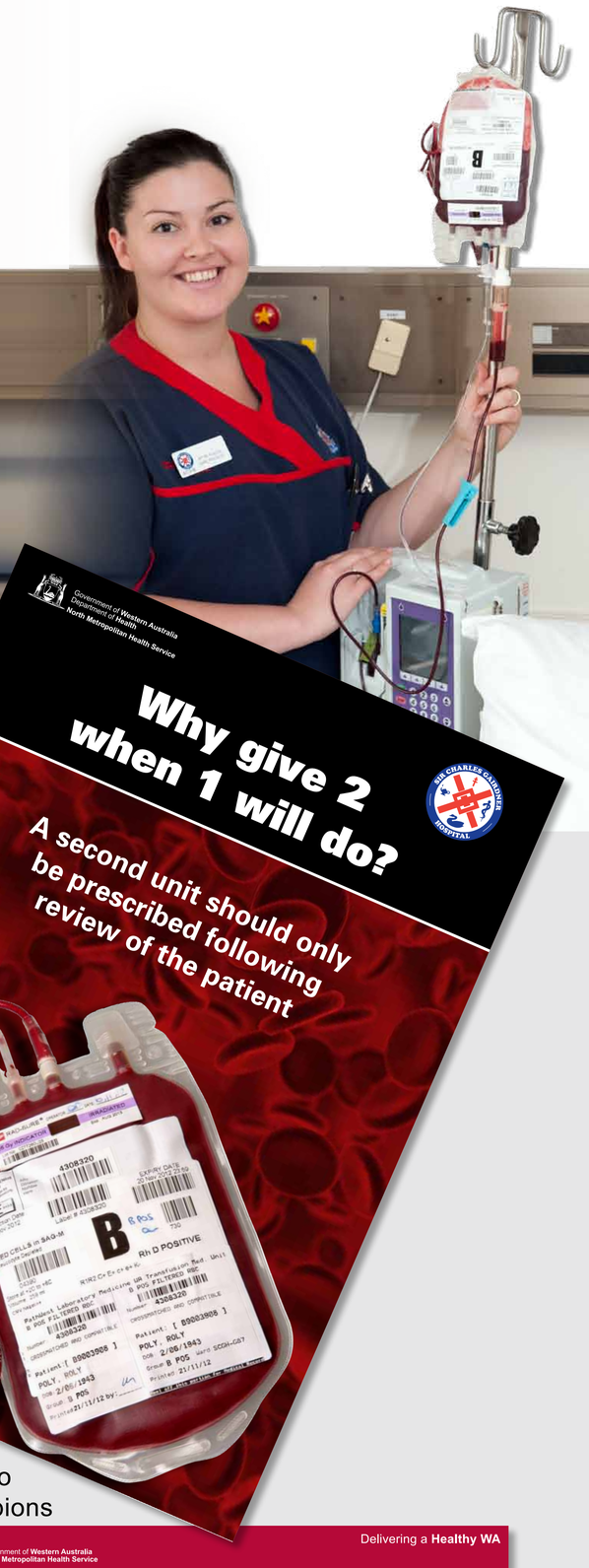
Government of **Western Australia**
North Metropolitan Health Service

Transition from Transfusion:

The Implementation of a Patient Blood Management Program



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Background

Evidence regarding transfusion efficacy, safety and costs has exploded over recent years culminating in the National Blood Authority's publication of the Patient Blood Management (PBM) Transfusion Guidelines[1]. Even with a growing body of evidence, changes to transfusion practice are slow to be adopted. The aim of a PBM program is to improve patient outcomes by optimising and conserving the patient's own blood, reducing transfusion and conserving the blood supply[2]. In this role, PBM has become the new champion of transfusion by implementing practices to minimise or avoid unnecessary transfusions.

Objective

To demonstrate how the Transfusion and PBM Clinical Nurse Consultants (CNC) led the collaboration between the Transfusion and PBM committees to implement transfusion practice changes.

To identify resources that were developed and strategies that were undertaken to guide this process.

Method

Changes to transfusion culture and practice were identified as PBM priorities and potentially the greatest challenges. Engagement of a wide range of clinical experts was required to successfully implement transfusion practice change. The multi-disciplinary PBM team provided leadership and representation across a number of areas where blood use was regularly used in clinical practice. Collaboration on changes to transfusion policy and protocols was achieved by ensuring that a clear consultation process occurred between the Transfusion Services and PBM committees, with the CNCs acting as conduits to both committees.

The CNCs used evidence based models in the development of policies, protocols, posters and algorithms to legitimise and reinforce the change message. Transfusion education focused on the positive aspects of reducing transfusion by pre-operative anaemia screening and optimisation to improve the patient's own red cell resources and implementation of a single unit transfusion policy to reduce the risks of transfusion. Staff were encouraged to consider the consequences of inappropriate transfusion, not only from a theoretical evidence based perspective but also as a potential health consumer. Transfusion policy updates were communicated to Transfusion Champions at monthly education forums; in turn these staff were able to disseminate information and engage with clinical staff at the local ward level.

