

References on Platelet Transfusion

Aspirin or Clopidogrel users: McMillian & Rogers (2009)¹ included platelet transfusion in their proposed treatment algorithm for the reversal of aspirin or clopidogrel in head-injured patients. Taylor et al. (2013)² evaluated similar persons requiring emergency neurosurgery or experiencing life-threatening hemorrhage and found that platelet transfusion improved platelet function in aspirin users, but not in clopidogrel users. A dose response relationship has been found in ASA inhibition (Bachelani et al., 2011).³

Elderly patients: Only one retrospective study has specifically addressed the elderly population (Downey et al., 2009).⁴ This study did not find a significant difference in mortality rates between groups who did or did not receive platelets; however, there were significant group differences at baseline (i.e. age, warfarin status) and further prospective study is warranted.

Intracerebral Hemorrhage: Patients with ICH were transfused with one apheresis unit of platelets in 2 separate studies. In one study, transfusion improved aspirin-induced but not trauma-induced platelet dysfunction (Briggs et al., 2015).⁵ In the other (Joseph et al., 2013),⁶ 1 pack of platelets did not improve platelet function. A systematic review has found insufficient evidence to support routine use of platelets in ICH patients on antiplatelet therapy (Nishijima et al., 2012).⁷

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4. Downey DM, Monson B, Butler KL, Fortuna GR Jr. et al. Does platelet administration affect mortality in elderly head-injured patients taking antiplatelet medications? *Am Surg*. 2009 Nov;75(11):1100-3.
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7. Nishijima DK, Zehtabchi S, Berrong J, Legome E. Utility of platelet transfusion in adult patients with traumatic intracranial hemorrhage and preinjury antiplatelet use: a systematic review. *J Trauma Acute Care Surg*. 2012 Jun;72(6):1658-63.