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EDITORIAL

Unforeseen consequences of the COVID pandemic

The coronavirus disease 2019 (COVID-19) pandemic has challenged healthcare systems around the world to provide safe and effective care. Best outcomes require the interplay of “staff, space, stuff, and systems” to fight the spread of infectious disease as described by Paul Farmer.¹ This involves multidisciplinary care of critically ill patients, prioritization of admissions to ensure sufficient beds for the sickest, and establishment of reliable supply lines for ventilators and personal protective equipment (PPE), while research accelerates to develop effective vaccinations and treatments in parallel. Healthcare teams must gather and synthesize information, make complex decisions, and finally, implement care plans for the individual patient. Healthcare leaders must do the same to implement plans for the system at large. A failure of any of these critical drivers will derail efforts to achieve optimal outcomes.

But even in the absence of a global pandemic, solid organ transplantation has always required the coordination of “staff, space, stuff, and systems.” From the inception of the field, the gap between supply and demand of deceased donor organs has necessitated prioritization and rationing of critical resources at the level of the clinician, center, and national system as a whole. Consequently, national allocation and prioritization are highly regulated to achieve equity and public trust in the process. In other words, if there was one medical discipline that was designed to adapt—and adapt rapidly—to a global crisis such as COVID-19, it is the field of solid organ transplantation.

In the current issue of the *American Journal of Transplantation*, Ahmed et al² used an anonymous web-based survey tool to examine organ donation and transplantation metrics in the midst of the COVID-19 pandemic. They compared 2 time periods, March to May 2020 and March to May 2019, across 19 organ procurement organizations in the United States and had a survey response rate of nearly 90%. Organ authorization decreased by 11% during the pandemic and organ recovery for transplantation fell by 17% and number of organs transplanted decreased by 18%. By May 2020, 15 of the 19 organ procurement organizations (OPOs) had employed virtual and/or telephonic approaches for donor family authorization.

Ahmed and colleagues acknowledge that their analyses were preliminary and that the situation continues to evolve. The time period assessed predated the peak of the surge especially in the regions queried. Given the regional and even local variability to the pandemic, extrapolation of the survey responses to the current situation is not guaranteed. Even within a specific region, the availability of staff and resources differed from one center to another. The survey data excluded the Northeast and the Northwest, both regions

that had stringent limitations of resources, space, and personnel during the time period of the study. New York City was at the epicenter of the pandemic and even within the New York City Tristate area, there was significant variation among transplant centers.

Despite these limitations, this study helps to quantify the potential impact of the COVID-19 pandemic on one critical aspect of the solid organ transplant process: organ donation. It is not surprising that organ authorization decreased, given the challenges associated with the lack of face-to-face meetings and the difficulty of communicating empathy through face masks and 6 feet of distance or smartphone screens. But what is remarkable is that it did not decrease that much. Despite the particularly immense grief of losing a family member in the hospital (and most likely not being able to be at their bedside during their death), organ authorization decreased by only 11%. Despite the enormous shift in the types and acuity of patients hospitalized, organ recovery and successful transplantation decreased by <20%. These surprisingly low reductions during the initial COVID-19 surge speak to the inherent adaptability of organ transplant systems, as well as the commitment of organ transplant teams and local systems to vulnerable patients awaiting transplantation. Whether reductions would remain low in the midst of a surge remains unanswered because the OPO queried during the study time periods did not have high prevalence rates.

That being said, it is clear that the transplant community has not been spared from the challenges associated with COVID-19. Before the pandemic, the availability of staff and resources were not often constraints in the decision-making processes. Transplant centers made decisions to accept or refuse an organ based on the survival benefit and the perceived organ quality. Although the core issues of accept or reject remain the same, the pandemic has added another layer to the decision-making process for transplant clinicians and centers. They must now also consider the risk that the donor organ may transmit COVID to the recipient and staff, and assess if staff, intensive care beds, and operating room facilities are sufficient, and if the local situation with respect of COVID is waxing or waning. The variation in transplant volume at centers within the same geographic areas speaks to the very local nature of the decision-making process.

But in the end, even with all of this complexity, the capacity of the system to perform lifesaving transplants depends on the gift of organs from donors and their families. This article underscores some of the challenges of organ donation during the pandemic and raises questions that need to be addressed to ensure the integrity of the organ donation process. The transplant community has



demonstrated the willingness and capacity to adapt based on critical analyses of data to what serves our patients and families. We are confident that that this challenge will be met.

KEYWORDS

editorial/personal viewpoint, organ procurement and allocation, organ transplantation in general, donors and donation: deceased, organ procurement organization, organ acceptance

DISCLOSURE

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