“Do You Really Understand Your Hand-off Communication Processes?”
A Sentinel Event Alert follow-up webinar

Title Slide

Case study:
Failed hand-off communication processes contribute to patient safety event

Today we’ll be examining how failed hand-off communication processes contributed to a patient safety event.

Slide 1 — Case Study: Diagnosis Unclear

Case Study: Diagnosis Unclear

- Patient presented with complaint of pain, swelling to right calf after sports injury.
- Orthopedic surgeon suspected gastrocnemius tear; failed to document in patient record.
- Patient admitted for DVT treatment — accomplished using only EMR — no direct or “warm” hand-off.

A patient presented to the ED with a complaint of pain and swelling to his right calf after sustaining a sports injury. The patient self-reported a DVT found upon ultrasound at a free-standing radiology center. The patient was triaged and assessed by a physician in the ED who expressed concern about compartment syndrome, as one of the patient’s calves was larger than the other.

An orthopedic surgeon evaluated the patient in the ED and ruled out compartment syndrome. The orthopedic surgeon suspected that the patient had a gastrocnemius tear, but he failed to document these suspicions in the patient record. The orthopedic surgeon admitted the patient to the services of the hospitalist for DVT treatment. This was accomplished using only the EMR — not a direct or “warm” hand-off.
The patient was transferred to the med/surg nursing floor, but nothing was communicated to med/surg about the patient’s condition and suspected diagnosis. The medical record only stated that the patient self-reported DVT. The organization had developed a culture that relied on the EMR for hand-off communications — there were no “warm hand-offs” in which face-to-face communication could take place to allow for questions and answers. The receiving nurse had recently been chastised by an ED nurse when she had called to get information on a previous patient’s condition, so she felt unable to ask questions about the new patient’s diagnosis.

The day after being admitted, the patient had a change in condition during a vascular assessment, which resulted in an order for a stat CT scan.

On a 6 p.m. to 2 a.m. shift, the radiologist was experiencing a heavy volume of CTs since radiology receives scans from the hospital and a sister facility. Most are stat CTs from the ED, so there was a delay getting to the DVT patient’s CT because it came from the inpatient side. The radiologist noted critical results regarding loss of flow; he intended to call the physician, but became distracted and forgot.

Radiology was unable to transmit the scan results to the EMR due to a glitch in the radiology PAC system. The day shift nurse in the med/surg unit failed to follow-up on the stat CT scan results. Typically, results would have been communicated physician-to-physician during a telephone call, so the nurse assumed this call had taken place.
There was a delay in reading the study because the CPOE order was initially stat and then cancelled and reordered as routine, so it may not have appeared as a stat transmission. It was originally a telephone order, entered by the nurse because it was an emergency. The stat CT was not discussed in the shift change hand-off, therefore, the night nurse, who relied only on the information in the EMR, was not aware the CT was stat.

Slide 4 — Case Study: Poor Outcome

Case Study: Poor Outcome

- Failures resulted in delay in surgical intervention for patient.
- ICU nursing noted loss of pulses. Resulted in wound exploration and hematoma evacuation at bedside.
- ICU nurse immediately contacted orthopedic surgeon by telephone.
- Further necrosis resulted in another debridement and surgery.
- Patient eventually underwent a right above-the-knee amputation.

All of these failures resulted in a delay in surgical intervention for the patient. He underwent surgery that resulted in a return of flow and pulses, with the physician’s recommendation to initiate PT and OT as soon as possible. After being transferred to the ICU, nursing noted a loss of pulses which resulted in a wound exploration and hematoma evacuation at the bedside. The ICU nurse immediately contacted the orthopedic surgeon by telephone and the patient was returned to surgery. The wound was debrided for necrosis of the muscle in the right calf.

The patient experienced several instances of syncopal hypotension and bleeding. Further necrosis at the surgical site resulted in another debridement and another surgery with transfer back to the ICU. Unfortunately, the patient eventually underwent a right above-the-knee amputation.