The strengths and weaknesses of the evidence base for transfusion.

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There are considerable data that current transfusion practice is sub-optimal, and varies widely between different hospitals and clinical teams. Clinicians may not be aware of guidelines of good practice or may be reluctant to follow them because of perceived weaknesses in the evidence-base for their recommendations.

Randomised controlled trials (RCTs) are considered to be the ‘gold standard’ for providing evidence for the effectiveness of an intervention. Systematic reviews are research tools using an explicit approach to the review of a given topic and typically use RCTs to provide high quality evidence. Currently, there are about 3000 RCTs, and 100 systematic reviews in transfusion medicine, and they cover a wide variety of topics. However, there are some areas of transfusion practice where few systematic reviews exist. Formal assessment indicates that the quality of their methodology is often poor, and some systematic reviews only identified a small number of relevant RCTs.

This weakness of the evidence base in transfusion medicine should be seen as a specific challenge to develop new, methodologically strong, clinical trials.