



# Avoiding Concomitant Use of Similar Antimicrobials

*Quick Reference Guide*



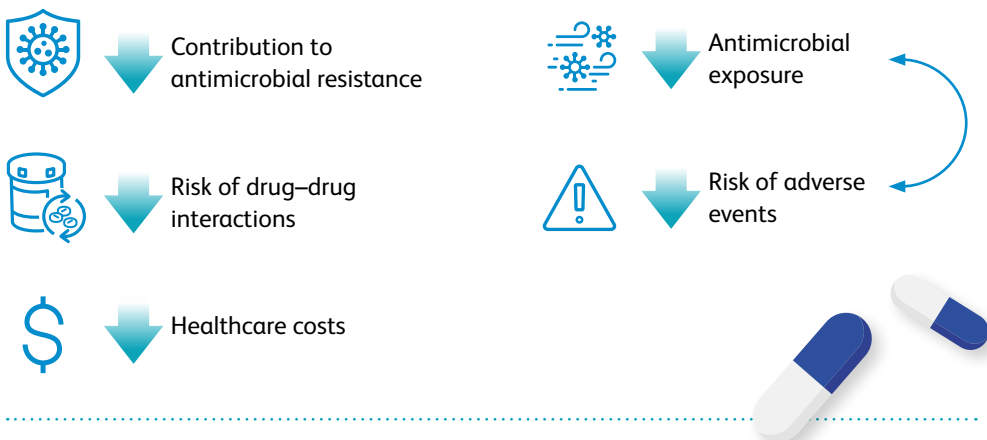
**AMR&S**  
WORKING GROUP

# 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 days<sup>1</sup>

## Benefits of simplifying antimicrobial regimens<sup>1,2</sup>



### 1. Review microbiology results

### 2. Avoid redundant therapy<sup>3-5</sup>

- ❌ 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.<sup>3,4</sup> Eg:

- Treatment of co-infections such as Clostridium difficile infection with metronidazole, or addition of clindamycin to treat toxic shock syndrome<sup>4</sup>
- Two beta-lactam agents for Enterococcal endocarditis or suspected bacterial meningitis before microbiological data are available<sup>3</sup>



## Examples of potentially redundant combination therapies<sup>1,4</sup>:

### 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”<sup>16</sup>*

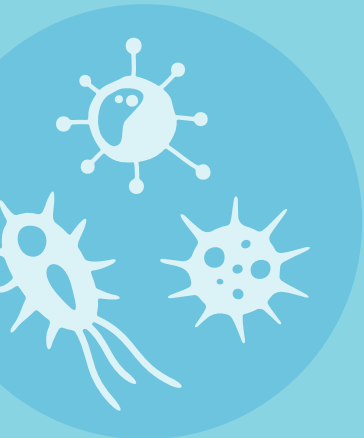
**Alert prescribers to the use of redundant therapy**

### TEMPLATE<sup>7</sup>

[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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