







Tissue Bank of the State of Mexico and its impact on the National Cornea Transplant Program

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Introduction:

The Tissue Bank of the State of Mexico (BTEM) is a decentralized public organization that was created with the objective of strengthening the transplant system through the procurement, processing and distribution of tissues to state or federal hospitals (1). With the aim of preserving corneas for longer and increasing the chances of success of corneal transplantation, in the 1970s the foundations of Tissue Banks were laid (2) Worldwide, corneal transplantation is one of the most indemand. However, the number of corneal transplants depends directly on the amount of tissue donations (3). The State of Mexico is characterized by being a national leader in donations made; in 2023, 458 donors were registered. The Tissue Bank of the State of Mexico captures, processes and distributes the tissues obtained in the entity's hospital network.





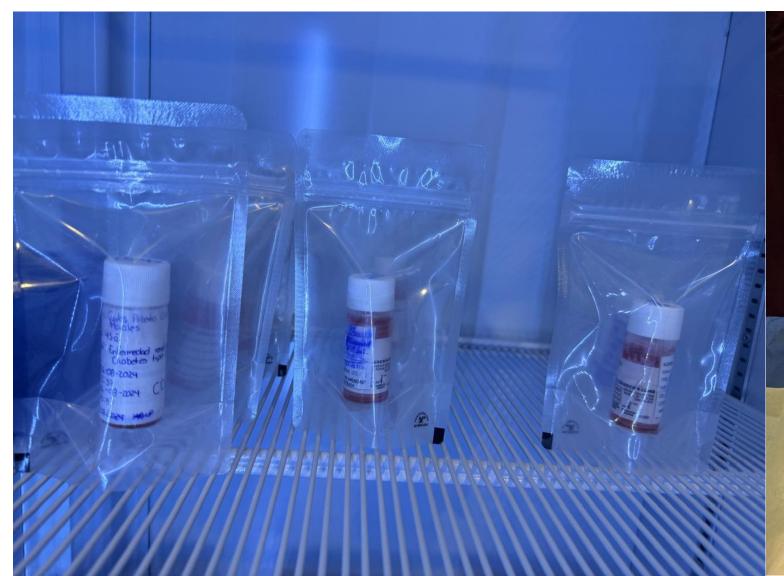




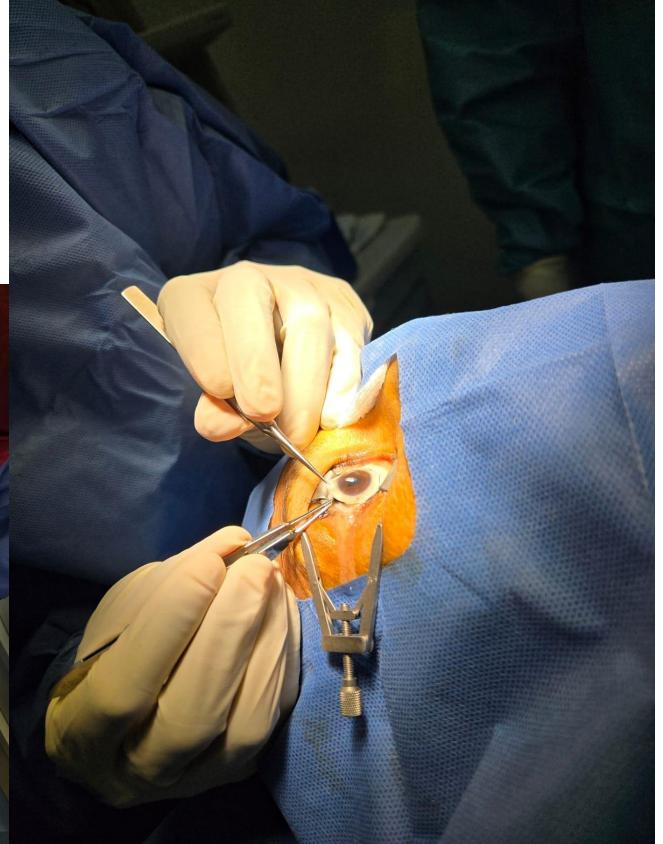


Method:

The databases of the BTEM were reviewed from January 1 to December 31, 2023, to establish the number and percentage of corneas that were supplied to institutions in the State of Mexico, but also to the rest of the Republic.















Results:

During the year 2023, the BTEM managed to capture **956** (100%) corneas, of which **89** (9.3%) were transplanted in hospitals within the entity. The number of corneas that were sent to other states was 663 (69.3%), on the other hand, it was found that 136 (14.2%) corneas did not meet the standards to be considered transplantable and were sent to R.P.B.I., while **68** (7.2%) were kept in stock as available for bidding. Regarding the corneas that were transplanted in the State of Mexico, Table 1 shows the number of transplants per establishment. As for public hospitals, the General Hospital "Dr. Nicolas San Juan" transplanted the largest number (15.7%) of the corneas processed by the BTEM.











Table 1. Corneal tissue transplanted in the State of Mexico by establishment

Hospital	Туре	Trasplanted corneas
Centro Médico "Lic. Adolfo López	Public	2 (2.2%)
Mateos"		
Hospital General Nezahualcoyotl	Public	12 (13.5%)
"La Perla"		
Centro Especializado de Atención	Public	3 (3.4%)
a Personas con Discapacidad		
Visual		
Hospital General "Dr. Nicolas San	Public	14 (15.7%)
Juan"		
Hospital Regional de Alta	Public	4 (4.5%)
Especialidad Ixtapaluca		
Centro Médico Issemym	Public	14 (15.7%)
Novavisión Laser Center	Private	3 (3.4%)
Instituto de Enfermedades	Private	16 (18%)
Oculares		
Ultra Láser	Private	7 (7.9%)
Láser Visión	Private	14 (15.7%)
Total		89 (100%)

Source: Own elaboration with data as of December 31, 2023.









