

How to maintain a vital surgical activity in the event of a serious health crisis? The example of transplant in adults

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The Covid-19 pandemic and the resulting White Plan have deeply affected surgical activity in France. Nearly 90% of surgical procedures deemed non-urgent, as well as major operations requiring a post-operative stay in intensive care units, have been deprogrammed, reducing activity to life-threatening emergency operations or representing the only therapeutic alternative for serious pathologies. Thus, in accordance with the March 19, 2020 Biomedicine Agency recommendations. Liver and heart transplants were maintained while kidney transplants were suspended, which resulted in the loss of a number of kidney grafts.

Between March 15 and April 30, 2020, 131 liver transplants and 47 heart transplants were performed, a decrease of respectively 29% and 15%, compared to the same period of 2019. This decline in activity was heterogeneous and paradoxically did not affect the regions most affected by the epidemic.

In the pandemic context, given the major risk of nosocomial infection by SARS-CoV-2, the transplantation activity was carried out under maximum safety conditions:

- Organization of a dedicated pathway for Covid+ patients, including the operating rooms, hospital beds, intensive care and follow-up beds, with a quota of resuscitation beds reserved for Covid+ patients being checked every day ;
- Accurate assessment of the viral status of donors and recipients (clinical examination, nasopharyngeal swab for RT-PCR and chest CT scan): only recipients with negative results for these three examinations were transplanted;
- Donor selection excluding multi-organ transplants and transplants from beating heart donors (Maastricht 3);
- Selection of recipients including, in addition to the classic compatibility criteria, the exclusion of candidates with high morbidity and poor prognosis to avoid a prolonged stay in post-operative intensive care;
- Patients placement in a single room after resuscitation, visits being prohibited.

Immunosuppressive treatments were conducted according to the usual protocols.

- The results were identical to those of non-pandemic transplants. There were no deaths nor nosocomial infections due to SARS-CoV-2. Thus, it appears that, by observing strict sanitary measures, it is possible to maintain most surgical activities during an epidemic due to an emerging virus.

The National Academies of Medicine and Surgery call for the immediate lifting of the White Plan throughout metropolitan France in order to be able to fully respond to the health and economic emergency represented by the resumption of surgical activity.

With the experience feedback of Covid-19, they propose to adopt in advance a protocol which will allow to react quickly and efficiently in front of a future health crisis:

- A prior consultation, medico-surgical and multidisciplinary, in agreement with the hospital administration and the ARS, to take measures within each hospital or hospital group in order to preserve the continuity of this type of activity, with a distribution of means between public and private sectors.

- An organization of hospital circuits that guarantees the maintenance of a complete secure system, whatever the nature of the health risk.

- A careful selection of patients in the event of an infectious health crisis, in order to avoid any risk of contamination and extension of stays in intensive care units.