Ranking Antimicrobial Drugs According to Their Importance in Human Medicine

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Cornelius J. Clancy, MD
Chief, Infectious Diseases, VA Pittsburgh Healthcare System
Associate Chief, Infectious Diseases, University of Pittsburgh
IDSA Antimicrobial Resistance Committee
“There is an increasingly robust consensus that unnecessary use of antibiotics in animals and agriculture is a significant concern for human health.”

Organization and rationale are clear and straightforward
Changes to criteria and tiers

Additional criteria that should be included among the criteria for ranking antimicrobials:

• the toxicity of an antimicrobial agent and the availability of better alternative therapies

• the potential for development of resistance to a drug or class of drugs
First Generation Cephalosporins

- Sole or one of limited therapies
  - Cephalexin and cefadroxil: cellulitis and streptococcal pharyngitis
  - UTIs (fluoroquinolone and sulfa resistance rates)
  - Osteomyelitis and septic arthritis

Sources:
Application of criteria to antimicrobial classes

**Sulfonamides**
- Sole or one of limited therapies
- Potential for development of resistance
  - Toxoplasmosis treatment

Source:
Zhang Y et al. Current treatment of ocular toxoplasmosis in immunocompetent patients: a network meta-analysis
Add additional: Category (antifungals) and Classes (azoles)
Updating the Ranking of Medically Important Antimicrobials

Review of data every two-three years
Formal updates every five years
Ability for medical experts to call for review as needed