ELECTRONIC HEALTH RECORDS IN ACTION

Stories of Meaningful Use

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A Solo Family Practitioner in Rural Kansas Transitions from EHR Implementation to Meaningful Use

Quality Improvement Goal

To use the EHR to better coordinate care within the local referral network.

Meaningful Use Objectives Addressed

Dr. Brull's EHR system, once upgraded to a certified EHR, will enable her to meet Stage 1 Meaningful Use objectives for care coordination. She views this as just a first step towards achieving fully electronic care coordination.

- **Exchanging Key Clinical Information:** Dr. Brull's EHR system is fully integrated with the systems at two other solo practices, allowing these physicians to share clinical information and coordinate patient care. She also exchanges key clinical information such as patient histories, medication and allergy lists, with referring physicians via integrated FAX as part of the EHR referral process.

- **Clinical Summaries at Transitions of Care**: Dr. Brull exchanges clinical summaries using her EHR in different ways depending upon the capabilities of the receiving facility or provider. The EHR is connected to a FAX server which lets her easily send or receive clinical summaries by FAX . When she receives a paper discharge summary, staff scan it into the patients' EHRs.

- **Medication Reconciliation:** Dr. Brull uses the EHR system to perform medication reconciliation across care settings by updating patient medication lists received from referring physicians and/or the local critical access hospital. The e-prescribing system she uses (SureScripts) also facilitates medication reconciliation by enabling her to verify what prescriptions the pharmacy has filled for her patients rather than relying solely on her medication list. Patients also play a role by bringing their current medications to their appointments, which the nurse records in their EHRs at intake.

EHR Implementation Process

Dr. Brull collaborated with two other solo family physicians in Plainville to purchase and implement an EHR system. Together, they serve about 8,000 patients. She was the champion for EHR implementation "sooner rather than later," and once she got the buy-in from her physician colleagues, she began a two-year research process, which included system demonstrations and site visits.

In 2007, she and her colleagues selected a medium-priced system (from e-MDs, based in Austin, Tex.) that met their budget and functionality needs. Another key selection factor was the Return on Investment projections for each physician based on their financial contribution. Dr. Brull said she paid most of the $40,000-$50,000 in hardware costs. The family physicians also obtained private financing and invested $30,000 for software.

The EHR system was implemented in early 2008 in a sequential manner—billing, scheduling, and charting—to transition smoothly from a paper-based system to an electronic system. Office champions (physician, nursing and administrative) were trained first in how to use the new EHR system so they could train other staff members.

Since there is no Health Information Exchange in the area, the practices have built FAX capability into the system and integrated its use into the clinical and administrative workflow. Front

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Jen Brull, MD
Clinic: Prairie Star Family Practice, PA

Affiliated Hospital: Critical Access Hospital Plainville, KS

Tel. 785.434.2622
Email: mrsbrull@gmail.com

office staff monitor incoming FAXes electronically, and match and save them to the patient's electronic chart. The administrative staff also forward electronic update notifications to the appropriate provider based on the type of information received;

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a medication refill would be forwarded to the nurse while nursing home correspondence would be forwarded to the patient's physician. All new medications, procedures, surgeries, and diagnoses are entered as CPT codes into the EHRs and clinical summaries, which are searchable. The front office staff also use the integrated FAX to send the clinical summaries to other providers.

Working with the Kansas Regional Extension Center

After the Stage 1 Meaningful Use (MU) regulations for EHRs were released in July 2010, Dr. Brull contacted her state's Regional Extension Center (REC) to obtain their assistance in achieving the MU objectives. The REC sent a field representative to work with Dr. Brull on achieving the core MU objectives. She first assessed the security of her EHR system and developed documentation to meet the risk analysis and data security requirements in the recent Health Information Technology for Economic and Clinical Health (HITECH) Act.

"The policies and procedures she developed were a big help and took a load off my shoulders," said Dr. Brull. "Although this is the main assistance I have received so far from the REC, we have been working on all the MU objectives and they have helped us across-the board."

Dr. Brull also worked with the REC representative on what data fields are required and how to capture the required structured data within her EHR. For example, smoking data for adolescents was captured at intake and codified using CPT codes, which allows for reporting of structured data.

- **Tools:** The REC used a security assessment questionnaire developed by the Security and Privacy Community of Practice to evaluate Dr. Brull's data security risk and provided electronic guidelines to improve her practice workflow.

- **Payment:** She paid the Kansas REC a pro-rated annual fee of about $265.42 for the first year of technical assistance and will pay the annual fee of $455 in subsequent years.

Results

Dr. Brull has anecdotal evidence that EHR implementation has improved care coordination and medication reconciliation:

- **Care Coordination:** The EHR system Dr. Brull shares with two other solo family physicians enables them to coordinate care seamlessly. For example, when another provider covered for her when she was away from the office, and refilled a patient's medication, Dr. Brull could see the refill information immediately in the EHR. The EHR system also helps her exchange clinical information with specialists. For example, during a patient's visit, Dr. Brull may find elevated blood pressure and decide to adjust the patient's blood pressure medication. She updates the patient's medication list in the EHR and sends the patient's cardiologist a visit note via integrated FAX documenting the change in blood pressure and medication.

- **Medication Reconciliation:** The EHR system warned against a drug-drug interaction when Dr. Brull entered medications for a patient with multiple sclerosis prescribed by a specialist who had received an incomplete medication list from another physician. When the "black box warning" appeared, Dr. Brull immediately notified the patient and the prescribing specialist.

- **Increased Revenue/Reduced Costs:** There is anecdotal evidence that the EHR system has increased Dr. Brull's revenue since implementation in 2008. "I have more than recouped my initial investment of $30,000." It also has reduced costs, according to a 2009 New York Times article quoting Dr. Dan Sanchez, who shares the EHR system with Dr. Brull. "Costs for dictation transcription have been cut by 75 percent. That alone has paid for half the cost of the software in the first year."

- **Quality Improvement:** "Having an EHR has improved my quality of care, my ability to track that quality of care, and my own quality of life."

Challenges

The lack of a state-wide Health Information Exchange (HIE) or a regional HIE that includes Plainville is the biggest challenge facing Dr. Brull in achieving fully electronic care coordination. Although other local physician practices have EHRs, there is no connectivity to enable them to communicate. While this constrains how Dr. Brull used her EHR for care coordination, she has been creative in compensating for the lack of this electronic infrastructure by using integrated FAX, a HIPAA-compliant method of sending clinical information to providers, and scanners to "upload" images of clinical documents from local providers into the patient's EHR. She has compensated for the lack of structured data exchange by creating new processes to capture and code the patient's data in the EHR.

Lessons Learned

"EHR implementation is not an event but a process. It is very important to work collaboratively with the EHR vendor and the REC to make the transition to meaningful use. I cannot do it in a vacuum."

Next Steps

Once Dr. Brull receives the certified EHR technology from her vendor, she will be able to demonstrate that she meets the MU care coordination requirements and apply for CMS payment within 90 days.

For more information about HHS/ONC initiatives on the meaningful use of EHRs, please contact Allen Traylor at Allen.Traylor@hhs.gov