Medical Student use of the EPIC EMR in the Neurology Core Clerkship: Effect of an Established Workflow on Student and Physician Productivity and Satisfaction

Katie Holroyd¹, Samantha Roman¹, Alisa Mo¹, Stephanie Zuo¹, Charlene Gamaldo², Andrew Breithaupt¹, Jeremy Tanner¹, Karthik Rao¹, Tiana Cruz², Teresa Johnson¹, Nancy Hueppchen¹, Roy Strowd¹²,³, Rachel E. Salas²

Institutions:
1. Johns Hopkins School of Medicine, Baltimore, MD.
2. Johns Hopkins Medicine, Department of Neurology, Baltimore, MD.
3. Wake Forest School of Medicine, Winston-Salem, NC.

Needs and Objectives: There are no nationally established guidelines for student documentation in the electronic medical record (EMR) system of EPIC. Additionally, Johns Hopkins University School of Medicine (JHU SOM) clinical clerkships currently have no established workflow for utilizing medical students in faculty outpatient clinics. This project sought to demonstrate the feasibility and utility of an outpatient workflow model that incorporates students in clinical evaluation and EMR documentation. The workflows are currently being piloted in the outpatient portion of the Neurology Core Clerkship (NCC).

Setting and Participants: JHU SOM medical students participating in their core clerkship and Neurology faculty members.

Description: The workflow model was developed by consensus of fourth year medical students selected to participate in the Neurology Osler Apprentice program and the NCC directors, and contains the following components: 1. The clinic day begins with establishment of expectations between the student and faculty 2. The student will see multiple patients independently throughout the clinic day 3. For every patient the student sees, they will fill out past medical history, surgical history, family history, social history, and allergies in the visit navigator of EPIC. They will also perform medication reconciliation 4. For one new patient seen, the student will complete a full student note including history, physical, assessment, and plan 5. At the end of the day, or at a later time via email, the student will be given faculty feedback on the full student note completed that day. This workflow and detailed instructions on how to document in EPIC were provided to NCC students and Neurology faculty in the form of powerpoint presentations.

Evaluation: To describe feasibility of this model, anonymous student and faculty satisfaction surveys of this workflow method are currently being collected. To determine the impact on physician productivity, physician relative value units (RVUs) are being collected to compare faculty billing pre and post implementation of the workflow model.

Lessons Learned: Preliminary data suggest that the model is both feasible and sustainable long-term, with faculty feeling that the expectation for providing feedback and inclusion of the student is both valuable and practical. Data from two of the Neurology faculty members also suggest greater confidence in the accuracy of the information recorded in the visit navigator when patients are seen in clinic with a medical student utilizing this workflow model.