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Transitional Care Interventions to Reduce Early Rehospitalization in Adults with Chronic Non-Communicable Diseases: A Systematic Review

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ADMINISTRATIVE INFORMATION

Support - Secretariat of Science, Humanities, Technology and Innovation (SECIHTI). National Autonomous University of Mexico, Master's and Doctoral Program in Nursing.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 May 2026 and was last updated on 13 May 2026.

INTRODUCTION

Review question / Objective This study presents a synthesis of the evidence regarding the effect of care interventions provided to individuals with chronic non-communicable diseases during the transition from hospital to home through a systematic review. The research question was formulated using the PICO acronym (Population, Intervention, Comparator, and Outcome), where: P = adults with chronic non-communicable diseases; I = transitional care intervention; C = standardized hospital care; O = reduction of early rehospitalizations, defined as those occurring within less than 30 days after discharge. The objective is to analyze the effect of hospital-to-home transitional care interventions on early hospital readmissions.

Rationale Several studies have explored care interventions provided to individuals during the transition from hospital stay to home care. However, despite the growing body of literature on transitional care, there remains a gap in knowledge regarding structured nurse-led interventions and the analysis of their effects on hospital readmissions within less than 30 days. Therefore, this research seeks to demonstrate that transitional care interventions led by nursing professionals are a key component in reducing early readmissions, through the timely identification of care needs, individualized discharge planning, and proactive follow-up using telephone calls, video calls, and home visits, it is possible to optimize the transition from hospital to home.

Condition being studied Chronic diseases represent a significant challenge for healthcare systems due to their increasing prevalence and the complexity of their management. These conditions often require continuous medical attention and long-term management, and can become complicated, requiring hospitalization. Consequently, healthcare services currently face

persistent overcrowding and are often compelled to provide early discharge, sending patients home in vulnerable health conditions where they require ongoing support to achieve a successful transition, otherwise, patients are exposed to inadequate follow-up of health conditions that require continuous monitoring, placing them at risk for poor quality of life, health complications, increased hospital readmissions, and higher healthcare costs. In this context, the transition from hospital to home is considered a critical period that must be addressed in a timely and appropriate manner through the implementation of strategies aimed at facilitating this process, ensuring that patients continue to receive adequate care after leaving the hospital.

Therefore, it is necessary to implement transitional care interventions focused on providing support and guidance during the transition from hospital to home, with the purpose of empowering individuals to take an active role in their own care and self-management. In this regard, the nursing professional has positioned himself as an important human element in this process and plays a fundamental role because he assumes various roles and functions that prevent the fragmentation of care at this stage, by designing and/or directing interventions that integrate his scientific and methodological knowledge, nurses establish a care rout that begins with discharge planning while the patient is still hospitalized, includes discharge management, and ensures continuity of care through coordinated and uninterrupted follow-up by telephone monitoring or home visits. These well-planned interventions have been shown to improve quality of life, reduce the risk of complications, and significantly decrease hospital readmissions.

METHODS

Search strategy A literature search was conducted following the PRISMA 2020 guidelines through March 19, 2026. The search for articles was carried out on the following platforms: PubMed, Web of Science, Scopus, SciELO, LILACS, and TESIUNAM, using the following search strategy: ((transitional care[Title/Abstract]) AND (readmission[Title/Abstract])) AND (intervention[Title/Abstract]). Additionally, a gray literature search was conducted to identify unpublished studies that could potentially be included in the review, full texts of potentially relevant articles meeting the eligibility criteria were subsequently reviewed.

Participant or population Adults older than 18 years with chronic non-communicable diseases who were hospitalized and undergoing transition from hospital to home.

Intervention Transitional care interventions including nursing discharge planning, telephone calls, video calls, and home visits were evaluated.

Comparator Standard care provided to patients at hospital discharge, based exclusively on the physician's discharge plan.

Study designs to be included This review included original studies with the following designs: randomized clinical trials, pre-experimental studies, and non-randomized clinical trials.

Eligibility criteria Articles were required to include the elements of the PICO framework: a) adults older than 18 years with chronic non-communicable diseases; b) transitional care interventions; c) standard hospital discharge care; and d) primary outcome: early readmissions within less than 30 days. Additional criteria included: interventions must be led by nursing professionals; studies must report late readmission data (up to 90 days) to be used as a secondary outcome; and study designs must correspond to randomized controlled trials, non-randomized clinical trials, or pre-experimental studies.

Information sources International electronic health science databases: PubMed, Web of Science, Scopus, SciELO, LILACS, and TESIUNAM. Electronic databases used for gray literature searches included TESIUNAM, Virtual Health Library (VHL), and Google Scholar.

Main outcome(s) Data on early hospital readmissions occurring within 30 days after hospital discharge will be analyzed.

Additional outcome(s) Data on late hospital readmissions occurring within 90 days after hospital discharge will be analyzed.

Data management A systematic and standardized process for selection, organization, and extraction of relevant information was carried out. This process began with study selection through title and abstract screening, followed by full-text analysis using the established eligibility criteria. Subsequently, a risk-of-bias assessment was performed for each selected article. Data extraction was conducted using an analytical framework including: study characteristics (author, year, and study design), population, type of

intervention, measurement instruments, outcome measures, and primary and secondary outcomes.

Quality assessment / Risk of bias analysis The methodological quality of the included studies will be assessed using validated tools. For randomized clinical trials, RoB 2 will be used; for non-randomized clinical studies, ROBINS-I; and for pre-experimental studies, SYRCLE.

Strategy of data synthesis Hospital readmissions will be analyzed using percentage measures. If sufficient clinical and methodological homogeneity is identified, a meta-analysis will subsequently be performed. An exploratory analysis will be conducted to identify whether hospital readmissions differ according to groups of chronic diseases and type of intervention.

Subgroup analysis An exploratory analysis will be conducted to identify whether hospital readmissions differ according to groups of chronic diseases and type of intervention.

Sensitivity analysis A sensitivity analysis will be conducted if methodological limitations are identified.

Language restriction The search and analysis included studies published in Spanish, English, and Portuguese.

Country(ies) involved Mexico.

Keywords Transitional care, hospital readmissions, intervention, nursing.

Dissemination plans The article is intended to be submitted for publication in a peer-reviewed journal with an impact factor.

Contributions of each author

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