Integrated and Personalized Care for Multimorbid Patients: Optimizing Treatment and Funding

Introduction

Rivierenland, a regional hospital in the Netherlands, is actively collaborating with regional care and cure partners to transition from a competitive to a cooperative healthcare model. This shift aligns with the national policy outlined in the Integrated Care Agreement (IZA), which promotes a person-centered approach and necessitates the development of a fundamental regional care model. Ongoing discussions at various stakeholder levels are focused on facilitating this transformation. Additionally, regional hospitals have committed to playing a proactive role in shifting from an acute-care focus to a comprehensive that supports lifelong health maintenance.

Methods

To drive this transformation, Rivierenland Hospital has adopted a data-driven approach, starting with the application of the Adjusted Clinical Groups (ACG) classification system to measure the burden of disease among its patient population from 2020 to 2024. This initiative has resulted in a risk stratification of hospital-treated patients, using the novel concept of Patient Need Groups (PNG). The approach is inspired by successful models such as Kaiser Permanente's restructuring of care after recognizing that 25% of its patient population required acute care, while 75% had chronic conditions—of which 80% were multimorbid. This insight highlighted the necessity of tailored interventions and optimized resource allocation to manage complex patient needs effectively.

A study has been proposed for funding through the MEDZO program to analyze how the new insights from the Patient Need Groups can be utilized to ignite discussions within the hospital. The goal of this study is to leverage these insights to help the hospital achieve its strategic objectives, fostering informed decision-making and improving care delivery for multimorbid patients.

Methodologically, this research will follow a phased approach, including data analysis, care pathway development, implementation, and iterative optimization. The study will utilize statistical microdata and regional health data to ensure evidence-based decision-making. Implementation efforts will be hospital-focused, ensuring that findings can be scaled and transferred to similar healthcare environments.

Results

The anticipated impact of this initiative includes, improved health outcomes for multimorbid patients, enhanced healthcare efficiency, and reduced hospital admissions through preventive measures and better care coordination. By integrating predictive analytics, patient-centered care, and multidisciplinary collaboration, this study aims to establish a new standard for multimorbidity management within regional healthcare systems.

Discussion/conclusions

This project has four key objectives: (1) optimizing care coordination for multimorbid patients through tailored care pathways, (2) developing predictive models to identify

patients at risk of complex care needs, (3) fostering multidisciplinary collaboration among healthcare professionals across institutions, and (4) evaluating cost-effectiveness and care outcomes to inform sustainable funding models.
By focusing on integrated, personalized approaches, this study seeks to transition healthcare for multimorbid patients from fragmented models to holistic and coordinated care. Building on previous data stratification research utilizing the ACG methodology, this project can serve as a blueprint for innovative care models tailored to the specific needs of multimorbid patients.