# Office of the Future

Christine A Sinsky

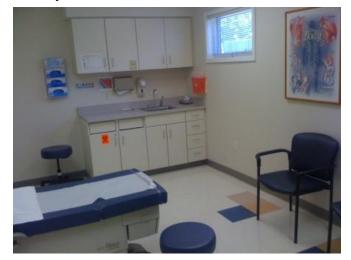
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### Introduction

Imagine training in the "Office of the Future," where systems and space have been designed to maximize the quality of the patient-physician relationship. This, in contrast, to training in the chaotic, inefficient, environments, seemingly designed to discourage interest in primary care, in which most internal medicine residents and many family medicine residents first experience outpatient medicine.

Quincy Family Practice (QFP) is an 8 faculty, 18 resident clinic within the Southern

Illinois University School of Medicine. In October of 2010 QFP opened the "Office of the Future," supported by a grant from the local hospital, Blessing Hospital. The key elements of the new delivery model: 3:1 clinical support staff to physician, MA scribing and colocation of the clinical team. Dr. Joseph Kim, a recent graduate of the Quincy Family Practice residency, was hired to practice in



this new model. Residents spend a portion of their training here, to see how good primary care can be.

# **Physical Space**

The relatively new building is divided into two sides: a traditional clinic model on one side and the new Office of the Future on the other. In the Office of the Future there are no physician desks in the exam room. Their absence reflects the revolutionary nature of the innovation: the doctor does not sit at a desk and attend to the computer. He sits on a rolling stool and attends to the patient, with no intervening furniture or technology.

# Workflow

#### Check-in

At check-in returning patients are given a questionnaire, asking "What three questions do you want answered today" and whether they need any medication refills. This will also serve as the after visit summary, with additional information later added by the MA. New patients receive a more extensive questionnaire about their past, family and social histories.

# **Previsit**

The MA obtains vitals at a hallway station, and then leads the patient into the exam room. On the way she gives the new patient questionnaire to the LPN who will upload the past medical, family and social history into the EHR while the MA rooms the patient. The physician is relieved of this data entry work.



In the exam room the MA completes medication reconciliation and begins recording the HPI. She does this by pulling up the template(s) pertinent to the patient's reason for appointment. She then works through the structured history for each template, checking off boxes and adding free text as needed. Depending on the complexity of the visit

this may take 8-15 minutes per patient. The process generates components for billing and frees the physician from keyboarding standard elements of the history. When finished the MA returns to the nursing station and briefs the doctor about the reason for visit and pertinent history.

### Visit

The MA and doctor return to the room together. Unlike the first minutes in most physician office visits, Dr. Kim does not move directly to the computer; instead he moves directly to the patient, connecting with her verbally, visually and physically, and greeting any family members. There is no signing in and orienting the visit around the computer. The physician's full focus is on the patient. The MA listens to the physician and supplements the history she recorded earlier.

As the physician examines the patient he calls out elements of the physical exam: "normal heart and lungs" "submental adenopathy" "erythema and scaling on extensor surface left forearm, 3 cm". The MA records these in a combination of structured and free text with impressive speed and accuracy.

The MA is able to move quickly between templates for recording the history and different organ systems for the exam. Once or twice in each visit, when information comes too quickly to keep up, the MA jots a few notes on paper. Because the need for scribing ebbs and flows during the visit I noticed the MA was always able to catch up within 15-30 seconds.

Finally, the physician verbalizes his assessments and plan, which the MA also records. Most assessments are chosen as ICD 9 codes. The MA writes the diagnoses and plan, i.e. "High blood pressure, high cholesterol, simvastatin 40 mg daily, appointment 1 month with lipids" on the pre-visit questionnaire to give to patient, queues up prescriptions to be sent to the pharmacy, which the physician signs off on between patients, and checks off lab and next appointment information for the patient to take up front to the scheduler.

# **Between Visit Care**

The LPN spends most of her day at her station, on the computer and phone. In addition to uploading new patient questionnaire data, she fields calls for prescription renewal, provides phone advice and manages coumadin by protocol. When the MAs need extra help she also rooms and scribes.



Dr. Kim spends 30-45 min at the end of the day

reviewing and attesting to notes, sending scripts that MA had queued up. He also spends about 1.5 hours per clinic day on results reporting, between visit care and chart review for next day.

# **Timing**

During one complex patient visit I recorded the time for each element. The pre-visit component by the MA required 19 minutes (2 minutes for vitals, 3 minutes for medication reconciliation, 14 minutes for recording the HPI on multiple templates). After a 30 second mini-huddle, the MA and physician returned for a 12 minute joint visit. During a 3 minute post-visit the MA wrote instructions on the after visit summary, checked a list of pharmacies for which offered \$4 prescriptions for the meds this patient needed, schedule an xray test, checked off a lab form for the patient to take to the front

desk, and queued up prescriptions for the MD to later sign. A 35 minute complex appointment required approximately 15 minutes of total physician time.

# **Attitude**

The MAs, who had previously worked in medical recoreds, were enthusiastic support staff for the work that needed to be done; scribing was not seen as a step down (as it might for RN) but as a step up, so they do not resist doing this work; they were competent at working within the EHR for documentation, but could get mired down in multiple templates for a patient with multiple concerns that didn't really fit the templated format.

# Dark at noon

By noon all lights were out and everyone had left the building for an hour lunch. Clinic resumed again at 1:30. Everyone had time to refresh and recharge.

### **Business Case**

In most primary care settings the physician performs many of the clerical and administrative tasks that Quincy's Office of the Future has directed to non-physician staff. QFP recognizes that it doesn't make business sense to employ \$300/hr workers to do \$65/hr work. (Hourly wage cost estimates: Harvard Business Review Sept 2011.)

### **Conclusions**

This is a good place to work as an MA, nurse and physician; it is also a good place to receive care. For trainees it is a good place to experience the possibilities and envision an enjoyable future as a primary care physician. The teamwork, staffing and task distribution supports a relaxed and timely visit. The physician focuses completely on the patient and spends most of his time on physician level work.

This group worked well together. Each member knew what was expected and appeared to derive satisfaction from doing their job well. The MAs did not begrudge their role as scribes but embraced it with pride. The LPN perhaps had the least rewarding job, spending most of her time away from patients.