

HOW CAN I BE AN ANTIMICROBIAL STEWARD IN THE HOSPITAL?



There are many roles you can have as an antimicrobial steward! While it may vary depending on your area of work, all of us can optimize the use of antimicrobials.

Clarify allergies



Penicillin allergies are the most commonly reported medication allergy, but few patients have a true IgE-mediated reaction.

Collect and document a detailed history of the reaction from the patient. Clarification of allergies can facilitate the use of first-line therapy, rather than alternative antibiotics.

Alternative antibiotics, such as fluoroquinolones or clindamycin, are associated with a higher risk of adverse events and *C. difficile* infection.

Evaluate antibiotic appropriateness and then re-evaluate

According to the CDC, more than 50% of antibiotics prescribed in hospitals for common infections, such as community-acquired pneumonia and UTIs, are not consistent with evidence-based prescribing. **Improve prescribing by implementing the following:**



Practice diagnostic stewardship

Appropriate rapid diagnostics and microbiologic cultures can help guide patient management and optimize clinical outcomes. Conversely, avoiding unnecessary testing can decrease antibiotic use!

Optimize the dose

Consider patient-specific factors such as organ function and site of infection, and drug-specific pharmacokinetics.

Re-evaluate antibiotics daily

Does your patient still require antibiotics?

Are microbiologic cultures and diagnostic results available?

Can therapy be narrowed?

Stop antibiotics if a bacterial infection is unlikely

Bacteriuria or pyuria without symptoms of a UTI does not require treatment in most patients
(exceptions: pregnancy, prior to invasive urologic procedure)

Positive viral testing plus a low procalcitonin can indicate bacterial CAP is unlikely (e.g., COVID-19)

Prescribe the appropriate duration of therapy

Patients are commonly prescribed a prolonged duration of antibiotics for an infection that can be effectively treated with a shorter course. By utilizing an appropriate duration of therapy, we can decrease antimicrobial exposure, thus reducing adverse events and subsequent resistance.



RECOMMENDED DURATIONS FOR COMMON INFECTIONS IN HOSPITALIZED PATIENTS



Days for intra-abdominal infections with adequate source control



Days for community-acquired pneumonia, COPD exacerbations, non-purulent SSTIs, and most uncomplicated UTIs



Days for hospital-acquired and ventilator-associated pneumonia and complicated UTIs

Transition from IV to PO

If patients do not have malabsorption or vomiting, antimicrobials with high bioavailability can be safely converted from IV to PO. Patients maintained on IV therapy have more complications, including line-related infections and longer lengths of stay. **If the gut works, use it!**



Optimize antibiotics at discharge

Antibiotic overuse at discharge is common and can cause unnecessary antibiotic exposure. Account for inpatient antibiotic days when considering the duration of a post-discharge prescription. If the patient still requires antibiotics after discharge, send the patient home on the safest and most targeted antibiotic, for the shortest possible duration. Document days of therapy clearly in the medical record and patient materials and educate patients and caregivers on their antibiotic therapy.



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