Documentation personnel can free up physicians during visits to "do what we do best."



Nina Miller, MD, MPH, Isaac Howley, MD, MPH, and Maura J. McGuire, MD

ore than three-quarters of hospital- and officebased care is provided using electronic health records (EHRs), and significant government incentives (and penalties) are increasing that percentage.^{1,2} Incentives aside, most of us adopt EHRs to improve the efficiency, quality, and safety of our practices. Although standards like the Centers for Medicare & Medicaid Services' Meaningful Use program have accelerated adoption of important technology, they have also promoted complex systems with poor usability, even for technology-savvy clinicians.3 Many of us have struggled to give our full attention to patients when working with EHRs that require extensive scrolling, multiple clicks, and "checkbox documentation" that doesn't capture the true stories of our patients or the details of our reasoning. While awaiting better technology, more clinicians are considering scribes as a solution to these problems.

Medical scribes are trained clerical personnel who capture accurate and detailed documentation of clinical encounters in real time. They assist clinicians in gathering data and navigating medical records without making independent interpretations or judgments. Scribes are not licensed, although some are credentialed through the American College of Medical Scribe Specialists (ACMSS). That group estimates that there are currently 20,000

scribes working nationwide, and that number is expected to increase to 100,000 by 2020.^{4,5} Many physicians work with scribe service vendors (SSVs) that hire, train, and schedule scribes for medical practices. Some practices hire and train their own scribes.

As part of a pilot project, we matched scribes with six physicians in our medical group – a family physician, a subspecialist, two surgeons, and two cardiologists. One year later, based on high satisfaction and quality of life reported by the physicians, we decided to double that number. This article shares five lessons we learned from this project.

Working with scribes can increase visits and patient satisfaction.

We implemented our scribe program to assist physicians who were struggling with our EHR (three members) and to determine whether scribes would enhance the productivity and efficiency of physicians who were average-to-proficient EHR users (three members). We created a dashboard that followed productivity, income, workflow, and patient satisfaction, and we evaluated provider satisfaction with a separate survey and interviews. The table "Pilot outcomes" on page 24 shows that the physicians all experienced gains in these areas.

About the Authors

Dr. Miller is a recent graduate of the Johns Hopkins general preventive medicine residency program in Baltimore and medical writer at HealthLoop, a patient engagement health information technology company in Mountain View, Calif. Dr. Howley is a resident in the Department of Surgery at the Johns Hopkins University School of Medicine. Dr. McGuire is director of education for Johns Hopkins Community Physicians. The authors wish to thank Melissa Feld Helicke, Thomas Stewart, Ty Whitted, Ryan McGuire, Lisa DeGrouchy, Jenel Wyatt, Carl Morgan, Tiffani Freeman, and Caroline Lentz for their contributions to the project. Author disclosures: no relevant financial affiliations disclosed.

Scribes provide accurate documentation, allowing physicians to focus on patient care.

Physicians in the pilot reported that scribes boosted efficiency and joy of practice and preserved patient satisfaction.

Physicians can cover the cost of scribes by seeing an additional two to four patients per day.

We did not ask any of the physicians to change their schedules, but several saw more patients per hour and overall productivity increased approximately 12 percent. Documentation for EHR-challenged providers improved, which in turn supported more appropriate coding. Physicians involved in the pilot reported having more time to review test results and correspondence, which led to a doubling of the percentage of lab results being reviewed in a timely manner. Finally, five of the six participants said working with the scribe made them more efficient, cut their post-patient documentation time drastically, and improved their "joy of practice." One of our six participants indicated he preferred using a dictation service to working with a scribe. However, even that physician noted improved rates of same-day document completion and better billing workflow, so ultimately agreed to remain in our program.

Patient feedback was also positive. During our pilot, all of our practices used a real-time electronic patient satisfaction survey. The participating physicians recorded a 30 percent increase in "on-time" visits, and our already high levels of satisfaction with communication remained unchanged. Subjective comments were positive. One patient said the scribe was "great, because I felt like I could ask questions. Before I was afraid to interrupt because my doctor was so busy typing." One of the physicians noted, "Most of my patients thought it was great. At first a few didn't want the scribe in the exam room. I made it easy for a patient to request privacy, but after a while it became part of the flow."

