5gm q 8h, OR	(\$60)	usual	2.25gm q 6h	2.25gm q 8h
Cefazolin	1gm q 8h	(\$9)	usual	q 12h	q 24-48h
Ceftriaxone	1gm q 24h	(\$12)	usual	usual	usual
Cefepime	2gm q 12h	(\$64)	2gm q 24h	1gm q 24h	500mg q 24h
Aztreonam	1-2gm q 8h	(\$60-\$120)	usual	1-2gm q 12h	1-2gm q 24h
Ertapenem	1gm q 24h	(\$42)	usual	≤30=500mg q 24h	500mg q 24h
Flouroquinolones					
Ciprofloxacin	750mg PO q 12h	(\$0.30)	usual	500mg q 12h	500mg q 18h
	400mg IV q 12h	(\$15-\$24)	usual	q 18h	q 24h
Moxifloxacin (Avelox)	400mg PO q 24h	(\$7)	usual	usual	usual
	400mg IV q 24h	(\$12)	usual	usual	usual
Ketolides/Macrolides					
Azithromycin	500mg PO q 24h	(\$8)	usual	usual	usual
Azithromycin	500mg IV q 24h	(\$23)	usual	usual	usual
Telithromycin (Ketek)	800mg q 24h	(\$9)	usual	usual	usual
Miscellaneous					
Clindamycin	600mg q 8h	(\$26)	usual	usual	usual
Metronidazole	500mg q 12h	(< \$3)	usual	usual	usual
TMP/SMX	5mg/kg q 12h	(\$10 - IV)	usual	q 18h	q 24h
Vancomycin	15mg/kg q 12h	(≤ \$15)	q 24h	q 3 days	q 5 days
Fluconazole	200-400mg q 24h	(≤ \$22)	usual	50% of dose	25% of dose
Aminoglycosides					
Gentamicin	5-7mg/kg (ODA)	(\$7)	*CrCl = $\frac{[(140-\text{age})(\text{Wt in kg})]}{72}$ [0.85 if female]		
Tobramycin	5-7mg/kg (ODA)	(\$7)	72 x serum Cr		

NOTES

- Before initiating antibiotic therapy, make certain that all relevant cultures have been obtained (especially from the ER prior to first doses of antibiotics).
- Due to the increasing prevalence of MRSA in the hospital and the community, Vancomycin should be part of initial regimen in all cases of sepsis; however, it is imperative that Vancomycin be discontinued at 48hr if neither MRSA or pathogenic MRSE are isolated in any cultures.
- Vancomycin levels of 15-20mg/ml are optimal for MRSA pneumonia.
- Linezolid (IV or po) may be the preferred alternative to Vancomycin for "true" MRSA pneumonia (not just simple colonization of the sputum) – i.e. definite infiltrates on CXR, plus compatible gram-stain and/or clinical syndrome, especially in the presence of renal insufficiency.
- Use of Cephalosporins in Patients With Penicillin Allergy: After taking a careful history, cephalosporins may be given safely to any patient without a history of an IgE-mediated (Type I) reaction to penicillin. (Pediatrics 2005;115:1048). Potential alternatives to penicillins and/or cephalosporins include combinations of Cipro or Aztreonam; PLUS, Clindamycin or [Vancomycin ± Flagyl].
- Streamlining: As noted throughout this Card, it is vital, in order to limit the emergence of resistant pathogens, to narrow the spectrum of antibiotic therapy based on culture data; i.e Ampicillin, not Cefepime or Zosyn, for Ampicillin-susceptible E. coli UTI.
- Bioavailability: Avelox, Azithromycin, Cipro, Diflucan, and Flagyl are highly bioavailable (90-100% GI absorption). After the initial IV dose(s), they should generally be given po if the GI tract is functional.

SUGGESTED EMPIRIC ANTIMICROBIAL AGENTS OF CHOICE (7TH EDITION)

Aspirus Wausau Hospital

2006 - 2008

Infectious Disease Section

&

Pharmacy and Therapeutics Committee

©WAB/01-06

I. "SEPSIS" OF UNKNOWN ETIOLOGY

- Community-Acquired/Normal Host: Tobramycin (ODA) or Cipro 400mg q 12h, PLUS Ceftriaxone 1gm q 24h, PLUS Vancomycin 1-1.5gm q 12-24h (trough 10-15 ug/ml: D/C Vancomycin if cultures negative for MRSA/MRSE at 48 hr).
- Health Care-Associated/Compromised Host: Tobramycin (ODA) or Cipro 400mg q 12h, PLUS Zosyn 4.5gm q8h or Cefepime 2gm q 12h, PLUS Vancomycin 1-1.5gm q 12-24h (as above).
- Streamlining: change to narrower spectrum agent(s) based on microbiology results.

II. COMMUNITY-ACQUIRED PNEUMONIA (CAP)

(First doses within 4 hours of admission)

- Non-ICU: OPTION 1- Ceftriaxone 1gm q 24h, PLUS Azithromycin 500mg po/IV q 24h.
OPTION 2- Moxifloxacin (Avelox) 400mg IV/po q 24h (as monotherapy).
- ICU: Ceftriaxone 1gm q 24h PLUS, Moxifloxacin (Avelox) 400mg IV q 24h.
- Possible *Pseudomonas* (history of bronchiectasis, recent antibiotics, recent hospitalization): Cefepime 2gm q 12h PLUS Cipro 400mg q 8hr.
- Streamlining: change to narrower-spectrum agent(s) based on microbiology results.
- Switch Therapy: after "improvement" on IV (resolving symptoms, temperature, & WBC): Moxifloxacin 400mg po q 24h x 7 days; OR, Azithromycin 500mg po q 24h x 5 days; OR, Telithromycin (Ketek) 800mg po q 24h x 7d.

