Introduction: Previous studies have classified the types of errors that occur during trauma resuscitation but have neglected to analyze their time of occurrence, association with team members’ roles, and subject matter. The purpose of this study was to identify factors contributing to errors during trauma resuscitation using an ethnographic approach.

Methods: Repeated reviews of eight resuscitations videotaped at a Level 1 Trauma Center were performed to identify, time, and transcribe tasks and utterances of team members. Events were coded using task and communication coding schemes developed to capture observable activities and communications. Using time-stamped and coded transcripts, three trauma surgeons identified errors during each resuscitation using an error classification scheme adapted from previously validated systems and the principles of ATLS.

Results: We identified an average of 19 errors/resuscitation (range 11-27). Communication errors (37%) and errors of omission (36%) were each more common than errors of commission (14%) and selection errors (13%). The rate of errors of omission and selection errors were higher during the primary survey than in the secondary survey (p=0.01 and p=0.02), while other errors occurred at similar frequencies in both portions of the resuscitation (p>0.37). Communication errors were more often associated with nursing staff, while other error types were more often associated with physicians. Errors from all categories were commonly related to the incomplete performance or reporting of the physical examination findings (36%). Incomplete orders for medications were observed in 7 of 8 resuscitations and were the most common cause of errors of omission (27%).

Conclusions: Communication errors and errors of omission are the most common error types during trauma resuscitation. Errors of omission frequently occur during the primary survey, are associated with physicians and involve incomplete medication orders. The association and pattern of each error type is unique, requiring an individualized approach to prevent triggering major adverse events.