01 Why am I taking this course?

The Joint Commission requires acute care hospitals to have an antimicrobial stewardship program. Caregivers who prescribe, disperse, 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 Antibiotics

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 FTT 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 Outcomes
- 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.