The CEDRiC Project: Care Coordination Through Emergency Department, Residential Aged Care Facility, and Primary Health Collaboration

Research team: Dr Alison Craswell, Professor Marianne Wallis, Dr Marc Broadbent, Dr Elizabeth Marsden, Kaye Coates, Andrea Taylor, Amanda Glenwright, A/Professor Julia Crilly, Colleen Johnston

Problem
- Almost 20% of the population of the Sunshine Coast (Queensland, Australia), are aged over 65 years
- 2026 projections suggest one quarter of the population will be aged 65 and older years and population aged 85+ is expected to almost treble
- Older people comprise an increasing proportion of Emergency Department (ED) presentations
- Older patients, particularly Residential Aged Care Facility (RACF) residents, are at risk of iatrogenic complications and have a high incidence of negative outcomes of care.

Solution: CEDRiC project
The CEDRiC (Care Coordination through Emergency Department Residential Aged Care and Primary Health Collaboration) research project is a multi-disciplinary collaboration between: a hospital Emergency Department, a residential aged care facility (RACF), a primary health network and a university.

This collaboration combines the Health Intervention for Seniors in the RACF with the Geriatric Emergency Department Initiative to streamline appropriate cases for hospital transfer.

Health Intervention for Seniors (HIPS)
Nurse Practitioner Candidate (NPC) in place at Sundale RACF works to enhance primary care of residents in collaboration with their General Practitioner (GP). The NPC role enables residents experiencing acute exacerbations of chronic conditions to have early intervention to prevent hospital transfer. When hospital transfer is appropriate, the NPC liaises with the GEDI nurse in ED to enable more seamless transfer.

Preliminary Findings
These data indicate that ED length of stay, proportion discharged from ED and total cost decreased after implementation of the GEDI program while there was no statistically significant change in mortality. Those seen by the GEDI in the post-implementation phase had slightly longer ED LOS and total hospital costs compared with those over 70 years old not seen by GEDI. This may be because the patients seen by GEDI were the more complex presentations and GEDI nurse intervention then freed up the other primary ED nurses to focus on their patients, resulting in improved outcomes for that group as well.

Research Evaluation
The research has been funded with a large grant from the Australian Department of Social Services Aged Care Service Improvement and Healthy Ageing Grants.

There are four interconnected studies in the CEDRiC Evaluative Research project:
1. GEDI pre/intervention development/post study of client outcomes utilising multivariate modelling
2. HIPS pre/post study of client outcomes via interrupted time series
3. Mixed methods evaluation of structure and process elements of HIPS and GEDI
4. CEDRiC cost effectiveness study: includes both auditing of hospital and RACF current reporting strategies, and direct observation of health care provider time and motion, and by access to retrospective ED presentation data.

The aims of these studies are to explore the structures processes and outcomes of both aspects of the program. We will determine how acceptable the services are to clients and their family members, which structures and processes work best and what the outcomes are for clients in terms of length of stay (LOS), hospital admission and LOS, re-presentation rates at 72hrs and 28days and costs.

Lessons learnt to date
Multi-disciplinary teams with a clear focus can be effective in achieving improved care for Elders. Elders and their families benefit from the improved care provided in their own home (RACF) and from coordinated care should they require presentation to ED. Developing a NPC in place in the RACF allows regional GPs to become familiar with NP activity and build true collaboration.