Residents as Drivers of Outpatient Practice Improvement: A unique solution to promoting high quality care

Ryan Nall MD1; Scot B. Sternberg MS2; Joshua Allen-Dicker MD MPH3; Hans Kim MD2; Gila Kriegel MD3; 1University of Florida College of Medicine, Gainesville, FL; 2Beth Israel Deaconess Medical Center, Boston, MA; 3Mount Sinai School of Medicine, New York, NY

Problem:
- Several cases have been identified within the resident practice at Health Care Associates (HCA) where a delay in lab follow up resulted in morbidity to the patient
- Although an electronic laboratory results tracker system was in development, HCA residents agreed that they could not wait for the new system to begin improving their practice
- Residents had not been previously engaged in addressing this quality improvement issue

Project Aims:
- Define the extent of missed or delayed laboratory follow-up
- Decrease the number of missed laboratory follow-up and improve the average time to documentation of laboratory follow-up
- Engage residents in a longitudinal quality improvement (QI) project

Measurements of Improvement:
- Rate of undocumented laboratory result follow-up
- Time to documentation of laboratory result follow-up

Approach to Improvement:
- Four separate teams of residents were scheduled for protected quality improvement time in serial fashion
- Each group received a standardized QI curriculum including readings, lectures and coaching in QI by core faculty and the Administrative Director of Quality Improvement
- The Primary Care Chief Resident functioned as the project manager as residents:
  - formally surveyed faculty and residents to assess lab follow-up behavior and perception of barriers to timely lab follow-up
  - interviewed key players to review the current process for lab results communication and created a process map identifying points with high error rates
  - performed peer-chart review noting time to documentation and any cases of missed lab follow-up
  - designed an intervention to raise awareness of laboratory follow-up failures via:
    - utilizing ongoing peer review
    - collaborating on a Morbidity and Mortality conference series

Findings to Date:
- Lab Results Communication Process Map
- Time to Documentation of Lab Follow Up and Percentage of Missed Laboratory Results

Key Lessons Learned:
- Communication of laboratory results is a complicated process
- Delayed and missed laboratory follow up occurred at a significant rate
- Following a resident-driven QI intervention, average time to laboratory result follow-up and percentage of missed laboratory results decreased
- Using a measurement technique that doubles as an educational intervention is a useful method for raising organizational awareness
- Residents can be successfully integrated into longitudinal QI initiatives
- Residents reported valuing peer review and feeling comfortable with participating in peer review activities (data not shown)

Next Steps:
- Continue to use peer chart review as a learning and QI tool
- Expand to faculty practice
- Utilize process mapping to identify additional areas for improvement in laboratory follow-up
- As practice transitions to electronically tracked follow-up system, collect data on new system and evaluate impact on rate of follow-up
- Grow resident involvement in future ambulatory QI initiatives

Acknowledgements
Katie Germansky MD; Jim Heckman MD; Ken Roach MD; Darshan Kothari MD; Colleen Ford MD; Luke Strnad MD; Erin Reigh MD; Ara Tachjian MD; Shannon McGinty MD; Andrew Hale MD