Materials and Methods: We conducted a retrospective study of 108,276 anti-HCV tests performed on 74,503 adults between 2015−2023. Samples were collected from 64 low- and intermediate-complexity public health centers and one tertiary hospital. Variables included age, sex, testing site, and HCV result. We used t-tests and chi-square tests for group comparisons. Mortality was compared with a matched HCV-negative control group.

Results: Of the 74,503 individuals tested, 1,101 (1.48%) were HCV-positive. Women comprised 80% of those tested but had a positivity rate of only 0.76% (451/59,602), while men (20% of the tested population) had a positivity rate of 4.29% (639/14,901), representing 58% of all positive cases. Positivity was higher in the tertiary hospital (5.1%) than in peripheral centers (0.5%). At the time of analysis, 25% of HCV-positive individuals were deceased. Mortality risk was significantly higher in HCV-positive patients versus matched controls (OR: 4.9, 95% CI: 3.7−6.4; p<0.001).

Conclusions: Men are less frequently tested but show a markedly higher HCV positivity rate. These findings highlight gender gaps in detection and support implementing targeted screening and linkage-to-care strategies to improve outcomes in underdiagnosed populations.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101955

#52

TEMPORAL TRENDS IN CHARACTERISTICS AND OUTCOMES OF SIMULTANEOUS LIVER−KIDNEY TRANSPLANT RECIPIENTS IN LATIN AMERICA FROM 2003 TO 2025

Jorge Carlos Martinez Morales[1], Valeria Descalzi[2], Adrián Gadano[1], Graciela Elia Castro Narro[3], Mario Vilatobá[4], Alina Zerega[5], Fernando Cairo[6], Manuel Mendizabal[7], Wellington Andraus[8], Josefina Pagés[7], Ignacio Roca[6], Maria Laura Reyes Toso[2], Pedro Marin-Castro[8], Fernanda Maria Farage Osório[9], Elodie Hyppolito[10], Carlos Benitez[11], Alvaro Urzua[12], Paulo Lisboa Bittencourt[13], Adriana Varon[14], Gilberto Mejia[15], Bertha Eliana Cárdenas Ramírez[16], Julia Brutti[17], Romina Rey[18], Renato Palma-Fernández[19], José Huygens Parente-Garcia[10], Diego Hernan Giunta[20], Sebastián Marciano[1]

[1] *Unidad de Hepatología y Trasplante Hepático. Hospital Italiano de Buenos Aires. Buenos Aires. Argentina.*
[2] *Unidad de Trasplante Hepático y Hepatología. Fundación Favaloro. Buenos Aires. Argentina.*
[3] *Departamento de Gastroenterología del Instituto Nacional de Ciencias Médicas y Nutrición "Salvador Zubirán". Ciudad de México. México.*
[4] *Departamento de Trasplantes del Instituto Nacional de Ciencias Médicas y Nutrición "Salvador Zubirán". Ciudad de México. México.*
[5] *Unidad de Trasplante Hepático del Sanatorio Allende. Córdoba. Argentina.*
[6] *Unidad de Hepatología y Trasplante Hepático. Hospital de Alta Complejidad "El Cruce". Florencio Varela. Provincia de Buenos Aires. Argentina.*
[7] *Unidad de Hepatología y Trasplante Hepático del Hospital Universitario Austral. Pilar. Provincia de Buenos Aires. Argentina.*
[8] *Trasplante Hepático y Órganos de los Aparatos Digestivos. Hospital das Clínicas. São Paulo. Brasil.*
[9] *Unidade de Transplante Hepático do Hospital das Clínicas da Universidade Federal de Minas Gerais. Minas Gerais. Brasil.*
[10] *Hospital Universitário Walter Cantídio. Universidade Federal do Ceará. Fortaleza. Brasil.*
[11] *Hepatología de Trasplante. Instituto de Trasplante. Hospital Clínico UC-Christus. Santiago de Chile. Chile.*
[12] *Sección de Gastroenterología y Unidad de Trasplante. Hospital Clínico Universidad de Chile. Santiago de Chile. Chile.*
[13] *Unidade de Gastroenterologia e Hepatologia. Hospital Português da Bahia. Salvador. Bahia. Brasil.*
[14] *Servicio de Hepatología. La Cardio - Fundación Cardio Infantil. Bogotá. Colombia.*
[15] *Servicio de Trasplante. La Cardio - Fundación Cardio Infantil. Bogotá. Colombia.*
[16] *Servicio de Trasplante Hepático. Hospital Nacional "Guillermo Almenara". Lima. Perú.*
[17] *Unidad de Trasplante Hepático. Hospital Alemán. Buenos Aires. Argentina.*
[18] *Unidad Bi-Institucional de Trasplante Hepático. Programa Nacional de Trasplante Hepático. Montevideo. Uruguay.*
[19] *Departamento de Gastroenterología. Facultad de Medicina. Pontificia Universidad Católica de Chile. Santiago de Chile. Chile.*
[20] *Universidad Hospital Italiano de Buenos Aires. Buenos Aires. Argentina.*