III. HEALTH CARE-ASSOCIATED PNEUMONIA (HAP): Hospital or Nursing Home-acquired, Ventilator-associated, Hemodialysis, Immunosuppressive Disease, Antibiotics within prior 90 days:

- Cefepime 2gm q12h, PLUS [Tobramycin (ODA) or Cipro 400mg IV q 8h; either x 3-5 days], PLUS Vancomycin 1-1.5gm q 12-24h (trough 15-20ug/ml: D/C Vancomycin if cultures negative for MRSA/MRSE at 48 hr).
- Aspiration: Add Flagyl 500mg q 12h to the above; OR, Zosyn 4.5gm q 6h, PLUS Vancomycin (as above).
- Streamlining: change to narrower-spectrum monotherapy based on microbiology results.
- Duration of therapy for HAP = 8 days (14d if *Pseudomonas*).

IV. INTRAABDOMINAL OR PELVIC INFECTIONS

- Community-Acquired/Normal Host: Ceftriaxone 1gm q 24h plus Flagyl 500mg IV q 12h; OR, Cipro 400mg q 12h plus Flagyl 500mg IV q 24h; OR, Ertapenem (Invanz) 1g q 24h. Each option ± Tobramycin (ODA x 1-3 days).
- Health Care Associated/Compromised Host: Zosyn 4.5gm q 8h plus Fluconazole 400mg q 24h; OR, Cipro 400mg q 12h plus Unasyn 3gm q 6h plus Fluconazole 400mg q 24h. Both options ± Tobramycin (ODA x 1-3 days)
- Penicillin Allergy (Type I): Cipro 400mg q 12h or Aztreonam 2gm q 8h, PLUS Cleocin 600mg q 8h; ± Fluconazole 400mg q 24h; ± Tobramycin (ODA x 1-3 days).
- Streamlining: change to narrower-spectrum agent(s) based on microbiology results.

- Switch Therapy: Cipro 500mg po BID or Bactrim DS BID; PLUS, Flagyl 500mg po q 12h or Cleocin 300mg po QID or Augmentin 875mg BID.

V. PYLEONEPHRITIS, OR SEPSIS Due to UTI.

- Community-Acquired/Normal Host: Cipro 200mg IV q 12h (or 500mg PO q 12h) or Ceftriaxone 1gm q 24h, PLUS Ampicillin 2gm q 6h; ± Tobramycin (ODA x 1-2 days).
- Health Care-Associated: Cefepime 2gm q 12h PLUS, Cipro 200mg IV q 12h (or, 500mg PO q 12h), PLUS Ampicillin 2gm q 6h; ± Tobramycin (ODA x 1-2 days)
- Streamlining and Switch (PO) Therapy: change to narrower-spectrum agent(s) based on microbiology results: Bactrim DS BID or Cipro 500mg BID or Amoxicillin 500mg TID.

VI. SKIN AND SOFT TISSUE INFECTIONS (SSTI)

(Use gram-stain of drainage to guide therapy)

- Cellulitis: Penicillin G 3 million units q 4-6h plus Cleocin 600mg q 8h (for Strep); OR, Nafcillin 2gm q 4-6h (for Staph)
- Wound Infection or Abscess: Nafcillin 2gm q 4-6h, OR Ancef 1gm q 8h, OR Cleocin 600mg q 8h.
- Diabetic or Ischemic Foot Infection (AFTER deep tissue, ulcer curettage, or bone biopsy culture): OPTION 1- Cipro 750mg po q 12h, PLUS Cleocin 600mg q8h.
OPTION 2- Ceftriaxone 1gm q 24h, PLUS Flagyl 500mg q 12h.
- Possible MRSA: Add Vancomycin 1-1.5gm q 12-24h (trough 10-15ug/ml) to each of above if "Health Care-Associated." D/C Vancomycin if cultures negative for MRSA/MRSE at 48hr.

- Streamlining: change to narrower-spectrum agent(s) based on microbiology results.

VII. BACTERIAL MENINGITIS:

- Ceftriaxone 2gm q 12h, PLUS Vancomycin 1gm q 8h. If age > 50 yr, ADD Ampicillin 2gm q 4h (or, TMP/SMX 5mg/kg q 8h if PCN allergic) for activity against Listeria.
- If LP delayed for CT scan, give first dose of antibiotics and Decadron PRIOR to CT scan.
- Vancomycin trough 15-20ug/ml.
- If no prior antibiotics and CSF: cloudy, WBC > 1000, or gram stain (+), give Decadron 10mg q 6h x 4 days (first dose of must be given 10-20min before, or concomitant with first dose of antibiotic).
- Stop Decadron after initial empiric dose if CSF indices and gram-stain do not suggest a bacterial etiology.
- Stop Vancomycin as soon as pneumococcal susceptibility to penicillin is proven, or at 48h if cultures negative for pneumococcus.

VIII. ONCE DAILY AMINOGLYCOSIDES (ODA)

- Dose: Gentamicin (or Tobramycin): 5mg/kg (age > 50); or, 7mg/kg (age < 50).
- Dosing Weight (kg) = Ideal body Weight + [0.4 x (Actual Body Wt. - Ideal Body Wt.)].
- Ideal Body Weight (IBW):
Male: 50 kg + 2.3 kg for each inch > 5'0"
Female: 45 kg + 2.3 kg for each inch > 5'0"
- Interval: based on 12h post dose level:
<3 ug/ml = q24h; 3-5 ug/ml = q36h
5-7 ug/ml = q48h; > 7 ug/ml = "prn"