

do one thing *differently*

Targeting Antimicrobial Stewardship:
Appropriate Antimicrobial Prescribing

Think About It

Improving antimicrobial use improves patient outcomes. Antimicrobial use whether appropriate or inappropriate, is a driving factor in the growing crisis of antimicrobial resistance.

The Centers for Disease Control and Prevention (CDC) estimates that each year in the U.S., more than 2.8 million patients are infected by an organism that cannot be treated by the recommended antibiotic and more than 35,000 of these patients die.

Unnecessary antimicrobial overuse leads to antimicrobial resistance and other harm to patients. Antimicrobials are a valuable shared resource that is limited and must be protected!

Best Practices

Due to the growing threat of antimicrobial resistance, the Infectious Diseases Society of America (IDSA), the Society for Healthcare Epidemiology of America (SHEA) and The Joint Commission, recommend interventions that support appropriate antimicrobial use to help prevent antimicrobial resistance.

Click [HERE](#) to review the best practice guidelines from the IDSA.

- Implement an antimicrobial stewardship program [Antimicrobial Stewardship Program Pocket Card](#)
- Include antimicrobial stewardship teams in choosing the best antimicrobial therapy. Choose antimicrobials based on: site of infection, pathogen factors, severity of illness, patient factors, and antimicrobial factors. [Hopkins ABX Guide](#)
- Implement antimicrobial stewardship core interventions:

Pre-prescription

Antimicrobial formulary restrictions and preauthorization

- Pre-authorized antibiotics include those that are toxic, broad spectrum or expensive. For example: vancomycin, linezolid, daptomycin

Continued on Page 2

do one thing *differently*

Targeting Antimicrobial Stewardship:
Appropriate Antimicrobial Prescribing

Did You Know?

A multi-drug resistant organism (MDRO) is a microorganism that is resistant to one or more antimicrobial agents and can become resistant to antimicrobials used to treat these infections.

Common MDROs include MRSA (methicillin resistant *Staphylococcus aureus*), VRE (vancomycin resistant *Enterococcus*), and CRE (carbapenem resistant *Enterobacterales*).

These can be spread between patients and health care workers, and through contact with environmental surfaces. Using antimicrobials appropriately is an important intervention for decreasing antimicrobial resistance.

Best Practices - continued

Post-prescription

Antimicrobial Time Out including prospective audit and feedback

- Confirm need for continued antimicrobial therapy within 24-48 hours of antimicrobial start
- Anyone can prompt antibiotic time out including an IT prompt reminder
- Evaluate the patient status
- Review diagnostic test results

Antimicrobial de-escalation

- Discontinue antimicrobial if no infection found
- Antimicrobials are often too broad for MDRO coverage, given for too long or not necessary
 - » De-escalate or select a more specific narrow spectrum antimicrobial after culture result review
- Determine and use the shortest effective duration of therapy
- Change from IV to PO [Do One Thing Differently - Targeting Antimicrobial Stewardship: IV to PO Protocol](#)

Additional Resources

1. [Checklist to Review Successful Incorporation of the HICPAC Principles of Antimicrobial Stewardship in Clinical Treatment Guidelines](#)
2. [Antimicrobial Stewardship in the Hospital Setting](#)
3. [Four Moments of Antibiotic Decision Making | Agency for Healthcare Research and Quality](#)