Addendum

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4. Quality control and improvement of care of politraumatized patients in regional trauma center

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Evaluation of trauma care is essential in improving of treatment in trauma patients. Combined Trauma and injury severity score (TRISS) method offers a valid approach for comparison of the results among institutions, evaluation of the implementation of new methods for improvement of trauma care and evaluation inside the institution in different time periods. The quality of treatment of politraumatized patients in General Hospital Celje (GHC) was compared with international standards of trauma care. Our results were evaluated in different time periods to document the longitudinal effectiveness of in-hospital trauma center care.

Methods: 213 politraumatized patients consecutively admitted to GHC between January 1992 and December 1997 were analysed. Data were collected prospectively by using the Admission protocol for politraumatized patients. Probabilities of survival were predicted with TRISS method and "z" and "W" statistics were calculated.

Results: 170 male and 43 female patients were treated. The average Injury severity score (ISS) was 29.6. Fifty patients died. Calculation of "z" statistic (1.04) showed no statistic difference from international standards. "W" statistic showed a steadily increasing trend indicating a continued improval of survival in three consecutive time periods (1992–1993, 1994–1995, 1996–1997). The "z" values were not statistically significant (-0.28, 0.88, 1.21).

Conclusions: We found the TRISS method useful for the quality of trauma care evaluation. Our results are encouraging and comparable with international standards. Using TRISS methodology for tracking and evaluating outcome of trauma care and review of statistically unexpected outcomes resulted in improvement of quality of care in the three consecutive time periods.