

# Evidence-Based Practice (EBP) - E141

Poster

## **Abstract Title:**

Early Transport to the OR in a Community Level II Trauma Center

## **Authors:**

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## **Background & Purpose:**

Trauma is a surgical disease in the critically injured patient that may or may not require an operative intervention. Various options exist to manage these patients including direct to the OR (DOR), establishing an operating room in the Emergency Department or providing rapid transport to the OR for treatment. Each option has associated benefits and risks.

## **Study/Project Design:**

Beginning in 2011 we tracked patients using an early transport to OR protocol

## **Setting:**

Level II Adult Trauma Center in an urban setting. Trauma volume approximately 1800/year.

## **Sample:**

Convenience sample of 72 patients that met criteria. 51% of patients had penetrating injuries.

## **Procedures:**

Patients were assessed on arrival to the Trauma Bay by the Trauma Team and a determination was made if they met early transport criteria. This included mechanism of injury, hemodynamic instability, rigid /distended abdomen, traumatic amputations, eviscerations etc. Clinical gestalt was also a major factor. The patient was transported by ED personnel to the OR where the resuscitation efforts continued. The supply and medication dispensing devices (Pyxis) were configured the same as in the ED. The ED nurses were cross trained to stay and continue resuscitation until relieved by OR staff. Central lines, tube thoracostomy and endotracheal intubation could be performed in the OR setting while the remainder of the team was assembling thus decreasing time to incision if required. If it was deemed that operative intervention was not necessary and the patient was stabilized, the patient was transferred to the NTSICU.

## **Findings/Results:**

Our average time to transport to the OR under this protocol was 46 minutes with a range between 8-143 minutes. 79% of the Early Transport patients survived to discharge. Of the 21% that died, 29% were in Class IV shock, 13% died in the OR and 3 died in the hospital. Virtually all of the Class I-III shock patients survived. Some of these patients were traumatic amputations. In facilities that use a direct to OR approach that bypass the ED completely (DOR), 68% have a definitive operation. Under our Early Transport protocol, where the patient is stopped, even briefly, in the ED, 97% had a definitive procedure. There were 12 perceived delays to the OR under this protocol with 50% of those related to physician decision. As there are no "hard and fast criteria" this is to be expected. We do not activate this protocol based on the encode received from EMS. Two patients were in the ED prior to a Trauma Alert being paged out. This could account for a delay. It was determined that one patient was delayed due to diagnostic testing. All delays are reviewed in our PI process and trended.

## **Discussion/Conclusions/Implications:**

Teamwork is a key factor to excellence in trauma care. The Early Transport to the OR Protocol is a perfect example of how all members of the team must function together in a seamless manner to obtain a good outcome. Communication is vital for this protocol to work. The ED make a phone call early to the OR board runner that they are coming up. The OR begins to mobilize their staff. The ED has a transport bag with a badge for access to the locked OR door that is closest to the OR with the "mirrored" Pyxis. The handoff communication occurs between ED nurses and Anesthesia as to amount and types of fluid given as well as medications. This all occurs at the bedside in the OR as the patient is being prepped and draped.