Cardiac Signals in a Box

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Disclosures
Nothing to Disclose
Introduction

- **Background:**
  - Nurses working in dual role.
  - Lack of dedicated telemetry technicians for growing population.

- **Gap:**
  - Delayed identification of cardiac events to medical intervention.

- **Global Aim:** To reduce the time from onset of cardiac event to medical intervention with a goal of “0” delays.
Methods

- Lean strategy: Vertical Value Stream Tool
- Setting: ICU
- Participants: telemetry techs, HR, Education, PCS admin, Quality, Process Improvement, Biomedical
- Expected Outcomes:
  - (include more of second section on template)
  - How an improvement: We anticipate successful program completion. no delays in identification of cardiac events.
Results

PDSA Cycle 1 (October-December 2018)

- Review patient event & survey data.
- Consult evidence for dedicated telemetry cardiac monitoring.
- Lean project management tool: Vertical Value Stream.
- FMEA analysis initiated.
- Position requested & budget review.
- Consult Biomedical.

- Implement role.
- Collect data, document, review, communicate, act on.

- Validate competency.
- Review FMEA.
- Reassess telemetry station capabilities.

PDSA Cycle 2 (January-October 2019)

- ECG rhythm interpretation curriculum created.
- Implement in-the-seat & on-the-unit training.
- Educated proper use of equipment, workflow processes, EHR documentation, & reporting structure.
- Provide competency validation assessment.
- Communicate to staff and providers.

- Collect & record data.
- Look for trends.
- Educate new, med surg staff.
- Request capital funds for additional telemetry boxes.
- Evaluate needs for population served.

- Celebrate: No delay from cardiac event to medical intervention.
- Reassess technicians competency.
- Review data.
- Staff responsiveness to notifications.

Consolidated job role.
Results

- Validated telemetry curriculum.
- No cardiac event delays in 2019.

Competency Assessment Scores:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Score</th>
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<tbody>
<tr>
<td>Telemetry 1</td>
<td>96</td>
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<tr>
<td>Telemetry 2</td>
<td>100</td>
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<tr>
<td>Telemetry 3</td>
<td>88</td>
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<tr>
<td>Telemetry 4</td>
<td>96</td>
</tr>
<tr>
<td>Telemetry 5</td>
<td>92</td>
</tr>
</tbody>
</table>

All scores greater than 84% (AHA standards).
All telemetry technicians competency validated.

Cardiac Event Delays:

- 2018: 1 delay
- 2019: 0 delays

Prior to implementing the telemetry technician program, there was one delay of eight minutes. No delays since implementation.
Conclusion

- The dedicated telemetry technician role, designed to provide continuous cardiac monitoring, has improved both patient and caregiver experiences.

- Future directions: Growth of telemetry monitoring capacity as we embark with Vidancy (*review buzzwords).