

Evolution of a Level I Pediatric Trauma Center: Changes in Injury Mechanisms and Improved Outcomes

Trauma is the leading cause of mortality among children [1]. While much is written about improved outcomes among pediatric trauma patients treated by a pediatric specialist, either at a pediatric trauma center (PTC) or an adult trauma center with pediatric qualifications (ATC), little has been written comparing outcomes after transition from an ATC to PTC at a single institution[2, 3]. Additionally, as more PTC's are established, a significant knowledge gap exists in understanding the evolution in patient population and outcomes at these new centers. Over the last decade at our medical center, pediatric trauma care has transitioned from an ATC Level 1 facility to a standalone PTC. The aim of this study was to evaluate the impact of this transition on our single-center outcomes, specifically focusing on mechanism of injury, utilization of resources, and mortality.

This study will help assess the challenges and successes of treatment of this subpopulation of pediatric patients. Evaluating and identifying potential predictors of outcome for our traumatic patients will inform future clinical protocol development, treatment and management that could potentially improve patient outcomes.

- Specific Aim 1:** Evaluate the impact of transfer from an Adult Trauma Center (ATC) to a Pediatric Trauma Center (PTC) on our single center outcomes
- Specific Aim 2:** Assess short and long term clinical outcomes of Level 1 pediatric trauma patients treated and managed at VUMC
- Specific Aim 3:** Determine the economic impact of managing Level 1 pediatric trauma patients at VUMC