Commentary

Preventive Medicine as a Component of the Office Visit—Is It Time for a Change?

WILLIAM C. JAMES, MD, *Kahului, Hawaii*

The physician-patient relationship has increased in complexity from Hippocratic concentration on treating an obvious disease to the tripartite office visit (Figure 1).

Physicians are inclined to take an exhaustive history and do a complete physical examination of every patient. Although this may be appropriate for inpatient admissions, during an office visit patients tend to resist shedding clothes when they cannot see an obvious relationship with their chief complaint. Physicians then tend to adjust their practice style, accommodating patients by addressing more narrowly their reasons for visits and their ongoing problems. This approach may satisfy patients, but physicians recognize that they are responsible for the whole person, not merely the current problem, and that they should include attention to preventive medicine as an integral part of every office visit.

After addressing the reason for the visit and any ongoing illnesses, time permitting, physicians would want to review the chart, noting when the patient last had a complete physical examination and comprehensive laboratory studies done, including a stool guaiac test, electrocardiogram, mammography, and immunizations. If the patient's chart indicates obvious deficiencies in these secondary preventive measures,[1] the patient might then be advised to schedule these examinations and procedures at a later date. At that time, physicians would also consider what other specific examinations and studies are indicated based on the patient's age, habits, and family history.

This aspect of the office visit is probably the most difficult and the most imperfectly practiced. Schwartz and colleagues, studying the practice habits of 2,610 internists, concluded that their use of disease prevention and health promotion activities falls short of expert recommendations.[2] A 1984 study of physicians' attitudes and practices regarding early cancer detection reported that primary care physicians' use of detection procedures did not conform with guidelines for the cancer-related checkup recommended by the American Cancer Society.[3] Reasons suggested for physicians' poor performance in preventive medicine include inadequate training in prevention,[4] lack of reimbursement for preventive services,[5] insufficient time, skepticism about the clinical effectiveness of preventive activities, and uncertainty regarding which services should be offered.[1]

In addition, physicians are trained in deductive reasoning, and, by contrast, the anticipatory, inductive reasoning used in preventive medicine seems ungainly. Physicians also tend to be overwhelmed by the many, at times conflicting, recommendations for early detection of disease. For example, Fleischer and co-workers proposed digital rectal examination beginning at age 40, and fecal occult blood testing and flexible sigmoidoscopy beginning at age 50 for detecting colorectal cancer, but noted that with reference to fecal occult blood testing, no controlled study has shown that screening the average-risk population will reduce mortality.[6] In contrast, Eddy recommends annual fecal occult blood testing and fiberoptic sigmoidoscopy every 3 to 5 years between ages 50 and 75 years, but stated that there is no direct evidence that the digital rectal examination reduces mortality from colorectal cancer.[7] The American Cancer Society added to the complexity by recommending that from age 50 sigmoidoscopy be done every 3 to 5 years if a patient has had two negative examination results a year apart.[3] Subsequently, this was changed to recommending sigmoidoscopy from age 50 every 3 to 5 years, based on advice of a physician.[8]

Recommendations regarding adult immunizations vary from giving influenza immunizations only to patients older than 65, with no booster diphtheria or tetanus vaccine given after adolescence,[8] to diphtheria-tetanus-toxoid every ten years throughout life,[9] and to complex protocols based on lifestyle and occupational exposure, including a broad spectrum of vaccines.[10-15] On a positive note, there is somewhat more uniformity regarding preventive care guidelines relating to breast and cervical cancer,[16,17] and recent medical literature contains more consensus recommendations,[18] culminating in the *Guide to Clinical Preventive Services,* with specific assessments of 169 interventions.[1]

Practiced as a part of the office visit, preventive medicine activities are flawed, but even more troubling is the

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From the Department of Medicine, John A. Burns School of Medicine, University of Hawaii, Honolulu.
Reprint requests to William C. James, MD, 53 Puunene Ave, Kahului, Maui, HI 96732.

