Emergency Department Inter-shift Handoff Intervention

Aim of project

To create an inter-shift Emergency Department handoff intervention that will improve standardization and improve the negative patient care events that were occurring due to poor handoffs at the University of New Mexico Emergency Department.

Background of project

Emergency Department (ED) inter-shift handoffs are unique high-risk transfer of care events. The Joint Commission (TJC) has estimated that 80% of all serious medical error events arise from communication breakdown between caregivers during handoffs.¹ The Accreditation Council for Graduate Medical Education (ACGME) recently mandated that all residency programs develop handoff policies.²

Emergency medicine training centers present additional barriers to safe handoff processes because they involve coordination of care for highly complex patients and more patients are included in the inter-shift handoff due to increased boarding times.

Planned intervention tested

The interventions included the development and implementation of an ED handoff policy, a one-hour education session at resident school, a one-hour focus group session at resident school and the development of a resident rounding sheet. The development of the new handoff policy was based on the results of an internal ED handoff survey and best practices based on previous handoff research.

Prediction of Results and/or Intended Results

The goals of the intervention were to standardize the ED handoff process and to reduce the perceived negative patient outcome due to poor handoffs. We also hoped to help create a positive change in culture of handoffs among residents and faculty.


RESULTS
Eight Month Post Handoff Intervention Follow Up Survey Results
Intervention Began July 2011 and Survey Conducted March 2012

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative patient outcomes result due to poor, inadequate or incomplete handoffs.</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Something essential is not communicated during handoff, affecting the clinical management of the patient during the shift.</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>The current ED handoff process is standardized (i.e., always the same, please consider location of handoff, time handoffs take, and other factors).</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>I feel satisfied with the amount of patients that are included in the average handoff.</td>
<td>42</td>
<td>30</td>
</tr>
</tbody>
</table>

Summary of results
The follow up survey done at eight months after implementation of the interventions demonstrated perceived improvement of handoff standardization (Pre-intervention: 21% agreed that the handoff process was standardized. Post-intervention 43%), and a decrease in the perceived frequency of poor handoffs leading to negative patient outcomes (Pre-intervention: 19% of respondents agreed that the frequency of a poor handoff that lead to a negative patient outcome was a rare occurrence. Post-intervention 38%). Additionally, 49.5% agreed that there has been a positive handoff culture change in the ED over the past year. However, 52.6% also responded that more needs to be done to improve handoff quality.

Discussion
Communication between providers during ED inter-shift handoffs is a particularly vulnerable time for errors to occur that result in patient harm. Lack of standardization, lack of appreciation for the high-risk nature of handoffs and miscommunication all contribute to ineffective and dangerous handoffs.

Our intervention was effective at beginning to standardize the inter-shift handoff process, raising awareness of the high-risk nature of handoffs and significantly decreased the perceived negative patient outcomes due to poor handoffs. Despite these improvements, our handoff process still needs more improvement in process standardization, resident education on how to effectively present cases in a standardized way and incorporating nursing in the provider handoffs.

Conclusions
The ED inter-shift handoff intervention successfully began our standardization process of ED handoffs and significantly decreased perceived negative patient outcomes due to poor patient handoffs. The changes that were implemented have made a positive culture change and these changes have been sustained over the past year and a half. We are currently conducting a study to improve the standardization of case presentations and then we plan to work on better incorporating nursing in the provider handoffs.

JAMES HEILMAN, MD AND DAVID SUTHERLAND, MD
Department of Emergency Medicine, University of New Mexico