We found that the scribes integrated easily with the teams. We staffed our clinicians in the recommended 1:1 ratio to provide full-time support by scribes and invested in extra training and communication for physicians and other office staff. Our SSV worked with us to develop communications and scheduling processes that worked for each pilot practice.

The costs of scribes can be covered by seeing a few extra patients each day.

Scribe salaries range between \$9 and \$17 per hour, with an average cost of \$12, although practices that contract with an SSV should expect to pay approximately twice that amount.⁶⁷ The majority of scribes are students interested in pursuing a health profession and are willing to accept lower pay for experience. Most work as scribes for about a year before moving on to medical school or other careers.

Scribes can improve productivity, and most physicians can cover scribe-related costs by seeing an additional two to four patients per day. In our experience, however, it took four weeks for each new scribe-physician team to get up to speed and adjust to each other, so practices should plan for that ramp up time.

We decided to contract with an SSV to hire and train scribes. The SSV was a good partner, gave us well-trained, competent staff, and provided some on-site coaching. But turnover was higher than expected. Physicians who opt to recruit and train scribes themselves will need to budget appropriate resources.

Many scribes initially have limited medical and clinical knowledge and steep learning curves. Before certification, the ACMSS requires that scribes demonstrate an understanding of medical terminology, workflow, clinical documentation, and regulatory issues.4 Practices should verify that appropriate pre-employment training is provided and, if working with an SSV, consider a contract clause to cover the organization's costs if a scribe's performance is unsatisfactory. Our SSV provided on-site basic training

PILOT OUTCOMES

	Time	Baseline	Scribe pilot (10 month average)	% change
Productivity	% notes scribed	n/a	94.3%	n/a
	Visits per month	152.8	171.4	12.2%
Workflow	Signed notes ≤ 2 days	87.2%	88.5%	1.5%
	Signed labs ≤ 3 days	18.6%	42.0%	125.8%
Patient satisfaction 1 (low) – 5 (high)	Timely care	3.2	3.9	21.9%
	Communication	4.9	4.9	0.0%
	Overall patient satisfaction	4.6	4.6	0.0%

during the first few days of a scribe's assignment and conducted a formal competency assessment after a few weeks on the job. Our organization made sure scribes completed training on the EHR and all other requirements for any new employee.

Rather than hiring staff whose only function is scribing, some team-based care models recommend integrating scribing into the daily duties of medical assistants or nurses. While these are excellent models, some state nursing boards do not permit nurses or nurse practitioners to scribe. Medical assistants may require special training to ensure competence, and in some markets, hiring and turnover of qualified staff create challenges.⁹

We are a large, well-resourced organization, and this limits the generalizability of our experience with scribes. Small practices may worry about the risks related to hiring and training new employees. However, the availability of SSVs means even small practices can experiment with scribes at a reasonable cost.

3 Consult your regulatory and billing advisers to ensure compliance.

In organizations of any size, it is important to ensure regulatory compliance, so be sure to get input from the billing and regulatory experts in your group. Documentation should include an appropriate attestation by the scribe and the physician or other provider. ¹⁰ (See examples in "Attestation statement.") If your practice is attesting to meaningful use, remember that computerized provider order entry standards may not count orders entered by scribes. ¹¹

4 Make sure both physicians and scribes have computers.

Physicians and their scribes will be more efficient when both have access to a computer. In our experience, scribes typically assist physicians with preparing for the visit and pre-reviewing the chart during pre-visit huddles with the care team. Scribes will then enter the exam room, document much of the encounter, and continue documenting the assessment and plan with the physician once outside the room. Physicians use their own desktop workstations to access patient records and enter orders during the visit,

ATTESTATION STATEMENT

Joint Commission guidelines for using medical scribes state that scribed documents must be clearly identified with the name of the scribe, the role of the individual documenting the service (i.e., scribe), and the provider of the service. Both the scribe and provider must enter an attestation statement with a valid signature including both date and time. The provider is responsible for all documentation and must verify that the scribed note accurately reflects the service provided.