References

1 National Blood Authority. Patient Blood Management Guidelines (Accessed 20th August 2013, at http://www.blood.gov.au/pbm-guidelines)
2 Western Australia Department of Health. Patient Blood Management (Accessed 6th August 2013, at http://www.health.wa.gov.au/bloodmanagement/professionals/dev.cfm)
3 Ma M, Eckert K, Ralley F, Chin-Yee I. A retrospective study evaluating single-unit red blood cell transfusions in reducing allogeneic blood exposure. Transfusion Med 2005; 15:307-312
4 Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards.Sydney.ACSQHC 2011

Results

Single unit policy and poster

The literature indicates that a single unit policy initiative can be a safe and effective strategy in reducing the patient's exposure to transfusion related risks[3]. Single unit transfusions are used for non-bleeding patients with low haemoglobin who are haemodynamically stable. In many instances one unit of red blood cells will be sufficient to relieve symptoms of anaemia. A second unit should only be considered after assessing the patient for ongoing clinical signs and symptoms of anaemia.

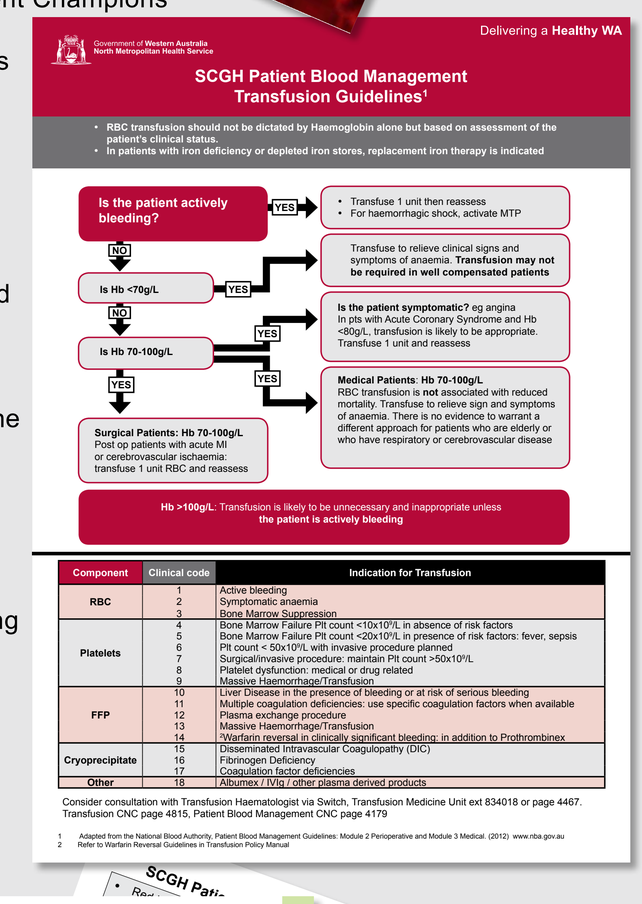
The CNCs worked together to provide medical and nursing education utilising a variety of communication formats and media to facilitate the implementation of the policy. Regular articles were submitted to medical and nursing newsletters and were complemented by a widely advertised Transfusion and PBM road show. The road show was set up in a busy thoroughfare over lunch time and provided an opportunity for hospital staff and consumers to ask questions. Posters promoting the new single unit policy were distributed to clinical areas and placed in lifts hospital-wide.

Blood Management Champions

The Transfusion Link nurse team was formed in 2009 to promote safe clinical practice around blood and blood products and act as a positive role model and clinical resource person for colleagues in clinical areas. The team agreed to expand their current role to encompass both transfusion safety and PBM in June 2013 and the name was changed to Blood Management Champions.The new name was used to reflect their expanded role as an integral part of the PBM team. The Blood Management Champions are utilised to deliver information and help in the dissemination of Transfusion/PBM policy changes and practices to colleagues in the clinical areas. The monthly meetings include education session relating to Transfusion/PBM with an opportunity to discuss practice issues. The Champions are proving to be an effective resource for facilitating change at a local level.

Decision to Transfuse Algorithm

Using the National Blood Authority (NBA) PBM transfusion guidelines, the CNCs created a decision to transfuse algorithm which was reviewed and endorsed by the Transfusion and PBM committees. The intent was to facilitate the decision making process by providing succinct overarching information for medical staff to prescribe transfusion in accordance with the NBA PBM guidelines[1]. The algorithm has been incorporated into the Blood Product Transfusion form and is widely available in clinical areas.



