



EDITORIAL

Benefits of the tissue donation process in the intensive care units: A mission of all of us[☆]



Beneficios del proceso de donación de tejidos en las unidades de cuidados intensivos: una misión de todos

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Spain has probably achieved its high rates in terms of both the number of donors per million inhabitants and the number of organ and tissue transplants thanks to a gradual and well conceived adaptation process on the part of the National Transplant Organization (*Organización Nacional de Trasplantes*) – known internationally as the “Spanish Transplant Model”. This model has identified the physicians, nurses and healthcare assistant staff working in Intensive Care Units (ICUs) as the ideal professionals for coordinating the donation-transplant process. Although these activities were initially the responsibility of Nephrology, due to its implication in renal transplants, over the years multidisciplinary interactions and the rapid decision making that characterizes critical patient care have given ICU professionals the skills and attitudes needed to carry out these same activities in potential organ and tissue donors.

Implementation of the different donor modalities – both brain death and non-heart-beating donation – as well as intensive care oriented toward donation, have made it

possible to increase the number of patients that can fulfill their wish to act as organ and tissue donors.^{1–3} However, beyond these modalities, there are other less complex donation possibilities that have a great healthcare impact, since they are able to benefit numerous recipients, as is the case of tissue donation.

As is known, in many Units this donation modality can be considered once death has been confirmed based on circulatory criteria in a patient previously subjected to some type of limitation of therapeutic effort, or in the case of failed cardiopulmonary resuscitation. In turn, we can mention a number of peculiarities that may help us expand the pool of potential donors in a simple manner. Firstly, tissue donation by all patients dying in the ICU could be contemplated, provided death is not due to some uncontrolled infectious process and the patient has no kind of transmissible condition (HIV, HCV, HBV, etc.) or advanced malignant disease. It must be underscored that the known general contraindications for organ donation in many cases do not exclude possible tissue donation – particularly when referred only to corneal tissue donation.⁴ Over the last year, practically 90% of all families asked about the possible wish of the patient to act as a donor replied affirmatively. This possibility should be taken into account in the context of end of life care and attention to the family, even if the patient cannot act as an organ donor because of age considerations, background disease or cause of death. Families routinely express the

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opinion that “the more people that can be saved, the better”. Consequently, the wish to help through donation is not circumscribed to patients with terminal organic disease. Secondly, the tissue harvesting logistics are not restricted to limited ischemia times, since we have up to 6 h (or even longer if the body is refrigerated) to obtain the tissues. These facts allow us to organize the operating room to ensure tissue donation synchronized with the rest of the surgical activity of the hospital.

It must be emphasized that the ICU professionals play a key role in detecting these potential donors. Some authors claim that when this possibility is not considered, and the transplant coordinator is not alerted, the reason is a simple “memory problem”, since the possibility of donation has not been integrated in our routine working practices.⁵ The ACCORD study has evidenced that this does not happen when organ donation is considered following brain death in patients admitted to Spanish ICUs.³

In addition to guaranteeing access to possible donor function on the part of our patients, it must be mentioned that the clinical use of tissues obtained from cadavers is cost-effective when compared with other treatment modalities. The use of these tissues therefore allows us to be efficient, since we reduce the indirect costs (harvesting, processing, quality controls and storage in public tissue banks), with no intervening commercial interests. In turn, the quality-adjusted life years are also favorable to human tissues obtained from cadavers compared with any other artificial or non-human biological materials manufactured industrially.^{6–9} In view of all the above, it is understandable that we are witnessing a gradual increase in tissue demand on the part of the different hospital centers.

In our Autonomous Community (Andalusia), and during this first semester, we have evidenced the exponential impact of the results of this donation modality, with a 22.2% increase in the number of donations that have benefitted 85.4% more patients than in the same period of last year. Thus, thousands of patients have received some type of tissue graft, benefitting from tissue donation in these first 6 months of the year.

Obviously, the detection of potential donors and alerting of the transplant coordinator take place both within and outside our Units.¹⁰ In this regard, it is the duty of all of us to remember that the possibility of donation exists, that donation has a notoriously high health impact, and that it is especially dependent upon the professionals of the ICU.

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