CORD 2019
Medical Student Feedback Documentation Presentation
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Goals:
Deliver advice and a model for simple and effective medical student documentation feedback

Objectives:
1. The learner will develop a familiarity with important feedback components of the medical student note

2. The learner will be able to develop an effective strategy for evaluating medical student notes, aggregating feedback and delivering it to medical students, utilizing and optimizing those resources that are best available.

3. The learner will become familiar with a simplified evaluation system and learn processes in which to implement it

CME MCQs
1. Which of the following is the PRINCIPAL limitation to medical student documentation in the EMR?
    a. **Lack of Access to EHR**
    b. Timeliness of Feedback
    c. Lack of student desire for feedback
    d. Difficulty with coding student notes
2. Which of the following is CORRECT regarding the AAMC, LCME, ACE and CDEM positions on student documentation?
    a. **Students should document in the EHR utilizing the same tools as practicing clinicians**
    b. Students should document only on paper which should be shredded
    c. Students should not document clinical encounters
    d. Students should document using word processors separate from the clinical EHR
3. True or False: The medical literature **DOES NOT** demonstrate increased liability from student documentation.
    a. True
    b. **False**
4. True or False: Medical Student use of the EHR, including the use of templates, has demonstrated improved documentation outcomes that may translate to improved OSCE, USMLE Step 2 CS, and clinical skill outcomes
    a. **True**
    b. False

Documentation feedback struggles/Challenges
- Student challenges:

- o   Understanding Expectations
- o   Optimizing Use of Templates / EHR
- o   Obtaining Feedback
- Preceptor Challenges:
  - o   Time / Quantity
  - o   Content Evaluation / Consistency
  - o   Obtain EMR Access for students & Liability
  - o   Feedback Delivery

Recommendations for documentation feedback from the AAMC

"For the full potential of EHRs to be realized, they must become part of the educational experience from the beginning. Medical students need to have hands-on experience— including entering and retrieving information in the medical record—as a first step toward preparation for residency and beyond."

Medical Students as Scribes: a word of caution
"Scribes do not interact directly with patients; they document the activities of a provider, as verbally instructed. Whether medical students should be used as scribes—and if they are, how this activity is structured— is an institutional decision that includes consideration of whether scribing is seen as a valuable educational experience. Any policy on the use of medical students as scribes should consider whether they should be assigned two passwords, one when they are acting as a scribe, and the other to identify information they gather directly from the patient."

Why Should Students Write Notes?

AAMC, LCME, EPA statements support student communication and documentation development, in some cases including documentation in the EHR.

"Electronic health records (EHRs) provide opportunities to improve patient care and increase the accuracy of communication. For the full potential of EHRs to be realized, they must become part of the educational experience from the beginning. Medical students need to have hands-on experience— including entering and retrieving information in the medical record—as a first step toward preparation for residency and beyond."

Gliatto P, Masters P, Karani R. Medical student documentation in the medical record: a liability? *Mt Sinai J Med*. 2009;76:357-64
- "Principles of learning relevant to student note writing include that all education comes through experience (Dewey) and that the active process of doing and reflecting facilitates enduring learning (Lave and Wenger)"
- "In addition, learning is enhanced when the subject matter is relevant and the learner feels motivated to learn (Maslow)."
- "Lastly, by being offered instructional activities that promote increased independence and include opportunities for self-direction and reflection, learners are able to define their learning goals and monitor their progress in achieving them."

