

# Optimizing Management of Hip Fractures in Humber River Hospital's (HRH) Emergency Department (ED)



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## Lessons Learned

Streamlining processes and enhancing communication between X-ray Technologists, Emergency Team Leaders, and Physicians has reduced wait-times associated with preliminary imaging for patients with hip fractures.

## Description

Patients presenting to HRH's ED with suspected hip fractures often experience lengthy wait times prior to receiving imaging (Hip and Pelvis X-rays). A retrospective analysis was performed in March 2022 which revealed the median time from ED triage to clinician review of x-ray is 2 hours, 30 minutes. This delay has implications on pain management, as the administration of a Peripheral Nerve Block (PNB) is contingent on a confirmed diagnosis. As a consequence, patients, who are often elderly with existing co-morbidities, receive narcotic analgesics, which have adverse effects, such as: altered level of consciousness, respiratory depression, and delirium.

## Actions Taken

A stakeholder committee was established. A root-cause analysis was performed, and three changes were implemented:

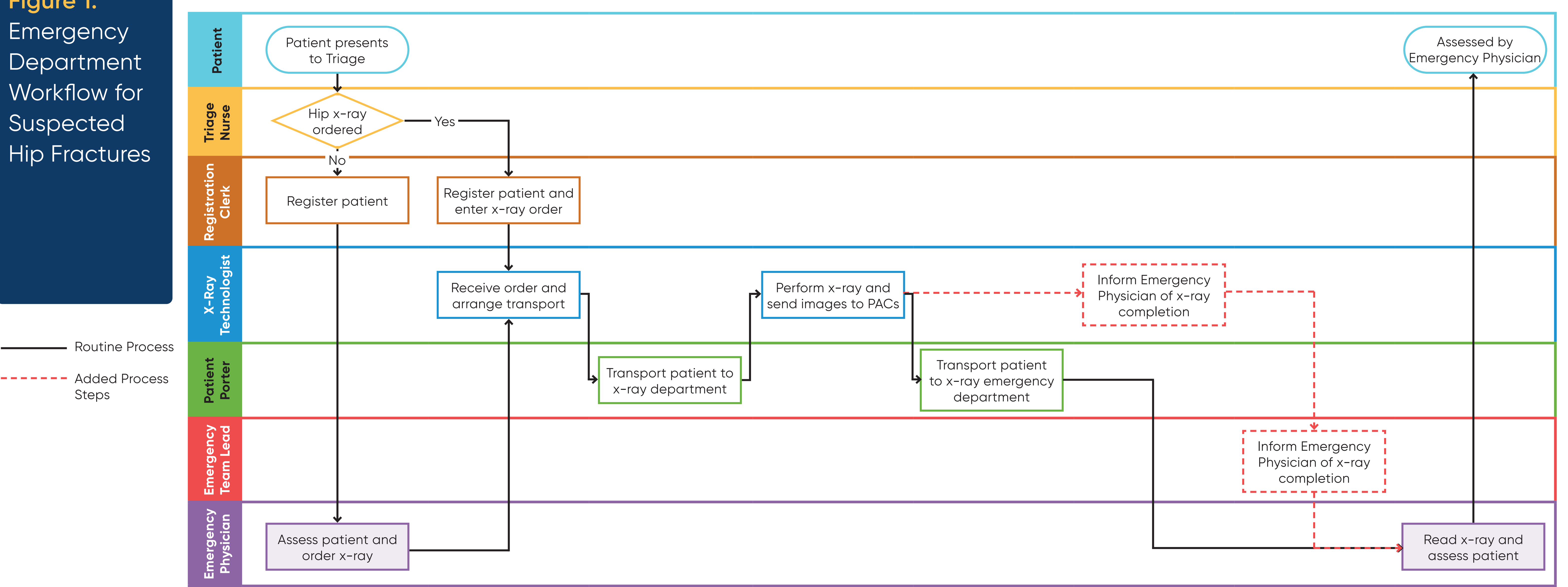
1. Triage screen optimized to display inclusion criteria for hip x-ray medical directive.
2. Expediting order entry at registration.
3. Liaising with medical imaging to directly inform ED team leader when hip x-ray completed.

## Summary of Results

Implementation of the new process revealed a 36% reduction in the median time from triage to image review by the ED physician. This project is in its early phases and requires additional time to trend and measure outcomes. Clinicians agree on timely consultation and administration of PNB.

**Figure 1.** Emergency Department Workflow for Suspected Hip Fractures

**Process Stream: Hip Fracture Patient Presentation to Triage to Physician Assessment**



**Figure 2.** Comparison of baseline data (March 2022) to new workflow (September/October 2022) following updates to triage screen and communication between MI and ED TL after exam completion.

