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Letter to the Editor

COVID-19 drive through testing: An effective strategy for conserving personal protective equipment

The coronavirus disease 2019 (COVID-19) pandemic has created a surge of patients presenting to emergency departments (ED).¹ This heightened patient volume has increased strain on finite resources including providers and personal protective equipment (PPE) needed to help keep providers safe.² There have been several recommendations proposed for PPE conservation such as reducing nonessential services and minimizing patient contact.³ We demonstrate the use of drive through COVID-19 testing as an effective strategy to minimize patient contact and conserve PPE.

A drive through unit for COVID-19 testing was established on the Mayo Clinic Florida campus for established patients. The drive through operates 6 hours per day, 7 days a week, and consists of 3 stations. At station 1, patients display their patient identification and mobile phone number on their vehicle dashboard. They are given a handout regarding expectations for result notification as well as the Center for Disease Control COVID-19 prevention and symptom monitoring recommendations.⁴ At station 2, dashboard information is used to confirm the patient meets COVID-19 testing criteria through a triage phone line.⁵ Patients who meet criteria proceed to station 3 for nasal swab collection at 1 of 3 pods. Each pod has 2 staff members with full PPE for collection and processing per patient being tested. Each of the 6 staff members requiring full PPE use 1 face shield, 2 masks and 4 gowns per day. Gloves are changed between each patient. An additional 15 staff members direct traffic between stations, with each using 2 masks and 4 glove changes per day.

During the first full 7 days of operation, our COVID-19 drive through tested a total of 1,153 patients, averaging 192 patients per day. To test 192 patients in the ED, we estimate at least 5 sets of PPE would be consumed per patient. This includes PPE for medical personnel rooming the patient, assigned registered nurse, ED provider, registration, and cleaning staff. This is in addition to 1 mask for the patient. In the ED, we estimate a minimum of 1,152 masks, 960 gowns and pairs of gloves would be consumed to test 192 patients,

whereas drive through COVID-19 testing required a daily total of 42 masks, 24 gowns, and an average of 504 pairs of gloves, for a 96%, 97%, and 47% reduction, respectively. Thus, drive through testing can be an effective strategy to conserve PPE for not only this COVID-19 pandemic but also for future epi- and pandemics.

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Conflicts of interest: None.

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