

Post-Discharge Telephone Call Program (PDTCP): A Quality Improvement Initiative



Allison MacLean, RN, MN-NP Program Student

The University of Toronto, Ontario, Canada



INTRODUCTION

- Unplanned readmissions cost the Canadian health care system an estimated \$1.8 billion (CIHI, 2012)
- Emergency department (ED) visits add \$30.6 million (CIHI, 2012)
- The purpose of this quality improvement (QI) project is to determine if the implementation of a post-discharge telephone call program (PDTCP) will reduce acute hospital readmissions (within 10 days) and ED visits (within 7 days)

AIMS (PLAN)

- This pilot study will compare acute readmissions (30-days) and 7-day ED presentations between patients in the PDTCP and patients who received treatment as usual (no contact until scheduled clinic follow-up appointment)
- Reduce the rate of re-admissions and ED visits for patients discharged from the thoracic surgery service at LHSC
- To determine the impact and feasibility of the PDTCP as part of a larger standardized clinical pathway

METHODS (DO)

Intervention

- Intervention patients randomly selected and called 48-96 hours post-discharge
- Calls addressed post-discharge issues and questions, averaging 5 minutes in length

Measures

- Total number of readmissions and rates of admission (per 100 patients) within 10 days
- Total number of ED visits and rate of ED visits (per 100 patients) within 7 days

Sample

- n=30 intervention patients
- n=60 controls (matched on procedure performed)
- T-tests and chi squares conducted, No significant differences between intervention and control on age, sex, or length of stay (LOS)

RESULTS (STUDY)

Table 1: Descriptive data of study subjects

	Total (n=90)	Intervention (n=30)	Control (n=60)
Male (%)	50	46.7	51.6
Mean LOS in days	6.31	6.74	6.10
Age (mean years)	68.05	69.56	67.27

*Note: Bolded Values indicate significant differences at p<0.05

Table 2: The association between PDTCP subjects and controls on unscheduled follow up

	Total (n=90)	Intervention (n=30)	Control (n=60)	Tests of association
Rate of unscheduled follow up	0.27	0.13	0.37	p=0.03
ED return Rate	0.24	0.13	0.30	p=0.06
Readmission Rate	0.09	0.06	0.10	p=0.46

*Note: Bolded Values indicate significant differences at p<0.05

Findings

- Data suggest a significant relationship between enrollment in PDTCP and decreased rate of unscheduled follow ups
- When type of follow up was considered:
 - PDTCP showed marginally significant reductions in ED visits
 - No significant differences were found on readmission rates to inpatient unit

DISCUSSION

Strengths

- Patients for intervention were randomly selected
- Controls matched 2:1 to intervention candidates based on surgical procedure performed
- Standardized script reduced variation in intervention

Limitations

- Period of follow-up was brief (10 days post discharge)
- Small sample size
- No data from clinics outside hospital network

Barriers

- Language
- Timing of phone calls day vs. evening
- Patient availability: not having phones, staying with other people, new phone number
- Patients followed by multiple providers, overwhelming

Facilitators

- Cost-effective
- Support from program director and leadership
- Patient satisfaction
- Easy to implement

Stakeholders

- Program director
- Ethics
- Frontline staff
- Patients and families

CONCLUSIONS (ACT)

- The PDTCP is a simple, inexpensive method of reducing ED visits
- Positive impact on patients and families
- Reduced burden on health care system

NP Competencies (CNA, 2010)

- Collaboration
- Research
- Leadership

Future Directions

- Larger sample and regression analysis
- Longer period of study
- Standardized Care Pathway
- Implement assessment tool to identify and target high-risk patients (thoracoscore)



ACKNOWLEDGEMENTS

London Health Sciences Centre (LHSC)- Specifically the Thoracic Surgery Department
The University of Toronto
Preceptor- Danielle Lozier, NP-Adult
Research Coordinator- Deb Lewis

REFERENCES

- Canadian Institute for Health Information (CIHI). (2012). *All-Cause Readmission to Acute Care and Return to the Emergency Department*. (Ottawa, Ont.: CIHI)
- Canadian Nurses Association (CNA). (2010). *Canadian Nurse Practitioner Core Competency Framework*. Ottawa, Ont.: CNA.