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Drive-Through Medicine: A Novel Proposal for Rapid Evaluation of Patients During an Influenza Pandemic

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Study objective

During a pandemic, emergency departments (EDs) may be overwhelmed by an increase in patient visits and will foster an environment in which cross-infection can occur. We developed and tested a novel drive-through model to rapidly evaluate patients while they remain in or adjacent to their vehicles. The patient's automobile would provide a social distancing strategy to mitigate the person-to-person spread of infectious diseases.

Methods

We conducted a full-scale exercise to test the feasibility of a drive-through influenza clinic and measure throughput times of simulated patients and carbon monoxide levels of staff. We also assessed the disposition decisions of the physicians who participated in the exercise. Charts of 38 patients with influenza-like illness who were treated in the Stanford Hospital ED during the initial H1N1 outbreak in April 2009 were used to create 38 patient scenarios for the drive-through influenza clinic.


Results

The total median length of stay was 26 minutes. During the exercise, physicians were able to identify those patients who were admitted and discharged during the real ED visit with 100% accuracy (95% confidence interval 91% to 100%). There were no significant increases of carboxyhemoglobin in participants tested.

Conclusion

The drive-through model is a feasible alternative to a traditional walk-in ED or clinic and is associated with rapid throughput times. It provides a social distancing strategy, using the patient's vehicle as an isolation compartment to mitigate person-to-person spread of infectious diseases.

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