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LETTER TO THE EDITOR

COVID-19 test result reporting for deceased donors: Emergent policies, logistical challenges, and future directions

Abstract

The coronavirus disease 2019 (COVID-19) pandemic poses unprecedented challenges to the transplant community, including organ procurement organizations (OPOs), transplant centers, regulatory agencies, and recipient candidates. Access to timely, accurate information on the status of deceased donor viral infection is essential in determining organ acceptance. The Organ Procurement and Transplantation Network expeditiously added fields to collect these data; however, use of the data collection fields was not uniform nationally. Standardized, field-defined data capture and reporting are vital to ensure optimal organ utilization during this pandemic, and to prepare the community for subsequent challenges.

The coronavirus disease 2019 (COVID-19) pandemic poses unprecedented challenges to the transplant community, including organ procurement organizations (OPOs), transplant centers, regulatory agencies, and recipient candidates. The profound decline in transplant activity at the start of the pandemic was driven by the fear of disease transmission, limited access to testing for SARS-CoV-2, constraints on healthcare facilities resources, and the lack of a standardized, consistent method to document and communicate deceased donor testing results.[1] Safe reopening of transplantation required access to accurate and timely information on clinical status. In response, the Organ Procurement and Transplantation Network (OPTN)/United Network for Organ Sharing (UNOS) expeditiously enacted emergency policies (4/2/2020) that included addition of a new field to capture COVID-19 testing in the electronic organ offer system (DonorNet®).[2] These fields allow accepting clinicians to rapidly confirm that donors have been tested and are currently negative. Initially, the use of this data field was optional, with some OPOs choosing to attach PDF documents of testing results or communicate with text entries in "Donor Highlights." Our review of national data shows the OPO community progressively increased field-defined documentation of COVID-19 testing (Figure 1A). While OPTN review including natural language processing of free-text information and uploaded attachments confirms that all OPOs are now testing for COVID-19, the use of the data collection fields was not uniform nationally. At its December 2020 meeting, the OPTN Board adopted a policy for mandatory reporting of donor testing.[3]

As the pandemic continues to surge, the number of potential donors being identified with prior or current COVID-19 infection is rapidly rising. Because DonorNet® only captures information after a decedent is deemed appropriate for donation, the proportion of donor referrals that are closed due to active infection is unknown. Anecdotally, it has been estimated that ≥50% of ventilated in-hospital deaths are being ruled out for donation based on COVID-19. In addition, as nearly 7% of the US population has been exposed to COVID-19, a growing number of patients dying from non-COVID-19 causes but with evidence of current or past infection is anticipated.[4] To date, the transplant community has favored caution with regard to organ acceptance from deceased donors with prior COVID-19 infection, but safe acceptance of organs from recovered individuals has been documented. A recent case series of six previously infected deceased donors reported successful transplant of 13 organs with no transmission of SARS-CoV-2 to recipients, procurement teams, or hospital personnel.[5] Transplantation from living donors with recovered COVID-19 has been also reported.[6]

We applaud the OPTN's responsiveness to the pandemic with rapid implementation of tools to collect and disseminate infection status, and the decision to mandate the use of field-defined information in DonorNet®. While the new programming required resources, it overcame important limitations of communication through free text or attachments (Figure 1B). We advocate not only for continued data reporting on potential donors, but also improved collection and monitoring of decedent referrals excluded from donation on the basis of COVID-19. These data are vital to assess the ongoing impact of the pandemic on donor potential. Future decisions regarding organ utilization from donors with prior COVID-19 infection will need to balance donor organ scarcity, exposure prevalence, time from infection (if known), and the latest science on transmission risk, patient education, and transparency. Accurate data reporting and communication are essential in these considerations. As illustrated by the addition and policy related to the COVID-19 testing field, we believe that standardized, field-defined data capture and reporting are vital to ensure optimal organ utilization during this pandemic and to prepare the community for subsequent challenges.

