

**Title:** EZ Pass ED Throughput: Automating Patient Transport for Admitted Patients

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**Background:** Jarvis (2016) found that overcrowding in emergency departments (ED) can lead to adverse events, as clinician adherence to guidelines in practice tends to decrease. In addition, patients are more likely to leave the ED without receiving treatment due to excessive wait times. (Jarvis, 2016)<sup>1</sup> The ability to decrease the dwell time within the ED is multifactorial, and largely dependent on the availability of inpatient beds and clinical testing. Improving efficiency at any point in the patient’s journey can contribute to improved throughput and subsequent decreased ED dwell time. Currently, when a patient is ready to move and has an assigned and clean bed on the unit, inefficiencies in communication between the ED, nursing units, and patient transport impede optimal movement.

**Objective:** To decrease throughput times for patients admitted in the emergency department to their assigned bed and location; meeting the following targets:

- Avg. Ready-To-Move (RTM) to Occupy Target: < 2:00
- Avg. Clean to Occupy Target: < 1:00

**Planning & Implementation:** Key areas for process improvement were identified by the workgroup, consisting of stakeholders from the emergency department, nursing administration, patient logistics, and patient transport.

- Data integrity for tracking delays in nursing handoff process
- Timeliness of transport for patients being admitted from the ED to an inpatient unit.
- Streamlining and standardizing handoff for patients admitted from the ED.

To address these key issues, the decision was made to enable the automated release of a patient transport request once there was an assigned, cleaned, and ready bed on three medical/surgical units. This feature eliminates the need to manually place the request, allowing nursing staff to focus on patient care and handoff. In addition, the following workflow changes were implemented:

- Nursing Handoff Tool: Written report sent from ED to regional units if RN unavailable for verbal hand-off.
- Transporters educated provide a 10-minute buffer upon arrival to the ED allowing for any last-minute patient care needs.
- Nursing “Golden Hour” Protected Time Blocks: **7:30 – 8:15 AM & PM**

**Results:** The changes implemented decreased overall clean to occupy time from the ED to the pilot units, meeting the goals set at the inception of the program. Overall, a total of 1,492 patients were moved during the initial pilot phase, with no adverse events reported due to the modified workflow.

Metric	Jan 2022	April 2022	Improvement
Ready to Move → Occupy	02:13 (hh:mm)	01:34 (hh:mm)	29.33%
Clean → Occupy	01:41 (hh:mm)	01:00 (hh:mm)	40.6%

<sup>1</sup>Jarvis P. R. (2016). Improving emergency department patient flow. *Clinical and experimental emergency medicine*, 3(2), 63–68. <https://doi.org/10.15441/ceem.16.127>