

Research - R137

Oral Presentation

Abstract Title:

Time to Transfer to Definitive Care: An Evaluation of the Rural Trauma Team Development Course

Authors:

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Background & Purpose:

Rural trauma presents unique challenges. An estimated 60% of all injury deaths in the U.S. occur in rural areas, yet only 20% of the nation's population live in these areas (Rural Assistance Center, 2010). The Rural Trauma Team Development Course® (RTTDC) was developed by the American College of Surgeons-Committee on Trauma, ad hoc committee on Rural Trauma to promote prompt recognition of both the severity of a patient's injuries and the need to transfer the patient to a higher level of care without completing a full diagnostic workup (2006). The purpose of this study is to evaluate the effectiveness of the RTTDC on the time to transfer to definitive care.

Study/Project Design:

Retrospective analysis

Setting:

Rural hospital ED.

Sample:

A total of 38 trauma patients were transferred during the 3 time periods examined (n=38).

Procedures:

Our Level I trauma center provided two RTTDC to a rural referring hospital (RRF) in January and March of 2010. Approximately 90% of the RRF Emergency Department's nursing staff attended the educational offering along with 2 unit secretaries, 2 ED techs and 5 Paramedics from the local EMS agency. To evaluate the effectiveness of the educational intervention, our trauma registry was queried to identify patients transferred from RRF during three 2-month periods in 2009 and 2010. A retrospective analysis of transfer times was performed pre- and post-RTTDC training including a one-way analysis of variance to test for significant main effect for transfer time and a Levene's test of homogeneity of variance to meet statistical assumption ANOVA. Descriptive statistics on demographic variables and covariants specifically level I, II or III alert activation, and air or ground transport were performed.

Findings/Results:

A total of 38 trauma patients were transferred during the 3 time periods examined (n=38). For the 2 months (Nov/Dec. '09) prior to the first course 6 patients were transferred (n=6). The mean time from entry to the referring hospital to arrival at the Level I trauma center was 262.5 minutes. For the two month (Apr/May '10) period following the educational intervention 13 patients (n=13) were transferred with a mean transfer time of 195.54 minutes revealing a decrease in time to definitive care of 66.96 minutes. The final time period evaluated was 7 months post intervention (Nov/Dec '10) and a total of 19 patients (n=19) were transferred with a mean transfer time of 198.74 minutes.

Discussion/Conclusions/Implications:

The RTTDC is effective in decreasing time to transfer to definitive care and the results of the course may be sustained. Due to the small sample size the results of this study are not statistically significant. However, the results support the potential promise of the RTTDC in decreasing time to definitive care and sustaining the results.