

**Julie Cole, MPP**

Education Manager, Internal Medicine, University of Minnesota

**Alisa Duran, MD**

Associate Professor of Medicine, University of Minnesota

**Reut Danieli, MD**

Assistant Professor of Medicine, University of Minnesota

**Amy Candy Heinlein, MD**

Assistant Professor of Medicine, University of Minnesota

**Nacide Ercan-Fang, MD**

Associate Professor of Medicine, University of Minnesota

**Corresponding author:** Julie Cole, MPP, University of Minnesota, 420 Delaware Street SE, MMC 284, Minneapolis, MN 55455, 612.625.0416, cole0266@umn.edu

## New Ideas

# Introduction to Outpatient Medicine and the Patient-Centered Medical Home Rotation: Teaching Interns to Thrive in Clinic

MARI KAI, MD

BRINTON CLARK, MD

MARK ROSENBERG, MD

## Setting and Problem

The majority of medical school graduates have little training in primary care or experience with a continuity setting. This contributes to a sense of frustration and lack of preparedness when internal medicine interns start their continuity clinic experience. At Providence Portland Medical Center, residents practice in a combined resident-faculty patient-centered medical home as part of a multidisciplinary team.

The program offers a 2-week full-time clinic-block rotation for interns. This intense outpatient exposure enhances the continuity clinic experience, as interns learn about clinic resources, time management and efficiency, and management of ambulatory conditions. However, the timing of this rotation is sequential for the 12 interns. Some interns do not rotate until December, nearly 6 months into their own continuity clinic experience.

## Intervention

Our innovation is an intensive 2-week block rotation in the first month of internship entitled, "Introduction to Outpatient Medicine and the Patient-Centered Medical Home (IOM)." Six interns started in IOM for the weeks 1 and 2 of their internship experience and 6 started in the inpatient setting, and the groups switched for weeks 3 and 4. To create time for this intensive outpatient exposure, we removed all interns from elective rotations in July. Concurrent innovations in the inpatient setting allowed the

inpatient units to function with fewer interns during July, enabling the program to place half into the IOM rotation.

Input gathered from the faculty preceptors and residents generated the curricular content. Our main goal was to maximize the needed skills to thrive in the outpatient environment. Having the interns in clinic as a group allowed for a variety of teaching methodologies, from 1:1 mentoring to small group workshops and didactics. Integrated direct patient care allowed interns to immediately apply what they had learned. Curricular topics covered are listed in the TABLE. Time was spent on personal introductions to the multidisciplinary team, which includes a care manager/social worker, clinical pharmacist, dietician/diabetic educator, physical therapist, behavioral specialists, community health care worker, medical assistants, and patient relations representatives. This enabled interns to understand team roles, and how best to utilize the resources of the medical home.

We also carved out time to extensively work on the use of the electronic health record, focusing on workflow and efficiency. One area is a smooth transition of complicated patients from the outgoing postgraduate year (PGY)-3s to the new PGY-1s. The outgoing residents chose their 10 most complicated patients on their panel and wrote a transition summary. The new PGY-1s were given time to review these charts in detail, and work with faculty on chart extraction skills. We had heard feedback about the

