

5th International Conference on Pediatrics and Neonatal Care

July 21-22, 2026 | Vienna, Austria



Benjamin K. Wang MD¹; Madhukar S. Patel MD, MBA, ScM¹; Christine Hwang MD¹; Cyrus A. Feizpour MD²; Parsia A. Vagefi MD¹; **Dev M. Desai MD, PhD^{3*}**

¹*Division of Surgical Transplantation, Department of Surgery, University of Texas Southwestern Medical Center, Dallas, Texas, USA*

²*Department of Surgery, Indiana University School of Medicine, Indianapolis, Indiana, USA*

³*Department of Pediatric Surgery, Phoenix Children's Hospital, Phoenix, Arizona, USA*

Finding Value in Pediatric Liver Transplantation: When Does Volume Matter?

Pediatric liver transplantation provides substantial survival benefit. An emphasis on value-based practices has become a central theme in many surgical fields but have not been well studied in pediatric transplantation. Given an increasing focus on optimizing outcomes while containing costs, defining value in pediatric liver transplantation is increasingly important. Deceased donor pediatric liver transplant recipients from 2/2002–2/2019 were identified and liver centers were divided into volume tertiles (small, medium, large) and recipients were stratified by age (0–4, 5–11, 12–18 years). Value for the index transplant episode was defined as % graft survival ≥ 1 year divided by mean post-transplant length-of-stay (LOS). Compared to small centers, large centers delivered better outcomes (1-year graft survival 93.7% vs 89.4%, $p=0.017$) without increased resource utilization (LOS 20.8 ± 15.6 days vs 19.6 ± 17.0 , $p=0.281$) during the 17-year study period. Mahalanobis-matched cohorts demonstrated a volume-value relationship (higher value care with better outcomes and decreased resource utilization) in the 0–4 age group, but not in older recipients. There is value in liver transplant volume in very young (0–4 years) deceased donor pediatric patients. Given improved survival of these patients in higher volume centers, regionalization of care may benefit this specific population of recipients.

Keywords: liver, transplantation, value, volume, pediatric

Biography

Dev M. Desai, MD, PhD, is a pediatric transplant surgeon and director of the pediatric transplant program at Phoenix Children's. Dr. Desai has a special interest in liver and kidney transplant surgery, as well as the use of shunts to manage blood flow to the liver and operations involving tumors of the liver, pancreas, gallbladder.

Dr. Desai was drawn to Phoenix Children's because of the organization's commitment to providing cutting-edge care to the children of Arizona and its support of his goal to provide the best surgical experience possible for children in need of liver or kidney transplant.