The primary care visit is becoming increasingly complex and increasingly frustrating for many physicians. For me, the struggles began more than a decade ago. The 1995 version of Medicare’s evaluation and management (E/M) documentation guidelines had just been released, with all their complexities and legal consequences. The number of clinical practice guidelines was ballooning, and I felt responsible for complying with each one for each patient. More and more entities were auditing physicians’ work, and every month medical journals published yet another article (usually authored by a single-system practitioner) telling primary care specialists what a lousy job we were doing.

I found myself spending the majority of my time doing things I didn’t find very satisfying: obediently drilling patients through a complete review of systems; frantically searching the chart for labs and past medical information; counting bullet points and getting lost in a maze of coding rules; cajoling patients to reach targets they had no interest in achieving; and then having neither the time nor the energy left to address the concerns that were most important to my patients. In fact, sometimes I barely even looked them in the eye during our visits.

After each patient encounter, I would wrack my brain to recall the details of the entire visit and compose an elaborate note that would satisfy lawyers, auditors and anyone else who might look over my shoulder. Generating these notes could take as long as the encounters themselves, and I found myself in the absurd position of spending a substantial portion of my day performing rote, clerical activities. I felt at risk of becoming a guideline-following automaton – a documentation drone.

I finally asked myself, “How do I meet all of these guidelines and requirements and still have the energy and emotional reserve to connect with my patients?” I realized that if I was going to survive and enjoy medicine again, I would need to redesign my practice, a 10-physician office operating within a 100-physician multispecialty clinic.

Now, 10 years later, I share the strategies that rescued me.

12 strategies
The overarching goal of practice redesign is to create a well-organized office system that fosters sound medical decision making, minimizes error and creates an atmosphere that patients, staff and physicians can enjoy. In my experience, office organization is accomplished through relatively simple strategies that together form a powerful force for change.

Twelve strategies – all rooted in the principle of working smarter, not harder – formed the basis of my practice’s redesign:

1. **Pre-appointment labs.** Approximately 85 percent of my patients’ lab tests and X-rays are performed in advance of the appointment. This enhances our chronic disease management and preventive care because test results are available for interpretation and care planning at the time of the visit. For example, if a patient comes in for a diabetes checkup with his labs already completed, I’m able to see that his A1C is above target, explain what this means and negotiate a treatment plan with the patient. Many times, patients have questions about their
results, and I am able to answer them during the course of the visit. This not only improves communication; it also improves workflow by decreasing follow-up letters and phone calls.

To ensure that patients receive the necessary lab tests and X-rays in time for their next visit, we give them specific instructions regarding which tests they need and by when, and we help them schedule those tests. We also send reminder letters or use automated reminder phone calls, depending on the patient’s preference, which is noted in our computer system. The vast majority of patients keep their lab appointments because they like having the results available during our visit.

For the annual exam, labs and mammography are usually completed a week before the office visit. For follow-up appointments, most tests (e.g., CT scans, chest X-rays, ultrasounds and barium studies) can be performed immediately before the office appointment. By the time the patient reaches our office, we have the results. The goal is for the physician to review the data only once, in context and in person, so that the patient and physician can together forge a treatment plan.

Of course my nurse immediately brings to my attention any significantly abnormal test results. This enables us to order the next level of evaluation in the remaining days before the office appointment, if necessary. For example, if a patient is found to be newly anemic in his or her pre-annual exam lab, then I will review the situation and may order iron studies.

2. Chart preparation. Prior to the patient’s scheduled appointment, the nursing staff organizes all of the pertinent information for the encounter. They gather test results and reports from consultants, update flow sheets, prepare patient education handouts and flag needed services such as immunizations. Their goal is to collect all of the necessary information and to display it in a concise, clear and consistent manner.

My goal is to avoid having to hunt for medical information. I’ve noticed that most of the mistakes I make are not errors of judgment but errors related to missing or overlooked information. Also, if I have to flip from page to page or click from screen to screen to find key information, my connection with my patient is broken and the quality of the encounter is unnecessarily diminished. Our chart preparation efforts have reduced my distractions, which has enhanced my communication with patients and my decision making.

Adequate nurse staffing is critical to performing this level of chart preparation, which can take more than an hour of each nurse’s time per day. Each of our primary care physicians is supported by 1.5 to 2 full-time-equivalent nurses. In a study of our department’s productivity, I found that primary care physicians with 1.75 nurses were 35 percent more productive than those with 1.25 nurses. For us, the increased staffing costs are more than balanced by the improved productivity.