Example attestation statements:

Scribe: "I, (scribe name), am working as a scribe for and in the presence of (provider name) at (time) on (date)."

Provider: "I personally performed the services described in this note, as scribed by (scribe name) in my presence, and the note is both complete and accurate."

BEST PRACTICES FOR USING SCRIBES IN AMBULATORY SETTINGS

Role	Procedures	
Staff	Explain to patients what scribes do and how they help.	
	• Learn how to effectively hand off clinical information to scribes.	
Managers	• Display signs alerting patients to the presence of scribes.	
	Address patient concerns as needed.	
Physicians	• Introduce the scribe to the patient when entering the room and get permission for the scribe to shadow and document the encounter.	
	• Conduct the interview in a standardized fashion that will be easy for the scribe to follow.	
	Verbally summarize key points from the history as needed.	
	Verbalize physical exam findings (normal and abnormal) and the assessment and plan in words the patient can understand and the scribe can use to accurately document.	

while scribes use computers on mobile carts, which occupy minimal space in our small exam rooms.

5 Make the scribe a part of the clinical team.

Implementing a scribe program requires a coordinated effort among physicians and staff. Practice managers should consider how to introduce these new team members to the practice to optimize their roles in the clinical workflow. Some ideas are provided in "Best

SUMMARY OF SCRIBE ROLES AND RESPONSIBILITIES

ALLOWED **NOT ALLOWED Documentation Documentation** • Document the clinical encounter, including history of present illness, • Include any personal interpretation physical exam, and assessment and plan, as presented by the provider. or independent judgment when documenting. • Document laboratory and radiology findings. • Document any part of the physical exam • Document procedures, consults, and discussions. that was not verbalized by the provider. Clinical support Clinical support • Obtain and record past medical, family, and social histories and review • Obtain history of present illness from of systems. patients. • Track orders and notify providers of results. • Touch patients. • Prepare visit summary for patient. • Handle bodily fluids or samples. • Schedule patient for follow-up visit. • Translate for the patient. • Assist patient with enrolling in patient portal. • Interpret any information. **EHR** support **EHR** support • Enter and pend orders for provider signature.* • Sign or authenticate any chart, record, • Enter CPT and ICD-10 codes, as verbalized by the provider. or order. • Locate past medical history, previous notes, and recent studies at the provider's request.

*Our group allowed scribes to enter orders for labs and tests but not for medications.

• Prepare work or school notes.

Consult with billing and regulatory experts to ensure scribes comply with regulations.

Both scribe and physician should use their own computers to ensure efficiency. practices for using scribes in ambulatory settings, page 25." In certain cases, scribes can take on some work that is typically delegated to nurses and medical assistants, freeing up those staff for other duties. (See "Summary of scribe roles and responsibilities.") They may be able to assist with clerical work, results tracking, and records retrieval. They can also tap their EHR fluency to coach physicians on using the systems more effectively.

Practices need to invest in training for physicians before, during, and after introducing a scribe program. We required physicians to complete an online compliance and attestation module developed by our health system's compliance department before working with a scribe. We also provided training on communicating effectively with scribes. For example, physicians needed to learn to summarize the history and dictate physical exam findings and their assessment and plan to the scribe. The pilot physicians reported that this extra verbalization enhanced patient education and shared decision making. Patient surveys showed overall satisfaction remained high, while "timeliness of care," defined as the number of patients seen at their scheduled time, increased.

Physicians are ultimately responsible for reviewing notes to avoid inaccurate transcrip-

tion that might result in patient harm; however, workload and time limitations may limit the thoroughness of that review. To ensure quality and accuracy, a clinician outside the pilot assessed each scribe. This involved directly observing how the dyad communicated with patients and reviewing the scribed documentation for six visits within the first month.

Other approaches could certainly assist physicians with documentation, such as dictation and transcription services or the use of voice recognition software. However, both dictation and voice recognition software still require some interaction with the EHR and substantial time investment.