Challeneg 1: Set / Understand Expectations
- Set expectations in orientation/pre-arrival packet
- How many notes?
  - Make it manageable – 10 purposeful notes for the month?
  - Efficiency shouldn't be the primary goal
  - Good, appropriate documentation skills should be the focus
  - Consider some billing hints / tips but billing/coding probably shouldn't be the focus
    - May depend on M3/M4 status, interest in EM
- Emphasize important note components
  - Consider what your rotation can best assess/support/teach
  - Consider:
    - Emphasize context, relevance to chief complaint
    - HPI/ROS/PE appropriateness & completeness
    - Details of relevant exams
    - Medical Decision Making RATIONALE
    - Use of the EHR, templates

Challenge 2: Overcome Template / EHR challenges / Intimidation
- Give Students Advice:
  - Make the Note Your Own!
    - Thoughtful, detailed, contextualized information is what we want
    - Express in the note the same concepts we discuss when you present your patient
  - Document what you said/did!
    - Do so in the detail that you said or did it!
  - Avoid Incorrect or Inappropriate "Auto-populated" information
  - Avoid Note Bloat
  - Avoid Simply reporting results
    - Results should be interpreted
  - Avoid Inconsistencies

Challenge 3: Time, Content, Consistency!
- A fillable form creates consistency & identifies important content
- Identify important content to be evaluated – what can you comfortably, consistently assess?
  - Content based on:
    - Note components: HPI, ROS, PE, MDM, etc.
    - Detail
    - Insight
  - Create levels of competency for each content component
    - Select a level of competency for each component
- A consistent, fillable form allow standardization and creates user familiarity
  - Can be shared among users
    - Allows reproducible data entry and results
  - Pre-identified objectives/elements
- Database helps aggregate data

Challenge 3: Getting Feedback
- Develop an appropriate mechanism
    - Pre-work can help – set expectations
    - Electronic feedback?
        - Database?
            - Google
            - Air Table
        - Learning Management System?
        - In person feedback
- Content
    - Select appropriate components to review
        - Consider what you want to emphasize – probably can't do it all
            - Consider M3 vs M4 needs
            - Consider EM interested vs non-EM interested needs
    - Consider evaluating:
        - Context
        - Grammar
        - Appropriate abbreviations
        - Use of appropriate medical terms / jargon
        - Use of relevant questions
        - Interpretation of test results
        - Appropriate use of risk stratification
        - Medicolegal aspects of documentation
            - *** don't ask a lawyer – they just want everything documented
    - Pitfalls:
        - The note can only capture what the student asked/did/considered
            - Consider using this as an opportunity to give feedback on:
                - Taking a history
                - Exam skills
                - Ddx development
                - Diagnostic and Therapeutic planning
                - Pathophysiology Review

Preceptor Challenge 4: Feedback delivery
- Consider Email, electronic feedback; derived from database.
- Consider In-person review (mid-rotation, end of rotation)
- Allow for improvement – only the last 3-5 notes count for grade?
- Feedback Components
    - Context in HPI
    - ROS appropriateness
    - PE appropriateness
    - MDM – interpretation, clarity of rationale
    - EHR components – did they succumb to a trap? (blow ins, inconsistencies, etc)

Challenge 5: Liability / Gaining Student Access
- Work with your institution to gain student access to the EHR
- Use the resources referenced here:

- AAMC:
  - "Medical students are learners. Thus, states do not give licenses to them and therefore, they are never considered to be billing providers and their notes should not become part of the medical-legal record. […]Therefore, it is incumbent upon institutions to understand the compliance risks associated with billing when medical students document in an EHR and recognize that appropriate management—including design choices in the EHR, education, and monitoring—can significantly reduce the risks and allow for essential educational opportunities."
- Institutional / system support or approach is important
- Standardized statement by student
  - "See the Licensed Professional's note for clinical information and recommendations. The signature of the Licensed Professional on this now acknowledges only the presence of the student's note within the patient record. By regulation, students' notes are for training and education purposes only and play no part in the documentation of care or clinical treatment of patients."
- Standardized Preceptor signature statement
  - "This note is for educational purposes only – for the purposes of medical student education and feedback. I am signing this note in the HER in order to indicate that the student has completed a note in the record for educational purposes. I did not necessarily evaluate this patient or supervise his or her care, unless indicated elsewhere in the medical record. Please see the medical professional's note for details of the patient's care.
  - The note has not been edited in the chart and reflects solely the student's evaluation of the patient
- Novel approaches with new Medicare rules
  - "In 2018, Medicare revised its policy   regarding what documentation provided by a medical student could be used by a Teaching Physician for E&M billing purposes."
  - "After review by Physician Leadership, the GME office, and Revenue Management stakeholders, Geisinger has opted NOT to adopt the updated Medicare stance on use of medical student documentation. This is due to the nuances in the Medicare final rule as well as several commercial insurance payers not accepting student documentation for billing purposes."
  - "Teaching Physicians can continue to reference medical student documentation for history and review of systems for billing purposes."

