

Drive-through emergency service effective response to pandemic, study shows

January 14 2010, BY DIANE ROGERS



A doctor takes vital signs from a pretend patient during the September 2009 test of a novel triage system for handling a pandemic.

(PhysOrg.com) -- Your car can be an effective examination room -- one that prevents the spread of infectious diseases from patient to patient, and from patient to caregiver, a new study shows.

Your car can be an effective examination room—one that prevents the spread of [infectious diseases](#) from patient to patient, and from patient to caregiver.

That's the conclusion of a study that [physicians](#) at Stanford Hospital & Clinics conducted last fall to test a model drive-through emergency department. The research was prompted by the expectation of a spike in visits to emergency rooms in the event of a serious flu pandemic. The

results are published Jan. 13 in the online *Annals of Emergency Medicine*.

“The most important message is that a drive-through medical clinic is not only a feasible model, but may be a preferred type of alternative care center,” said Eric A. Weiss, MD, first author of the study and associate professor of emergency medicine at the Stanford University School of Medicine. “It can expedite and facilitate seeing large numbers of patients while mitigating the spread of infectious diseases by providing a social distancing mechanism.

“And it not only can be used during a pandemic, but also would be an excellent strategy for bioterrorism, or for other emerging infectious disease events,” said Weiss, who is also medical director for disaster planning at Stanford Hospital & Clinics.

Weiss and three of his colleagues at the hospital conducted a full-scale exercise last September, which showed that moderately ill patients could be evaluated and treated in a drive-through influenza clinic in an average of 26 minutes. The study also demonstrated that the drive-through diagnoses and treatment decisions matched what had occurred with the real-life patients when they visited the Stanford emergency room.

The other authors of the study were Jessica Ngo, MD, clinical instructor; Gregory Gilbert, MD, clinical assistant professor of emergency medicine; and James Quinn, MD, associate professor of emergency medicine.

Weiss and his colleagues first began to discuss the drive-through model in 2004, when they were re-doing the hospital’s pandemic preparedness plan. At that time, the H5N1 influenza strain—avian flu—was the challenge of the day. And public experts had just dealt with an outbreak of Severe Acute Respiratory Syndrome, or SARS.

“We knew from SARS that crowded emergency department waiting rooms were a major accelerator of SARS in Toronto,” Weiss said. “We were talking about how we were going to expand our waiting room, and we came up with the idea, ‘Why don’t we just not have patients in the waiting room? Why don’t we have physicians see them while they wait in their cars?’”

In the three-hour exercise in September, Red Cross volunteers portrayed 38 children and adults who had influenza-like illnesses. (These participants were given profiles based on a week’s worth of cases that had been seen recently at the hospital.) As the mock patients pulled into a parking garage near the hospital, they were screened by a nurse. Those who were relatively stable were directed into a lane for the drive-through clinic. Severely ill patients were waived on to the emergency department.

At two triage stations in the garage, nurses measured vital signs, and at a third stop patients were asked to step outside their cars for a complete physical exam. “We had cots and chairs in heated, draped-off areas,” Weiss noted.

At a discharge station, mock medications and prescriptions were dispensed. Crash carts also stood nearby, and golf carts equipped with stretchers and resuscitation equipment circled the parking facility.

During the test, the staff decided that six of the participants would be admitted to the hospital, and the remaining 32 were sent home, with instructions tailored to each case. These results matched how the 38 real-life cases were resolved when they visited the emergency room in person.

What’s more, instead of taking 90 minutes to examine patients, as typically happens, physicians completed their evaluations in an average of 26 minutes. Automobiles, it turned out, made excellent moving

examination rooms, as well as self-contained isolation compartments. “Plus you don’t have the delays inherent in having to turn over a fixed number of rooms, waiting for [patients](#) to be discharged, having to change linens,” Weiss said.

Provided by Stanford University Medical Center

Citation: Drive-through emergency service effective response to pandemic, study shows (2010, January 14) retrieved 9 April 2024 from <https://medicalxpress.com/news/2010-01-drive-through-emergency-effective-response-pandemic.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--