

American College of Surgeons
2009 Clinical Congress
October 11-15, 2009 Chicago IL

Scientific Exhibit Abstract

Category: Poster of Merit - Trauma Surgery

Title: Improving Rural Maine's Access to Emergency Trauma Services through Telemedicine

First-named author: Rafael Grossmann, MD

Tel: 2079734949
2079734768

E-mail: rgrossmann@emh.org
bsorondo@emh.org, jpellegrini@emh.org

Co-Authors: Barbara Sorondo, MD, MBA, Joan-Marie Pellegrin, MD, David Burke, MD, David Rydell, DO, Rony Ramia, MD, Amy Fenwick, MD, Pret Bjorn, RN, Robert Holmberg, MD, MPH, Joseph Karem, MS

Institute name, city/state/country: Eastern Maine Medical Center, Bangor, ME,

Introduction: The purpose of this study is to evaluate the effectiveness of a rural TeleTrauma Network on the management of trauma cases. It is hypothesized that the TeleTrauma program will reduce the ratio of unnecessary transfers, improve patient outcomes, and reduce medical errors, thus improving overall rural trauma care.

Methods: Twelve hospitals are participating in the TeleTrauma program. Patient data from both TeleTrauma consultations and the Trauma Registry® are being collected in addition to survey data from providers.

Results: Fifty nine TeleTrauma consultations have been conducted. The median ISS for both groups is 9. No statistically significant differences were found on age, LOS, or medical errors. However, fewer medical errors have been associated with TeleTrauma when compared with telephone consultation (14.6% vs. 3.6%; $P = 0.081$). Nearly 80% of referring clinicians report that TeleTrauma has influenced patient disposition and/or transport mode. Unnecessary transfers have been seen only in the phone consultation group.

Conclusions: TeleTrauma consultations may be associated with fewer trauma patients being transferred, allowing them to be treated locally. Telemedicine improves the assessment of patient acuity prior to transfer, reduces medical errors, and facilitates surgeon preparedness during trauma team activations. Providers on either end of the

telemedicine continuum report enhanced perception of teamwork and cooperation. Patients and families express increased satisfaction in meeting, and discussing plans with, remote clinicians. Telemedicine consultation has facilitated real-time clinical education and prompt debriefing. Limitations are related to the availability of the technical support, and the inconsistency in the credentialing system

