

Antimicrobial Stewardship: It's time has come...AGAIN

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No Disclosures

“ FOR EVERY GODZILLACILLIN WE CREATE, THERE IS AN EQUAL OR MORE POTENT GORILLABACTER TO COUNTER IT...”

RON SMITH, M.D., 1984

Infectious Disease Society of America (IDSA)/Society for Healthcare Epidemiology of America (SHEA)/Pediatric Infectious Diseases Society (PIDS) define Antibiotic Stewardship as:

“Coordinated interventions designed to improve and measure the appropriate use of [antibiotic] agents by promoting the selection of the optimal [antibiotic] drug regimen including dosing, duration of therapy, and route of administration”

CID 2016;62:e51-e77

PRESIDENTIAL ADVISORY COUNCIL ON COMBATING ANTIBIOTIC-RESISTANT BACTERIA(PACCARB) – COMMENTS AND GOALS FROM IDSA

1. Slow the emergence of Resistant Bacteria and Prevent the Spread of Resistant Infections
 - Promote judicious use of antimicrobials in all healthcare facilities including long term facilities; extend the clinical life and utility of antibiotics
 - Importance of ID physician leadership to ensure appropriate expertise and optimize patient outcomes
 - Importance of ID pharmacist leadership and expertise to ensure appropriate pharmacotherapy and monitoring

PACCARB – IDSA GOALS AND COMMENTS...

2. Strengthen National One-Health Surveillance Efforts to Combat Resistance
 - IDSA – led organization of national public health network responsiveness to needs for identifying resistance, development and utilization of specimen repositories
 - Working with US FDA and USDA to collect antibiotic use data and resistance data

PACCARB – IDSA GOALS AND COMMENTS...

3. Advance Development and Use of Rapid Diagnostic Tests for Identification and Characterization of Resistant Bacteria

- Innovative diagnostics in guiding antimicrobial use
- Provide robust funding for diagnostics research
- Reduce regulatory barriers to diagnostics R&D
- Funding for Agency for Healthcare Research and Quality (AHRQ) and Health Resources and Services Administration (HRSA) to assist healthcare institutions and professional societies with training and educational programs

PACCARB – IDSA GOALS AND COMMENTS...

4. Accelerate Basic and Applied Research and Development for New Antibiotics, Other therapeutics and Vaccines

- Additional economic incentive and regulatory approaches are needed; new legislation to establish a new limited population approval pathway for ABX to treat infections caused by drug resistant pathogens (allows for the most urgently needed new ABX to be studied in smaller human population trials)
- Stewardship, surveillance and prevention are critical, however, new ABX are necessary for treatment of existing infections w unmet need and a strong pipeline of antibiotics to combat future infections

PACCARB – IDSA GOALS AND COMMENTS...

5. Improve International Collaboration and Capacities for Antibiotic-resistance Prevention, Surveillance, Control, And Antibiotic Research and Development


- Global threat of antimicrobial resistance. Bacteria know no borders

Core Elements of An Antibiotic Stewardship Program (ASP)

1. Leadership commitment (organizational, community)
2. Accountability: Single Physician Leader (pref ID)
3. Drug Expertise: Single Pharmacist Leader (pref ID)
4. Action: Implement one ASP project or recommendation and FU
5. Tracking Abx prescribing and resistance patterns
6. Reporting Abx use and resistance information to health care professionals
7. Education of health care professionals about resistance, optimal prescribing, MDRO, pharmacotherapy, ID states, etc.

Clin Infect Dis 2014;59:597-100

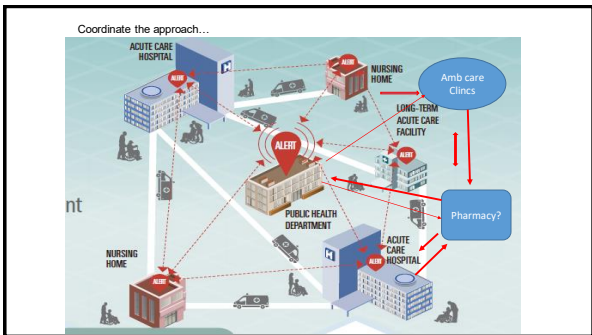
Lack of prevention coordination between facilities can put patients at increased risk of infection.