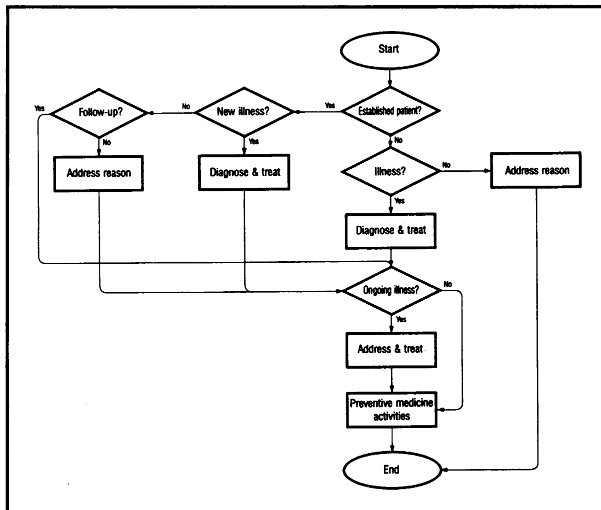

Figure 1.—The schematic represents the thought processes in an office visit in primary care medicine: the reason for the visit; attention to ongoing illness; and preventive medicine activities.

knowledge that because of intervals of up to several years between office visits in many cases, patients may receive no preventive medicine measures at all.

A Proposed Preventive Medicine Alternative

Because physicians are not including preventive medicine in most office visits, a variety of measures have been proposed to assist in that area. Written proposals for examinations and interventions have been grouped into "health protection packages" to be administered at different times during a person's lifetime.[19,20] Computer-generated reminders affixed to medical records have been shown to enhance compliance by physicians in ordering specific preventive care measures.[21-25] One study reported that although 80% of patients seen at least once in two years were compliant with a health maintenance program, a large number of inactive patients were not being reached. A computer tracking system could generate reminders for both patients and physicians at specified intervals.[26-28]

Computer software is being developed that will integrate billing systems, appointment schedules, patient records, and preventive medicine responsibilities. This software will incorporate preventive medicine recommendations, such as those developed by consensus by the US Preventive Services Task Force,[1] and, in addition to physician reminders, will automatically generate a letter to established patients every year on their birthday. This can be in the form of a birthday greeting followed by specific preventive medicine recommendations, based on age, sex, and increased risks due to family incidence of disease, personal history, and lifestyle patterns such as smoking. A patient will be advised to arrange for these examinations and a copy of the letter can be filed in the patient's chart as proof of the preventive medicine effort. While the physician remains responsible for following up on the written recommendations, the risk of overlooking a specific study is nearly eliminated by the computer's literal adherence to age- and sex-based algorithms. In effect, the bulk of the planning and recommendations for preventive medicine is transferred to an automated process that includes the files of all patients in the practice, not just those currently being seen.

Physicians should remain in control and responsible for the actions of the computer by reviewing each generated letter before signing and sending it to avoid errors or inappropriate recommendations. If patients choose to follow the recommendations made in the letter, they call to arrange an appointment. At this visit, the physician focuses primarily on preventive medicine services, moving directly to a comprehensive physical examination and a review of the results of the recommended studies, and secondarily addressing any ongoing medical problems. In response to any abnormalities discovered, physicians can suggest further studies, dietary changes, lifestyle alterations, and follow-up visits as needed.

Changing the format of the office visit in this manner (Figure 2) accomplishes two important objectives:

- Physicians are not distracted by trying to sort out what preventive medicine activities are indicated and are free to concentrate on a patient's current problems; and
- There is improved precision in the execution of preventive medicine activities.

Summary

A routine visit to a physician's office generally is composed of the reason for the visit; attention to ongoing medical problems; and preventive medicine considerations. A separate visit for preventive medicine activities can be helpful. A computer-generated annual birthday greeting to patients that suggests specific preventive medicine studies would result in a more problem-focused office visit and greater precision in the execution of preventive medicine activities.

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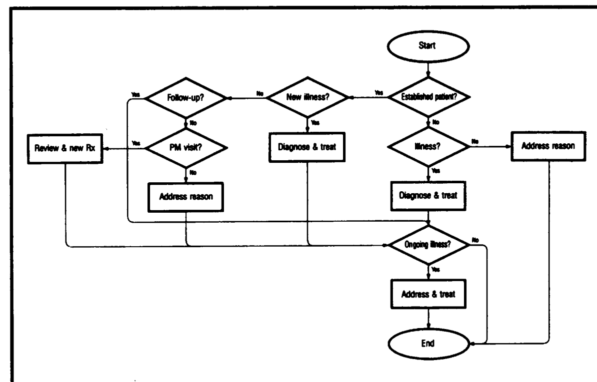

Figure 2.—This schematic diagram shows the primary care office visit without appended preventive medicine considerations, which have been segregated and computerized. Rx = prescription, PM = preventive medicine

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