

Focused Anatomy Education for Trauma Registrars Improves Injury Severity Scoring Accuracy

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Intro/ Problem

Monitoring the validity of trauma registry data is an important component of any trauma program, and we routinely perform internal audits to check the accuracy of our data-base. The results of a routine internal audit of our trauma registry performed for a total of 244 patients admitted to our Level II trauma center from January 2017 to March 2017 revealed that 59% of errors were related to injuries, injury severity scores (ISS) and abbreviated injury scores (AIS). This pattern of error was documented in prior audits and thus we sought to address a presumed education deficit for our trauma registrars by focusing on trauma specific anatomy.

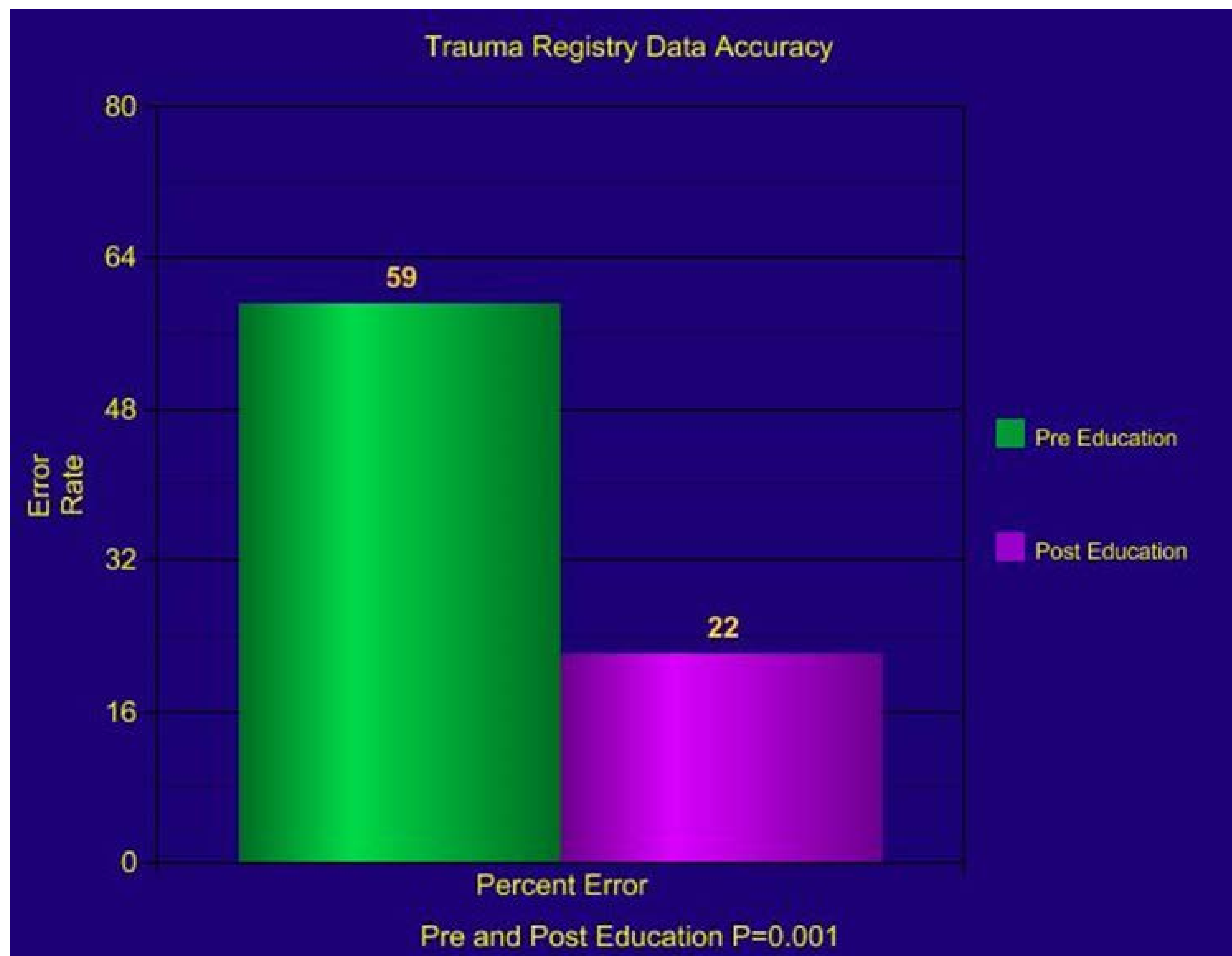
Intervention

An intensive curriculum was implemented which focused on teaching organ specific anatomy related to common traumatic injuries. A series of intensive lectures were given focused on organ systems, important anatomic relationships, and traumatic injuries inclusive of acute physiologic changes requiring intervention. Each organ system reviewed normal anatomy and function, and abnormal anatomic changes and function due to trauma. Resuscitation and surgical principles were also included in the teaching to tie together the injury identification, management and monitoring of specific injuries during all phases of care.

Measuring the Change

Following the implementation of the intensive curriculum, we audited the trauma registry data for 207 patients admitted during April and May of 2017. There was a large improvement in the data accuracy for injuries, ISS and AIS, as the error rate decreased significantly to 22%, $P=0.001$. The trauma registrars also reported that knowledge acquired from the teaching facilitated their data acquisition.

Results



Sustaining the Change

The education has been incorporated in the trauma program, and the registrars will continue to participate in the intensive curriculum. The lectures are offered weekly and the core curriculum is designed to cover all organ systems and common injuries. We plan on expanding the education to cover case specific analysis of complex injuries in which discrepancies were found during the routine data audits. Internal audits will continue quarterly and the curriculum will be modulated to cover the education needs of the registrars.

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