About the Author
Dr. Sinsky practices in the Department of Internal Medicine at Medical Associates Clinic, a large multispecialty group in Iowa. She is based in Dubuque. Author disclosure: nothing to disclose.
PRE-APPOINTMENT QUESTIONNAIRE

Name: ____________________________  Today’s date: __________________

To help us get the most out of today’s visit, please answer the following questions:

1. What is your main purpose in coming to our office today? (If you have a new complaint, indicate how long it has been present, what it feels like, what makes it better or worse, and what you are concerned the problem might be.)

___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

2. Are you experiencing any of the following symptoms in relation to your main concern? (Answer “yes” by circling the appropriate symptom.)

- **Constitutional symptoms:** fever, weight loss, extreme fatigue
- **Eyes:** double vision, sudden loss of vision
- **Ears, nose, mouth and throat:** sore throat, runny nose, ear pain
- **Cardiovascular:** chest pain, palpitations
- **Respiratory:** cough, wheezing, shortness of breath
- **Gastrointestinal:** nausea, vomiting, abdominal pain, constipation, diarrhea, blood in stools
- **Genitourinary:** irregular menses, vaginal bleeding after menopause, frequent or painful urination, bloody urine, impotence
- **Skin:** rash, changing mole
- **Neurological:** headache, persistent weakness or numbness on one side of the body, falling
- **Musculoskeletal:** joint pain, muscle weakness
- **Psychiatric:** depression, anxiety, suicidal thoughts
- **Endocrine:** excessive thirst, cold or heat intolerance, breast mass
- **Hematologic:** unusual bruising or bleeding, enlarged lymph nodes
- **Allergic:** hay fever

3. Do you have any other concerns? □ Yes (list below)  □ No

___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

4. Has anything new come up in your family history? (For example, have any of your blood relatives recently developed a new illness?) □ Yes (list below)  □ No

___________________________________________________________________________________________________________________________

5. Have you developed any new drug allergies? □ Yes (list below)  □ No

___________________________________________________________________________________________________________________________

6. What do you do for exercise? ____________________________

How long? ________________  How often? ________________

**NOTE:** Brisk walking for 30 minutes most days is associated with a 30-percent reduction in the risk of heart attacks.

7. How much tobacco do you smoke or chew per day? ________________

**NOTE:** It is recommended that you stop using tobacco. We can enroll you in a tobacco-cessation class.

8. How much alcohol do you consume per week? ________________

9. How much caffeine do you consume per day? (i.e., coffee, tea, chocolate, soda) ________________

10. What method of birth control do you use?

□ Not applicable  □ The pill  □ Vasectomy  □ Tubal ligation  □ Other (specify): ____________________________
3. Pre-appointment patient questionnaires. Patients complete a pre-appointment questionnaire (shown on page 30) with each visit. This helps me understand the breadth of the patient’s concerns and cues me to the patient’s primary agenda so I can plan the visit. It also provides a mechanism for updating the family and social history and completing the review of systems. Finally, it helps me focus on my patients. Because the patients have often written down their story, I don’t have to break eye contact to take lengthy notes.

4. Empowered nurses. My nurses and I are partners. They play an active role in our practice. The more informed and engaged they are, the smoother the practice operates. My job is to tutor them so they understand why we do what we do. I share journal articles on conditions we commonly see in the office, we review X-rays together with a radiologist when something unusual develops, and I solicit their input for refinements to our workflow.

Nurses establish their professional role the moment they bring a patient back to the examining room and introduce themselves by name. They are empowered to practice to the level of their license. (We employ only RNs and LPNs, not MAs.) Our practice uses standing orders that allow the nurses to update immunizations, take independent initiative for patient education and perform symptom-appropriate office procedures, such as pulmonary function tests or electrocardiograms. Nurses also follow a protocol for diabetes checkups, including performing foot exams and scheduling eye exams.

The nurses are also encouraged to obtain a preliminary history so the physician can focus on the patient’s most pressing concern. When the physician begins with, “My nurse tells me you’ve been having severe back pain for about three weeks since you fell off the ladder,” it adds to the personal nature of the encounter and reinforces the collaborative model. In addition, between visits when patients talk with the primary nurse on the phone, they know that she is an extension of the doctor.

5. Physician preparation. I find it useful to know the purpose of the visit and the scope of the patient’s concerns and to review the data before the appointment. This allows me to formulate a tentative plan before I enter the exam room and makes it less likely that some aspect of care will fall through the cracks. Spending a few minutes reviewing the chart and patient questionnaire and discussing the patient with the nurse pays off with a more efficient, focused visit.

