

ANTIMICROBIAL STEWARDSHIP

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WHAT IS ANTIMICROBIAL STEWARDSHIP?

Antimicrobial stewardship, or AMS, refers to “[programs] and interventions that aim to optimize antimicrobial use.” Antimicrobials are unique drugs in that their use not only affects the individual but also the larger community. AMS includes both individual provider practices and system interventions to encourage responsible use of antimicrobials. The goal is to provide effective therapy when indicated, avoid unnecessary patient harm, and slow bacterial resistance.

The term was coined by John McGowan and Dale Gerding in 1996 and first mentioned in IDSA guidelines in 1997. AMS gained momentum from there, spreading around the world.

AMS is a part of a more expansive effort to slow antibiotic resistance. Other parts of this effort include reducing reservoirs of bacteria, improving diagnostics, developing new antibiotics and vaccines, increasing use of current vaccines, instituting infection control measures, and providing education.

Nationally, 30% to 40% of antibacterial prescriptions are inappropriate. Upwards of 2,000,000 people are infected with a resistant pathogen and 23,000 die of that infection. Adverse drug reactions affect even more people who are prescribed antibiotics.



This month, I want to talk a little about the forces at play in the patient, the provider, and the patient-provider relationship which may affect inappropriate antibiotic prescription. In future updates, I will discuss:

- Best practices for commonly encountered illnesses
- AMS efforts underway at VMG
- Updates on recommended therapies
- Information on local resistance rates for particular bacteria and antimicrobials (antibiogram)

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PATIENT FACTORS

Many times, patients expect antibiotics when they are not indicated. One survey of primary care patients showed that more than 50% of patients thought that antibiotics were effective for viral infections. Sometimes they or someone they know have been prescribed antibiotics for a similar condition in the past. Some patients may not know which diseases are caused by which type of pathogen or what the treatment is. They may think an antibiotic will help them whenever they feel sick. They may be unaware of the risks of antibiotic use. Some may have consulted the Internet and are quite sure they need antibiotics and are insistent on treatment. Fear of conflict can influence the decision to prescribe.

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PROVIDER FACTORS

Barriers to stewardship include

- Diagnostic uncertainty
- Decision fatigue
- Thinking that you are already prescribing judiciously
- Time pressure
- Habit
- Fear about bad outcome
- Guideline-practice gap

Facilitators

- Flexible and relevant education opportunities
- Easy access to information and resources
- Decision aids
- Audit and feedback

Area of practice or role may also effect prescribing variation; providers working in urgent care will likely prescribe more antibiotics than those working in the regular clinic where there are more followup/chronic health problem visits.

PROVIDER-PATIENT FACTORS

Several factors in the provider-patient relationship can affect antimicrobial prescription:

- Suboptimal shared decision making
- Poor communication
- Lack of trust
- Fear of conflict
- Wish to avoid financial burden of further workup

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