

# Quality Improvement Project to Reduce the Inappropriate Use of Cardiac Telemetry Monitoring among Inpatients at the Reading hospital

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## Introduction

- The inappropriate use of cardiac telemetry monitoring is common in clinical settings and translates to inappropriate use of hospital resources and avoidable healthcare cost to the healthcare system.
- It can also result in alarm fatigue and suboptimal patient comfort care.

## Objectives

- To reduce the extent of inappropriate cardiac telemetry use in patients admitted to the Reading Hospital by 50% over a period of 8 weeks by using interventions proven to improve cardiac telemetry use in clinical practice.

## Methods

4-phase Plan-Design-Study-Act (PDSA) project consisting of;

- Collection of baseline data on inappropriate cardiac telemetry use among patients admitted unto the teaching service;
- Selection and implementation of contextualized interventions; collecting post intervention data and reviewed the PDSA cycle to identify further areas of intervention.

## Results

Data from a total of 130 patients was collected (78 pre-intervention and 52 post-intervention) over a study period of 5 months.

There was a statistically significant reduction (67%) in inappropriate telemetry use from 34.6% pre-intervention to 11.5% post-intervention ( $p=0.003$ ), despite no significant difference in the most common admitting diagnoses and length of hospital stay of both cohorts.

There was also a significant reduction in the median number of telemetry days from 3 (IQR: 3 - 7) to 2 (IQR: 1 - 3.5) ( $p=0.026$ ) and number of inappropriate days on telemetry from 1 (IQR: 0 - 3) to 0 (IQR: 0 - 2) ( $p<0.001$ ).

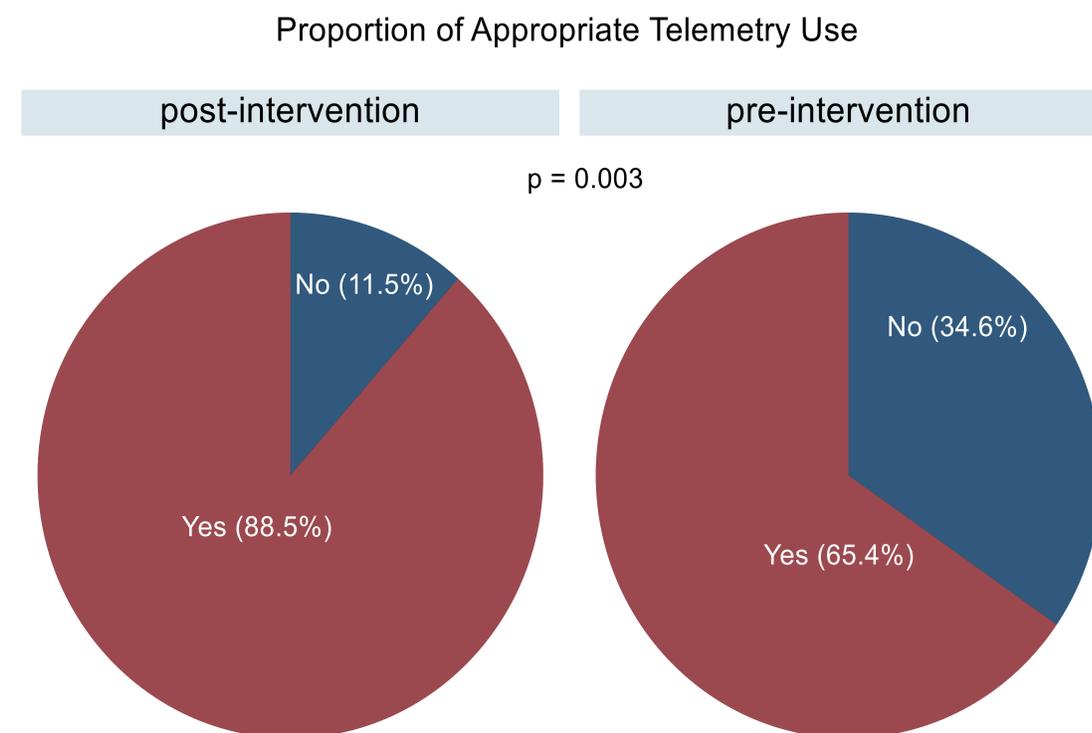


Figure 1: Appropriate cardiac telemetry use pre-intervention and post-intervention

## Interventions

Selected interventions consisted of:

- Integration of patient 'telemetry status' and hard-stop reminders in the daily progress notes templates and sticky notes of the electronic medical records of each patient

## Learning Points



- A single completed PDSA cycle achieved a 68% reduction in inappropriate telemetry use among patients admitted to the teaching service.
- There is potential for expansion of this intervention and/or incorporation of other interventions that further improve inappropriate cardiac telemetry use, improve patient care and comfort and reduce hospital expenditures.