



Article Appraisal

Article: Transfusion of plasma, platelets, and red blood cells in a 1:1:1 vs a 1:1:2 ratio and mortality in patients with severe trauma – the PROPPR randomized clinical trial

May 13, 2015

Resident Reviewer Name(s) and Residency Affiliation: Dr. Sunny Sheshgiri, R3 CCFP-EM

Faculty Methodology/Bio-statistics Resource Person: Dr. Riyad B. Abu-Laban

Addendum:

The following issues were addressed following consultation after discussion with our colleagues in Vancouver.

1. With regards to a “standard” platelet transfusion in Canada, it was confirmed that a standard platelet transfusion in Canada contains the equivalent of 5U of platelets in comparison to 6U used in the PROPPR trial. This suggests that massive transfusion protocols in Canada will have to differ slightly from PROPPR in order to preserve a 1:1:1 ratio of blood products.
2. The timing of platelet administration in PROPPR resulted in another point of discussion. It appears that platelets were given initially in the 1:1:1 group for logistical reasons; however, the majority of massive transfusion studies have shown an increase in survivability with early use of plasma as opposed to platelets. This again limits generalizability of PROPPR results to our current practice of plasma and PRBC-initiated massive transfusion protocol, and the optimal timing of platelet transfusion also remains unclear at this time.