Outcomes of a 12-bed observation-holding unit in a community hospital for patients experiencing chest pain

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Citation
Bastidas, Sandra; White, Olivia; Avila-Quintana, Carmen; and Lamoureux, Julie, "Outcomes of a 12-bed observation-holding unit in a community hospital for patients experiencing chest pain" (2016). All Publications. 2646.
https://scholarlycommons.baptisthealth.net/se-all-publications/2646
Outcomes of a 12-bed observation-holding unit in a community hospital for patients experiencing chest pain
Sandra Bastidas, MSN, RN-BC; Olivia White, BSN, RN; Carmen Avila-Quintana, MSN, CMSRN & Julie Lamoureux, DMD, MSc

Purpose
In this era of increasing demands, health services face the challenge to provide maximum safety on the assessment and management of chest pain in a timely and cost effective way. This project had 2 main objectives:
1. Determine if a 12-bed observation-holding unit compared to the standard (36-bed) observation unit will shorten the length of stay (LOS) in hours for patients with chest pain related diagnosis.
2. Determine if the 12-bed observation-holding unit approach had a negative impact (an increase) on the conversion rate, i.e. the change of status from the observation to inpatient for patients presenting with chest pain.

Methodology
Utilizing a quasi-experimental design using retrospective pre/post data collection with a nonequivalent control group. A limited data set of the data points including age, gender, race, ethnicity, length of stay, and conversion rate were obtained from the WKBH Manager of Statistical Analyses. Data for the pre-dates (November 2013-April 2014) and post-dates (June 2014-November 2014) for patients presenting with chest pain was also obtained.

Findings

<table>
<thead>
<tr>
<th>Observation LOS of patients with chest pain</th>
<th>Observation LOS of patients with chest pain</th>
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<tbody>
<tr>
<td>Pre-implementation</td>
<td>post-implementation</td>
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<tr>
<td>27.4 ± 15.5 hours</td>
<td>24.0 ± 16.4 hours</td>
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<tr>
<td>(t1049df = 3.319, p &lt; 0.001)</td>
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<th>ED LOS before implementation of the chest pain unit</th>
<th>ED LOS after implementation of the chest pain unit</th>
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<tbody>
<tr>
<td>6.9 ± 0.1 hours</td>
<td>6.5 ± 0.1 hours</td>
</tr>
<tr>
<td>(t1049df = 2.773, p = 0.006)</td>
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</tr>
</tbody>
</table>

Discussion
The significant decreased on hours of LOS for patients admitted with chest pain suggest that implementing a 12-bed observation holding unit is an effective strategy. The small variability in the conversion rate determined no negative impact from the 12-bed observation holding unit approach.

Implications in Practice
Implications for nursing practice involve the implementation of strategies that will improve patients’ LOS outcomes by adequate cohort of patients that will benefit from being on a 12-bed observation holding versus a regular observation unit based on their diagnosis.