USE OF SECURE TEXTING TO IMPROVE INTER-FACILITY CRITICAL CARE TRANSPORT TIME

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INTRO

Texting could become a key component in improving outcomes for critical care patients. Utilizing text messaging within the field of healthcare has been highly debated; however, due to the established data in modern communication culture, the potential use of texting is inevitable. Initial research regarding the use of electronic communication for outpatient health improvement has begun to surface, but there is a paucity of literature regarding the use of texting within transport and emergency healthcare systems as a means of quality and outcome improvement. In critical care transport, improvement of the 90th percentile for response time is a quality metric standard permanently addressed through analysis of potential system modifications. By decreasing the time to appropriate care, overall morbidity and mortality can also be decreased. One limiting factor to outpatient transport with potential for improvement is time to dispatch of receiving team. Dispatch time is generally dependent on昨夜祝日's acceptance of patient after requests analyzed through a requesting facility through a transfer center, even though clinical staff often know whether or not the patient will be transported.

METHOD

A HIPAA-compliant, secure texting system (TigerText) between the regional transfer centers and Westchester Medical Center's (WMC) Critical Care Transport (STAT) Team was implemented. Upon receipt of a patient transfer request, the transfer center authorizes information to be sent to the STAT Team and selects the potentially accepting facility. STAT team self-dispatch was initiated upon receipt of transfer center data as decoded through use of an algorithm, which considered vehicles available, diagnosis as decided through use of an algorithm, which considered vehicles available, diagnosis as acceptable to STAT, and therefore patient outcomes—as a direct result of secure texting between transfer centers and STAT Team dispatch, along with self-dispatch algorithmic protocols. Implementation may assist in resolving barriers associated with communication while stratifying and prioritizing necessity and increasing efficiency of the overall process.

STATISTICS

Transport data over five years (2012-2016) were compiled and analyzed to determine average transport times from requesting healthcare facilities to WMC Pediatric ED or PICU. Seventeen facilities with at least 35 transports and at least 10% of transports after implementation of the TigerText system were considered in analyses. Outliers were assessed on a case-by-case basis and resulted in eight transports removed from consideration due to non-system related delays or efficiencies. Average transport times in minutes were calculated based on "time of acceptance" for "time of accepting facility registration" using Microsoft Excel. Average time prior to and after implementation of TigerText system were compared, along with their respective 90th percentiles.

KEY RESULTS

• Improvement seen in 15 of 17 facilities after implementation
• Average time saved from these 15 facilities was 15.3 minutes (Range 1.4-34.26)
• 60% of hospitals improved by at least 12 minutes.
• Overall improvement of 90th Percentile for transport time from all facilities

IMPLICATIONS

Potential for significant improvement exists with regard to current transport processes— and therefore patient outcomes—as a direct result of secure messaging between transfer centers and receiving facilities. Improvement seen in 17 facilities alongside self-dispatch algorithmic protocols. Implementation may assist in resolving barriers associated with communication while stratifying and prioritizing necessity and increasing efficiency of the overall process. The further progression of technology and digital communication are inevitable. Implementation of secure systems can not only ensure the safety of our patients and healthcare workers, but can also serve as a mechanism of improving their overall health outcomes.

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