

New liver, New life: Overcoming Barriers to Liver Transplantation in Bangladesh

Liver transplantation is a life-saving treatment for patients with liver failure, both acute and chronic, complications of cirrhosis, and early-stage (T2) hepatocellular carcinoma. Globally, liver-related diseases contribute to over two million deaths annually, accounting for one in every 25 deaths, making liver transplantation a necessity.¹ In Bangladesh, the 8th most common cause of death is liver diseases, and the age-adjusted death rate is 19.26 per 100,000.² The endemic prevalence of chronic Hepatitis B and Hepatitis C infections combined with the rising incidence of metabolic dysfunction-associated fatty liver disease (MAFLD), has led to a growing number of cirrhotic patients and end-stage liver disease cases. This poses a serious public health challenge, making the establishment of regular liver transplant facilities an urgent necessity.

The first successful liver transplantation (LT) in Bangladesh was performed in June 2010 at BIRDEM General Hospital, followed by another successful procedure in August 2011 at the same institute. Bangabandhu Sheikh Mujib Medical University (BSMMU) became the first public hospital to conduct a successful liver transplant in 2019. Despite these milestones, the growth of liver transplant programs in Bangladesh has been slow. This is primarily due to challenges such as inadequate infrastructure, a shortage of skilled personnel, and low public awareness. Thousands of Bangladeshi patients still travel abroad for liver transplants, which not only imposes significant financial burdens on families but also results in substantial outflows of foreign currency. By establishing comprehensive liver transplant services domestically, Bangladesh could save millions in medical expenses, reduce medical tourism, retain foreign currency, create jobs, enhance medical training, and improve healthcare equity by making lifesaving procedures accessible to all socioeconomic groups.

Bangladesh's healthcare system has evolved rapidly, yet a sustainable liver transplant program remains elusive. Key obstacles include a lack of public awareness, social and religious barriers, inadequate infrastructure, and insufficient government policies and regulations. The Bangladesh Organ Transplant and Donation Act of 1999, amended in 2018, permits two types of organ donation: living donor (from close relatives) and deceased (cadaveric) donation. However, deceased donation—where organs are surgically removed from consented donors after death or during brain death in ICUs—has yet to be implemented. To address this, Bangladesh must establish a robust deceased organ donation system, which would involve educating the public about organ donation, overcoming cultural and religious barriers, and improving the infrastructure to facilitate cadaveric liver transplantation. A national organ registry and improved coordination

between hospitals could help in the equitable distribution of organs across the country. To remove social and cultural barriers to liver transplantation, public awareness campaigns on TV, radio, and social media can help normalize organ donation and dispel misconceptions. Gaining support from religious leaders through fatwas and community endorsements can address faith-based concerns.

The infrastructure for liver transplantation in Bangladesh remains inadequate, with a shortage of specialized centers, modern ICUs, surgical facilities, and skilled professionals. To overcome these challenges, the government and private sector must invest in hospital upgrades and expand training programs for transplant surgeons, gastroenterologists, nurses, and coordinators. To ensure that liver transplantation is affordable to individuals from all socioeconomic backgrounds, a comprehensive approach is essential. Strengthening government funding, introducing insurance schemes, and collaborating with international transplant centers for advanced technologies and best practices can reduce costs and improve care quality. Establishing a dedicated Liver Transplant Fund under the Ministry of Health, with transparent oversight, would ensure equitable resource distribution.

Liver transplantation in Bangladesh is still in its early stages but holds immense promise for saving lives. While challenges like organ availability, ethical concerns, socioeconomic barriers, and infrastructure gaps persist, collective efforts from the government, healthcare providers, and society can make this life-saving procedure more accessible and equitable. With sustained commitment, Bangladesh can transform its liver transplant landscape and offer hope to countless patients in need.

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