

Massive transfusion protocols during the COVID-19 pandemic

Recently, Yang and colleagues [1] described the impact of the COVID-19 pandemic on massive transfusion protocol (MTP) activations at a trauma centre. The authors experienced no change in the number of MTPs activated during the pandemic. Likewise, our previous study [2] found that 60% of surveyed institutions ($n = 50$) across the United States had no change in activations, while 24% experienced an increase in monthly MTP activations compared to the same period before the pandemic. Persistent activation of the MTP at pre-pandemic levels, and an increase at some hospitals, may not only reflect differences in region- and nation-specific virus control measures but also demonstrates the impact of societal pressures on hospital workflow and the character of traumas.

The authors discovered there was an increased amount of time from MTP initiation until the first unit was transfused. Their hypothesis was that the use of enhanced personal protective equipment required more time. Despite this increased time, no significant change in the amount of blood product wastage was observed. In contrast, our study found that 27% of institutions experienced increased wastage, with multiple institutions attributing this to staffing shortages leading to poor product handling [2]. To that end, if indeed there were challenges in maintaining adequate staff in Taiwan, these issues may have contributed to the increased time from MTP activation to transfusion as well; this underscores the importance of an adequately trained trauma care staff.

Additionally, the authors report that most traumas that required an MTP activation were due to motor vehicle trauma [1]. We analysed the number of road traffic accidents, injuries and fatalities in Taiwan [3] based on the authors' study time-period. Despite an average of almost 25% fewer traffic accidents (31,341 vs. 23,560), approximately 25% fewer traffic injuries (41,972 vs. 30,990), and 8% fewer fatalities (159 vs. 146) during the pandemic compared to earlier times, the reported number of MTP activations did not change. This may be related to increased high-speed open road accidents, as seen among some international drivers during the pandemic [4], as opposed to more minor 'fender-bender' type incidents, given the reduced road traffic during quarantines. Moreover, recent literature has also described an increase in drug and alcohol use as well as a reduction in law enforcement staff internationally, contributing to an increase in both severe accidents [5] and violent crime, as seen in the United States. While specific details of traffic accidents are not captured in the Taiwanese database, the impact of the pandemic on daily life cannot be ignored. Understanding developing blood supply and staffing issues, as well as the nature of trauma during a pandemic,

should inform services about the importance of adequate preparedness for continued MTP activations.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

Jeremy W. Jacobs¹ 

Brian D. Adkins² 

Garrett S. Booth³ 

¹Department of Laboratory Medicine, Yale School of Medicine, New Haven, Connecticut, USA

²Department of Pathology, Division of Transfusion Medicine and Hemostasis, The University of Texas Southwestern Medical Center, Dallas, Texas, USA

³Department of Pathology, Microbiology & Immunology, Vanderbilt University Medical Center, Nashville, Tennessee, USA

Correspondence

Jeremy W. Jacobs, 330 Cedar Street, New Haven, CT 06520, USA.

Email: jeremy.jacobs@yale.edu

ORCID

Jeremy W. Jacobs  <https://orcid.org/0000-0002-5719-9685>

Brian D. Adkins  <https://orcid.org/0000-0002-9480-2762>

Garrett S. Booth  <https://orcid.org/0000-0002-8422-9480>

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