References / EBM Support for student documentation:
1. AAMC Compliance Advisory: Electronic Health Records (EHRs) in Academic Health Centers. 2014
   - Advisory statement from AAMC regarding medical student documentation
2. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree. Publication of the Liaison Committee for Medical Education. Available at: http://lcme. org/publications/.
   - Communication is an important part of medical education
3. Association of American Medical Colleges. Learning objectives for medical student education—Guidelines for medical schools: Report I of the Medical School Objectives Project. *Acad Med.* 1999;74:461–2.
   - Communication is an important part of medical education

4. Core Entrust able Professional Activities for Entering Residency. Publication of the AAMC. Available at: aamc.org. Accessed March 5, 2019.
   - EPA 5 requires students to document a clinical encounter in the medical record
5. Hammound et al. Medical Student Documentation in Electronic Health Records: A Collaborative Statement from the Alliance for Clinical Education. *Teach Learn Med*. 2012;24:257–66.
   - 2012 statement recommends that students should have the opportunity to document in the EHR and that the notes should be reviewed.
   - Students should have the opportunity to practice entering orders in the EHR
6. Manthey, et al. "Emergency medicine clerkship curriculum: an update and revision." Acad Emerg Med. 2010 Jun;17(6):638-43
   - National EM clerkship curriculum
   - M3 and M4 curricula available
   - "Provide accurate and organized documentation in the medical record when appropriate."
7. Stair, T. , Howell, J. M. and Broerino, N. C. (1994), Voice-recognition Computer-based ED Patient Records and Student Documentation Skills. Academic Emergency Medicine, 1: 414-420. doi:10.1111/j.1553-2712.1994.tb02658.x
   - Voice documentation is a viable option, though perhaps not better than computer entry or hand-written documentation
8. Wittels K, Wallenstein J, Patwari R, Patel S. Medical Student Documentation in the Electronic Medical Record: Patterns of Use and Barriers. *West J Emerg Med*. 2016;18(1):133-136.
   - 97 unique EM clerkships surveyed
     - Nearly all indicated EHR use
     - Nearly 2/3 allow student documentation
       - nearly all programs have feedback mechanisms
       - lots of variability
   - Table 1. Reasons cited for not allowing students to document in the EHR.
     - 80% Medical school or hospital rule forbidding student documentation
     - 60% Concern for medical liability
     - 53% Inability for student notes to support medical billing
     - 38% Lack of computer workspace / access
     - 15% No documentation educational objective for the clerkship
     - 11% Lack of ability to review notes and provide feedback
     - *EHR,* electronic health record
   - Given AAMC, LCME, ACE positions, but the persistence of prohibitive practices, authors suspect a disconnect between education and leadership
     - Liability perception may play a role, but a large literature search revealed only one paper, which did not cite specific cases
9. Virden RA, Sonnett FM, Khan ANGA. Medical Student Documentation in the Emergency Department in the Electronic Health Record Era-A National Survey. Pediatr Emerg Care. 2019 Mar;35(3):220-225. doi: 10.1097/PEC.000000000001095.
   - Survey of Medical Schools and PEM ED Directors
   - 70 (54%) of 129 AAMC medical schools in the United States responded to survey
   - 35 (47%) of 74 pediatric ED directors responded to the survey.
   - Nearly all of the respondents reported using EHR in their ED (88% of ED directors and 100% of medical students).

