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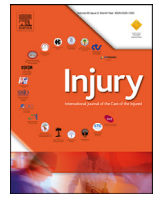
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## Letter to the Editor

**COVID 19: Should we consider universal screening in trauma patients?**

The current novel Coronavirus disease (COVID-19) pandemic has overwhelmed healthcare systems worldwide with its exponential spread. Asymptomatic individuals infected with the virus pose the greatest threat, in terms of disease spread. Universal testing to identify such asymptomatic individuals has been the subject of frequent debates. Whereas universal testing could help decrease rates of community transmission; availability of test kits, infrastructure and manpower remain the major challenge, especially in countries with large populations. Therefore, universal testing of select patient groups [1] and healthcare workers [2] has been advocated. However, there is no consensus whether universal screening should be considered for patients presenting to health-care facilities.

Trauma services are amongst the busiest in any healthcare setup. In the absence of universal screening, an asymptomatic COVID-19 patient has the potential to adversely affect the entire service. To highlight this problem, we present an imaginary case scenario. Mr X, who happens to be an asymptomatic COVID-19 patient, meets with an accident and sustains head injury, blunt trauma abdomen and femur fracture. He is attended to and shifted to the trauma centre by paramedics. He is seen by the trauma team, that includes nurses, emergency physicians, general surgeons, neurosurgeons, orthopaedic surgeons, radiologists and other support staff. The patient is then shifted to the operating room (OR) for emergent laparotomy and external fixation of the femoral fracture. He is managed by anaesthetists, surgeons and OR nurses and support staff. He is subsequently shifted to the recovery and thereafter the trauma ward. A quick calculation in the authors' own setup shows that this single patient would come in contact with approximately 30–40 healthcare workers in a single day. If those HCWs were to be quarantined for 14 days as per current recommendations, this would result in a loss of 420–560 man-days for every single asymptomatic COVID-19 patient that is not tested. The authors' trauma department sees nearly 300–350 patients a month. Sutton et al. [1] performed universal screening for SARS-CoV-2 in women admitted for delivery, and found that the test was positive in 13.7% asymptomatic women. Assuming similar figures in our patients with trauma, 41 - 47 patients each month would be asymptomatic, but infected with SARS-CoV-2. This would amount to a net manpower loss of 17,220 - 26,320 (420–560 × 41) HCW- days each month. On the other hand, the same losses could be potentially reduced, if all trauma patients were routinely screened. One of the issues with the nasal swab

RT-PCR test is the variable negative predictive value (NPV) of this test. However, even if one were to assume a hypothetical NPV of 60%, routine screening would decrease manpower loss to 10,332 - 15,792 (60% of 17,220 - 26,320) HCW-days per month. It must be remembered that this scenario merely takes into account the loss of manpower owing to quarantine, and does not take into account the issue of HCWs contracting the illness.

Additionally, there are some problems unique to trauma patients, that merit universal screening. Many patients may be mentally obtunded, and therefore eliciting history of COVID-19 like symptoms may not be feasible. Fever could be associated with a variety of post-traumatic conditions, ranging from infection, head injury or systemic inflammatory response syndrome. Finally, a number of aerosol generating procedures are routinely done in the trauma patient.

Hence, the authors believe that routine screening should be a must for all trauma patients. The pandemic is far from over, and policy makers need to focus on protecting HCWs. Therefore, we believe that universal testing for trauma patients should be incorporated into existing COVID-19 guidelines.

**Declaration of Competing Interest**

None.

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None.

**References**

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- [2] Black JRM, Bailey C, Swanton C. COVID-19: the case for health-care worker screening to prevent hospital transmission. *Lancet* 2020. [https://doi.org/10.1016/S0140-6736\(20\)30917-X](https://doi.org/10.1016/S0140-6736(20)30917-X).

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