

Low-Hanging Fruit in Antimicrobial Stewardship

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The Most Important Things to Do

- 1. What do you want to change?
- 2. How are you going to know if it changes?



Antimicrobial Stewardship in Action



Adapted from Fishman, Am J Med, 2006



- Antibiogram/local susceptibility data available
- Ease of guideline use (either electronically or on paper)
- Formulary restriction via the P&T committee
- Surgical antimicrobial prophylaxis
- Penicillin allergies
- Antimicrobial expenditures



Antibiotic Susceptibility Overview



CEHMPS = Citrobacter freundii, Enterobacter spp., Hafnia alvei, Morganella spp., Providencia spp., Serratia spp.

CEHMPS may harbor AmpC inducile beta lactamases. Resistance to penicillins and 3rd generation cephalosporins may arise on therapy. TMP/SMX = trimethoprim/sulfamethoxazole, VRE = vancomycin resistant enterococci

Based on 2015 UW Medicine antibiogram, highlighted if suceptibility >70%



CDC Core Elements

- Leadership commitment
- Accountability
- Drug expertise
- Action
- Tracking
- Reporting
- Education



Leadership Commitment

- Dedicate necessary human, financial and information technology resources.
 - FTE (physician and pharmacist)
 - Newsletter
 - Identify an executive champion
 - Support training in AS
 - Access to microbiology data
 - Support information technology



Accountability

- Single leader for program outcomes. A physician leader is effective.
 - -Appoint a physician lead
 - Include AS measures in physician evaluation
 - -ASP leaders engage other groups in the health system
 - Reporting via the NHSN AU module



Drug Expertise

- Single pharmacist leader working to improve antibiotic use.
 - Identify a pharmacist with expertise in the area
 - Provide training for the pharmacist if needed
 - Support cascading of information to other pharmacists



Action

- Implement at least one recommended action.
 - Antibiotic indication
 - Antibiotic time-out
 - Penicillin allergy assessment
 - Develop facility-specific ID guidelines
 - Optimize specimen collection, testing and result delivery
 - Automate IV to PO conversion
 - Eliminate double-coverage (low-risk, anaerobes)



Tracking

- Monitor process measures, impact to patients, antibiotic use, and resistance.
 - Tracking actions (documentation of indications, time-outs)
 - Adherence to guidelines
 - Accurate penicillin allergy histories
 - Days of therapy, SAAR, \$\$



Reporting

- Report the tracking information regularly to doctors, nurses and relevant staff.
 - Report tracking measures regularly
 - Get ASP on the agenda of physician and board meetings
 - Unit and/or service specific reports
 - Make reports transparent and as real-time as possible
 - Provider level antibiotic use reporting



Education

- Educate clinicians about disease state management, resistance and optimal prescribing.
 - Integrate data from reports and regional/national updates
 - Educate prescribers about microbiology data
 - Provide patients with information about appropriate antibiotic use
 - Include ASP in on-boarding of prescribers



Higher-hanging Fruit

- Daily/interrupted audit and feedback
- Antimicrobial use tracking (if you have BCMA)
- Working with IP&C on CDI reviews