- 100% of the AAMC student representatives stated that an ED rotation is either offered or mandatory at their medical school.
- 65% of both groups reported allowing medical students to document in the patient's actual chart.
- Both groups demonstrated similar opinions of the critical importance and advantage of medical students' documentation in the ED ($P \geq 0.99$).
  - However, these 2 groups differed in opinion on the impact of medical student documentation on clinical care of the ED patients ($P = 0.008$).
- 83% of medical students and 74% of ED directors believe that medical students should be documenting in the EHR.
- The majority of both groups (51% of medical students and 65% of ED directors) preferred a single, combined attending physician–medical student note for clinical documentation.

10. Friedman E, Sainte M, Fallar R. Taking note of the perceived value and impact of medical student chart documentation on education and patient care. Acad Med. 2010;85:1440–1444.
    - Seventy-nine medical school deans responded.
      - Over 90% believed student notes belong in medical records, but only 42% had a policy regarding this.
    - 93% indicated that without student notes, student education would be negatively affected.
    - 56% indicated that patient care would be negatively affected.
    - Most thought limiting students' notes would negatively affect several other issues:
      - Feeling a part of the team (96%)
      - Preparation for internship (95%)
      - Students' sense of involvement (94%)
    - 52% reported that fourth-year students could place notes in paper charts at "all" affiliated hospitals
      - 6% reported that fourth- year students could do so at "no" hospitals.
    - Just over 10% reported that none of their affiliated hospitals allowed student notes in the EMR.
    - Limitation: did ask if this was a lack of documentation was a policy or a reflection of the lack of an EMR.
    - Overall, the results indicate that deans perceive that preventing medical students from adding notes to patients' records has a more negative impact on student education than on patient care. Conversely, few see any positive impacts when student notes are not included in the charts.

11. Gaeta, T. et al. Documentation Templates for Clinical Encounters Improves Medical Student Performance of USMLE Step 2 CS Essential Actions on an Objective Structured Clinical Exam. Annals of Emergency Medicine , Volume 62 , Issue 4 , S120
    - Use of a template which prompts students to perform essential actions during their actual clinical encounters is associated with higher rates of performance of those skills in simulated clinical encounters and is appreciated by students.

12. Wald, D. A. (2004). Written documentation of the chest pain history by fourth-year medical students using a simulated emergency department patient encounter. *Academic Emergency Medicine, 11*(5), 500-500. doi:10.1197/j.aem.2004.02.475
    - 196 fourth-year medical students completed OSCE.

- All cardinal characteristics of chest pain (onset, location, duration, and quality) were documented in 26% of encounters.
- Additional characteristics (radiation of the pain, and aggravating or alleviating factors) were noted in 55%.
- Associated symptoms (shortness of breath, nausea, vomiting, and diaphoresis) were noted in 24.5%.
- A numeric pain score was recorded in 41.3%.
- Case- specific cardiac risk factors were recorded in 47.5% of cases.
- Conclusions:
  - Most documented encounters lacked complete or appropriate details
  - Fourth-year medical students may benefit from case-directed education regarding pertinent documentation for patients presenting to the ED with a complaint of chest pain.

13. Hoonpongsimanont, W., Velarde, I., Gilani, C., Louthan, M., & Lotfipour, S. (2018). Assessing medical student documentation using simulated charts in emergency medicine. *BMC Medical Education, 18*(1), 203. doi:10.1186/s12909-018-1314-z
    - Prospective study of fourth-year medical students' simulated chart documentations at a United States medical school
    - Evaluated students' simulated charts from an online learning tool using simulated cases for completeness according to HCFA guidelines and analyzed data using descriptive statistics.
    - 98.9% (n = 90) of the charts were down-coded.
    - 33.0% had incomplete history of present illness
    - 90.1% had incomplete review of systems
    - 73.6% had incomplete past medical, family, social history and
    - 88.8% had incomplete physical exams.

