

INPLASY202650015

doi: 10.37766/inplasy2026.5.0015

Received: 15 May 2026

Published: 15 May 2026

Corresponding author:

Luiz Gustavo Torres Dias da Cruz

luiz.cruz@hupe.uerj.br

Author Affiliation:

Instituto Nacional de Cardiologia (INC/MS), Professional Doctoral Program in Health Technology Assessment, Rio de Janeiro, RJ, Brazil.

Cruz, LGD; Guimarães, TCF.

ADMINISTRATIVE INFORMATION**Support** - No external funding.**Review Stage at time of this submission** - Preliminary searches.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202650015**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on May 2026 and was last updated on 1 May 2026.**INTRODUCTION**

Review question / Objective This scoping review aims to map and describe clinical practices, management strategies, and care protocols used in the maintenance of potential thoracic organ donors (heart and/or lung) in hospital settings, focusing on interventions that contribute to organ viability and donation effectiveness. The research question, structured using the PCC mnemonic (Population, Concept, Context), is: What clinical care practices and strategies are described in the literature for the management of potential thoracic organ donors in a hospital setting? Population: potential thoracic organ donors (heart and/or lung) in the context of brain death. Concept: clinical care, hemodynamic and ventilatory management, vasoactive drug use, laboratory monitoring, and medical or nursing protocols for donor maintenance. Context: hospital units, particularly intensive care units (ICUs) and services linked to Intra-Hospital Organ and Tissue Donation Committees (CIHDOTTs).

Background Brazil has one of the largest organ transplant systems in the world in terms of universal access, yet thoracic organ utilization rates remain critically low. In 2023, only 10.5% of viable donors were converted for cardiac transplantation and 1.93% for lung transplantation, far below the national targets of 40% and 20% respectively established in 2007. Lung utilization rates in the state of São Paulo are below 5%, compared to an international average exceeding 20%. Five-year survival rates after heart and lung transplantation are 68.1% and 58% respectively, underscoring the clinical and public health impact of increasing organ viability. Intra-Hospital Organ and Tissue Donation Committees (CIHDOTTs) are the institutional bodies responsible for coordinating the donation process in Brazilian hospitals, operating within the framework of the National Transplant System (SNT), established by Law 9.434/1997 and regulated by Decree 9.175/2017. Despite their critical role, evidence on standardized clinical management protocols for potential thoracic organ donors within the Brazilian context remains scarce and fragmented.

Rationale A preliminary search was conducted in PROSPERO, PubMed, OSF, and Cochrane databases. No completed or ongoing scoping or systematic reviews specifically addressing clinical management of potential thoracic organ donors were identified. The persistent gap between available evidence and clinical practice, combined with the low thoracic organ utilization rates in Brazil, justifies the conduct of this scoping review. The findings will serve as the evidence base for a subsequent phase of a professional doctoral project at the Instituto Nacional de Cardiologia (INC/MS), which will involve the revision of an existing institutional care plan and the development of a clinical and operational indicators panel, both structured using the Consolidated Framework for Implementation Research (CFIR). This review represents an independent and complete product, distinct from those subsequent steps.

METHODS

Strategy of data synthesis Searches will be conducted in six electronic databases: PubMed/MEDLINE, Embase, Scopus, CINAHL, Cochrane Library, and the Virtual Health Library (BVS). Search strategies were developed using MeSH and DeCS descriptors combined with Boolean operators, with a 10-year timeframe (January 2015 to December 2025) and no language restriction. Search strategies per database: PubMed/MEDLINE: ((Organ Procurement) OR (Donor Selection) OR (Organ Thoracic Donation)) AND ((Heart Transplantation) OR (Lung Transplantation)) NOT (Donation after cardiac death) AND (Humans). Filters: 2015/01/01:2025/12/31[dp]. Embase: (('organ procurement'/exp OR 'donor selection'/exp OR 'thoracic organ donation':ti,ab) AND ('heart transplantation'/exp OR 'lung transplantation'/exp)) NOT 'donation after cardiac death'/exp AND [humans]/lim AND [2015-2025]/py. Scopus: TITLE-ABS-KEY(organ procurement) OR TITLE-ABS-KEY(donor selection) OR TITLE-ABS-KEY(organ thoracic donation) AND TITLE-ABS-KEY(heart transplantation) OR TITLE-ABS-KEY(lung transplantation) AND NOT TITLE-ABS-KEY(donation after cardiac death). BVS: ((tw:("procura de órgãos") OR tw:("seleção de doadores") OR tw:("doação de órgãos torácicos")) AND tw:("transplante cardíaco") AND tw:("transplante pulmonar")) AND NOT tw:("doação após morte cardíaca") AND db:(LILACS OR MEDLINE) AND year_cluster:("2015" OR "2016" OR "2017" OR "2018" OR "2019" OR "2020" OR "2021" OR "2022" OR "2023" OR "2024" OR "2025"). Cochrane Library: (("Organ Procurement":ti,ab,kw OR "Donor

Selection":ti,ab,kw OR "Organ Thoracic Donation":ti,ab,kw) AND ("Heart Transplantation":ti,ab,kw OR "Lung Transplantation":ti,ab,kw)) NOT "Donation after cardiac death":ti,ab,kw AND [mh "Humans"] WITHIN 10 years. Data will be synthesized descriptively through narrative summary, tables, figures, and charts describing patterns, trends, and knowledge gaps in the evidence on thoracic organ donor management.