Revision of the Blood Product Transfusion form

In accordance with PBM recommendations and National Standards Blood and Blood products[4], the transfusion prescription form was revised to address 4 key areas relating to transfusion practice:

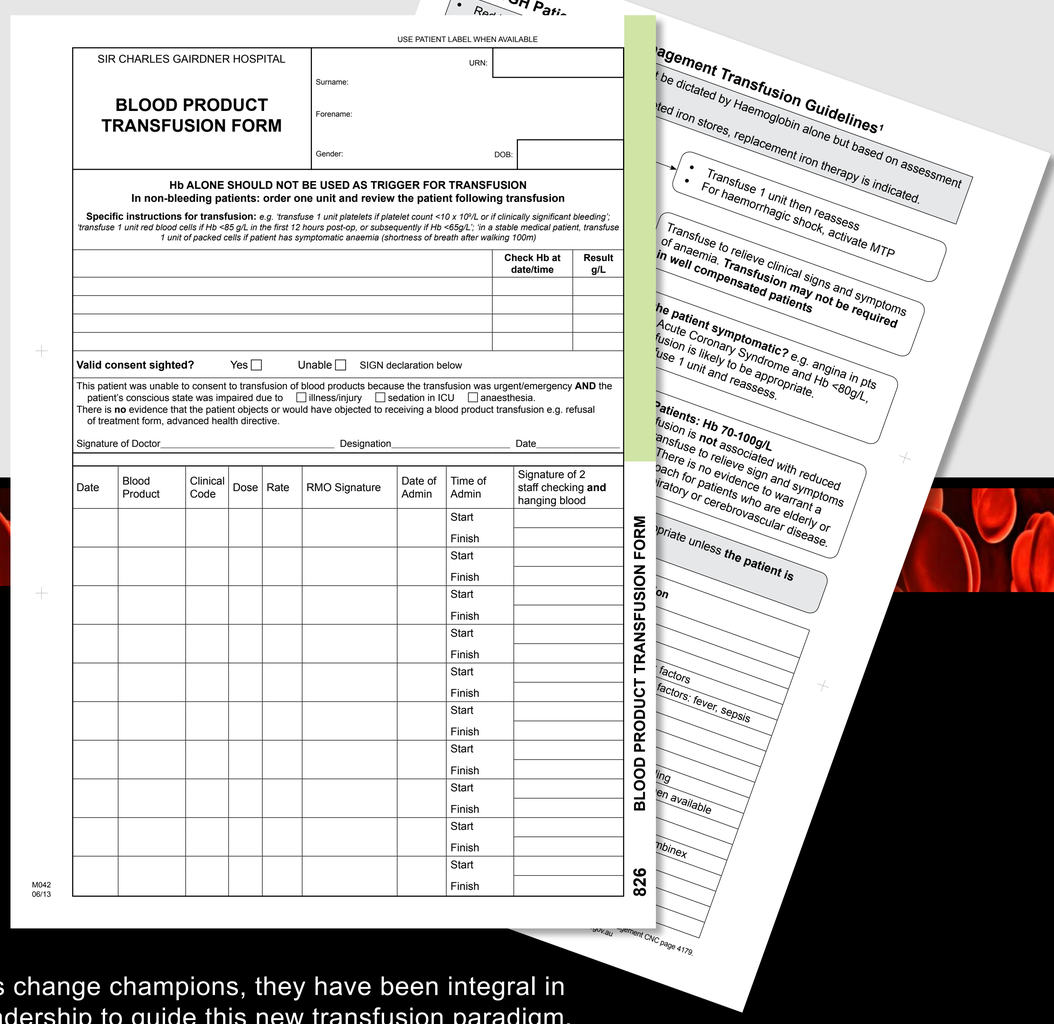
- Visual prompt to facilitate consent compliance
- Ability to provide patient focused prescribing
- Coding of clinical indications to identify rationale for transfusion. This assists clinical coders when reviewing patient notes
- Algorithm adapted from NBA's PBM guidelines[1] for decision to transfuse

Audit Results

A recent snapshot audit of transfusion rates at Sir Charles Gairdner Hospital of 100 elective joint replacement patients showed

- a decline in transfusion rate by number of units
- a reduction in the number of transfusion episodes

Although the sample size was small, this audit has suggested a trend toward declining transfusion rates and a change in transfusion practice culture.



Conclusion

Single unit transfusion orders are becoming more apparent and staff are beginning to reject traditional transfusion thresholds in line with PBM recommendations. Ongoing data collection and clinical audits will evaluate the effectiveness of these transfusion guidelines and demonstrate the application of PBM in clinical practice.

The implementation of a new program requires a collaborative team approach with clear and realistic expectations of what is to be achieved. The two CNCs share a vision in providing evidence based patient focused care, by promoting the principles of PBM which encompasses appropriate transfusion practices. As change champions, they have been integral in developing clinical tools and have provided significant leadership to guide this new transfusion paradigm.