Abstract: Purpose: A well-constructed EMR can ostensibly promote patient safety through legibility and efficiencies in documentation, information gathering and real-time decision support. Copying and pasting, note-forwarding, and templating are common practices in the EMR; the impact on patient outcomes, providers' recall of patient-specific information, and providers' ability to glean new information about patients and their illnesses is not well understood. This study sought to understand contemporary attitudes and behaviors with respect to the EMR among GME trainees at our institution and to assess impact of copying and pasting on retention, synthesis and knowledge acquisition relevant to patient-specific information.

Methods: The three-part protocol was reviewed and exempted by the Institutional Review Board. 1) Survey. An online, anonymous survey was developed by JPG and MR to gauge trainee self-assessment and observations of EMR practices. 2) OSCE. Four simulated general medical or urgent care environments are required for participant evaluation (15 minutes or less) and documentation (at least 10 minutes). For two of the stations, documentation is completed by trainees in an environment designed to simulate the electronic medical record inasmuch as information is available to copy and paste or directly reference; in the other two stations, participants do not have information available to copy and paste. 3) Test of knowledge. At the conclusion of the OSCE, subjects answer a 20-question test to assess knowledge of some specifics of each OSCE case as well as relevant general medical knowledge.

Results:
Survey
The survey was distributed to 572 trainees and completed by 140 (response rate 24.5%). Overall, respondents (98%) report reviewing notes in the EMR helps them understand their patients. Over 70% report copying information and also seeing copied information in the EMR. Respondents cite reasons to copy and paste in the EMR including “there is nothing more to be added” (19%), accuracy (20%), and time limitations (27%). Several respondents report “never” updating the EMR medical history (12%), social history (20%), or family history (24%). Thoroughly reviewing the medical history is not an “always” event for 18%, and confirming the medical history with the patient does not always happen for 36%. Twenty-four percent do not thoroughly review active medications for every patient, and 46% do not always update the medication list to reflect what the patient actually takes.

OSCE and Test of Knowledge
Findings from our “pre-pilot” sample of five OSCE participants suggest that at least one participant was swayed by inaccurate information within the medical record despite lack of confirmation by the patient, and that this participant's answer on a general question assessing knowledge of what to do in the case of a “thunderclap” headache was adversely impacted. Another participant accepted an inaccurate medication list that had not been verified as accurate.

Discussion:
The behavioral, educational, and patient care implications of efficiency practices in the EMR are not well understood. Practices previously understood as “taboo” by early adopters of the EMR are now widespread. Further study is needed to understand the implications of efficiency in note-writing on long-term patient- and learner-centered outcomes.

Level of Audience: Mid-career
Focus of Presentation: GME


PRESENTER: Mariah Rudd

Authors/Institutions: M.J. Rudd, Graduate Medical Education, Duke University, Durham, North Carolina, UNITED STATES|J. Gagliardi, Psychiatry, Duke University Hospital, Durham, North Carolina, UNITED STATES|R. Sloane, Duke Office of Clinical Research, Duke University Hospital, Durham, North Carolina, UNITED STATES|