Learning Bulletin

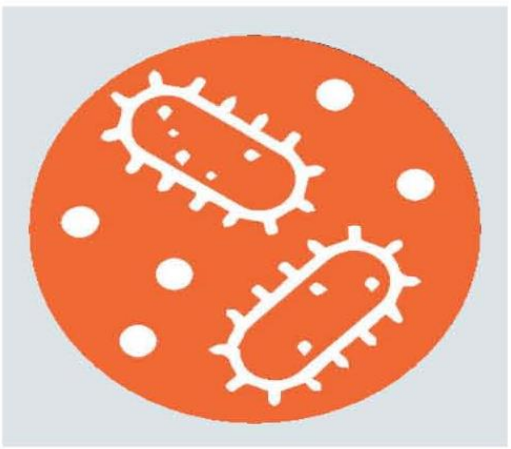
Antimicrobial Stewardship

Protecting a Valuable Resource

Antimicrobial resistance is associated with a large burden of disease and is currently on the rise both in community and healthcare-acquired infections. Each member of the healthcare team should be acquainted with their role as an antimicrobial steward and know how to effectively do their part in combating increasing antimicrobial resistance.

01 Why am I taking this course?

The Joint Commission requires acute care hospitals to have an antimicrobial stewardship program. Caregivers who prescribe, dispense, administer or monitor antimicrobials need to have an awareness of the program as it affects their practice.



02 Antimicrobial Resistance

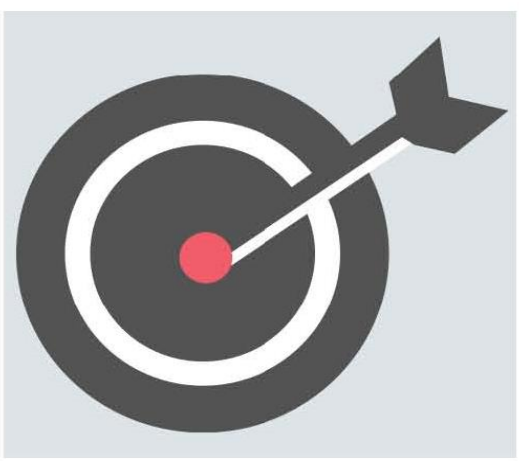
Since the 1940s, antibiotics have been used to reduce illness and death from infectious diseases. Widespread use over the past 70 years has caused organisms to adapt, making the antibiotics less effective or not effective at all.

Assuring appropriate antibiotic use is one way to attempt to preserve their activity.

03 Appropriate Use of Antibotics

Optimal antibiotic therapy is chosen by assuring that the "5 D's of antimicrobial stewardship" are satisfied. This includes assuring the correct:

- Diagnosis
- Drug selection
- Antibiotic dosing
- De-escalation (streamlining of antibiotics)
- Duration of therapy



Just as the healthcare team would not infuse Heparin without knowing the PTT or potassium supplementation without knowing the serum potassium level, each member of the team should be aware of the indication and appropriateness of antimicrobials their patients are receiving.

04 Antimicrobial Stewardship

Antimicrobial stewardship is the practice of optimizing antimicrobial therapy with the following goals in mind.

Improve Patient Ouctomes

Reduce Unintended Consequences of Antimicrobials

Ensure Cost-Effective Therapy.

05 Strategies for Antimicrobial Stewardship

Primary

Prospective chart review and feedback

Formulary management (i.e. restriction policies and/or appropriate use guidelines).

Secondary

De-escalation (streamlining)

Local guidelines/clinical pathways

Dose optimization

IV to oral formulation conversions

Antimicrobial order sets

Education

Improve antibiotic use to combat antibiotic resistance.

Created by:
PH&S Antimicrobial Stewardship