

2022
UPDATE

Avoiding Concomitant Use of Similar Antimicrobials

Quick Reference Guide



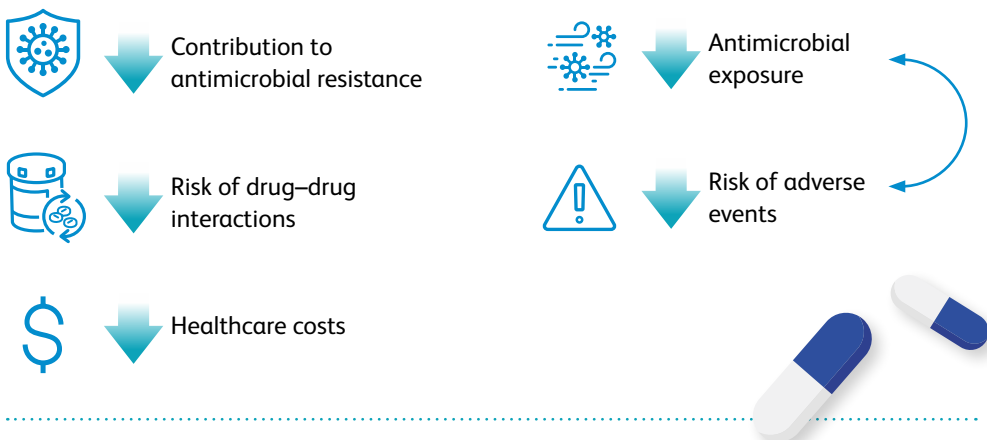
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Avoiding Concomitant Use of Similar Antimicrobials

What is redundant therapy?

Treating a patient with ≥ 2 antimicrobial agents that have an overlapping spectrum of activity for ≥ 2 consecutive days¹

Benefits of simplifying antimicrobial regimens^{1,2}



1. Review microbiology results

2. Avoid redundant therapy³⁻⁵

- ❌ Avoid combinations with the same antimicrobial spectrum
Eg, *vancomycin AND linezolid for MRSA infection*
- ❌ Avoid combinations targeting the same pathogen
Eg, *metronidazole AND piperacillin-tazobactam for Bacteroides spp. abdominal infection*

There are only a few scenarios for which “double coverage” or “combination antimicrobial therapy” are required.^{3,4} Eg:

- Treatment of co-infections such as *Clostridium difficile* infection with metronidazole, or addition of clindamycin to treat toxic shock syndrome⁴
- Two beta-lactam agents for Enterococcal endocarditis or suspected bacterial meningitis before microbiological data are available³



Examples of potentially redundant combination therapies^{1,4}:

Anti-anaerobe

- Penicillin/beta-lactamase inhibitor + clindamycin
- Penicillin/beta-lactamase inhibitor + metronidazole
- Penicillin/beta-lactamase inhibitor + moxifloxacin
- Penicillin/beta-lactamase inhibitor + carbapenem
- Carbapenem + clindamycin
- Carbapenem + metronidazole
- Carbapenem + moxifloxacin
- Clindamycin + metronidazole
- Clindamycin + moxifloxacin
- Metronidazole + moxifloxacin

Anti-MRSA

- Daptomycin + linezolid
- Vancomycin + daptomycin
- Vancomycin + linezolid

Beta-lactam

- Cephalosporin + carbapenem
- Cephalosporin + penicillin/beta-lactamase inhibitor
- Penicillin/beta-lactamase inhibitor + carbapenem

Please refer to your local epidemiology and/or surveillance data

“Each physician prescribing antibiotics should be challenged for the quality of her/his prescription on a daily basis”⁶

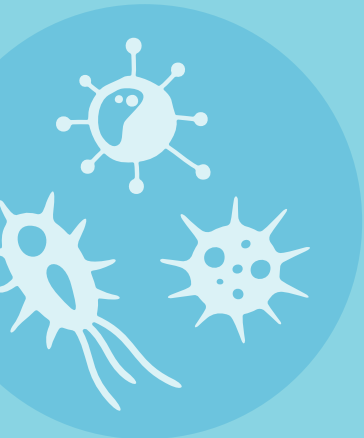
Alert prescribers to the use of redundant therapy

TEMPLATE⁷

[Patient name] is currently on combination therapy with [antibiotic A and antibiotic B] for [infection syndrome]. [Type of culture] sent before starting antibiotic therapy came back positive for [pathogen name] and both [antibiotic A and antibiotic B] have activity against [pathogen name].

Use of duplicate therapy against [pathogen] is not necessary and puts the patient at risk for additional drug toxicities.

Based on the susceptibility data, I would suggest discontinuing [antibiotic A] and continuing [antibiotic B] as monotherapy.



References:

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