Introduction and Objectives: Tracking simultaneous liver−kidney transplantation SLKT trends supports clinical decision-making, center-level improvements, and regional policy development. We aimed to describe changes in donor and recipient characteristics, transplant indications, and 1-year outcomes in Latin America from 2003 to 2025.

Materials and Methods: Retrospective cohort study including SLKT recipients from seven Latin American countries. Data were analyzed across six eras: 2003−2009, 2010−2013, 2014−2016, 2017−2018, 2019−2021, and 2022−2025. Outcomes included 1-year patient survival and 1-year renal function (estimated glomerular filtration rate (eGFR) ≥ 45 mL/min/1.73 m^2, a surrogate of adequate graft performance linked to favorable long-term outcomes).

Results: A total of 305 patients were included. Recipient age and sex remained stable. Diabetes prevalence increased from 6% to 46%; hypertension and dyslipidemia varied minimally. Indications for liver transplantation shifted: cirrhosis declined from 82% to 56%, while polycystic disease rose to 26%. HCV-related cirrhosis fell from 38% to 18%; MASLD increased from 11% to 37%. Alcohol-related cirrhosis fluctuated, peaking at 48%. Diabetes became the leading indication for kidney transplantation, while glomerulonephritis declined. MELD exceptions increased, reaching 50% by 2022−2025. Donor characteristics remained stable. One-year survival improved from 66% (95% CI, 49−82) to 92% (95% CI, 84−100). Approximately 70% of recipients met the threshold of eGFR ≥ 45 across all periods.

Conclusions: Despite a more complex recipient profile and evolving transplant indications, SLKT outcomes in Latin America have shown steady improvement over the past two decades. This progress reflects the growing expertise and coordination within transplant systems, highlighting the need to sustain region-specific data collection efforts.

Conflict of interest: None

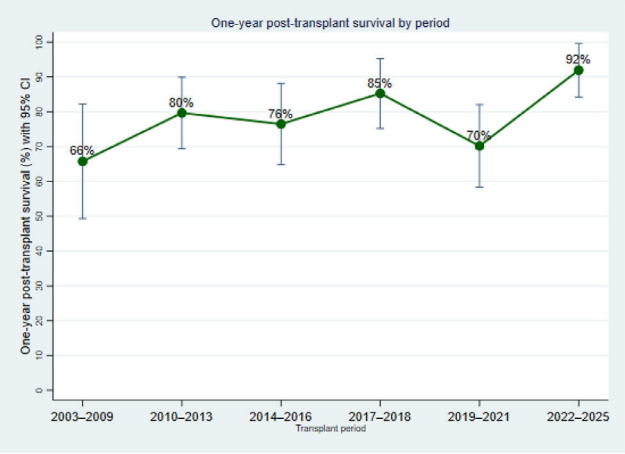
Table 1. Recipient and donor characteristics over time (n=305).

