



Time-Saving Procedure Templates for Improved Family Medicine Workflow Experiences on Women's Health Rotations

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Background and Objectives

The introduction of the electronic health record (EHR) affected medicine drastically and impacts physicians, residents, and medical students daily. More than half (51.6%) of physicians in today's system report dissatisfaction with the EHR, and 46.8% report an unreasonable amount of time spent doing clerical work-including documentation and orders in the EHR.² These factors are associated with both job dissatisfaction and burnout,³ and burnout leads to worse outcomes for both physicians and patients. Family medicine (FM) residents rotate through many specialties and clinics and experience many different EHRs. This variation can be a significant obstacle to residents who change rotations every 2-6 weeks, impeding the ability of the resident to learn the basics of the specialty and perform their duties efficiently. The objective of this project was to generate and test macros with the intent of saving time for FM residents and thereby improving resident satisfaction and efficiency.

Procedures

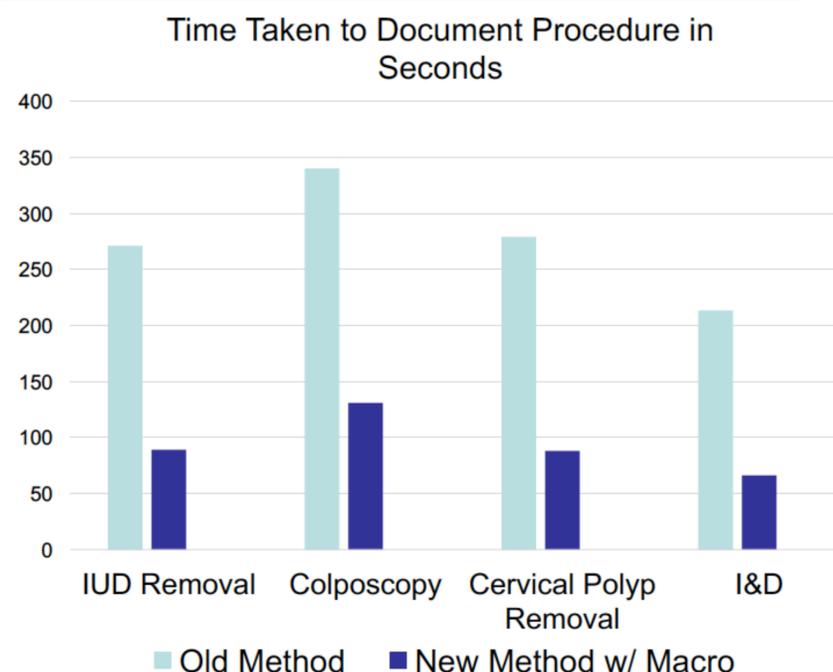
Procedure macros were created for common procedures in the women's health rotation for FM residents, to replace a previously time-consuming, multi-step format. The macros were revised to contain necessary documentation for patient safety, instead of leaving this to provider recall. Macros were created for IUD removal, colposcopy, cervical polyp removal, and incision and drainage (I&D). Trials entering data comparing the new and old documentation methods were organized to represent typical use by training residents in a clinical environment. Trials were performed using a sample faux patient on the EHR to evaluate and compare time and number of steps of the old and the new methods of entry. The average time and number of clicks each procedure documentation were compared between the old and the new method of entry.

Results

Table 1. Average time spent on documentation and number of clicks used with both the old method of documentation and the method using the macros.

	Old Method	Using Macro
IUD Removal		
Av. Time to Document	4 min 31 sec	1 min 29 sec
Av. Number of Clicks	13	7
Colposcopy		
Av. Time to Document	5 min 40 sec	2 min 11 sec
Av. Number of Clicks	14	8
Cervical Polyp Removal		
Av. Time to Document	4 min 39 sec	1 min 28 sec
Av. Number of Clicks	13	9
I&D		
Av. Time to Document	3 min 33 sec	1 min 6 sec
Av. Number of Clicks	14	9

Data



Procedure documentation time decreased significantly, with the average time to document using the macros decreased by more than half, averaging at more than 3 minutes saved.

Discussion

- Each new procedure template macro took 15-20 minutes to create.
- Time using the old process to document the procedures was 4 minutes and 36 seconds on average compared to an average of 1 minute 34 seconds using the procedure template macros.
- Number of clicks using the old process was 13.5 on average compared to an average of 8.3 clicks required to complete each note in the new process, though this may be due to increased familiarity with the process by the macro trial.
- The residents who tested the macros had largely positive feedback, saying that they were easier and saved a lot of time and stress.

Conclusion

- An average of more than 3 minutes is saved per note when using the macros.
- Decreasing the number of steps and recall by provider reduces the chance of error and provider fatigue.
- The time that is saved in documentation may go towards in-person patient interactions, improving physician job satisfaction.
- The procedure macros do require editing for non-standard procedures, which would increase time to document.
- Future evaluation would include formal survey of rotating FM residents surrounding both methods.

References

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3. Collier, Roger. "Rethinking EHR Interfaces to Reduce Click Fatigue and Physician Burnout." *CMAJ : Canadian Medical Association Journal = Journal De L'Association Medicale Canadienne* 190.33 (2018): E994-E995. Web.