Evidence-Based Practice (EBP) - E184

Poster

Abstract Title:

Implementation process of a Trauma Transfusion Protocol in a trauma centre in Hong Kong

Authors:

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Background & Purpose:

The development of the first HK Massive Transfusion protocol developed was based on a retrospective data analysis in one of the trauma centres' (which is also a teaching hospital). This protocol was subsequently validated by another Australia group. In 2010, the Hospital Authority Central Committee (Trauma Service) recommended it for use in all 5 trauma centres. Each trauma centre then implemented it according to local needs and challenges.The aim of the implementation of TTP in this trauma centre was to develop a robust mechanism that would enable the expeditious delivery of all kinds of blood components to the bedside for trauma patients.

Study/Project Design:

21.9.2011 - 20.9.2012 review all cases in registry, totally 9 cases with Trauma Transfusion Protocol being activated

Setting:

A main teaching hospital for the University, a level one trauma centre in U.S.

Sample:

There were 9 cases with Trauma Transfusion Protocol (TTP) being activated within 12 months. In total, there were 497 cases recruited in the trauma registry in that study period.

Procedures:

Approval at the hospital's executive-level (the Trauma Service Executive Committee); Lobbying and liaise with Blood bank; Coordinate with hospital administration (porters' training, security staff assure green channel); Promotion and education to all related ward medical and nursing staff; Drill with all related clinical areas (A&E, AICU, HDU of neuro-surgery and orthopaedics, operation theater); Debriefing and refining the logistics; Official implementation; Continuous audit and quality improvement.

Findings/Results:

Amongst all five centres in Hong Kong, ours was the last to have implemented this protocol, but we were able to achieve the shortest order-to-transfusion time among all trauma centres.The number of patients required massive transfusion was small (1.8%)The overall ratio of FFP:RBC was ~0.8The overall ratio of Platelet: RBC was ~0.8630% of TTP received < 4U of RBC/FFP/PlateletShortest blood product elapse time: 8 mins for packed cell, 28 mins for platelet concentrate and 37 mins for FFP.Consume Range (in unit): Pack cell 0 to 67Platelet Con 0 to 68FFP 0 to 70Cryoprecipitate 0 to 50

Discussion/Conclusions/Implications:

The number of patients required such transfusion protocol was small. There is as yet no identifiable impact on patient outcome possibly as the results of small case volume. The timeliness and optimal ratio of blood products could be considered as surrogate indicators of quality improvement. Further long-term studies are required to assess he protocol's impact on clinical outcome, cost-effectiveness and patient safety.