

Title: Enhancing the effectiveness, appropriateness, and sustainability of blood product management - a data analytics approach

The management of the blood sector in Australia has made significant progress in the last two decades. Blood supply planning and contract management with suppliers have improved. National supply contingency planning has been achieved, and significant safety and quality initiatives have been introduced. Nevertheless, there are still major challenges to ensuring the provision of an effective, appropriate and sustainable service.

Critical information gaps exist regarding key aspects of transfusion practice including how blood or products are used, how much is used, the demographic profile of the recipients, and levels of wastage. Such information gaps impede performance and inventory management in the sector. Data at the facility level by patient diagnoses and procedures conducted are required to allow reasonable comparisons between blood and blood product use across regions and institutions to facilitate demand forecasting and benchmarking of appropriate use, whilst providing physicians with information to monitor and assess individual performance.

This project aims to improve the effectiveness and appropriateness of blood product management services in Australia. Specifically, this project will:

- Assess the quality of data sources for the measurement of blood and blood product usage.
- Measure the levels of variation in blood product usage across regions, across hospitals and within hospital settings.
- Assess appropriateness (based on evidence-based guidelines) of current blood and blood product practices.