THE ROLE OF THE DEDICATED TRAUMA TEAM PHARMACIST: A PILOT STUDY TO ASSESS PATIENT SAFETY BENEFITS.

Daniel Hays PharmD, Sarah Kelly-Pisciotti Pharm D, Thomas O'Brien PharmD, Rollin J. Fairbanks MD, Nicole A. Stassen MD, Julius D. Cheng MD, Paul E. Bankey MD* and Mark L. Gestring MD*

Introduction: The initial resuscitation of an acutely injured patient is often a complex, team driven effort. With the increasing national emphasis on patient safety, we have developed a model which incorporates an ATLS trained, emergency department clinical pharmacist (EDCP) in our initial trauma response. The purpose of this study was to assess whether or not the addition of a dedicated pharmacist to the trauma team improved the process of medication management in our patient population. **Methods:** A retrospective chart review was performed at our state-designated regional trauma center between July 1, 2004 and December 1, 2004. Trauma team activations were divided into two groups, one in which the EDCP was present and one in which the EDCP was not. Factors related to medication management were captured and analyzed, including the time to first administration of a medication by class, evidence of proper documentation and the occurrence of adverse events. **Results:** 204 charts from trauma team activations met inclusion criteria, with an EDCP present at 51 resuscitations. Both groups were similar in terms of patient demographics and mechanism of injury. Time to administration of first medication is summarized below.

	EDCP present (n=51)		EDCP not present (n=153)	
Time to first medication (min)	Median (min)	Mean (min)	Median (min)	Mean (min)
Rapid sequence intubation*	4	10.4	10	14.2
Analgesia	12	23.0	20	43.6
Sedative	12	22.6	28	49.4
Paralytic[+]	13	26.7	25	37.0
Antibiotic	11	14.1	20	65.1

* Does not include out-of-hospital intubation. [+]Does not include medication for initial intubation.

Presence of an EDCP improved time to medication administration overall by an average of 10 minutes. Documentation errors were identified in 17 records from the control group and 1 record when an EDCP was present. Adverse drug effects were noted in 9 patients in the control group and no patients when an EDCP was present. **Conclusion:** This pilot study suggests that inclusion of a dedicated pharmacist in the initial trauma team response reduced medication errors and decreased time to medication delivery during the initial resuscitation period. The potential patient safety benefits of improved medication management in this patient population warrants further examination of this concept.