6. Improved interactions. Some basic interpersonal skills can go a long way toward improving the doctor-patient interaction. To begin, I try to make eye contact with the patient as I enter the room. I shake hands on entry and again at the conclusion of the encounter. I stand shoulder to shoulder with the patient when reviewing labs, and I often put my arm around the patient when sharing a laugh or empathizing about a difficult situation. For me, this works best if the patient is on the exam table and I am standing next to him or her.

I often find it helpful to ask patients, “What else do I need to know?” This has not been the open-ended nightmare I thought it might be. Instead, it is often a rich source of pertinent information. I also ask, “What else is going on in your life?” to develop context. I learn about the patient as a person. I’ll often follow up with, “Could you bring a picture of __________ to your next appointment?” This gives patients a chance to share the pleasure of their grandchildren, their travel adventures and other unique interests, and it enriches my life as well.

7. Prescription management. A number of years ago, my practice analyzed the volume and nature of phone calls coming into our office. The majority were pharmacy requests for refills, which consumed hours of nursing and receptionist time every week and amounted to providing medical care out of context.

To alleviate these problems, we established a practice of renewing most prescriptions for...
Writing prescriptions for a year’s supply can lessen the refill burden.

A post-appointment order sheet makes it easy to order and schedule needed tests or follow-up visits.

A year at the time of the annual exam. (Laws vary from state to state; in Iowa a prescription may be written for a three-month supply with four refills.) This single practice improvement has reduced our phone calls by an estimated 50 percent.

I write all the medication changes in the margins of the medication list. Then, after the appointment, the nurse enters any new prescriptions into the computer and faxes them to the pharmacy. Since we list the patient’s pharmacy on the chart, I can say, “We’ll be calling that in to your pharmacy, and they should have it ready by the time you get there.”

Some practices may be reluctant to implement this approach because they rely on refill requests to catch those patients with chronic diseases who miss their appointments. However, such a practice would be better served by streamlining its refill process and developing a more proactive recall system.

8. A post-appointment order sheet. The post-appointment order sheet (shown on page 33) is designed to promote integrated, continuous, longitudinal care. Prior to the visit, the receptionist fills in the date of the patient’s last annual exam, any upcoming appointments and any associated lab tests so that the physician can review this information during the visit and deliver care in context. At the end of the visit, the physician checks the boxes on the form to indicate what new tests or follow-up visits are needed. The order sheet is then routed to the receptionist, who schedules the items ordered and discards the form.

For example, after evaluating a patient seen as a work-in for an acute problem, I can glance at the order sheet and see that he is scheduled for a diabetes checkup in three weeks along with a handful of associated tests. I might then say: “Let’s check on this problem when you come in for your diabetes follow-up. We’ll add a potassium test to the labs you already have scheduled.” I’ll then check the

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**SAMPLE DICTATION TEMPLATES**

Dictation templates save time for both the physician and the transcriptionist. For example, in my practice, the patient is asked to update the past medical, family and social history on the pre-appointment questionnaire (shown on page 30), which I then review. When I dictate the history portion of the visit, I simply say “template face sheet” and the transcriptionist knows to insert the following standard sentence:

“The patient’s past medical history, social history and family history are reviewed and updated on the face sheet.”

I also use a variety of problem-specific templates, such as the following.

**PE female, post-menopausal**

After examining a post-menopausal woman with no abnormalities, I dictate “template PE female post.” This signals the transcriptionist to insert the standard text for a physical exam for a post-menopausal female:

“Patient is healthy appearing, coherent, oriented and appropriate. Lips, teeth and lungs normal. Conjunctivae, lids clear. Pupils symmetric and of normal size. Neck without masses, thyromegaly or lymphadenopathy. Lungs clear, heart tones regular without murmur, click or gallop. Breasts without dimpling, discharge or mass. Abdomen soft, non-tender, no hepatosplenomegaly or masses. Pelvic: urethral meatus, external genitalia normal. Bimanual pelvic exam is unremarkable, rectovaginal confirms. No rectal masses. Extremities without edema. No rashes or skin lesions noted.”

When there is a variation from the normal note, I dictate the exception, for example: “template PE female post, exception: heart tones demonstrate a 2/6 systolic murmur.”

