

Management of human tissue donation and transplantation in the Republic of Moldova for the past 10 years.

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Introduction: The transplantation of human tissues in recent years has seen a significant increase in the expansion of medical indications as well as an increase in the number of transplanted grafts. The main purpose of the study was to evaluate human tissue donation and transplantation activities in the Republic of Moldova for the past 10 years.

Materials and methods: Prospective study, annual reports of the Human Tissue Bank, and the medical-sanitary institutions authorized for procurement and transplantation activities.

Results: During the study period, 690 actual tissue donors were identified. Cadaveric tissue donors constituted 34.8%/240, of them DBD-22.9%/53, DCD-77.9%/187, and living tissue donors constituted 65.2%/450. In the dynamic there is an increase in actual tissue donors to 11.5 per million population (PMP) in 2022, even though during the pandemic period we had a dramatic decrease in the number of actual tissue donors from 10.8 PMP in 2019 to 3.5 PMP in 2021, the European standard being ≈ 40 deceased donors PMP. The family refusal rate decreased from 40.0% in 2018 to 20.0% in 2021, the European standard being $<10\%$. During the reference period 396 corneas, 180843 cm² of skin, 727 units of musculoskeletal tissues, and 104 units of placenta were procured. The waiting list for corneal transplants is growing steadily. From 2013 to 2022, 487 patients had been included in the waiting list for corneal transplantation. The rate of transplanted patients with 217 corneal grafts compared to patients on the waiting list averaged 44.5%, that is, only 1 cornea available for almost 2 patients in need of a transplant. During the research period, 846 skin grafts, 2851 musculoskeletal tissue grafts and 830 amniotic membrane grafts were transplanted, following the surgeons' requests. **Conclusions:** In the Republic of Moldova, there is an increase in actual tissue donors to 11.5 per million population in 2022. Nevertheless, in order to achieve 100% coverage of corneal transplant services in relation to needs, it would be necessary to increase almost double the number of actual tissue donors. Musculoskeletal tissue and amniotic membrane transplant activity meets the needs of practical medicine.

Keywords: transplantation, human tissue, tissue donors