Antimicrobial Stewardship in a Community Hospital: Utilizing Time Out Calls

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 Review the goals and core elements of Antimicrobial Stewardship

Describe the use of a Time Out Call strategy to facilitate
Antimicrobial Stewardship at a community hospital

Antimicrobial Stewardship

- Antimicrobial stewardship combines systematic measurement and coordinated interventions to promote the judicious use of antimicrobial agents
- The primary goal is to optimize clinical outcomes while minimizing unintended consequences of antimicrobial use
- The Joint Commission addressed antimicrobial stewardship for hospitals in Medication Management standard MM.09.01.01 which went into effect January 1, 2017

Association for Professionals in Infection Control and Epidemiology. Antimicrobial stewardship. https://apic.org/Professional-Practice/Practice-Resources/Antimicrobial-Stewardship The Joint Commission. Antimicrobial Stewardship Standard. https://www.jointcommission.org/assets/1/6/New_Antimicrobial_Stewardship_Standard.pdf

CDC Core Elements of Hospital Antimicrobial Stewardship Programs

- Leadership Commitment
- Accountability
- Drug Expertise
- Action
- Tracking
- Reporting
- Education



Centers for Disease Control and Prevention. Core Elements of Hospital Antibiotic Stewardship Programs. http://www.cdc.gov/getsmart/healthcare/implementation/core-elements.html

Antibiotic Time Out

 Strategy to prompt clinicians to re-evaluate antibiotic appropriateness including the need for de-escalation and discontinuation

 Antibiotic time out at 48–72 hours is considered a critical component of antimicrobial stewardship programs intended to improve optimal antibiotic use

Centers for Disease Control and Prevention. Core Elements of Hospital Antibiotic Stewardship Programs. http://www.cdc.gov/getsmart/healthcare/implementation/core-elements.html

Mount Sinai Brooklyn (MSB)

- Mount Sinai Brooklyn is a 212-bed acute-care community hospital located in Brooklyn, NY
- Part of the Mount Sinai Health System, along with 7 other hospitals
- Services provided include Cardiology, Infectious Disease, Gastroenterology, Nephrology, General Surgery, Orthopedic Surgery and Emergency Medicine
- Patient population is primarily adult and geriatric



Antibiotic Stewardship (ASP) at MSB

 The Antimicrobial Stewardship Committee created in October 2015, was responsible for the initiation and monitoring of the Antimicrobial Stewardship Program.

 The main goals are to promote appropriate use of antimicrobials, reduce the development of antimicrobial resistance and minimize antibiotic-associated adverse events

ASP Multidisciplinary Team



ASP Interventions

- Restrictions of specific antimicrobial agents
- Retrospective audit and feedback
- Intravenous to oral antibiotic policy
- Seven day stop order for all antibiotics
- Dose adjustment and management of drug-drug interactions by pharmacists
- 72-hour Time Out Call for specific broad spectrum antimicrobial agents

72-Hour Time Out Call

- Initiated in April 2016 as an integral part of the Antimicrobial Stewardship Program
- Antibiotics selected for review were cefepime, imipenem/cilastatin and vancomycin

 Pharmacists review the regimens on the third day of therapy and call the physician with recommendations regarding de-escalation or discontinuation of therapy

OUR COMMITMENT TO APPROPRIATE ANTIBIOTIC USE

As part of our commitment to the health and well-being of our patients, this practice is dedicated to prescribing antibiotics only when they are needed, and we will avoid giving antibiotics when they may do more harm than good. If an antibiotic is not needed, we will explain this to you and will offer an appropriate treatment plan.

Antibiotic stewardship ensures that every patient is given the best care for their specific condition and gets an antibiotic only when necessary. When needed, patients should get:







the right antibiotic,

at the right dose,

for the right duration.

Up to **50%**

of all antibiotics prescribed are not needed at all or are not prescribed appropriately Each year in the United States,

at least

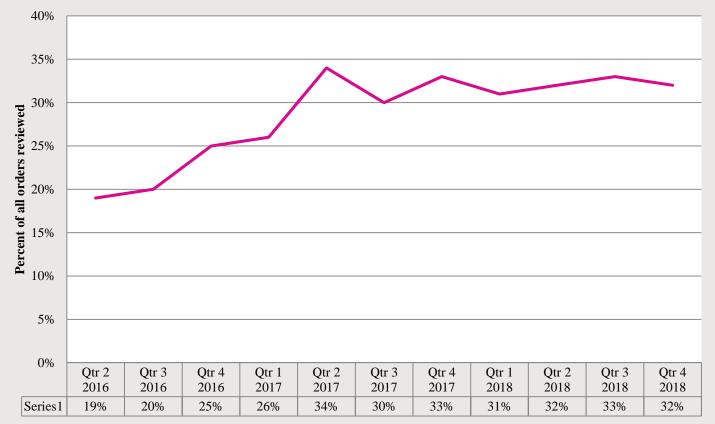
2 million

people become infected with bacteria that are resistant to antibiotics At least 23,000

people die as a direct result of these infections

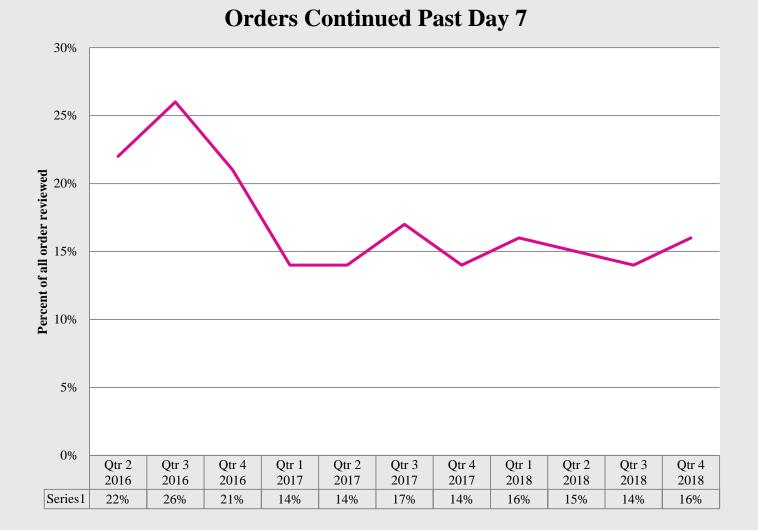
This practice promotes appropriate antibiotic use because it leads to better patient care

Time Out Call Review



Orders Discontinued by Day 4

Time Out Call Review



Effective Strategies

- Multi-disciplinary approach
- Leadership support
- Infectious Disease physician engagement
- Continuous feedback and reevaluation



Barriers

- Limited dedicated staff
- Limited resources for data analysis
- Limited interoperability between software systems



Post Assessment Question

Which antimicrobial stewardship intervention provides the

greatest opportunity to impact duration of antibiotic therapy?

- a. Preauthorization or restricted formulary
- b. Prospective audit and feedback
- c. Didactic education
- d. Facility specific clinical practice guidelines

Thank you!



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