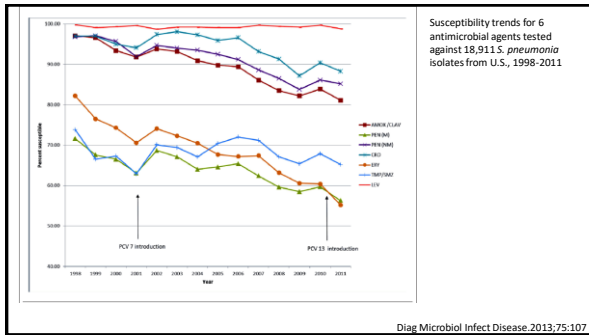


Patients can be transferred between healthcare facilities for treatment without communication or necessary infection control actions in place.

Germs can spread within and between healthcare facilities, so precautions must be in place at facilities transferring and receiving patients to stop spread.

Even as some facilities work independently to improve infection control, they may not be alerted to resistant threats occurring in other facilities or outbreaks in the area.





Montana Infectious Disease Network and Oracle (MIRACLE)

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Project Overview

- Develop a network of infectious disease specialists
- Identify and disseminate best practices
- Improve patient care and outcomes

Current and Completed Projects

- Montana Clinical Oracle
- Montana Infectious Disease Network
- Montana Infectious Disease Network Oracle
- Montana Infectious Disease Network Portal
- Montana Infectious Disease Network Web Conference and Portal
- Future Project: Epidemiologic Study

- #### Montana Infectious Disease Physician Network
- How and when this got started
 - Current activities
 - ASP – promulgate
 - CDI – MT state clinical pathway
 - URI – MT state clinical pathway
 - ECHO program
- Montana Infectious Disease Pharmacist Network - It's time is NOW(?)

 - What is the interest
 - What's in it for me?

What should a regional control strategy include?

- Central advisory group with health department leadership
- Central laboratory capacity
- Surveillance capacity (situational awareness)
- Education/training
 - "Collaborative" groups
- Outbreak response
 - Coordinated regional response
- Mechanisms for inter-facility communication

- ### Goals for K2 – FY2016
- Functioning regional AR/CDI/AS programs
 - Access to and use of AR/CDI surveillance data to guide prevention
 - Prevention programs targeting at least one AR pathogen/CDI
 - Capacity to respond to AR clusters (particularly emerging AR pathogens)
 - Work with partners and healthcare facilities to establish antibiotic stewardship programs and collection/tracking of antibiotic use data

- ### Expectations for Awardees - Deliverables
- K2 deliverables are defined in the 2016 Continuation Guidance
 - Part V of Attachment K2 – Strategies and Activities
 - Four activities
 - Data for Action** – Promote use of NHSN AUR modules, establish access to and enhance use of AR data systems, use data to identify high prevalence facilities/networks, verify existing stewardship activities by geography and facility characteristics
 - Implement Interventions to Prevent HAI/AR Infections** – Implement initiatives for CDI, CRE, MDROs that include stewardship and span the healthcare spectrum, target facility recruitment, evaluate intervention effectiveness

Expectations for Awardees – Deliverables (continued)

□ Four activities

3. ***Integrate and Align Program with State, City, and County Partners*** – Identify/coordinate existing HAI/AR prevention activities in your area, coordinate efforts with local PH departments to use data to inform facilities and guide toward prevention initiatives
4. ***Improve Coordination for Outbreak Response to Prevent Spread of MDROs and C. difficile*** – Ensure collaboration with state/local/regional AR labs, provide TA to clinical microbiology labs across healthcare spectrum, assist facilities with investigation and mitigation of transmission of *C. difficile* and MDROs, communicate data during outbreaks to provide situational awareness in your jurisdiction

Sometimes, simple is best....

NEVER WRONG WEATHER ROCK

