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### **INNOVATIONS: SCHEDULING FOLLOW-UP APPOINTMENTS THROUGH THE ED**

They say you can lead a horse to water but you can't make it drink. But does that adage hold true in the arena of post-emergency department (ED) follow-up care? If an ED was to make sure patients without medical homes who needed post-discharge treatment left the hospital with an appointment in hand, would patients show up as scheduled?

That is what Theodore Chan, MD, professor of clinical medicine and medical director of the emergency department at the University of California, San Diego, set out with his colleagues to determine. What he found was encouraging: yes, they will — at least significantly more often than if they leave without an appointment.

In 2007, Chan and his team conducted a trial in the ED of UCSD Medical Center, an urban safety net hospital with an annual census of 39,000 patients, using an Internet-based, electronic referral system called IMPACT-ED (Improving Medical Home and Primary Care Access to Community Clinics through the ED.) A Robert Wood Johnson Foundation funded safety net assessment of San Diego spurred the system's development, Chan said.

"The assessment noted a significant number of ED visits were for primary care-treatable or preventable conditions, these visits were occurring during daytime hours, and capacity existed in San Diego's community clinic network," he said. "One recommendation from the assessment was to create electronic linkages between EDs and the community clinics to refer patients for care."

#### **Ensuring Follow-Up Care**

Prior to IMPACT-ED, patients without medical homes requiring follow-up treatment were given community clinic contact information and counseled to call on their own to make an appointment. IMPACT-ED identifies patients with no source of regular primary care and living in low-income areas spanning 15 ZIP codes. Once identified, the system alerts emergency physicians through the electronic medical record (EMR) to access available follow-up appointment slots at three clinics that have opened their scheduling systems to the ED. The schedules are open 24 hours a day, seven days a week, so the scheduling of appointments by ED staff does not require contact with the clinics. Patients are given an appointment time and place and provided with a map and bus route as part of their ED discharge instructions.

To test the efficacy of IMPACT-ED, Chan and his colleagues compared patient adherence to follow-up appointments before and after the system's implementation. In the six months prior to IMPACT-ED 2,753 discharged ED patients in the 15-ZIP-code area indicated they had no primary care provider, and 399 of these were given a standard referral to a community clinic and told to follow up there within two weeks. In the six months following implementation, there were 2,466 discharged ED patients from the same area, of whom 326 were asked to visit a clinic within two weeks and provided a follow-up appointment place and time. The results were significant: prior to IMPACT-ED, only four of the 399 patients (1%) followed up with appointments at the clinic within two weeks, while 81 of the 326 patients (24.8%) given appointments post IMPACT-ED kept them.

Chan says the success of the system is due partly to the fact that it's "designed to reduce the work obstacles for all in the process. When the clinician is alerted to the fact that a patient has

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no primary care physician and lives in the select area served by the clinics, he or she simply has to press a button on the EMR to see the list of available appointments in the clinic the next week and select one of those times." An appointment certificate prints out with the patient's discharge instructions, and the patient is told when and where to go, and how to get there. The clinic then receives an e-mail notification of the appointment and the patient's contact information. IMPACT-ED has been received positively by ED staff and patients, says Chan. Roughly one-third are covered by Medi-Cal, one-third are county indigent funded, and one-third are uninsured.

The program will continue, says Chan, noting that the ED received a \$750,000 grant to expand to other clinics and begin communicating critical patient information (about such things as medications, allergies and conditions) electronically between systems.

Clinics have been responsive, with several more agreeing to participate in the referral system since the inception of IMPACT-ED. Chan said an initial challenge had been to get clinics to open their scheduling system for the ED and concerns "about adverse economic impacts from the program" resulting from lost income if patients from the program failed to keep their appointments. However, Chan notes because the program utilizes walk-in clinic time slots for most clinics, the ED appointment slots (as opposed to standard clinic-scheduled ones), are released to walk-in availability within 24 hours if not filled by ED patients, the clinics have reported a minimal negative effect.

Creating new systems according to Chan, EDs wishing to implement a referral system comparable to IMPACT-ED should make sure they do not trade one problem for another.

"When instituting information systems to solve problems, you want to make sure you fully analyze workflow and address any potential obstacles," he said. "IT systems often create unintended consequences and increased work for staff. For our project, we focused very carefully on automating processes and ensuring the steps for referring and making appointments were as easy as possible for all staff, from clinicians to those in clerical roles, as well as patients"

*Theodore Chan, MD, Professor of Clinical Medicine and Medical Director of the, California, San Diego, Emergency Department*