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PSTS Statement on the Practice of Solid Organ Transplantation and Transplant-Related Services during the COVID-19 Pandemic

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Introduction

The COVID-19 pandemic has affected the whole world without any exception. This global health crisis has spread rapidly like wildfire, and the disease burden and deaths increase exponentially, affecting heavily the delivery of services on all levels of health care especially those requiring intensive care.

This unexpected issue impacts heavily on the practice of solid organ transplantation in developing countries such as the Philippines. The capability of our existing hospitals to attend to COVID-infected patients is constantly being challenged by the dwindling availability of resources and is further complicated by the indispensable need to protect our frontliners (doctors, nurses and allied health care professionals) from developing the disease because many of them also participate in the care of transplant recipients.

The clinical follow-up of these post-transplant recipients is further compromised because "face-to-face" consults are disallowed. Social distancing, travel restrictions and intensified testing have been initiated; however, it remains unclear when normalcy will return. Undoubtedly, this global crisis has created so much havoc, that leads to so much uncertainty and adaptability to emerging knowledge is paramount.

Salient Features of Transplantation

1. Organ transplantation remains to be a vital and life-saving procedure, highly specialized in treating a narrow spectrum of severe debilitating life-threatening illness, resulting from end-organ disease.

2. The consideration of the availability of hospital facilities, manpower and transplant center resources must be balanced between the current health crisis situation and against the need for transplantation. In the light of a possible conflict, the COVID crisis takes a priority while transplantation takes a back seat.

3. It is fitting that all transplant practitioners (both transplant surgeons and medical specialists) and all the allied health care professionals, maintain optimum health in order to continue to care for the transplant recipients, who are most vulnerable to serious life-threatening infection given their immuno compromised state. Most transplant nurses are also reassigned to attend to COVID patients because they are skilled enough to handle ICU COVID cases.

Recommendations

1. While we believe that the patients in the waiting list need transplantation to solve their primary disease, post-transplant patients also carry high risk of severe infections with possible fatal outcomes because of their immunocompromised state. Therefore, we recommend that all living and deceased organ transplant surgical procedures be suspended indefinitely.

2. With the low specificity and sensitivity of the testing kits for COVID infection (high false-negative rates)

and the prolonged turn-around time, it is difficult to screen potential deceased organ donors of this infection which may be transmitted to the transplant recipient. Furthermore, the organ retrieval team will be at risk of contracting the disease. We, therefore recommend all deceased organ donation retrieval procedures be suspended.

3. Pre-transplant evaluation entails several procedures requiring both in- and out-patient visits. For this purpose, we recommend their suspension in stable patients because these cannot be completed effectively at this time and they will not only risk exposure of the transplant candidates to infection but also compete with the already scarce health care that is directed to the urgent need of COVID-infected patients.

4. We recommend that we utilize all means to support kidney failure and delay kidney transplantation by maximizing the surgical options for hemodialysis or peritoneal access so that dialysis can be facilitated and continued. There will be no room for pre-emptive kidney transplantation at this time.

5. All efforts must be carried out to control COVID-19 spread and avoid post- transplant infections, and we therefore recommend that transplant recipients should strictly adhere to the principles of the use of medical grade masks, home quarantine and social distancing. Visits to the hospitals should be discouraged unless absolutely necessary and under the advice of their attending transplant physician.

6. In extremely exceptional and emergent cases where reasonably good outcomes can be expected, living donor donation and transplantation may be allowed. These “emergency” transplant procedures can be done only in close coordination with institutional authorities (e.g. Ad Hoc COVID Committee) on a “case-to-case” basis in order to optimize hospital resources and staff. Examples of such cases requiring urgent transplant include the following:
   a. Kidney transplant recipients lacking/running out of dialysis access
   b. Liver transplant recipients with high MELD scores, acute decompensation, in acute liver failure or acute-on-chronic liver failure with no option for bridge therapies and those with progression of malignancy, if present.

7. Serious clinical situations can threaten both the allograft longevity and lives of post-transplant recipients. For these reasons, these emergency procedures inevitably need to be performed to avoid worse outcomes:
   a. Sepsis resulting from failed allograft kidneys warrants emergent allograft nephrectomy.
   b. Bleeding resulting from renal allografts warrants emergent allograft nephrectomy.
   c. Allograft ureteral obstruction warrants emergent percutaneous nephrostomy or antegrade ureteral stent insertion. Ureteral reconstruction should be delayed for another time.
   d. Allograft renal artery stenosis which threatens the allograft function and causes uncontrollable hypertension in spite of multi-drug therapy, warrants either a percutaneous or open surgical revascularization procedure.
   e. Acute allograft rejection warrants renal allograft biopsy if it is not responsive to empirical therapy.
   f. Prolonged indwelling ureteral stents need to be removed expediently in order to avoid encrustations

8. We recommend strict adherence to the screening of patients for COVID infection prior to surgery. Candidates who test positive for COVID-19 cannot undergo transplantation until they become negative. Likewise, the transplant of candidates with recent travel to endemic areas has to be deferred until after the prescribed quarantine period and negative test results.

9. We recommend use of personal protective equipment (PPEs) and rigorous compliance to OR workflow recommendations and policies of each hospital to mitigate risk of COVID contamination or transmission.

10. Post-transplant consultation and diagnostic work-up such as laboratory and imaging procedures can be

done with appropriately spaced follow-up schedule and interval. We recommend the use of telemedicine and online consultation using the various media platforms available.

11. The advocacy for deceased and living organ donation and transplantation is a persistent concern and should still continue while taking into consideration new data gathered on the biology of the coronavirus and its processes. We recommend consistent promotion which may take the form of webinars or online conferences to update our transplant specialists and patients.

As our understanding of the diagnosis and treatment of the COVID19 infection grows, our recommendations related to transplant surgical issues and procedures will be reviewed and updated accordingly. These guidelines shall be applied in consideration of other existing local and adopted international societal recommendations such as, but not limited to those of General Surgery, Hepatobiliary Surgery and Urology. Their algorithms may be used as needed for the evaluation, treatment and follow-up of transplant recipients, where applicable. Pending the cessation of the lockdown and resumption of hospital services, other policies shall be formulated on the safe conduct of transplantation practices.

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