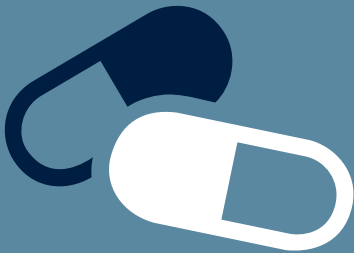


Antimicrobial Stewardship

What

Antimicrobial stewardship is a coordinated program that promotes the appropriate use of antimicrobials (including antibiotics), improves patient outcomes, reduces microbial resistance, and decreases the spread of infections caused by multidrug-resistant organisms. AMS is the act of using antimicrobials appropriately – using them only when truly needed and using the right antimicrobial for each infection. Evidence suggests that proper use of antibiotics in treating these infections can have a positive impact on the infection rate.¹



Impact

2 million

- People infected in the US with antibiotic-resistant organisms in 2018, resulting in **23,000 deaths**²

15 million

- Estimated deaths from drug-resistant “superbugs” in 2050, based on current rates of antimicrobial resistance³

Up to 50%

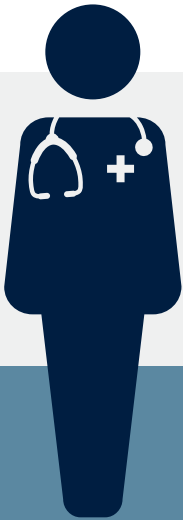
- Antibiotics prescribed in US acute care hospitals that are either unnecessary or inappropriate²

\$35 billion

- Estimated avoidable costs from antibiotic misuse per year⁴

Requirement

Effective Jan. 1, 2017, The Joint Commission announced a new Medication Management Standard for hospitals, critical access hospitals, and nursing care centers that addresses AMS. Standard MM.09.01.01 includes components in the areas of leadership, accountability, drug expertise, taking action, providing education, and tracking and reporting results.



Action

Pathway to Excellence

- 1 ENGAGE**
 - Identify and engage an infectious disease physician to lead and champion the organization’s AMS program
 - Identify infectious disease pharmacy specialists who can consult with ordering providers
 - Develop and disseminate an antibiotic ordering grid based upon annual antibiogram studies
 - Disseminate the results of the AMS program to providers and staff at every opportunity
 - Form a partnership with outpatient providers to support the AMS program
- 2 EDUCATE**
 - Educate providers so they support the organization’s efforts on the use of antimicrobials and antibiotics
 - Educate staff involved in antimicrobial ordering, dispensing and administration, as well as monitoring of antimicrobial resistance and stewardship practices
 - Educate patients and families regarding the appropriate use of antimicrobials
- 3 EXECUTE**
 - Create automated alerts within the electronic medical record to notify providers of antibiotic status after 48 hours of therapy
 - Dedicate appropriate financial, technology, and human resources to the AMS program
 - Require ordering providers to comply with your antibiotic grid
 - Create standard reports to monitor the effectiveness of the AMS program
 - Develop facility-specific clinical practice guidelines, algorithms, and order sets to standardize prescribing practices
 - Ensure blood cultures are performed before starting antibiotics, using appropriate culturing techniques
 - Implement interventions to confirm optimal use of antibiotics to treat common infections, such as community-acquired pneumonia, urinary tract infections, and skin and soft tissue infections
- 4 EVALUATE**
 - Monitor documentation to confirm that patients are consistently educated about antibiotic use
 - Assess the AMS program by tracking process and outcome measures
 - Review antibiograms annually to identify antimicrobial recommendations for infections

How Does Your Program Compare?

Crowe performs independent audits of AMS programs for compliance with MM.09.01.01. Some common deficiencies, along with the related program element from MM.09.01.01, include:

- A formalized AMS strategic plan or budget not in place (Leadership)
- Automated alerts specific to AMS not developed (Taking Action)
- Standardized monitoring reports not used (Tracking and Reporting)



Crowe Clinical Risk Services: Linking the dimensions of healthcare delivery to achieve excellence.
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¹ Source: Boris D. Lushniak, “Antibiotic Resistance: A Public Health Crisis,” Public Health Reports, 2014, 129(4): 314-316. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4037453/>
² <https://www.cdc.gov/drugresistance/about.html>
³ <https://www.rand.org/randeurope/research/projects/antimicrobial-resistance-costs.html>
⁴ http://www.imshealth.com:90/en_US/thought-leadership/quintilesims-institute/reports/avoidable-costs#ims-form