Eligibility criteria Inclusion criteria – Participants/Sources: studies addressing clinical care and management of potential thoracic organ donors (heart and/or lung) in the context of brain death; primary studies (quantitative, qualitative, or mixed methods), reviews, and case reports; publications in Portuguese, English, or Spanish; studies published between January 2015 and December 2025. Concept: interventions for clinical maintenance including hemodynamic management, ventilatory strategies, vasoactive drug use, laboratory monitoring, and nursing or medical protocols. Context: hospital units (ICU, emergency department, general ward) linked or not to CIHDOTTs. Exclusion criteria: studies on donation after cardiac death (DCD); studies involving exclusively pediatric donors (under 18 years); documents without description of clinical care; editorials, letters to the editor, abstracts without full text, or expert opinions without empirical basis; studies exclusively focused on surgical or post-transplant aspects without addressing donor management; studies published more than 10 years ago.

Source of evidence screening and selection Study selection will be conducted by two independent reviewers in two sequential stages: (1) title and abstract screening and (2) full-text reading, based on the pre-specified eligibility criteria. Search results will be exported to the Rayyan Intelligent Systematic Review software for duplicate removal and blinded peer evaluation. Discrepancies between reviewers will be resolved by consensus or by consultation with a third reviewer. All studies that do not meet the eligibility criteria after full-text reading will be excluded, and the reasons for exclusion will be documented and reported in a PRISMA-ScR flowchart.

Data management Data will be extracted independently by two reviewers using a standardized charting instrument developed and pilot-tested by the review team prior to full application. The instrument will capture: authors, year and country of publication, study design, donor profile (population), type of intervention or

care (concept), care setting (context), main results, and recommendations. Discrepancies in extraction will be resolved by consensus or by a third reviewer. If key information is missing or unclear, the review team will attempt to retrieve it from supplementary materials or by contacting the corresponding author. Variables that cannot be retrieved will be recorded as "not reported."

Reporting results / Analysis of the evidence

Results will be synthesized descriptively. No statistical models, meta-analysis, or formal quality appraisal will be performed, in accordance with JBI guidelines for scoping reviews. Extracted data will be organized using the standardized charting instrument and presented through descriptive frequencies and proportions to characterize the body of evidence. A narrative summary will describe patterns, trends, and knowledge gaps identified in the literature on clinical management of potential thoracic organ donors, in relation to the review objective and research question.

Presentation of the results Results will be presented through: (1) a PRISMA-ScR flowchart illustrating the study selection process (records identified, screened, assessed for eligibility, and included); (2) a summary table of included studies organized by author, year, country, study design, population, concept, context, and main findings; (3) descriptive charts showing the distribution of studies by country, publication year, and study design; and (4) a narrative synthesis describing patterns, trends, and gaps in the evidence on clinical management of potential thoracic organ donors, structured around the PCC framework (Population, Concept, Context).

Language restriction No language restriction will be imposed on the search.

Country(ies) involved Brazil.

Keywords Organ Donation; Heart Transplantation; Lung Transplantation; Scoping Review; Brain Death; Donor Management; Implementation Science; CIHDOTT.

Dissemination plans The results of this scoping review will be submitted for publication in a peer-reviewed scientific journal indexed in the health sciences area, with emphasis on transplantation, intensive care, or nursing. Findings will also be presented at national and international conferences in the fields of transplantation and critical care. The evidence synthesized will inform the subsequent phases of a professional doctoral project at the Instituto Nacional de Cardiologia

(INC/MS), including the revision of an existing institutional care plan for the management of potential thoracic organ donors and the development of a clinical and operational indicators panel, both structured using the Consolidated Framework for Implementation Research (CFIR).

Contributions of each author

Author 1 - Luiz Gustavo Torres Dias da Cruz - Conceptualization, protocol design, search strategy development, manuscript drafting, and registration of the protocol.

Email: luiz.cruz@hupe.uerj.br

Author 2 - Tereza Cristina Felipe Guimarães - Supervision, critical review of the protocol, and intellectual contribution to the methodological design and manuscript revision.

Email: terezafelippe@gmail.com