14. Crawford, S., Kushner, I., Wells, R., & Monks, S. (2019). Electronic health record documentation times among emergency medicine trainees. *Perspectives in Health Information Management,1-11.*
    - The average time to document on the Cerner system was 15.9 minutes for MS4 students, 13.6 minutes for first-year trainees, 11.2 minutes for second-year trainees, and 11.2 minutes for third-year trainees, with an overall average of 12.7 minutes for the Cerner system.
    - The average time to document on the Sparrow system was 16.2 minutes for MS4 students, 14.6 minutes for first-year trainees, 13.2 minutes for second-year trainees, and 14.0 minutes for third-year trainees, with an overall average of 14.3 minutes for the Sparrow system
    - Study demonstrated that the level of training and experience with a system affected the time of documentation.

15. Gliatto P, Masters P, Karani R. Medical student documentation in the medical record: a liability? *Mt Sinai J Med*. 2009;76:357-64
    - "This hands-on experience has provided a way for students to reflect on patient encounters, learn proper documentation skills, and attain a sense of being actively involved in and responsible for the care of patients."
    - "Institutional disincentives to student documentation include insurance regulations that restrict student documentation from substantiating billing claims, concerns about the

legal status of student notes, and implementation of electronic medical records that do not allow or restrict student access."

- "Principles of learning relevant to student note writing include that all education comes through experience (Dewey) and that the active process of doing and reflecting facilitates enduring learning (Lave and Wenger)"
- "In addition, learning is enhanced when the subject matter is relevant and the learner feels motivated to learn (Maslow)."
- "Lastly, by being offered instructional activities that promote increased independence and include opportunities for self-direction and reflection, learners are able to define their learning goals and monitor their progress in achieving them."
- "The multiple uses of student note writing in the educational process overlap considerably and change progressively across the 4 years of medical school
- "Specific concerns include increased potential liability based on inaccuracies in student documentation, questions elated to patient quality and/or safety based on student involvement in patient care activities, and increased complexity of defending claims with student notes in the medical record. This topic is not well addressed in the medical literature, and the broad nature of legal actions that might potentially involve medical student documentation makes it difficult to draw meaningful generalizations concerning the significance of the role that student notes either might or do play from a medicolegal perspective. When a legally actionable event does occur, the entire medical record, including student (and resident) notes, is considered open to discovery, or legal review. The legal significance of the actual content of student documentation, however, in the context of the overall medical record is less clear. For example, there may be discrepancies among students, residents, and faculty writing in the medical record in recording physical examination findings and other factual data, such as vital signs. There may also be differences in the assessment of a patient's overall clinical condition or progress or in the interpretation of the significance of specific findings. However, by nature of their training status, student documentation is not typically considered to be expert in nature with respect to more advanced clinicians, even if their assessments are factually correct and otherwise accurate. Whether these discrepancies truly have a negative effect on legal outcomes in such cases is unclear."

16. Hammound et al. Opportunities and Challenges in Integrating Electronic Health Records Into Undergraduate Medical Education: A National Survey of Clerkship Directors. *Teach Learn Med*. 2012;24:19-224.
17. Torre DM, Simpson D, Sebastian JL, Elnicki DM. Learning/feedback activities and high-quality teaching perceptions of third-year medical students during an inpatient rotation. *Acad Med* 2005; 80: 950–954.
    - One study of 170 third-year medical students at a single academic medical center found that, among other things, receiving feedback on the written history and physical examination and on daily progress notes was associated with students' perceptions of high-quality teaching
18. Mann KV. The role of educational theory in continuing medical education: has it helped us? *J Contin Educ Health Prof* 2004; 24(suppl 1): S22–S30.
    - Despite the paucity of data, having students participate in the documentation of the patient care that they witness and engage in is a sound educational activity from the perspective of learning theory.