| TABLE        | INTRODUCTION TO OUTPATIENT MEDICINE AND PATIENT-CENTERED MEDICAL HOME ROTATION SCHEDULE                                                                                                                                                                                                                                                                        |                                                                                                                                                                            |                                                                                                                                                                                                                 |                                                                           |                                                                                                                                                                                                                       |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Week 1       | Monday                                                                                                                                                                                                                                                                                                                                                         | Tuesday                                                                                                                                                                    | Wednesday                                                                                                                                                                                                       | Thursday                                                                  | Friday                                                                                                                                                                                                                |
| 8 AM–9 AM    | Outpatient Morning Report                                                                                                                                                                                                                                                                                                                                      | Inpatient Morning Report                                                                                                                                                   | Grand Rounds                                                                                                                                                                                                    | Subspecialty Morning Report                                               | Inpatient Morning Report                                                                                                                                                                                              |
| 9 AM–NOON    | (9–9:15 AM) Orientation overview<br>(9:15–9:45 AM) Meet clinic staff<br>(9:45–10:15 AM) Clinic safety review<br>(10:15–10:30 AM) Introduction to role responsibilities, ie medical assistant expectations, etc<br>(10:30–10:45 AM) Break<br>(10:45–11:15 AM) Introduction to clinic workflow, precepting, desktop expectations, EPIC basic workflow and skills | 2 patients on schedule<br>1:1 mentoring with faculty on workflows/EHR skills <sup>a</sup>                                                                                  | (9–9:30 AM) Team huddles<br>(9:30–10 AM) Introduction to the concept of PCMH<br>(10–11 AM) Introduction to the multidisciplinary team<br>(11–11:30 AM) Break<br>(11:30–11:45 AM) Referrals/medical neighborhood | 2 patients on schedule or<br>Shadow general medicine faculty <sup>b</sup> | 3 patients on schedule or<br>Shadow general medicine faculty <sup>b</sup>                                                                                                                                             |
| 1:30 PM–5 PM | 1 patient on schedule<br>1:1 mentoring with faculty on workflows learned in morning <sup>a</sup>                                                                                                                                                                                                                                                               | (1:30–2:45 PM) Workshop—new patient visit<br>(2:45–3 PM) Break<br>(3–4 PM) Chronic pain management workshop<br>(4–5 PM) Coding/billing/types of insurance/managed Medicare | 3 patients on schedule or<br>Shadow general medicine faculty <sup>b</sup>                                                                                                                                       | 3 patients on schedule or<br>Shadow general medicine faculty <sup>b</sup> | (1:30–3:30 PM) Chronic disease management—diabetes management, chronic disease visit<br>(3:30–3:45 PM) Break<br>(3:45–4:45 PM) Intro to disease registries, panel management, role of disease management support team |
| Week 2       | Monday                                                                                                                                                                                                                                                                                                                                                         | Tuesday                                                                                                                                                                    | Wednesday                                                                                                                                                                                                       | Thursday                                                                  | Friday                                                                                                                                                                                                                |
| 8 AM–9 AM    | Outpatient Morning Report <sup>c</sup>                                                                                                                                                                                                                                                                                                                         | Inpatient Morning Report                                                                                                                                                   | Grand Rounds                                                                                                                                                                                                    | Subspecialty Morning Report                                               | Inpatient Morning Report                                                                                                                                                                                              |
| 9 AM–NOON    | (9–10:30 AM) EPIC provider optimization/checklist<br>(10:30–10:45 AM) Break<br>(10:45 AM–12:10 PM) Top 10 point review and chart extraction review                                                                                                                                                                                                             | 3 patients on schedule                                                                                                                                                     | (9 AM–9:30 AM) Team huddles<br>(10 AM–12 PM) Quality improvement projects—intro                                                                                                                                 | 3 patients<br>1:1 mentoring for EHR/workflows <sup>a</sup>                | 3 patients                                                                                                                                                                                                            |
| 1:30 PM–5 PM | 3 patients on schedule                                                                                                                                                                                                                                                                                                                                         | 3 patients on schedule                                                                                                                                                     | (1:15–3:15 PM) Motivational interviewing skills workshop<br>(3:15–3:30 PM) Break<br>(3:30–4:30 PM) Preventive care visit                                                                                        | 3 patients<br>1:1 mentoring for EHR/workflows <sup>a</sup>                | (1:30–3:30 PM) Central line simulation workshop<br>(3:45–5 PM) Work on completing any items on desktop                                                                                                                |

Abbreviations: EHR, electronic health record; PCMH, patient-centered medical home.

<sup>a</sup> A general medicine faculty member was assigned to be available for 1:1 mentoring for the interns to answer any questions about the workflow or EHR tips in addition to the regular precepting faculty.

