Same Day Discharge after Percutaneous Coronary Intervention
Nurses’ Role in an Inter-Professional Practice Change

Gertrude Kent RN-BC, BSN
Maine Medical Center
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Objectives

- To understand and describe the important role nursing has in the implementation of a successful practice change
- Understand how a translation model guides the practice change process
- Discuss the importance of data collection, evaluating and reporting of the results to identify and target those barriers that need to be addressed for successful implementation of the practice change
Background

- Patients undergoing an outpatient Percutaneous Coronary Intervention (PCI) spent one night in the hospital for observation.
- The Ambulatory Cardiac Care Unit (ACCU) was chosen for this patient population.
- The literature showed that Same Day Discharge (SDD) after a PCI in patients who meet specific criteria, was as safe as routine overnight observation.
- Planning and implementation of the SDD PCI program was an interprofessional collaborative process.
- Goals were to: provide a safe procedure, decrease length of stay and increase patient satisfaction.
Collaborative Model for Evidence Translation
CoMET Model

A collaboration process for:
Reviewing
Planning
Implementing
Monitoring & Evaluating
Reporting & Sharing
The CoMET Model

Systematic process
- Consistent understanding of the process

Emphasis on work done at the unit level
- Provides mechanism for feedback
- Improves understanding of the data in a meaningful way
- Promotes ownership of the practice initiative
  → sustained practice with quality outcomes
Inter-Professional Team

Safe Procedure
Decreased Length of Stay
Increased Patient Satisfaction

Interventional Cardiologist
ACCU Nursing Staff
Cardiac Access Coordinator
Cath Lab Staff
Cardiology Office Staff
Cardiology Physician Extender
## Getting Started and Use of the CoMET Model

<table>
<thead>
<tr>
<th>Steps</th>
<th>Inter-Professional Team</th>
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<tbody>
<tr>
<td><strong>Identify</strong> the practice initiative</td>
<td>Initiated by Interventional Cardiologist</td>
</tr>
<tr>
<td><strong>Critically appraise</strong> the evidence</td>
<td>Nursing and Cardiologist – Reviewed current literature for implementation of the Same Day Discharge (SDD) PCI program.</td>
</tr>
<tr>
<td><strong>Determine</strong> appropriateness of the practice initiative</td>
<td>Ambulatory Cardiac Care Unit (ACCU) - the best place for this patient population</td>
</tr>
<tr>
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<td>Preliminary Data – Inclusion criteria for patients to be considered for SDD PCI</td>
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Selection Criteria of ACCU Patients who qualify for Same Day Discharge after PCI

Pre Procedure Criteria

- Patient of 2 interventional cardiologist
- Resides 1 hour drive from Maine Medical Center
- Support person to stay overnight
- Transportation availability
- Normal Heart Function
  - Ejection Fraction greater than 50%
- Normal Kidney Function

**Coumadin Patients will not fall into this category and therefore will be staying overnight**
Selection Criteria of ACCU Patients who qualify for Same Day Discharge after PCI

Procedural Criteria

- Radial Access
- Normal flow after stent
- Uncomplicated procedure
- No Chest Pain
- No ECG changes
Selection Criteria of ACCU Patients who qualify for Same Day Discharge after PCI

Post Procedure Criteria

- Monitor ST segments
- Creatine Kinase drawn 3 hours after return to floor
- Patient can be discharged 4 hours after returning to the floor if:
  - No Chest Pain
  - Access site without complications
  - No changes on the ECG or telemetry
  - No major arrhythmias
  - Normal Creatine Kinase 3 hours post procedure

All need to be answered yes for the patient to be discharged the same day
Pre Practice Change Data Collection
March 2014 – August 2014

- Over 500 patient records were reviewed using the selection criteria
- Approximately 50 patients met the criteria for SDD
- 15 of these 50 patients, who had a PCI, met procedural criteria for same day discharge
## Implementation of the New Initiative in ACCU Using the CoMET

