Early Experience with Implementation of the I-PASS Handoff Bundle
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BACKGROUND
• Handoffs have been identified as a vulnerable time in patient care
• With ACGME duty hour restrictions, the number of handoffs has increased
• One of three sentinel events reported to ICAHO involve lack of adequate communication or errors in communication
• Structured handoff format and processes across all training program and supervision of handoffs are called for by the ACGME CLER initiative
• No structured handoff format existed at Boston Medical Center (BMC)
• Baseline survey of BMC program directors showed fewer than half of residency programs had any formal training in handoffs
• There was no process for supervision of handoffs at BMC
• In a multi-site study, implementation of the I-PASS handoff bundle was associated with a 30% reduction in preventable adverse events (NEJM 2014 Nov 6; 371(19): 1803-12.)

PROJECT AIM
• To pilot I-PASS handoff implementation on 2 General Medicine housestaff services, through participation in the Society of Hospital Medicine-I-PASS Mentored Implementation Program
• To take lessons learned from the Mentored Implementation program to develop a plan to implement I-PASS across all BMC services
• Goals for pilot services:
  ❖ All interns and residents will be trained in I-PASS
  ❖ All handoffs will utilize the Epic EMR handoff tool that incorporates I-PASS
  ❖ Each intern will be observed and assessed during their rotation
  ❖ >80% verbal handoffs will “usually or always” use all 5 elements of I-PASS
  ❖ >80% verbal handoff quality will be rated as very good or excellent
  ❖ >80% written handoff quality will be rated as very good or excellent
  ❖ >80% written handoffs’ frequency of miscommunications will be assessed as “never or rarely”

PROJECT DESIGN
• Form core implementation group with intern, resident, Chief Resident, and faculty representation
• Administer baseline survey to assess providers perception of quality of handoffs
• Conduct baseline handoff observations
• Create current State and Ideal State process maps
• Conduct front line provider and champion training using SHM-I-PASS curricular materials
• Develop Epic EMR handoff tool that incorporates I-PASS
• Institute process for each intern to be observed and assessed once by supervising resident and once by attending while on service
• Use web-based given, receiver, and written handoff assessment tools to evaluate use of I-PASS
• Administer end of rotation survey to assess handoff quality
• Send routine reminders to the house-staff and faculty members to conduct observations and fill out the end of rotation surveys
• Receive performance data from the I-PASS Mentored Implementation Program

OUTCOMES TO DATE
• Baseline data from surveys (n=16) and handoff observations showed:
  ❖ 0% adherence to all 5 elements of I-PASS
  ❖ Only 31% reporting “very good or excellent” quality of verbal handoffs
  ❖ Only 33% reporting “very good or excellent” quality of written handoffs
  ❖ 135/140 (96%) front-line providers trained in I-PASS
  ❖ 45/57 (79%) champions trained in I-PASS
• Results for first 3 rotations after go-live (July-September 2015)
  ❖ Rotation 1: 4 of goal 4 observations conducted
  ❖ Rotation 2: 2 of goal 4 observations
  ❖ Rotation 3: 2 of goal 4 observations
  ❖ 55% adherence (n = 9) to all 5 elements of I-PASS
  ❖ 100% of handoffs (n=9) are never or rarely miscommunicating/omitting information
  ❖ Run charts of measures will be generated when more data points are available

EARLY LESSONS LEARNED
• Handoff observations and feedback are a critical component to measuring I-PASS adoption and improving handoff quality, but will require effort to ensure they occur
• Initial data shows increased adoption of I-PASS elements, though not at goal
• Involving residents and Chief Residents in the planning phases has been a key component to achieving buy-in, addressing challenges, and identifying changes to test
• Taking advantage of hospital orientation to conduct simulation training in I-PASS for all BMC interns was a good opportunity to train interns before they began clinical care
• Strong support from GME and hospital leadership has been instrumental
• Interns have provided feedback that having I-PASS only occur on 2 services has been a barrier to adoption
• Changing behavior of upper residents, who had already been conducting handoffs, has been more challenging
• Developing an EMR handoff tool that incorporated I-PASS prior to go-live has supported use of the I-PASS format
• End of rotation survey completion rates have been low, which will require future attention

NEXT STEPS
• Plan to test the use of paper, rather than electronic, assessment forms with the goal of increasing the number of handoff assessments performed
• Made possible by a partnership with the Boston University School of Medicine Continuing Medical Education (CME) office for data entry
• Using locked dropboxes so forms can have identifying information for residency program purposes
• Given the feedback that expanding to other medical teams and other services at BMC would likely further encourage adoption of I-PASS, we have formed a BMC I-PASS Implementation Committee with a resident representative and faculty champion from each program
• Formulating plan for training and handoff observations in each program
• Considering methods to incentivize survey completion

Our team would like to acknowledge the support of the SHM-I-PASS Mentored Implementation Program and our project mentor Trey Coffey, MD.