**Birth control pill reminder**

I routinely give patients standard reminders or bits of advice that I want documented. One example is the birth control pill reminder. I review this standard information with each patient when I renew her prescription for an oral contraceptive. When I dictate “template birth control pill reminder,” the following is documented:

“Potential adverse effects of the birth control pill, including hypertension, migraines, blood clots, stroke and heart attack, were reviewed with the patient. I also reviewed the small risk that concurrent use of antibiotics may decrease the contraceptive effectiveness of the birth control pill. She is advised to use additional barrier contraception, such as condoms or foam, during any cycle in which antibiotics have been used.”
POST-APPOINTMENT ORDER SHEET

Patient’s name: ________________________________ Date of last annual exam: ______________

Upcoming visits/labs, if any: ______________________ Date of last annual exam: ______________

TODAY AND RETURN: Patient needs the following tests and should return today;

☐ Chest X-ray 786.2 or 786.09
☐ X-ray, flat and upright, of abdomen 789.00
☐ Doppler ultrasound, lower extremities 729.5
☐ Brain natriuretic peptide 428.0
☐ C-troponin 1786.5
☐ BUN/creatinine 401.1 or 780.79
☐ Sodium/potassium 401.1 or 780.79
☐ Complete blood count 780.79, 285.9 or 578.1
☐ Thyroid stimulating hormone 780.79 or 244.9
☐ Ferritin 285.9
☐ Serum protein electrophoresis 285.9
☐ B12 285.9 NEEDS WAIVER SIGNED, 289.89 (macrocy), 294.1 (dementia) or 357.4 (neuropathy)
☐ Folate 285.9
☐ Serum HCG 626.0 or 787.02
☐ Free T4 244.9
☐ Amylase 789.00
☐ H. pylori screen 536.8
☐ Digoxin level 427.31
☐ Stool culture and sensitivity 787.91
☐ Ova and parasite exam x 3 787.91
☐ Urinalysis 788.41 or 780.79
☐ Urinalysis C&S 599.0
☐ Erythrocyte sedimentation rate 780.79
☐ Albumin, alkaline phosphatase, SGOT, SGPT, total bilirubin 789.00
☐ Other:____________________________________

Referral: Patient needs appointment with Dr. ___________________________ for the following reason: ____________________________

Note: Default ICD-9 codes for each test are listed above. Where needed, circle the alternative diagnosis code.

FOLLOW-UP APPOINTMENT: Patient should return to clinic in _____ months for chronic disease follow-up.

The following tests should be obtained one week before appointment unless results are available within 30 minutes.

☐ Chest X-ray 486 or 793.1
☐ Mammogram 599.0 or 786.12
☐ Lipids/SGOT 272.0
☐ CRP 272.0 or V70.0
☐ Fasting blood sugar and A1C 790.6 or 250.00
☐ Fasting blood sugar 790.6, 250.0 or V70.0
☐ 2-hr postprandial glucose 790.6 or 250.00
☐ Retic count 790.6 or 250.00
☐ Hg 285.9
☐ BUN/creatinine 401.1
☐ 1 month & 2 month INR & call; 3 month INR & appt V58.61
☐ Thyroid stimulating hormone 244.9
☐ Free T4 244.9 or 242.90
☐ Erythrocyte sedimentation rate 725
☐ Digoxin level 427.31
☐ Sodium/potassium/creatinine/
CDCmicroalbumin 401.1
☐ Diabetic panel & appt with diabetes
educator 250.00
☐ Fasting blood sugar & A1C 790.6
☐ Thyroid stimulating hormone 244.9
☐ Other:____________________________________

ANNUAL EXAM: Patient should return to clinic in _____ months for annual exam.

The following tests should be obtained one week before appointment unless results are available within 30 minutes.

Standard tests:

☐ Lipids/SGOT 272.0 or V70.0
☐ Fasting blood sugar V77.1
☐ Hg V70.0
☐ Mammogram V76.12, 610.1 or V16.3
☐ PSA (if male over 50) V76.44
☐ Sodium/potassium/creatinine/
CDCmicroalbumin 401.1
☐ Diabetic panel & appt with diabetes
educator 250.00
☐ Fasting blood sugar & A1C 790.6
☐ Thyroid stimulating hormone 244.9
☐ Other:____________________________________

PROCEDURE: Patient should return to clinic in _____ months.

The following tests should be obtained one week before appointment unless results are available within 30 minutes or unless noted as “same day.”

☐ Stress echocardiogram 786.50
☐ Echocardiogram 428.0 or 427.31
☐ 24-hr Holter monitor 785.1 or 780.2
☐ Overnight oximetry 780.79
☐ 24-hr ambulatory blood pressure monitor 796.2
☐ ankle-brachial index 729.5
☐ Carotid ultrasound (same day) 785.9
☐ Aortic ultrasound (same day) V70.0
☐ Right upper quadrant ultrasound (same day) 789.00
☐ Upper gastrointestinal X-ray (same day) 789.00
☐ Flexible sigmoidoscopy V70.0
☐ Flex sig w/ air contrast/barium enema (same day) V16.0 or 578.1
☐ CT, abdomen/pelvis (same day) 789.00
☐ Pelvic ultrasound w/ vaginal probe (same day) 627.1
☐ Thyroid ultrasound (same day) 241.0
☐ CT, head (same day) 784.0
☐ CT, chest (same day) 793.1
☐ Endometrial biopsy
☐ DEXA scan 627.2, 733.90 or 733.0
☐ 72-hr glucose monitor 250.00 or 790.6
☐ Diabetic appt w/ NP 1:1
☐ Dietitian appt
☐ Diabetes class
☐ Weight-management class
☐ Smoking cessation
☐ Flu clinic
☐ Other:____________________________________