<table>
<thead>
<tr>
<th>Steps</th>
<th>Unit Level</th>
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<tbody>
<tr>
<td>Planning the Education</td>
<td>ACCU Unit Based Educator planned staff education based on the staff’s needs</td>
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<tr>
<td></td>
<td>Planned patient education</td>
</tr>
<tr>
<td>Data Collection Tool</td>
<td>Quality and Research Council members collaborated with the cardiologist to design the data collection tool – post discharge follow up calls</td>
</tr>
<tr>
<td>Facilitate &amp; Implement</td>
<td>Practice Council member facilitated the implementation of the new practice</td>
</tr>
<tr>
<td>Monitor, Report &amp; Evaluate</td>
<td>All RNs were responsible for the data collection</td>
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<tr>
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<td>Results were evaluated by nursing &amp; the Cardiologist</td>
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</table>
Content of the Education and Data Collection Tool

**Staff education**
- Difference between cardiac catheterization and PCI
- ST segment monitoring
- Increased risk of neuro changes after stent

**Patient education**
- In addition to routine post procedure information
  - emphasis on treatment of chest pain and medication compliance with clopidogrel (platelet inhibitor)

**Post call sheet assesses for**
- Clopidogrel compliance
- Chest Pain
- Access Site
- Patient Satisfaction
Same Day Discharge PCI program was implemented September 2014
Number of PCI Patients Eligible for Same Day Discharge & Number of Patients Discharged
September 1, 2014 - December 31st 2014

One patient discharged in September

Identified at the office

ACCU patients D/C'd
Realizing that there was only the one discharge

Physicians Change Some Protocols

Changes made in October 2014

- Any Interventional Cardiologist could discharge a patient on the same day

Changes made in December 2014

- Patient needed to live within 1 hour of any hospital
Review of the Data
December 2014

- Minimal number of patients being identified
- This was reported to Nursing and Cardiac Interventional by ACCU RN
- Data were not reported to the cardiology office
Nurse Driven Protocols

- ACCU nurses recognized the opportunity to use the pre-procedure admission time

- New Protocol – ACCU nurses assess low-risk patients using the selection criteria, those who had not been previously screened at the office, as potential candidates for same day discharge.
Nurse Driven Protocols

The goal of the new protocol: to identify more patients who are eligible for same-day discharge, therefore increase the number of patients discharged the same day.
Reporting

- Starting in January 2015 - the data were reported weekly to all members of the team including the office.
- By June 2015 the number of patients identified in the office was equal to or more than those identified in ACCU.
ACCU Nurses improve identification of PCI patients eligible for Same Day Discharge
January 2015 - June 2015

ACCU nurses begin to identify eligible patients 1/2015
One Year Later
September 2015

- Reviewed and adjusted the selection criteria to include more patients
  - Patients with mildly decreased heart function were included – EF greater than 40%

- The protocols were expanded: inpatients on cardiology units

- The patients who met the criteria could be discharged the same day as their PCI
Patients Eligible and Discharged the Same Day as their PCI
September 2014 - February 2016
Post Call Assessment

- No access site complications
- No patient reported chest pain
- Clopidogrel adherence is 100%.
- Patient satisfaction of the hospital stay on a scale of 0-10 (10 being the best):
  - 81.5% have rated their experience ‘the best/10’
Significance & Impact

Following the implementation of a new physician-driven process to identify low-risk, post-PCI patients, ACCU nurses recognized that few patients were identified pre-procedure and discharged the same day.

ACCU nurses proposed an innovative process to identify eligible patients in the immediate pre-procedure setting.

This innovation resulted in more patients being identified and discharged the same day.

The SDD PCI program has now been expanded to the other cardiac units allowing low risk inpatients to go home the same day after their PCI.
Questions?

“Tell me and I’ll forget,
Show me and I’ll remember,
Involve me and I’ll understand.”

Confucius

Gertrude Kent RN  kentg@mmc.org
in the subject line include SDD PCI
References

