

Possible Duplicate Antibiotics

Below is a list of antibiotic combinations that MAY represent unnecessary overlap in antimicrobial spectra. There are situations in which these antibiotics may be used in combination (e.g., sepsis, empiric *Pseudomonas* coverage, meningitis, HCAP). This list contains the most commonly prescribed antibiotics; there may be other combinations that are considered duplicate coverage.

Antibiotic	Possible Duplicate Therapies	
Azithromycin	Ciprofloxacin Clarithromycin Doxycycline	Erythromycin Levofloxacin
Cefazolin	Amoxicillin/clavulanate Ampicillin/sulbactam Clindamycin Dicloxacillin Meropenem	Nafcillin Penicillin Piperacillin/tazobactam Vancomycin
Ciprofloxacin	Amoxicillin/clavulanate Azithromycin Aztreonam Ceftazidime Ceftriaxone Cefepime	Clarithromycin Doxycycline Erythromycin Levofloxacin Meropenem Piperacillin/tazobactam
Clindamycin	Amoxicillin/clavulanate Ampicillin/sulbactam Cefazolin Cefoxitin Dicloxacillin	Meropenem Metronidazole* Penicillin Piperacillin/tazobactam Vancomycin
Levofloxacin	Amoxicillin/clavulanate Azithromycin Aztreonam Cefazolin Ceftazidime Ceftriaxone Cefepime	Ciprofloxacin Clarithromycin Doxycycline Erythromycin Meropenem Piperacillin/tazobactam
Metronidazole*	Amoxicillin/clavulanate Ampicillin/sulbactam Cefoxitin	Clindamycin Meropenem Piperacillin/tazobactam
Nafcillin	Cefazolin Clindamycin	Dicloxacillin Vancomycin
Piperacillin/tazobactam	Amoxicillin/clavulanate Ampicillin/sulbactam Aztreonam Cefazolin Ceftazidime	Ceftriaxone Cefepime Ciprofloxacin Levofloxacin Meropenem

*Unless patient is being treated for *C. difficile*

Other Considerations

- Avoid using two beta-lactams due to increased risk of ADRs (seizures, thrombocytopenia) and due to same mechanism of action
- Combinations you may see
 - *Pseudomonas* coverage: beta-lactam plus either an aminoglycoside or a fluoroquinolone
 - You may see this for healthcare-associated pneumonia (HCAP) or sepsis empiric therapy
 - Double-coverage for *Pseudomonas* is not necessary in UTI or if you know susceptibilities (although many doctors will still double cover)
 - *Clostridium difficile* (*C. diff*) colitis: metronidazole or vancomycin oral are usually used, so if the patient is requiring antibiotics for another infection, you may see a combination that appears to be duplicate therapy
 - Gram (+) Synergy: beta-lactam or vancomycin plus aminoglycoside (usually gentamicin)
 - Meningitis: may see ampicillin plus ceftriaxone plus/minus vancomycin used empirically if patient is > 50 y.o., alcoholic, or other debilitating-associated disease