Referral: Patient needs appointment with Dr. ___________________________ for the following reason: ____________________________

Note: Default ICD-9 codes for each test are listed above. Where needed, circle the alternative diagnosis code.

Annex accommodates physicians’ time and preserves mental energy for more important tasks. Dictation templates and coding cheat sheets can save physicians time and preserve mental energy for more important tasks.

Structuring patient care around the annual exam offers an organized, longitudinal approach to care. An efficient scheduling system allows patients to see their doctor on the day they call for an appointment; it also accommodates appointments that need to be scheduled in advance.

box for a potassium test and route the order sheet to my receptionist so she can schedule the additional test.

The post-appointment order sheet is also designed to prevent errors of oversight. The annual exam section, for example, has check boxes for diabetic and hypertensive panels, including all the lab values routinely monitored in patients with each of these conditions. Before I began using the order sheet, I often forgot to order microalbumin in patients with diabetes, or I would tune out my patients at the close of a visit as I was trying hard not to forget to order the creatinine and potassium. Now, I can complete my orders with a simple check mark while I continue to focus on the patient.

Throughout the form, the most common choices are already identified, which limits the number of check marks required. For example, in the first section, the default is “today and return”; only the alternative choice (“release”) would require a check mark. Similarly, the most likely diagnosis code is listed next to each test name, with alternative codes available as needed. In addition, the annual exam section identifies several standard tests, so the physician doesn’t need to remember to mark them.

9. Dictation templates. I have cut my documentation time in half by using dictation templates for standardized segments of the visit. For example, when I dictate the physical exam of a female patient who is post-menopausal, I follow a script, of sorts (see page 32). Modifications can be inserted quickly for customization. This leaves more mental energy and time for the unique portions of the document and for other clinical tasks.

10. A simplified coding rubric. Coding cheat sheets can be helpful in clarifying the requirements for each level of service and guiding physicians to choose the most appropriate code for each encounter. I’ve developed my own coding rubric, which I post at my documentation station; however, numerous coding guides are available (e.g., the FPM Pocket Guide to the Documentation Guidelines; http://www.aafp.org/fpm/codingtools). Physicians should find a coding guide that works for them and make sure it is accessible when and where they will need it.

11. The annual exam as an organizing structure. I structure much of my practice around the annual exam. This is when I address prevention, coach patients on healthy lifestyles and perform the annual review of each chronic medical condition. Invariably, patients bring new symptoms for evaluation as well. The annual exam is a complex visit, focused on integrated, longitudinal care.

This approach goes against the current trend, in which physicians are encouraged to provide preventive medicine screenings and chronic disease management “on the fly,” in a “catch as catch can” manner whenever patients happen to be seen for acute medical concerns. I believe this is an inefficient, disorganized approach that devalues the important work of the primary care physician. When a patient presents with an acute problem and we throw multiple other tasks into the visit, it can lead to disjointed care for the patient and uncompensated work for the physician. I prefer to provide a well-structured system for both prevention and chronic disease management.

12. Rapid access. I have an open-door policy; I advise my patients that we will see them the day they call whenever possible. We have systematized this open-door policy, which we call “rapid access,” throughout our multispecialty clinic. Rapid access is similar to open access; however, it makes greater allowances for scheduling patients in advance. For example, if a patient is being seen for treatment of a chronic disease, we will go ahead and schedule the patient’s next checkup, which helps us to plan appropriately for it. If a patient calls on Monday requesting an appointment for an acute problem, we will offer an appointment that day or any day of the patient’s choosing. The point is to create a patient-centered scheduling system, which increases patient satisfaction and promotes efficiency.

Adding it all up

Improving office practice is a worthwhile endeavor. Even in the face of complex coding rules, practice guidelines and performance demands, physicians who develop an organized system of information management and workflow and who foster an empowered nursing staff can achieve a productive and satisfying model of practice for patients, staff and themselves. Implementing any of the strategies described here can improve efficiency, but together they can transform your practice.

Send comments to fpmedit@aafp.org.