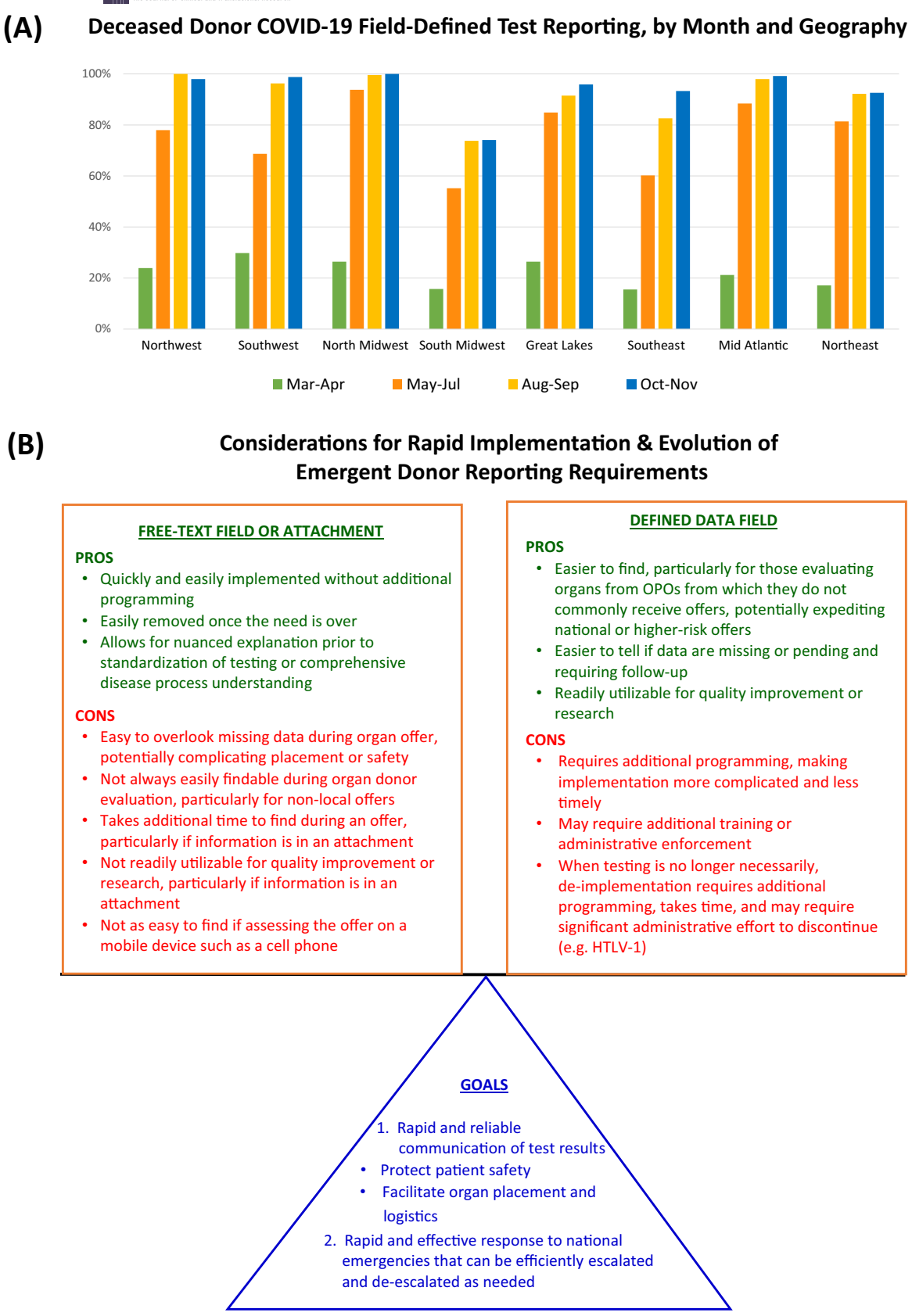

FIGURE 1 A, Field-defined US deceased donor COVID-19 test reporting, by month and geography. Geographic areas are based on current UNOS COVID-19 reporting, defined as[7]: Northwest (WA, OR, ID, MT, AK, HI), Southwest (CA, NV, UT, AZ, NM), North Midwest (ND, MN, SD, WY, NE, IA, CO, KS, MO), South Midwest (OK, TX), Great Lakes (WI, IL, IN, MI, OH), Southeast (KY, AR, TN, NC, MS, AL, GA, SC, LA, FL, PR), Mid-Atlantic (WV, VA, PA, DC, MD, DE), and Northeast (NJ, NY, CT, RI, MA, VT, NH, ME). B, The balance of considerations during rapid implementation and evolution of emergent donor reporting requirements

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CONFLICT OF INTEREST

The authors have no relevant conflicts of interest or other relevant financial disclosures. All authors approve and agree to be accountable for ensuring the accuracy and integrity of the final manuscript.

AUTHOR CONTRIBUTIONS

KLL, NS, and DA were responsible for drafting the manuscript. KLL, RL, and MAS were responsible for data collection and analysis. All authors were responsible for data interpretation and critical revision of the manuscript

IRB/ETHICS STATEMENT

The publicly available data analyzed in this letter are IRB exempt.

DATA AVAILAIBLITY STATEMENT

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