The corneal tissue transplanted outside the State of Mexico and by hospital can be viewed in Table 2. The establishment that benefited the most from the corneas supplied by the BTEM was the "La Raza" National Medical Center (61.69%), a public establishment that serves patients referred from all states of the country. It can be noted in Table 2 that the corneal tissues from the BTEM are transplanted in different entities of the country such as: Mexico City, Chihuahua, San Luis Potosí, Jalisco, Veracruz, Sonora, Nuevo León, among others.









Table 2. Corneal tissue transplanted in other entities of the Mexican Republic.

Hospital	State	Туре	Trasplanted corneas
Centro Médico Nacional "La Raza"	Ciudad de México	Public	409 (61.69%)
Unidad Médica de Alta Especialidad No. 2	Sonora	Public	5(0.75%)
"Lic. Luis Donaldo Colosio Murrieta"			
Hospital General de Zona No. 33	Nuevo León	Public	4 (0.80%)
Hospital de Especialidades del Centro	Ciudad de México	Public	6 (0.90%)
Médico Nacional Siglo XXI			
Hospital General de Zona No. 50	San Luis Potosí	Public	3 (0.45%)
Hospital General de Zona 1	Ciudad de México	Public	7 (1.08%)
Hospital de Especialidades del Centro	Guanajuato	Public	6 (0.90%)
Médico Nacional del Bajío			
Centro Oftalmológico San Ángel	Jalisco	Private	6 (0.90%)
Asociación para evitar la ceguera en México	Ciudad de México	Private	20 (3.02%)
IAP			
Centro de Cirugía Avanzada Siglo XXI	Jalisco	Private	15 (2.26%)
Centro Láser de Querétaro S.A. de C.V.	Querétaro	Private	4 (0.60%)
Centro Médico Naval	Ciudad de México	Public	7 (1.08%)
Centro Oftalmológico de Especialidades	Morelos	Privado	5 (0.75%)
S.A. de C.V.			
Centro Médico Nacional "Adolfo Ruiz	Veracruz	Public	8 (1.21%)
Cortines"			
Clínica de Retina "Dr. Pablo Muñoz	Jalisco	Private	1 (0.15%)
Rodríguez"			
Instituto de Oftalmología Fundación Conde	Ciudad de México	Private	1 (0.15%)
de Valenciana			
Eye Center S.C.	Baja California	Private	1 (0.15%)
Fundación Hospital Nuestra Señora de la	Ciudad de México	Private	11 (1.86%)
Luz			
Hospital Aranda de la Parra S.A. de C.V.	Guanajuato	Private	3 (0.45%)
Hospital Central Militar	Ciudad de México	Public	1 (0.15%)
Hospital la Carlota S.C.	Nuevo León	Private	1 (0.15%)
Hospital Lomas de San Luis Internacional	San Luis Potosí	Private	5 (0.75%)
Hospital Regional *Lic. Adolfo López	Ciudad de México	Public	1 (0.15%)
Mateos"			
Hospital Universitario "Dr. José E. González"	Nuevo León	Public	2 (0.30%)
Instituto de la Visión S.A. de C.V.	Coahuila	Private	9 (1.36%)
Instituto Médico de la Visión	Ciudad de México	Private	10 (1.71%)









Instituto de Microcirugía Ocular de Chiapas	Chiapas	Private	2 (0.30%)
S.C.			
Laser San Luis S.A. de C.V.	San Luis Potosí	Private	1 (0.15%)
Oftálmica Laser	Tabasco	Private	4 (0.60%)
Oftalmología Sur	Ciudad de México	Private	12 (1.81%)
Operadora de Hospitales Ángeles Sucursal	Guanajuato	Private	2 (0.30%)
Guanajuato			
Visión Cirugía Ambulatoria	Nuevo Léon	Private	23 (3.47%)
Hospital General *Dr. Manuel Gea González*	Ciudad de México	Public	1 (0.15%)
Visión Center Valle S.A. de C.V.	Ciudad de México	Private	18 (2.71%)
Visual Corporativo Juárez	Chihuahua	Private	11 (1.86%)
Instituto Oftalmológico Privado	Guanajuato	Private	5 (0.75%)
Visual Corporativo Jardón	Baja California	Private	1 (0.15%)
Hospital Juárez de México	Ciudad de México	Public	1 (0.15%)
Hospital de Especialidades Puerta de Hierro	Jalisco	Private	20 (3.02%)
Médica Quirúrgica Ambulatoria	San Luis Potosí	Private	5 (0.75%)
Hospital General de México *Dr. Eduardo	Ciudad de México	Public	6 (0.90%)
Liceaga"			

Source: Own elaboration with data as of December 31, 2023.









Conclusion:

The Tissue Bank of the State of Mexico is a unique institution of its kind, which processes and distributes corneal tissue for the benefit of the local population, but also supplies tissue nationally. This benefits the population of the entire Mexican Republic and the principles of accessibility, equity and charity are guaranteed. Both public and private hospitals are considered in offers of corneal tissue for transplant purposes, therefore, it can be assured that the Tissue Bank of the State of Mexico is a pillar in Mexico for the proper functioning of the National Corneal Transplant Program.

