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[P047] How recommendations from systematic reviews can be used to best inform practice - three examples from the field of transfusion medicine

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#### Abstract

**Background:** We have completed a number of systematic reviews in the field of transfusion medicine. These reviews are part of an ongoing project funded by the National Blood Service with the objective of increasing the evidence base for the practice of transfusion medicine.

**Objectives:** We will detail how the findings and recommendations for further research from three of our reviews have been used directly to fill gaps in the transfusion medicine evidence base.

**Methods:** Three Cochrane systematic reviews were undertaken between 2004 and 2006. The focus of the reviews was the effectiveness of three blood products: fresh frozen plasma (FFP), prophylactic platelet transfusion in patients with a haematological malignancy and granulocyte transfusions for treatment of infections in neutropenic patients.

**Results:** The overall findings of these reviews were wide variation in the usage of FFP, uncertainty about the effectiveness of the practice of prophylactic transfusion therapy and inconclusive evidence from randomized controlled trials (RCTs) to support or refute the use of granulocyte transfusion therapy to reduce mortality in patients with neutropenia and severe infection. None of these reviews made any recommendations for change to current clinical practice on the basis of the reviews' findings. Following recommendations for further research from these respective reviews, an audit of FFP usage across all clinical areas, a multi-centre RCT measuring the equivalence of therapeutic in comparison to prophylactic platelet transfusions in patients with haematological malignancy and a trial exploring the safety of granulocyte transfusions as replacement therapy for patients with severe ongoing neutropenia have been developed and are underway under the auspices of the National Blood Service.

**Conclusions:** Careful consideration of the findings of a review can indicate where additional research needs to be undertaken to both guide practice and fill gaps in the respective evidence base.