	2003–2009 (n=33)	2010–2013 (n=59)	2014–2016 (n=51)	2017–2018 (n=48)	2019–2021 (n=57)	2022–2025 (n=57)
RECIPIENT						
Age (median, IQR)	55.2 (45.5–59.8)	56.6 (48.6–61.6)	56.2 (48.6–62.0)	54.6 (46.3–62.0)	58.8 (50.1–64.9)	54.2 (42.8–60.2)
Male	67%	56%	61%	65%	72%	56%
BMI (median, IQR)	23.0 (22.0–27.0)	24.0 (22.0–27.0)	24.0 (22.0–30.0)	24.0 (22.0–28.0)	26.0 (24.0–29.0)	24.0 (21.0–25.0)
Diabetes	17%	38%	33%	29%	46%	33%
Dyslipidemia	14%	19%	18%	13%	23%	17%
Chronic RRT*	64%	51%	59%	58%	46%	61%
MELD-Na (median, IQR)	28.0 (23.8–33.2)	23.7 (20.2–30.7)	24.0 (19.6–31.5)	22.5 (20.1–27.3)	21.3 (16.9–27.0)	22.5 (18.7–27.5)
MELD exception	32%	34%	32%	36%	37%	54%
Cirrhosis vs liver PKD**	82% / 12%	63% / 27%	69% / 23%	73% / 19%	72% / 12%	56% / 26%
CIRRHOSIS ETIOLOGY						
MASLD	11%	19%	31%	17%	29%	37%
ALD	26%	32%	11%	49%	46%	25%
HCV	37%	38%	23%	20%	19%	19%
HBV	7%	3%	0%	14%	7%	9%
PBC	0%	5%	11%	6%	2%	6%
AIH	4%	5%	9%	6%	5%	6%
CKD ETIOLOGY						
Diabetic nephropathy	6%	22%	23%	19%	26%	26%
Hypertensive nephropathy	3%	15%	2%	8%	7%	14%
Glomerulonephritis	15%	14%	14%	19%	5%	5%
PKD	15%	29%	23%	21%	16%	32%
Other/Unknown	54%	34%	47%	35%	46%	40%
DONOR						
Age (median, IQR)	32.0 (20.0–46.0)	32.5 (21.5–42.5)	34.0 (27.0–50.0)	32.0 (20.5–42.0)	41.0 (27.0–53.0)	34.0 (25.0–46.0)
Male	66%	59%	68%	75%	58%	54%
BMI (median, IQR)	24.0 (22.5–27.0)	24.0 (23.0–28.0)	25.0 (24.0–26.5)	24.5 (23.0–26.0)	26.0 (23.0–28.0)	25.0 (23.0–27.0)
Creatinine (median, IQR)	1.0 (0.6-1.2)	1.0 (0.7-1.1)	0.9 (0.7-1.1)	0.9 (0.8-1.2)	1.0 (0.6-1.3)	0.9 (0.7-1.1)
Na (median, IQR)	152.5 (141.0–164.0)	151.0 (145.0–158.0)	151.0 (149.0–157.0)	150.0 (145.0–161.0)	150.0 (144.0–157.0)	151.5 (145.5–160.0)

* Chronic RRT includes patients on maintenance dialysis or with prolonged need for renal replacement therapy prior to transplant.
** Cirrhosis vs liver PKD refers to the primary liver indication for transplantation. Categories are mutually exclusive.

Abbreviations:
AIH, Autoimmune hepatitis; ALD, Alcohol-related liver disease; BMI, Body mass index; CKD, Chronic kidney disease; HBV, Hepatitis B virus; HCV, Hepatitis C virus; IQR, Interquartile range; MASLD, Metabolic dysfunction-associated steatotic liver disease; MELD-Na, Model for End-Stage Liver Disease–Sodium; Na, Serum sodium; PKD, Polycystic kidney disease; PBC, Primary biliary cholangitis; RRT, Renal replacement therapy.

