

## INNOVATIONS IN EDUCATION AND CLINICAL PRACTICE

## Use of an Orientation Clinic to Reduce Failed New Patient Appointments in Primary Care

Sharad Jain, MD, Calvin L. Chou, MD, PhD

**Patients who fail to attend initial appointments reduce clinic efficiency. To maximize attendance by newly referred outpatients, we introduced a mandatory group orientation clinic for all new patients and determined its effects on no-show rates. Orientation clinic also provided health care screening and opportunities for patient feedback. The new patient no-show rate for initial provider visits decreased significantly from 45% before institution of orientation clinic to 18% afterwards ( $P < .0001$ ). The total no-show (patients who failed to attend orientation clinic or an initial provider visit) rate of the postintervention group was 51% ( $P = .28$ , compared with before the intervention). This intervention improved the efficiency and minimized the wasted time of our clinicians. J GEN INTERN MED 2000;15:878-880.**

Patients who fail to come to new patient appointments cause disruption of normal clinic flow, resulting in longer wait times for initial appointments, wasted provider resources, and reduced clinic efficiency. Several studies have described interventions designed to decrease clinic no-show rates, including mailed and telephone reminders.<sup>1-5</sup> One study found lower rates of failed initial appointments when new patients watched a video introducing the clinic and its staff,<sup>4</sup> although providing patients with an information pamphlet or a copy of their referral letter did not affect no-show rates.<sup>4,5</sup>

To decrease our no-show rate for newly referred patients, we started a nurse-run group clinic ("orientation clinic") in May 1998. This clinic also had the advantage of providing health care screening to all patients referred for primary care, as mandated by the Department of Veterans Affairs. This type of clinic visit has not been previously described in the medical literature. Patients were scheduled for an appointment with a new provider only

after attending orientation clinic. We hypothesized that the addition of this novel clinic would improve subsequent attendance at the appointment with a new provider, thereby improving provider efficiency, and would provide a method for the clinic to answer questions that might arise during the orientation effort.

### METHODS

The medical practice clinics at the VA Medical Center in San Francisco are primary care continuity clinics in which patients are assigned to one primary care provider. At the time of the study, 32 attending physicians, 32 internal medicine resident physicians, and 6 nurse practitioners provided primary care for approximately 8,000 patients in these clinics. Patients must be referred from another clinic to medical practice. They are mailed a letter listing the time of their appointment and are subsequently reminded of their appointment by an automated telephone system.

Before May 1998, patients referred to the medical practice clinics were scheduled directly for an appointment with a primary care provider. Beginning that month, all new patients were initially scheduled into a nurse-run orientation clinic, which met twice each week. Patients were mailed a letter that explained the purpose of orientation clinic and informed them that they would not be seeing their primary care provider during that visit. They were also informed that attendance at orientation clinic was required before seeing a primary care provider. At the time of the study, appointments with primary providers were generally scheduled 2 to 4 weeks after orientation clinic visits. Patients with referrals deemed urgent by the referring provider were overbooked into the next orientation clinic session and were simultaneously scheduled to see the next available primary care provider. Patients who were normally charged a fee for receiving medical services at the medical center were charged a fee for attending orientation clinic.

Approximately 10 patients were scheduled for each orientation clinic session. A registered nurse provided information about clinic procedures in a group setting and subsequently spent time with each patient individually to collect patient information, which was entered into the patient's medical record (see Table 1 for specific screening procedures). At the end of orientation clinic, patients were

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Received from the General Internal Medicine Section, San Francisco Veterans Affairs Medical Center, Department of Medicine, University of California, San Francisco, San Francisco, Calif (SJ, CLC).

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Address correspondence and reprint requests to Dr. Jain: San Francisco Veterans Affairs Medical Center, Medical Service (111), 4150 Clement St., San Francisco, CA 94121.

**Table 1. Orientation Clinic Agenda**

1. (30 minutes) Nurse-led group discussion.
  - a. Description of primary care services offered through medical practice clinics, including nutrition and social work services available.
  - b. How to access telephone advice program.
  - c. How to schedule an appointment in urgent care clinic.
  - d. How to obtain medication refills.
2. (5 minutes) Question and answer session.
3. (20 minutes) Individual patient attention.
  - a. Measurement of vital signs.
  - b. Screening for alcohol abuse, cigarette smoking, and nutritional risk.
  - c. Administration of immunizations (i.e., pneumococcal, diphtheria-tetanus, influenza vaccines) if appropriate.
  - d. Lab slip for cholesterol measurement.
  - e. Schedule initial visit with primary care provider.
4. (5 minutes) Completion of evaluation survey.

scheduled for a visit with a new provider, and an evaluation survey was distributed. This questionnaire consisted of questions about their level of satisfaction with orientation clinic, knowledge about how to contact the clinic for urgent medical problems or medication refills, and receipt of information about preventive services available through the clinic; answers were recorded on a 1-to-5 Likert scale. Due to administrative inconsistency, not all participants in orientation clinic sessions received evaluation questionnaires.

