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## **Four-Factor Prothrombin Complex Concentrate: An Indispensable Adjunct in Coagulopathy of Trauma Management - A Comparative Review of the Literature over 2 Decades**

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In recent years, the management of the multiple trauma patient has focused on damage control and, in this context, it is increasingly common to use prothrombin complex concentrate (PCC), although its use for this indication is off-label. This has led the authors of the article to carry out a comparative review of the literature, focusing on the different management approaches and comparing efficacy, safety, cost-effectiveness and ease of use of PCC. The use of recombinant Factor VII (rFVII) does not successfully control trauma-related bleeding and the use of fresh frozen plasma (FFP) was soon favoured...until PCC became available. Most of the clinical trials carried out show a decrease in hospital stay and mortality in patients who received 3-factor PCC (3F-PCC), but with an associated increase in the cost of treatment. The studies that compare 4-factor PCC (4F-PCC) against FFP favoured 4F-PCC, especially with regards to avoiding fluid overload, and also due to a lower duration of time for its administration. In addition, 4F-PCC does not require blood group matching, or the need for room temperature administration. Another important point that favoured the use of 4F-PCC is the avoidance of transfusion-related acute lung injury (TRALI). In light of this review, it seems evident that PCC is superior to the previously available treatments (FFP and rFVII). However, new clinical trials are needed to focus on the type of injury (solid organ or long bones and extremities), as well as the consistency of how the outcomes are measured.