One-year post-transplant survival by period.



https://doi.org/10.1016/j.aohep.2025.101956

#53

EVIDENCE-BASED DIGITAL SUPPORT IN HEPATOLOGY: RETRIEVAL-AUGMENTED GENERATION'S ROLE IN AUTOIMMUNE LIVER DISEASES MANAGEMENT

Ezequiel Ridruejo[1], Ernesto Saenz[2], Jimmy Daza[3], Heike Bantel[4], Marcos Girala[5], Matthias Ebert[6], Florian Van Bommel[7], Andreas Geier[8], Andres Gomez Aldana[9], Mario Reis Alvares-da-Silvai[10], Markus Peck-Radosavljevicj[11], Frank Tacke[12], Arndt Weinmann[13], Juan Turnes[14], Javier Pazo[14], Andreas Teufel[3]

[1] *CEMIC, Argentina.*
[2] *Division of Hepatology. Division of Clinical Bioinformatics. Department of Medicine II. Medical Faculty Mannheim. Heidelberg University, Germany.*
[3] *Division of Hepatology. Department of Medicine II. Medical Faculty Mannheim. Heidelberg University, Germany.*
[4] *Department of Gastroenterology. Hepatology. Infectious Diseases and Endocrinology. Hannover Medical School, Germany.*
[5] *Department of Gastroenterology. Hospital de Clínicas. Universidad Nacional de Asunción, Paraguay.*
[6] *Department of Medicine II. Medical Faculty Mannheim. Heidelberg University, Germany.*
[7] *Department of Medicine II. Clinic of Gastroenterology. Hepatology. Infectious Diseases and Pneumology. Leipzig University Medical Center, Germany.*
[8] *Department of Internal Medicine II. Division of Hepatology, Germany.*
[9] *Texas Liver Institute. University of Texas Health Science Center, USA.*
[10] *Department of Gastroenterology. Hospital de Clínicas de Porto Alegre. Universidade Federal do Rio Grande do Sul, Brasil.*
[11] *Internal Medicine and Gastroenterology (IMuG). Clinic Klagenfurt am Woerthersee, Austria.*
[12] *Department of Hepatology and Gastroenterology. Charité - Universitätsmedizin Berlin. Campus Virchow-Klinikum and Campus Charité Mitte, Germany.*
[13] *Department of Internal Medicine I. University Medical Center of the Johannes Gutenberg-University Mainz, Germany.*
[14] *Gastroenterology and Hepatology. Pontevedra University Hospital Complex, España.*

Introduction and Objectives: Autoimmune liver diseases (AILDs) present significant diagnostic and management challenges. Following our initial evaluation of Large Language Models (LLMs), we developed and assessed three specialized Retrieval-Augmented Generation (RAG) systems. These systems incorporated comprehensive clinical guidelines and medication safety information to enhance decision support accuracy. Our aim was to evaluate the effectiveness of Retrieval-augmented AI systems in providing evidence-based recommendations for AILD management.

Materials and Methods: We engineered three distinct RAG systems: HepaChat, RAG-ChatGPT, and RAG-Claude. Each system integrated 13 international clinical guidelines spanning AIH, PBC, and PSC management. Additionally, we incorporated a comprehensive database containing 12,465 FDA medication warnings to ensure safety protocol adherence. Ten liver specialists (six European, four American) evaluated system responses to 56 standardized clinical questions using a 1-10 Likert scale. Questions addressed disease comprehension, therapeutic approaches, and clinical decision-making across all three major AILDs.

Results: Quantitative analysis revealed HepaChat's superior performance (mean score 7.58±1.48) with 33 best-rated responses, compared to RAG-Claude (7.22±1.58, 12 best-rated) and RAG-ChatGPT (7.21±1.67, 9 best-rated). Geographic stratification unveiled variations in evaluation patterns (Americas: 7.97 vs Europe: 6.40). Disease-specific analysis demonstrated HepaChat's excellence in AIH (Europe: 7.12, Americas: 8.17) and PSC management in Europe (6.89), while achieving optimal performance in AIH and PBC in the Americas (8.17 and 8.37, respectively). All three systems showed marked improvement over conventional LLMs (2023 benchmark: 6.72±1.67).

Conclusions: This evaluation demonstrates that specialized RAG systems incorporating clinical guidelines and safety protocols can significantly enhance AILD management support. Geographic variations in assessment highlight the importance of considering regional clinical perspectives in AI system development.

Conflict of interest: None

https://doi.org/10.1016/j.aohep.2025.101957