19. Rouf E, Chumley HS, Dobbie AE. Electronic health records in outpatient clinics: perspectives of third year medical students. *BMC Med Educ* 2008; 8: 1–7.
    - A study of 33 third-year University of Kansas Medical Center medical students surveyed after they completed a required ambulatory medicine/family medicine clerkship found that 72% reported asking more history questions because of EMR prompts, 70% felt that essential information was easier to find electronically, 69% felt that the EMR improved their documentation, and 40% noted that they received more feedback on their EMR notes versus paper chart notes.
20. O'Connell RT, Cho C, Shah N. Take note(s): differential HER satisfaction with two implementations under one roof. *J Am Med Inform* 2004; 11: 43–49.
    - Thus far, however, no study has examined the impact of EMRs on the clinical reasoning ability of learners. In one study of internal medicine and pediatric residents, surveyed respondents felt that EMR templates provided point of care education by teaching them about recommended preventive prac- tices and reminding them to engage in anticipatory guidance
21. Hirschtick RE. A piece of my mind. Copy-and-paste. *JAMA* 2006; 295: 2335 – 2336.
    - However, computerized decision support systems such as the preventive care reminders in that study (or others such as clinical alerts, drug-dosing assistance, and chronic disease management guide- lines) may actually reduce learning as trainees turn to them instead of thinking through the clinical case at hand. The cut-and-paste functions in EMRs could also lead to shortcuts in reasoning and amplify irrelevant data or inaccuracies.
22. *Medicare's Teaching Physician Documentation Instructions.* Washington, DC: Association of American Medical Colleges; 1998.
    - HCFA guidelines maintain that the attending physician must personally document the majority of key aspects of a patient encounter in order to substantiate the service provided. Physicians may refer to student notes for elements of the review of systems and past, family, and social history, but student notes are not adequate as stand-alone documentation for billing purposes, regardless of the overall content or quality of the documentation.
23. Chappelle KG, Blanchard SH, Ramirez-Williams MF, Fields SA. Off the charts: teaching students in compliance with HCFA guidelines. *Fam Pract Manag* 2000; 7: 37 – 41.
    - Concluded that students should not document in the medical record: ''The safest, least complicated method to ensure compliance with HCFA's guidelines is not to include student notes in any patient charts.'' They instead encourage physicians to have students document in a separate teaching file or to involve students in patient care in other ways, such as patient education.
24. Fields SA, Usatine R, Stearns JA, et al. The use and compensation of community preceptors in U.S. medical schools. *Acad Med* 1998; 73: 95 – 97.
    - HCFA guideline compliance may be enhanced by excluding student from the EMR
25. Association of American Medical Colleges. Orga- nization of student representatives. Available at: http://www.aamc.org/members/osr/communications/ newsletter/june03.pdf. Accessed August 2008.
    - Academic medical centers and individual practices have cited the potential for student documentation to result in or complicate patient-related or institutional legal actions as a reason for limiting or excluding student notes from the medical record

26. Chiong WC. Justifying patient risks associated with medical education. *JAMA* 2007; 298: 1046–1048
    - ''medical education may expose patients to risks that are not offset by the prospect of benefits to those individual patients but instead by the prospect of benefits to other individuals.'' Using the example of procedures, Chiong wrote that to not allow a trainee to do a procedure whenever a more experienced physician was present ''would not eliminate the risks associated with procedures performed by physicians who are still learning but would only add to these risks by preventing physicians from acquiring the skills necessary for competent medical practice in a responsible way

27. Reference Manual on Scientific Evidence, Third Edition. Committee on the Development of the Third Edition of the Reference Manual on Scientific Evidence. Committee on Science, Technology, and Law Policy and Global Affairs. Federal Judicial Center. National Research Council of the National Academies. The National Academies Press. 500 Fifth Street, N.W. Washington, DC 20001. ISBN-13: 978-0-309-21421-6. © 2011.
    - Legal Reference Manual that describes how courts view evidence and expert testimony. Includes some references to medical students and residents but not much insight into admissibility of medical student notes.

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