Utilizing Pharmacy Residents in Antimicrobial Stewardship

The Problem

- Antibiotic resistance, a paucity of new antibiotics and efforts to improve the quality and safety of patient care justify Antimicrobial Stewardship across the continuum of healthcare
- Stewardship programs improve antibiotic utilization to enhance care and promote cost effectiveness
- Joint Commission has proposed standards for Antimicrobial Stewardship at hospitals and other sites of care, so a regulatory framework for this program is anticipated
- The Antimicrobial Stewardship Team (AST) at BIDMC does electronic pre-prescriptive review of 25 drugs. This process is facilitated by a virtual pager (39244). The primary reviewer is a full-time Stewardship Coordinator in Specialty Pharmacy practice
- Time constraints limit interactions with care teams, the documentation of work product [recording patient-specific interactions with prescribers ("interventions") in the Pharmacy system] as the pursuit of expanded AST activities and education of Pharmacist and other staff

Aim/Goal

- Provide trainees with high-value supervised Stewardship work experience
- Expand AST activities
- Improve documentation of patient-specific interventions as one metric for AST activities that can be used to justify additional AST resources
  - Free up time for the AST PharmD to engage in other activities, including the virtuous cycle of leading the Pharmacy Residency Program in ID, which in turn provides BIDMC with a pool of outstanding ID-trained PharmDs

The Team

- Christopher McCoy, PharmD   Pharmacy
- Howard Gold, MD   Health Care Quality/Infectious Diseases
- Katherine Cunningham, PharmD  Pharmacy
- Ethan Smith, PharmD   Pharmacy
- Monica Mahoney, PharmD  Pharmacy

The Interventions

- Proposal – incorporate the PGY2 Pharmacy resident in ID into AST coverage schedule:
  - PGY2 PharmD resident covers Friday AM, during two four week AST consult rotations to fulfill their training and ad hoc
  - Actively work the AST cPOE Receive/Approve queue to clear orders
  - Log interventions using the Pharmacy System to show ROI
- PGY2 resident approved in July 2014

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Interventions (continued)

- PGY2 resident launched July 2014
- Intervention trends used to identify areas for improvement
- Monitoring of the quantity and quality of interventions

The Results/Progress to Date

- Reviewed FY14 versus FY15 before and after initiative launched
- PGY2 Pharmacy residents documented 498 additional interventions
- Total interventions rose by 22% with additional staffing/trainees

Lessons Learned/Next Steps

- Addition of a PGY2 Pharm increased interventions on choice and duration of antimicrobial drug therapy
- There is room for further growth in staffing of AST to optimize antimicrobial usage at BIDMC and to more completely document AST work product
- More formal analysis of ROI will be performed with onboarding of a clinical decision support tool (Vigilanz) to streamline data collection
- The PGY2 Pharm Resident reports increased satisfaction with the autonomy and collaborative nature of the Stewardship role as part of training.