Post-transfusion purpura (PTP)

Condition for which Ig has an emerging therapeutic role.

Specific Conditions	• Post-transfusion purpura (PTP)
Indication for Ig Use	• Post transfusion purpura [PTP] or suspected PTP with thrombocytopenia associated with a risk of life-threatening bleeding
Level of Evidence	Insufficient data (Category 4a)
Description and Diagnostic Criteria	Post transfusion purpura (PTP) is caused by antibodies to platelet specific antigens, usually anti-HPA1a. PTP may result in profound thrombocytopenia with associated life threatening bleeding. While the platelet count typically recovers spontaneously, this can take several weeks or more. Specialised investigations (antibody screening, patient/donor genotyping) and antigen matched platelet and/or red cell transfusion support may be required. Contact the Australian Red Cross Lifeblood for more information.
Justification for Evidence Category	Mueller-Eckhardt and Kiefel (1988) evaluated the effect of high-dose immunoglobulin G (HDIgG) in 11 PTP cases investigated in one institution, and summarised clinical data on eight additional reported cases. Of 17 cases, 16 had good or excellent response to HDIgG, attaining normal platelet counts within a few days; only one failure was observed. Five patients relapsed, but attained complete remission after a second course (dose) of IgG. Total IgG doses per course were in the range of 52–180 g. Five different IgG preparations were used and seemed similarly effective. No adverse reactions were observed. The authors conclude that HDIgG is the treatment of choice for PTP.
Diagnosis Requirements	A diagnosis must be made by a Haematologist or a General Medicine Physician.
Qualifying Criteria for Ig Therapy	• Clinical diagnosis or suspicion of PTP with profound thrombocytopenia AND • A risk of life-threatening bleeding Laboratory confirmation is desirable where possible in the time frame (usually an urgent, life-threatening clinical situation).
Review Criteria for Assessing the Effectiveness of Ig Use	**Review is not mandated for this indication however the following criteria may be useful in assessing the effectiveness of Ig therapy.** • Resolution of, or a reduction in evidence of bleeding correlating with a doubling of platelet count or increase in platelet count of greater than $30x10^9$/L within seven days OR • In patients without active bleeding a doubling of baseline platelet count and a rise in platelet count greater than 30 x 10^9/L was demonstrated within seven days of previous Ig therapy
Dose	• **Dose (IVIg)** - 1 g/kg as a single dose, repeated if necessary. The aim should be to use the lowest dose possible that achieves the appropriate clinical outcome for each patient. Refer to the current product information sheet for further information on dose, administration and contraindication.

Bibliography

Bibliography

Gonzalez, CE and Pengetze, YM, 2005, 'Post-transfusion purpura', *Current Haematology Reports*, vol. 4, no. 2, pp. 154–9.

Mueller-Eckhardt, C and Kiefel, V, 1988, 'High-dose IgG for post- transfusion purpura - revisited', *Blut*, vol. 57, no. 4, pp. 163–7.

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