Antimicrobial Stewardship
J.W. Ruby Memorial Hospital

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Antimicrobial Stewardship
WVU Medicine

Mission:
To ensure improved patient care through the appropriate utilization of antimicrobials with focused efforts to minimize antimicrobial resistance
NATIONAL ACTION PLAN FOR COMBATING ANTIBIOTIC-RESISTANT BACTERIA

MARCH 2015
Strategies

- Education and guidelines
- Formulary restriction
- De-escalation
- Optimizing duration
- Prolonged infusion of beta-lactams
- Antibiotic cycling
- IV to PO conversion
Education/Guidelines

- WVUM Antibiotic Guidance Website - Useful Links (EPIC)
- Comprehensive Antimicrobial Guide - Pocket card
Useful Links

- Analgesic Guidelines
- Drug Shortages
- Pharmacy Dept Homepage
- WVUH Antimicrobial Guidance Website
- WVUH Hazardous Medication Policy
- Ask A Drug Information Expert
- Clinical Pharmacology
- CONNECT
- Controlled Substances Rx Database
- The Journal of the American Medical Association (JAMA)
- Medline / PubMed
- MedSite
- Micromedx
- The New England Journal of Medicine
- On-Call
- Patient Safety Net
- Up To Date Clinical Info
- WVU Hospitals

Epic/Clarity Report Request Form
Indication for Use Requirement
Formulary Restriction

- Agents are restricted based on resistance, adverse effects, and/or high cost
- Restricted antimicrobials:
  - Ceftazidime/avibactam (Avycaz)
  - Ceftolozane/tazobactam (Zerbaxa)
  - Dalbavancin
  - Fidaxomicin
  - Ciprofloxacin
  - Levofloxacin
  - Meropenem
De-escalation

- 48-hour “Antibiotic Timeout”

- 72-hour alert reminder for de-escalation
Other Strategies

- Prolonged infusion of beta-lactams
  - Using PK/PD principles to dose and administer time-dependent antibiotics
  - cefepime, ceftazidime, meropenem, and piperacillin/tazobactam

- Antibiotic cycling (Zosyn, Cefepime)
  - Scheduled rotation of antibiotics
  - ICU, BMT, and Pediatric Oncology patients

- IV to PO per protocol
- Pharmacist dosing per protocol of vancomycin and aminoglycosides
Potential Benefits

• Improved patient outcomes
• Reduced adverse events, including *Clostridium difficile* infections
• Improved antimicrobial susceptibilities
• Optimizing resource utilization
Measuring Outcomes

- Antimicrobial usage data
- Clostridium difficile rates

- Coming in near future:
  - Abx ordering feedback
    - individual physician data
Our Team

- **John Guilfoose, MD, Chair**  
  Infectious Diseases
- **Lisa Keller, Pharm.D., Vice Chair**  
  Pharmacy-Antimicrobial Stewardship
- **Aaron Cumpston, Pharm.D.**  
  Bone Marrow Transplant
- **Rachel Hudik, NP**  
  APPs/Med Hospitalists
- **Christine Kincaid, MD**  
  Outpatient/Pediatrics
- **P. Rocco LaSala, MD**  
  Microbiology/Pathology
- **Allison Lastinger, MD**  
  Infectious Diseases
- **Michelle Mitchell, MD**  
  Pediatric Infectious Diseases
- **Meera Mehta, Pharm.D.**  
  Pharmacy-OPAT
- **Kathryn Moffett, MD**  
  Pediatric Infectious Diseases
- **Kathy Nigh, RN**  
  Infection Prevention
- **H. Carl Palmer, MD**  
  Medicine
- **Karen Petros, Pharm.D.**  
  Surgical ICU
- **Douglas Slain, Pharm.D.**  
  Infectious Diseases
- **Michael Sweet, Pharm.D.**  
  Quality Services
Our Team

• All of you !!!

• Things you can do day to day as Residents:
  • Pay attention to the Pop-up alerts
  • Read ordering instructions (at least one 😊)
  • Use the Antibiotic Guidance link on EPIC
  • Utilize Microbiology lab / Diagnostic tests
  • Clarify antibiotic allergies (esp. B-lactams)
  • CALL TRANSFERING HOSPITALS MICRO LAB
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