Improving the Efficiency of Patient’s Transfer and Handover from Emergency Medicine Department to Acute Medical Unit

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Background:
Emergency Medicine Department (EMD) and Acute Medical Unit (AMU) are clinical areas that has high acuity care for patient with fast turn over. In EMD, nurses are always multitasking and they might not be available to be the primary nurse to transfer patient to AMU for admission.

This will cause possible delay in transfer of patient or omission of critical information as the courier nurse will self read from the system or no handover from primary nurse to courier nurse. The courier nurse will also feel frustrated when AMU nurses were to clarify any issues which she is unsure of.

Goal:
The aim of this project is to eliminate waste and improve the efficiency of patient’s transfer and handover from EMD to AMU from 53 minutes to 25 minutes by January 2018

Methodology:
The project was initiated between June-August 2017 by shadowing 30 patients and the healthcare team which included nurses and porters in EMD. A Pareto chart was used to analyze data about the frequency of problems and determine their causes.

![Pareto Chart](image)

Subsequently, the process was established by using Value Stream Mapping which helps the team to identify the values and wastes in between the process flow.

![Value Stream Mapping](image)

**Interventions and Action Plan:**
1. Introduction of tele-handover of patient from EMD nurse to AMU nurse
2. Creation of recipe card for tele-handover with the acronym ISBAR: Introduc, Situation, Background, Assessment and Request
3. Use of EMD handover checklist based on ISBAR
4. Collaboration with Porter’s supervisor to educate and up-skill the porter to ensure safe transfer. E.g handling patients with IV drip/antibiotics and indwelling catheter (IDC)
5. The team formulated an inclusion and exclusion criteria on the types of patient to be transferred by porters.

**Recipe Card for Telephone handover: ISBAR**

<table>
<thead>
<tr>
<th>I</th>
<th>Introduce self, introduce patient (Always ensure 2 patient’s identifiers)</th>
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</thead>
<tbody>
<tr>
<td>S</td>
<td>Situation: Chief complaint/presenting symptoms and diagnosis</td>
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<tr>
<td>B</td>
<td>Background: Patient’s medical Hx, drug allergy, treatment received, Medications. To ensure RN to read line by in, inclusive of last dose and pending orders. (E-MR)</td>
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**Results:**
Post implementation, the team did shadowing for another 30 patients from November 2017 - January 2018 and the results show that we were able to achieve 100% tele-handover from EMD to AMU. This is crucial as the aim of the project is to minimise omission of patients’ critical information, treatment plan and medication order prior to the transfer.

With the interventions, it has shown a significant reduction of 64% on patient’s transfer time from EMD to AMU.

There was no adverse patient’s safety events relating to non-medical staff performing the transfer.

**Conclusion:**
The tele-handover plays a significant role in this innovation through this system, allowing the nurse to be able to identify pending and performed orders prior to transferring the patient from EMD to AMU. Most importantly, it has eliminated the waste that the nurse take to transfer the patient without compromising patient’s safety.

This innovation has also spread within intra department; EMD to Extended Diagnostic Treatment unit (EDTU) and inter-hospital between EMD/AMU to Alexandra Hospital (AH).