Safe Transport of Telemetry Patients by ED RN’s – Unintended Consequences
Baptist Hospital ED Research Committee

Problem / Purpose
To determine if the use of ED RN’s to transport all monitored telemetry patients is a safe and efficient use of nursing resources.

Literature Review
"Is it possible that whatever safety benefits we gain for the patient being transported are more than offset by the decrease in safe care for those left behind?" (Gilboy & Tanabe, 2006)
"The purpose of the present review is to provide 'best practices' for hospital ECG monitoring." (AHA Scientific Statement, 2004)
"Transportation of low-risk ED chest pain patients off telemetry monitoring by non-clinical personnel to the non-ICU telemetry unit appears safe." (Singer, et al, 2005)

Research Question
Is the use of ED RN’s to transport all monitored telemetry patients the best method of providing safety for both transported and current ED patients?

Part One – Retrospective Study
960 Telemetry, Stepdown & ICU patients admitted in November 2012 were reviewed in sequential order for a total 330 charts:
- Demographics & AHA Classification
- Type of adverse event during transport or within 15 minutes of arrival to Telemetry Unit

Many patients being monitored do not meet clinical criteria for monitoring.

<table>
<thead>
<tr>
<th>AHA - EKG Monitoring Categories</th>
<th>% of patients</th>
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<tbody>
<tr>
<td>1</td>
<td>32.7</td>
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<tr>
<td>2</td>
<td>32.7</td>
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<td>34.5</td>
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AHA Category
① Monitoring indicated for most, if not all, patients in this group.
② Monitoring may be of benefit in some patients, but not essential for all.
③ Not indicated, risk of serious event is so low there is no therapeutic benefit.

Admitting Categories:
- Cardiac 38%
- Neuro 20%
- GI, GU, Gyn 18%
- Respiratory 13%
- Other 11%

Less than half of transported patients had a cardiac diagnosis. Ages 18-99.

Part Two – Prospective Study
ED RN’s participated to provide data on 214 “ED Ticket to Ride” from transports of ED patients to Telemetry, Stepdown or ICU in March 2013. Data included:
- Time of travel & location of transport
- Number & ESI acuity level of patients left in the ED

Results
Number of adverse events during transport or within 15 minutes after arrival to floor: 0
- 92% of the time the patient:nurse ratio in the ED increased from 4:1 up to 7:1 during RN transport.
- 67% of the 2-3 patients remaining in the ED were in High Risk ESI Category 1 & 2.

Implications
- Multiple high-risk patients were often being left in the ED in the care of an RN with her own team of 3-4 ED patients.
- Results support the previous evidence that adverse events during telemetry transports are rare.
- Frequent disruptions in care lead to both delays and quality concerns.

Conclusion
- Use wireless technology to provide a safe solution: Paramedic transporters accompany non-critical patients with remote telemetry monitoring & communication by hospital cell phones.
- ED RN’s transport Stepdown and ICU patients.

References available upon request