EVALUATION OF A TRANSITIONAL CARE STRATEGY IMPLEMENTED IN HOSPITALIZED ADULTS WITH HIGH-RISK AND MULTIMORBIDITY IN CHILE

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1. What is the impact of fragmentation of care in High-risk mutimorbidity people?

- More than nine million people with multimorbidity require permanent care in Chile.
- The fragmentation of health systems is a widespread problem among Latin American countries affecting the efficiency and effectiveness of the health system.
- Implementing transitional care (TC) for high-risk patients could reduce avoidable complications, re-hospitalizations, and other adverse events.
- The Centro de Innovación en Salud ANCORA UC piloted a Multimorbidity Patient-Centered Care Model (MPCM) in seven Primary Health Care centers and three hospitals in Santiago with TC for high-risk multimorbidity patients.

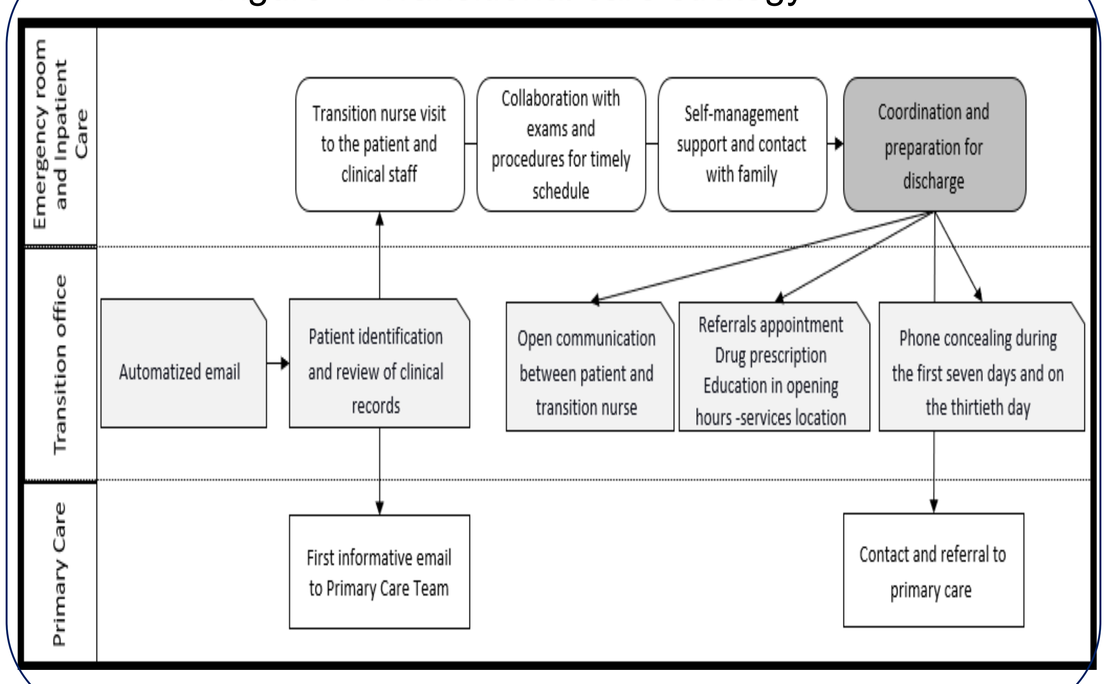
OBJECTIVE

- **To evaluate the impact of a Transitional Care Strategy on inpatient services utilization of high-risk adults with multimorbidity in Chile.**

2. Methods

- It is a cohort study with real-world data provided by the Information Analysis and Management Unit (UNAGIS) from 87 exposed patients with 137 hospitalizations between April 2017 and December 2019.
- Eligible patients were high-risk individuals who were hospitalized or moderate and low-risk patients hospitalized for Acute Myocardial Infarction, Decompensated CHF, Cerebrovascular Accident, and Diabetic Foot Ulcer.
- A transition nurse performed the intervention strategy in the emergency room and inpatient care (Figure 1).
- The implementation process involved pre-implementation activities, implementation, and follow-up.
- The transition nurses received additional training in case management and self-management courses and consulting for one year.
- Adjustments to the intervention and activities were carried out with the patients feedback.

Figure 1. Transitional care strategy



3. Implementation Results

- The intervention strategy was succesfully implemented in three complex hospitals.
- During the first six months of intervention, the transition nurse gained skills to perform the new activities.
- During the rest of the period, consolidation of the role and improvements were made to improve nurse workload efficiency and sustainability of the activities.
- An automated email was implemented to advise the transition nurse and the primary care team that the patient was hospitalized.
- The caseload was measured in the number of hospitalizations rather than the number of patients, as one patient could have more than one hospitalization, and TC was provided for every hospitalization.
- The inpatient and transitional activities were positively valued from the patients' perspective.
- Barriers and facilitators were identified in real contexts.

4. Impact analysis

- The impact was evaluated through the use of health services outcomes (Table 1).
- Patients who received the transition strategy had a statistically significant lower use of bed days.
- Consultations with specialists decreased, and primary care physician consultants increased in exposed patients.
- An increase in primary care physician consultations is statistically significant, showing changes in the transition of care from tertiary to primary care.

Table 1. Impact analysis

Outcome	Incidence Rate Ratio (IRR)	Estimate 95% Confidence Interval (CI)	p-value
Length of stay in hospital	0.85 (IRR)	(0.58 – 1.24)	0.39
Number of consultancies to primary care physician	1.48 (IRR)	(1.14-1.92)	0.003
Number of consultancies to secondary care physician	0.73 (IRR)	(0.32-1.67)	0.46
Number of hospitalization (182)	-0.16 Poisson coefficient (PC)	(-0.40-0.08)	0.20
Number of rehospitalization by of every cause (73)	-0.11 (PC)	(-0.42-0.20)	0.49

- The monthly average number of hospitalizations followed-up by de transition nurse was 24 (min 14 – max 43).
- The transition nurse activities caseload varied mainly because of the hospital size and the number of beds (Table 2).

Table 2. Average of inpatient follow-up activities performed by the transition nurses.

Hospital	Average of automatized emails per month	Average of transition nurse visits per hospitalization	Average of self-management education sessions per hospitalization
La Florida	49	2,3	1,2
Complejo Asistencial Sotero del Rio	42	1,4	1,3
Hospital Padre Hurtado	28	2,2	1,2

5. Key Messages

- After a three-year follow-up, the study found that the TC strategy positively impacted decreasing inpatient length of stay.
- Strategies with a strong focus on continuity of care can improve the health system's performance and enhance the patient experience.
- Transitional Nurses' training and continuous support are key aspects for successful and sustainable implementation.
- Patients and their families appreciated the presence and support of the transition nurse, who kept in permanent contact.
- The appropriate and timely information provided to patients and family members helped reduce patients' uncertainty about the clinical process and recovery.

6. Conclusions

The strategy positively impacted health services use, improving the continuity of care of the high-risk person and possibly reducing the health system's costs. A detailed description of the intervention strategy contributes to its spread and scale-up.