

Patient Safety Initiative

MRSA / SCIP Pilot Project
Antibiotic Stewardship Strategies

Teleconference

October 13, 2010

Presentation Overview

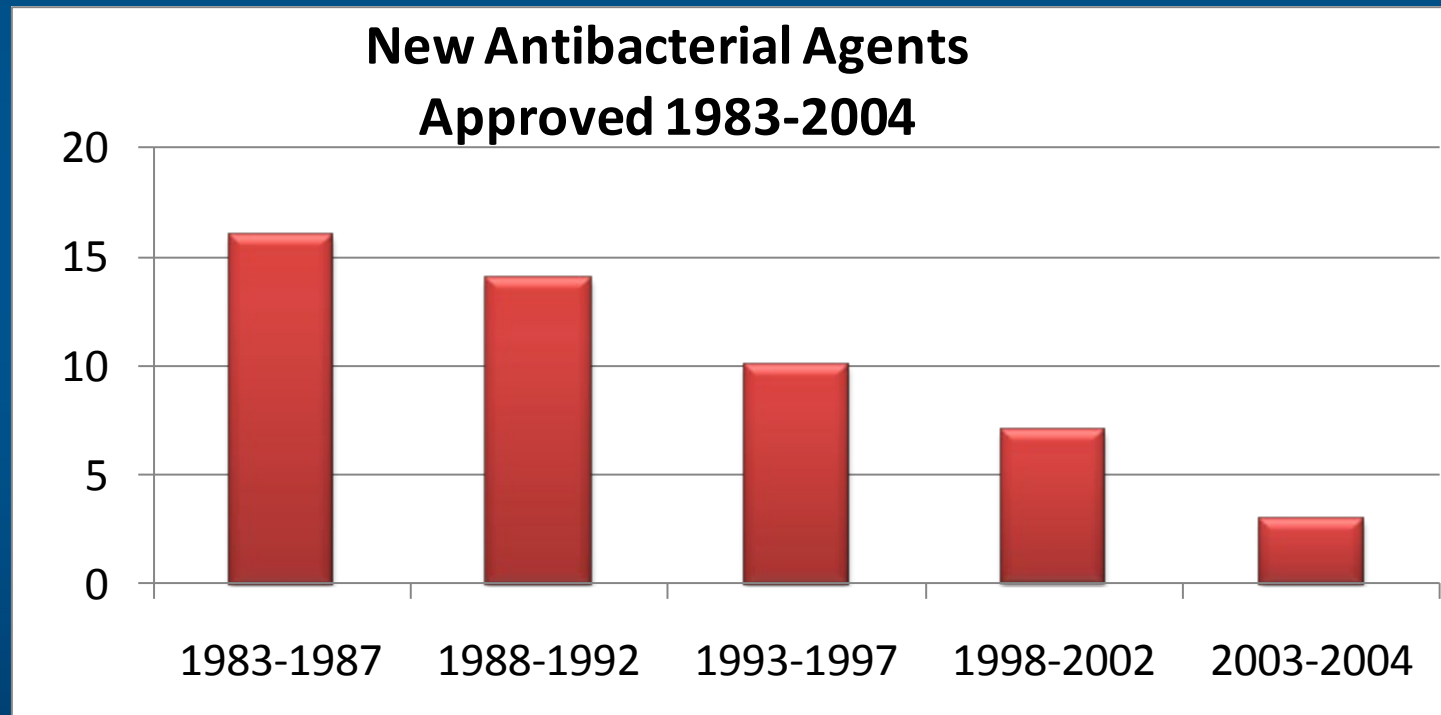
- Antimicrobial Resistance Review
- Antibiotic Stewardship Program
- MRSA / SCIP Pilot Project

Antimicrobial Resistance

- Inappropriate antibiotic use contributes to the development of antimicrobial resistance
- Estimated up to 50% of antibiotic use in hospitals is inappropriate
- 70% of HAIs are resistant to at least one antibiotic
- Higher health care cost - estimated at \$5 billion annually
- Antimicrobial Stewardship Program