<sup>b</sup> Each intern was scheduled to shadow a general medicine faculty member in the first week of the rotation, instead of seeing patients on their own with the goal to observe the workflows of how the faculty member functions in clinic.

<sup>c</sup> Each intern presented a patient that they saw in the first week of the rotation. They were asked to share 1 learning point from each case.

difficulty of these patient transitions. One recurrent theme was that there was insufficient time for a thorough chart review. The intervention, which gives the intern more time to gather information before meeting their new patients, enabled them to be better prepared for the initial visit. Finally, the PGY-1s had a graduated experience in direct patient care, starting with 1 patient in a half-day and advancing to 3 patients. This practical experience enabled them to use their newly learned skills right away.

## Outcomes to Date

The main outcome was that the interns increased their comfort level in the continuity clinic experience much earlier than in previous years, and displayed a higher level of functioning. An informal survey of the interns after the rotation showed all interns considered the rotation a positive experience. An interesting outcome of the rotation was that interns knew the workflows and the medical home concepts much better than senior residents. The precepting faculty and

the clinic team felt the interns were integrated into the care team much more smoothly and rapidly when compared to previous years. Due to the overwhelmingly positive feedback, we plan to incorporate this rotation for the upcoming academic year. The main adjustment will be to improve the integration of the patient care into the lecture days to avoid the potential for “educational overload” from multiple content sessions.

**Mari Kai, MD**

General Medicine Faculty, Department of Medical Education, Providence Portland Medical Center

**Brinton Clark, MD**

General Medicine Faculty, Providence Portland Medical Center

**Mark Rosenberg, MD**

Program Director, Internal Medicine Residency, Providence Portland Medical Center

**Corresponding author:** Mari Kai, MD, Providence Portland Medical Center, Department of Medical Education, 5050 NE Hoyt #540, Portland, OR 97213, 503.215.7718, fax 503.215.7751, Mari.kai@providence.org

## New Ideas

# The Resident Audio Recording Project: A 3-Step Process to Improve Clinical Communication Skills

MURALIDHAR REDDY PAPIREDDY, MD, FACP  
HEEYOUNG HAN, PhD  
SUSAN T. HINGLE, MD, FACP  
TIMOTHY KOSCHMANN, PhD  
JACQUELINE ANNE FERGUSON, MA  
STEVE SANDSTROM

## Setting and Problem

Communication is a crucial skill that an internist must master to improve patient outcomes and limit liability. Accreditation Council for Graduate Medical Education Internal Medicine Reporting Milestone No. 20 evaluates residents on their ability to communicate with patients and their caregivers, but the concept presents innumerable challenges of interpretation and scoring because of its fluidity and nuanced nature. There is no consistent platform to evaluate residents and provide feedback for outpatient encounters. Recognizing the importance of communication competency in resident education, Southern Illinois University Department of Internal Medicine developed the Resident Audio Recording Project (RAP).

## Intervention

RAP is a collaborative and longitudinal evaluation project of residents' communication skills during outpatient encounters using audio recordings. The project was initiated in 2008, choosing audio recordings as a cost-effective method to track residents' clinical communication skills. Reviews are provided by 3 to 5 person review panels that include faculty

and university staff with multidisciplinary backgrounds, representing medicine, education, communication, and conversational analysis. The group's composition ensures representation of multiple perspectives to measure the success of the interview. Three review panels follow a stable group of residents over the 3 years of residency.

Each RAP review consists of 3 steps:

1. A resident records a consented patient encounter in the outpatient clinic.
2. The interview is transcribed and provided to the respective group panelists along with the original audio recording. At a group meeting the transcript is reviewed while the audio encounter is played back. Each member evaluates the communication independently. A final group discussion produces a consensus evaluation of the interviewer's effectiveness.
3. Following the review, the resident meets with a panel mentor for feedback. The resident is provided a transcript and listens to his or her recording to self-evaluate during the hour prior to the meeting. During this mentor session, positive and negative feedback are provided on various aspects of the resident's communication skills.

Each resident completes 1 RAP session per year. Total time involved for the recording is around 4 to 6 hours of