Clinic clerks logged attendance at the time of arrival to clinic. Patients who did not attend were classified as no-shows. Rates of attendance for the 4 months before and the 5 months after the institution of orientation clinic were determined. Appointments that had been canceled before the clinic visit, and that therefore did not affect clinic efficiency, were excluded.

Continuous variables were compared using Student *t* test, and categorical variables were compared with  $\chi^2$  tests. Tests were done using STATA statistical software, version 6.0 (STATA Corp., College Station, Tex).

## RESULTS

There were 367 patients referred for primary care before the intervention and 508 referred after the institution of orientation clinic. The mean ages of the patients in the preintervention group and in the orientation clinic group

were not significantly different ( $57 \pm 1.4$  vs  $57 \pm 1.2$  years;  $P = .9$ ). The vast majority of patients were men (99.5% in the preintervention group, 99.8% in the postintervention group;  $P = .6$ ).

In the 4 months preceding institution of orientation clinic, 45% of patients referred for primary care failed to attend their initial provider appointment (Table 2). In the 5 months after orientation clinic was established, 41% of the patients who were referred for primary care failed to attend orientation clinic ( $P = .5$ ).

All patients who attended orientation clinic ( $n = 298$ ) were given subsequent appointments with primary providers. Twenty-two patients (7%) canceled this appointment and were excluded from further analysis. Of the 276 remaining orientation clinic attendees, 50 (18%) failed to attend their initial visit with a provider ( $P < .0001$ , compared with the preintervention group; Table 2). The total no-show rate of orientation clinic group (patients who failed to attend orientation clinic added to those who failed to attend a subsequent initial provider appointment) was 51%, comparable to the 45% no-show rate in the preintervention group ( $p = .28$ ).

Patients reported high levels of satisfaction with orientation clinic. Of the 197 distributed questionnaires, 164 (83%) were returned. A majority of surveyed respondents (82%) rated their satisfaction with orientation clinic and their understanding of the clinic's educational goals with at least a 4 on a 5-point rating scale for all four questions.

**Table 2. Comparison of No-show Rates Between Groups**

	Preintervention Group (n = 367)	Orientation Clinic Group (n = 508)	P Value
Patients who attended orientation clinic, N (%)	—	298 (59)	—
Patients who failed to attend first appointment with primary provider, N (%)	165 (45)	50 (18)*	<.0001
Total no-shows, N (%)	165 (45)	260 (51)	.28

\*Excludes 22 patients who attended orientation clinic but cancelled their subsequent new provider appointment.

## DISCUSSION

With the introduction of a group orientation clinic, we significantly reduced the rate of failed new patient appointments to primary care providers, thereby increasing provider efficiency. This rate reduction compares favorably with that achieved in previous studies by overbooking new patients (reduction of no-show rate from 55% to 40%)<sup>6</sup> or the use of an orientation videotape (no-show rate decline from 62% to 27%).<sup>4</sup>

Orientation clinic also afforded an opportunity to discuss information about the operation of our practice as well as to provide some health maintenance screening and counseling. By completing a portion of the recommended health maintenance screening during orientation clinic, we were able to reduce the many tasks that providers face during an initial patient visit. Although some patients anecdotally expressed disappointment at not seeing a provider during orientation clinic, our survey suggests that they found the session to be a worthwhile experience.

It is likely that the 2-step nature of the orientation experience, with patients having to attend orientation clinic before they are scheduled to see a provider, caused the modest decrease in the total no-show rate to primary provider clinics. This process probably selects for patients who are more adherent with clinic attendance. Our results do not address whether the content of the intervention itself had any effect on clinic attendance. The intervention did not improve overall attendance at initial visits with providers, but it did result in more optimal utilization of provider time by reducing the percentage of failed initial appointments to primary care providers. We believe that the increased clinic efficiency and the provision of health maintenance services after implementation of orientation clinic justify the small, nonsignificant decrease in overall attendance to new patient appointments.

Our study has important limitations. It was a nonrandomized study with historical controls at a single hospital-based clinic and may not generalize to other settings. In addition, many patients seen at VA medical centers do not

have access to other sources of health care, and therefore, they may tolerate the additional step of attending orientation clinic better than in a private health care system. Furthermore, although satisfaction was high among questionnaire respondents who attended orientation clinic, we were unable to compare this with levels of satisfaction among patients in the preintervention period, among no-shows to orientation clinic, or among attendees to orientation clinic who did not complete an evaluation survey.

In summary, the introduction of a novel orientation clinic increased efficiency in our primary care clinics by significantly decreasing no-show rates for initial appointments with new providers. It also enabled clinic staff to complete various parts of the recommended health care screening before the initial appointment with a new provider. The effectiveness of this intervention at other sites remains to be determined. Further studies to develop and test interventions that improve overall attendance at initial clinic visits are needed.

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