Looking beyond the pilot

Our scribe pilot initially involved a small number of physicians, but other members of our group became interested when they saw how scribes could enhance their own practices, and we have added 10 new scribes as part of a phase two pilot. Physicians in the first pilot were not responsible for recouping the project's costs through greater productivity, but they realized this would change when the pilot concluded. Preliminary data have shown that

both EHR-challenged and EHR-savvy clinicians experienced increased satisfaction and productivity when working with scribes. Most importantly, the scribes allowed physicians to focus their attention on the patient rather than on the EHR.

Most of us believe the usability of EHR systems will improve, helping fulfill the EHR's promise to make health care better and allow physicians more time to serve the needs of their patients. While we await these improvements, scribes may be a solution that lets us do what we do best. FPM

- 1. Charles D, Gabriel M, Furukawa MF. Adoption of electronic health record systems among U.S. non-federal acute care hospitals: 2008-2013. ONC Data Brief, No. 16. Washington, DC: Office of the National Coordinator for Health Information Technology; May 2014.
- 2. Hsiao C, Hing E. Use and characteristics of electronic health record systems among office-based physician practices: United States, 2001-2013. NCHS Data Brief, No. 143. Washington, DC: National Center for Health Statistics; January 2014.
- 3. Mitchell J, Waldren SE. Making sense of meaningful use stage 2: second wave or tsunami? Fam Pract Manag. 2014;21(1):19-24. http://www.aafp.org/fpm/2014/0100/p19. html. Accessed May 3, 2016.

- 4. Campbell LL, Case D, Crocker JE, et al. Using medical scribes in a physician practice. J AHIMA. 2012;83(11):64-69.
- 5. Crosby J. Harried doctors hail the rise of the medical scribe. StarTribune. Oct. 20, 2014. http://strib. mn/28QdQyh. Accessed May 3, 2016.
- 6. Scribe Connect. Scribe service revenue calculator. http://www.scribeconnect.com/medical-scribe-roi-costsprofits.html. Accessed May 3, 2016.
- 7. PayScale.com. Medical scribe salary (United States). http://bit.ly/26PLLQK. Accessed May 3, 2016.
- 8. Arya R, Salovich DM, Ohman-Strickland P, Merlin MA. Impact of scribes on performance indicators in the emergency department. Acad Emerg Med. 2010;17(5):490-494.
- 9. Hull T, Taylor P, Turo E, Kramer J, Crocetti S, McGuire M. Implementation of a training and structured skills assessment program for medical assistants in a primary care setting. J Healthc Qual. 2013;35(4):50-60.
- 10. The Joint Commission. Use of unlicensed persons acting as scribes. http://bit.ly/1ufGuvC. Updated 2012. Accessed December 17, 2014.
- 11. Centers for Medicare & Medicaid Services. Medicare and Medicaid Programs; Electronic Health Record Incentive Program - Stage 2. Fed Reg. 2012;77(171):53968-54162. Codified at 42 CFR §412, 413, 495. http://1.usa. gov/1TtclWb. Accessed May 3, 2016.

Send comments to fpmedit@aafp.org, or add your comments to the article at http:// www.aafp.org/fpm/2016/0700/p23.html.

Practices must invest in training scribes or contract with a scribe service vendor.



Using scribes on a limited basis can prove their value before expanding to other parts of the practice.

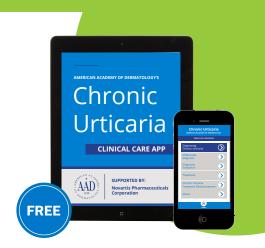
ENHANCE YOUR EXPERTISE AND PATIENT CARE

with the new Chronic Urticaria Clinical Care web app

As a primary care physician, you are challenged with treating a wide variety of diseases and conditions. This new app from the AAD is designed to help you at the point of care when treating patients who suffer from chronic urticaria.

- Differential diagnostic guides
- Considerations for evaluation and testing
- Recommended therapies and a step-care treatment approach
- A reimbursement algorithm feature that includes ICD-10-CM

This app is proudly supported by Novartis Pharmaceuticals Corp.



Visit www.aad.org/CUapp for access



15-791-MKT