**The Problem**
The BIDMC OPAT program provides monitoring for patients requiring prolonged intravenous antibiotic therapy discharged to either post-acute care facilities or to home with infusion services. A time study performed in our outpatient clinic highlighted a challenge of confirming orders for medication and lab monitoring leading to significant time spent calling to request lab results.

- Our OPAT clinic staff spend between 9-11 hours/week calling to request lab results
- A chart review of all OPAT enrollments from 7/1/14 – 6/30/14 showed that:
  - An average of 22% of patients per month were discharged with medication orders discordant to the ID service’s recommendations.
  - An average of 65% of patients per month were discharged with either missing or discordant safety lab orders
- Our service is committed to improving these rates to enhance the safe and timely care for our patients discharged with intravenous antibiotic therapy

**Aim/Goal**
Our goal was to improve the consistency of discharge medication and lab orders with ID service recommendations by:

1.) Reducing the monthly rate of discordant medication orders to 0% in a 6 month interval
2.) Reducing the monthly rate of missing or discordant lab orders by 50% in a 6 month interval

**The Team**
Division of Infectious Diseases: Mary LaSalvia, M.D., Rachael Richardson
OPAT Administrative Assistant, Mary Stone, ID Clinic Manager, Rachel Baden, M.D., Department of Health Care Quality: Ken Sands, M.D.

**The Interventions**
- Developed an OPAT Program medication-specific safety lab protocol which was approved by the BIDMC ID staff in 5/14
- Revised the ID Division OPAT Intake Note to add our program’s safety lab protocol and developed a standard expectation this note be completed for every OPAT enrollment prior to discharge. Launched on 7/1/14
- Engaged our most frequently used home infusion company liaisons to enhance our communication regarding our program’s goal for standard lab monitoring

**The Results/Progress to Date**
In the post intervention period, based on a randomly sampling of 50% of enrollments per month, we achieved a reduction in the monthly rate of discordant medications orders from 22% to 0% in 5 of the 6 months sampled. We achieved a reduction in the average monthly rate of missing or discordant lab orders from 65% to 30%.

**Lessons Learned**
We discovered that the variable timing and format of the ID service’s communication of discharge order recommendations were major contributors to discordant antibiotic orders and missing or discordant lab orders. Our intervention of standardizing our process for the communication of order recommendations led to a significant improvement in the agreement of discharge orders with the ID service’s recommendations. The engagement of our home infusion providers to enhance communication and information sharing was critical to our process improvement.

**Next Steps/What Should Happen Next**
- Enhance the effectiveness our improvement efforts through creating automated order sets
- Spread our improvement efforts to additional clinical services providing home infusion therapy through the creation of a Home Infusion Working Group
  - Goal of developing a standard order recommendation set for all patients discharged from BIDMC requiring short-term intravenous access
- Further engage all of BIDMC’s home infusion and VNA providers dealing with home infusion services to enhance communication and to develop shared expectations for home care management

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