John J.F. Jr., Fishman, N.O.: Programmatic role of the infectious disease physician in controlling antimicrobial costs in the hospital. Clin Infect Dis 24:471-485, Mar. 1997, John J.F. Jr., Fishman, N.O.: Programmatic role of the infectious diseases physician in controlling antimicrobial costs in the hospital. Clin Infect Dis 24:471-485, Mar. 1997

Antibiotic Pipeline



Source: as cited by IDSA, 2004, Spellberg et al., Clinical Infectious Diseases, May 1, 2004 (modified)

Project Purpose

Utilize Antibiotic Stewardship Strategies to enhance the reduction of healthcare-associated infections, including MRSA and Clostridium difficile

Project Goals

- Improve antibiotic utilization
- Improve access to local antibiogram
- Improve compliance to clinical guidelines by identifying and addressing non-compliant physicians

Antibiotic Stewardship Program

Multisystem team approach that involves limiting inappropriate use of antibiotic agents while optimizing the selection, dose, duration, and route of therapy with the most appropriate drug for the patient's condition

Carling P., et al.: Favorable impact of a multidisciplinary antibiotic management program conducted during 7 years. *Infect Control Hosp Epidemiol* 24:699-706, Sep. 2003;

Dellit, T.H., et al.: IDSA and SHEA guidelines for developing an institutional program to enhance antimicrobial stewardship. *Clin Infect Dis* 44:159-177, Jan. 2007

Goals of an ASP

- Improve patient care
 - Appropriate use of antibiotics
 - Minimize antimicrobial resistance
 - Limit adverse drug reactions
- Reduce healthcare costs without compromising patient care

Health-care –associated I, pp401-411, 2009 Infection Prevention and Control: Pharmacists' Role in meeting National patient Safety Goal 7. Hospital Pharmacy, Volume 44, Number 5

Why Participate?

- Decrease infection rates
 - Improve antibiotic utilization
 - Know local resistance patterns
 - Decrease MDROs
 - Address non-compliant physicians
- Improve NHSN Reporting Process
 - Training / Refresher course
- Tailored to your organization and needs

Project Focus

- Antibiotic utilization trends
- Microbiology trends / Antibigrams
- Antibiotic stewardship strategies
- Physician Compliance/Feedback
- Guidelines
- Education
- NHSN Reporting

ASP Team

- Infectious Disease Physician
- Infectious Disease Pharmacist
- Microbiologist
- Infection Control Director
- Epidemiologist
- Information System Specialist

ASP Structure

- Review Pharmacy Data
- Review Microbiology Data
- Report Data
- Develop Educational Tools
- Develop Guidelines
- Provide Physician Feedback

Data Sources

- Pharmacy Data
 - Antibiotic utilization
 - Antibiotic cost
- Microbiology Data
 - Antimicrobial resistance patterns

ASP Strategies - Core

Which Do You Need?

- Formulary Restriction and Pre-authorization
- Prospective Audit with Intervention and Feedback

ASP Strategies - Supplemental

Which Do You Need?

- Streamlining/De-escalation
- IV to PO
- Automatic Stop Orders
- Extended Infusions
- Education
- Guidelines

Sample Intervention

Goal:

Decrease the use of antibiotics associated with
Clostridium difficile

- Target Drugs: fluoroquinolones, cephalosporins (2nd/3rd generation), clindamycin
- Possible Outcomes
 - ↓ in C. difficile
 - ↓ in total antibiotic utilization
 - ↓ in targeted antibiotic utilization

NHSN / HAI Public Reporting

- Participants in CMS' "pay for reporting" program
 - January 2011: Central line-associated BSIs (ICU)
 - January 2012: Surgical Site Infections
- National Healthcare Safety Network (NHSN)
- www.hospitalcompare.hhs.gov
- Improve patient care and safety

Project Timeline

Task Name	Timeframe
Recruitment	30 Days (Sept. 20 – Oct. 29, 2010)
Initial Site Visit	24 Days (Nov. 2 – Dec. 3, 2010)
Site Visit Report	33 Days (Nov. 3 – Dec. 17, 2010)
Implementation	63 Days (Dec. 17, 2010 – Mar. 15, 2011)
Outcome Measures	45 Days (Mar. 16 – Ongoing)
Project ends	Jul 31, 2011

Questions?

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