

Antimicrobial Stewardship Education

- 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.
- Misuse and overuse of antimicrobials is one of the world's most pressing public health problems.
- Infectious organisms adapt to the antimicrobials designed to kill them, making the drugs ineffective.
- People infected with antimicrobial-resistant organisms are more likely to have longer, more expensive hospital stays, and may be more likely to die as a result of an infection.

True False **(Answer is true)**

1. Misuse and overuse of antibiotics is one of the world's most pressing public health problems

True False **(Answer is true)**

2. People infected with antimicrobial-resistant organisms are more likely to have longer and more expensive hospital stays

- According to Joint Commission and Centers for Medicare and Medicaid Services:
 - Healthcare facilities must educate staff and licensed independent practitioners involved in antimicrobial ordering, dispensing, administration, and monitoring about antimicrobial resistance and antimicrobial stewardship practices.
 - The education must occur upon hire or granting of initial privileges and periodically thereafter, based on organizational need.

- Madonna Rehabilitation Hospitals in Lincoln and Omaha have an Antimicrobial Stewardship Committee
- Purpose of the committee:
 - dedicated to improving antibiotic use
 - optimize the treatment of infections and reduce adverse events associated with antibiotic use
 - improve the quality of patient care and safety by coordinating the activities of multiple related disciplines within the hospitals of both campuses
- Committee is sponsored by:
 - Madonna Rehabilitation Hospital Board of Directors
 - Madonna Rehabilitation Systems Board of Directors

Multiple Choice-choose all that apply
(All are correct and should be chosen)

3. The purpose of the Antimicrobial Stewardship Committee is:

- a) to improve antibiotic use
- b) optimize the treatment of infections
- c) reduce adverse events associated with antibiotic use
- d) improve the quality of patient care and safety
- e) coordinating the activities of multiple related disciplines within the hospital

- Scope of the Committee:
 - data collection and analysis
 - issue identification and planning for issue improvement or resolution
 - leadership in implementation, monitoring, and reporting
- By virtue of the proximity of the hospitals on each campus, the patient flow between and within a campus, and the nature of patient services provided, the committee will have responsibility for all hospitals with separation of data and reporting to the individual hospital medical executive committees and respective Boards of Directors.
- Membership includes but not limited to representatives from:
 - Pharmacy
 - Infection Prevention
 - Nursing
 - Laboratory Services
 - Medical staff

The Centers for Disease Control states:

- *Studies indicate that 30-50% of antibiotics prescribed in hospitals are unnecessary or inappropriate.

- *There is no doubt that overprescribing and misprescribing is contributing to the growing challenges posed by *Clostridium difficile* and antibiotic-resistant bacteria.

- *Studies demonstrate that improving prescribing practices in hospitals can not only help reduce rates of *Clostridium difficile* infection and antibiotic resistance, but can also improve individual patient outcomes, all while reducing healthcare costs.

True False **(Answer is true)**

4. Studies demonstrate that improving prescribing practices in hospitals can help reduce rates of *Clostridium difficile* infection and antibiotic resistance, and also improve individual patient outcomes.

Antimicrobial Stewardship Practices include:

- Provide concurrent, prospective and retrospective review of antimicrobial use.
- Review and recommend initial dosing (wt, renal, kinetics)
- Recommend appropriate antibiotic selection based on daily reports from the microbiology lab that list new culture and sensitivity results, which will then be used to identify which patients may require changes to ordered anti-infective therapies.
- Develop and implement IV to PO conversion policy
- Recommend and implement formulary restriction and preauthorization requirements
- Actively review targeted antibiotic use by class of drug and/or problem prone diagnosis
- Review length of therapy of all antibiotics; utilize automatic stop dates for specific antibiotic orders

- Antimicrobial Stewardship Practices include:
 - Work with Information Services and Physicians to help drive Physician Computer Order Entry to recommendations based on evidence based guidelines
 - Contact prescribers as necessary to communicate any of the above recommendations regarding individual patient care.
 - Antibigram development with monitoring of drug resistant pathogens
 - Assess infection related issues on units and educate on infection-related issues
 - Surveillance for multi-drug resistant organisms
 - Institute appropriate isolation protocols and prevention guidelines, care bundle practices, establishing criteria for expanded precautions and environmental decontamination
 - Hand washing compliance

- Antimicrobial Stewardship Practices include:
 - Use of care bundles, nurse initiated protocol and decatheterization protocols
 - Use of UA Decision Tree which helps nursing staff identify patients with symptoms of urinary tract infection and culturing stewardship
 - Identify, monitor, and report MDRO trends; look for newly emerging Gram-negative resistance
 - Promote adoption of clinical treatment guidelines
 - Incorporate stewardship activities into the annual infection prevention risk assessment
 - Investigate outbreaks

Multiple Choice-choose all that apply

(All are correct and should be chosen)

5. Antimicrobial Stewardship Practices include:

- a) Clinical Pharmacist review of all patient charts to provide concurrent, prospective and retrospective review of antimicrobial use
- b) Review length of therapy of all antibiotics; utilize automatic stop dates for specific antibiotic orders
- c) Use of care bundles, nurse initiated protocol and decatheterization protocols
- d) Use of UA Decision Tree which helps nursing staff identify patients with symptoms of urinary tract infection and culturing stewardship