

Educational Pearl

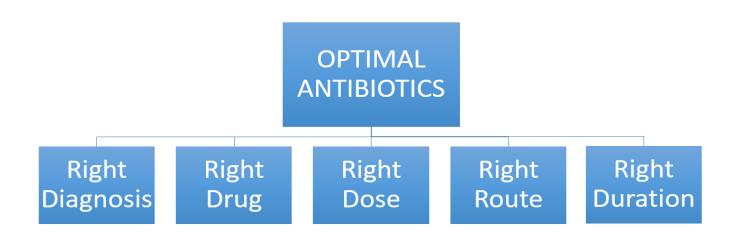
Who is the Antimicrobial Stewardship Team?

Everyone who utilizes antibiotics is responsible for antimicrobial stewardship and helping to combat inappropriate use. Read more about antimicrobial stewardship in various settings below:

Antimicrobial Stewardship in the Hospital

Inpatient hospitals tend to have the most robust antimicrobial stewardship resources. The role of each type of health care professional is described below.

- Prescriber: diagnoses infectious disease issue, order appropriate labs/imaging, picks a treatment
- Pharmacist: reviews/validates diagnosis, aids in therapy optimization (ex. Drug, dose, duration, route, medication interactions)
- Nurse: collects needed bacterial cultures, administers drugs, monitors patient response
- Microbiology: tests microbiologic samples, reports information to treatment team, aid in interpretation, alerts infection prevention as needed
- Infection Prevention: identifies/isolates patients as needed to cut down on transmission of communicable diseases, educates staff
- Antimicrobial Stewardship Team: educates each health care professional on their role in stewardship, creates local guidelines, performs audit and feedback to aid in optimizing care for each patient



Antimicrobial Stewardship in the Community

There are typically fewer parties involved in antimicrobial stewardship in the community but it is just as important to prioritize appropriate antibiotic use in this care setting.

- Prescriber: generates the right diagnosis, picks an anti-infective medication, prescribes any non-antibiotic treatments needed to manage symptoms, educates patient on disease course including any needed follow up or when to go to the hospital
- Pharmacist: ensures the patient receives their prescribed medication, educates patient on possible side effects, evaluates drug interactions, addresses any major issues with the prescriber
- Patient: takes treatment as recommended, follows up if needed, does not save antibiotics for the future or share with others

Antimicrobial Stewardship in Other Settings

Hospitals and outpatient clinics and pharmacies are not the only ones who handle antibiotics or who have a vested interest in antimicrobial stewardship. In order to maintain antibiotics' efficacy, judicious use must be considered in all care setting where antibiotics are used:

- Dentists: utilize antibiotics only when recommended, learn about which antibiotics have the lowest risk of *C. difficile* and educate patients regarding risk
- Veterinary and Farming: minimize animal risk for infection (appropriate vaccination, isolate any sick animals
 from others, maintain clean facilities), do not utilize antibiotics outside of treatment of infection, avoid feeds
 which contain antibiotics
- Nursing Homes & Long-Term Care Facilities: dedicate resources to antimicrobial stewardship, conduct education on management of infections (particularly asymptomatic bacteruria), develop targeted improvement initiatives
- Government & Global Health entities: fund and advocate for research to develop new antimicrobials, promote vaccinations, educate public regarding threat of antimicrobial resistance, invest in public health infrastructure including data on antibiotic use and resistance
- General Public: follow prescriber advice regarding when antibiotics are unnecessary, do not save antibiotics to take at a later date, cut down on the spread of germs (handwashing, covering coughs), get recommended vaccines to prevent infections

Resources:

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- 11. Be Antibiotics Aware: Smart Use, Best Care. Centers for Disease Control and Prevention. Updated Nov 2021. Accessed Oct 2022. Available at: Be Antibiotics Aware: Smart Use, Best Care | Patient Safety | CDC
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