

# Clinical Guidelines (Hospital)

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## Blood Transfusion, Consent and documentation

### Introduction

This clinical practice guideline addresses the consent and documentation required for the administration of all fresh blood products (see definition).

### Purpose

The purpose of this guideline provides a framework for clinicians prescribing fresh blood products for all patients at The Royal Children's Hospital and should be used in conjunction with the RCH blood transfusion policy.

### Definition of Terms

Fresh blood products include:

- Red Blood Cells (RBC)
- Platelets (Plts)
- Fresh Frozen Plasma (FFP)
- Cryoprecipitate (Cryo)

### Standards

The administration of fresh blood products is governed by the standards and recommendations published by World Health Organisation (WHO), Australian Red Cross Blood Service (ARCBS), National Health and Medical Research Council (NHMRC), Australian Council for Healthcare Standards (ACHS) and Australia New Zealand Society of Blood Transfusion (ANZSBT).

### Documentation

Complete documentation of transfusions is essential so that the cause of serious adverse effects can be adequately investigated, which can involve retrospective 'lookback'.

A permanent record of the transfusion of blood and blood components shall be made in the medical record by the doctor prescribing the transfusion. This includes:

- The clinical indication for the use of blood or blood components, for example Hb 69, tachycardia, febrile, needs transfusion of red cells, platelet count <10, bruising, requires transfusion of platelets.
- The outcome of the transfusion (when appropriate) including whether or not it achieved the desired effect, for example rise in blood count, improved clinical condition.
- The occurrence and management of any adverse events.

## Medical Prescribing

- Blood and blood products must be ordered by a Medical Officer. The medical order requires the following information:
  - Blood product type, e.g. red cells
  - Special requirements or modifications, e.g. irradiation, leucocyte depletion, use of a blood warmer
  - The volume/dose required
  - The rate of infusion
  - The date and time of transfusion
  - Any medication including premedication

## Informed Consent

Informed consent for transfusion means a conversation has occurred between the patient and the doctor. The significant risks benefits and alternatives to transfusion will have been discussed.

As a result of discussion the patient/carer should:

- Understand what medical action is recommended
- Be aware of the risks and benefits associated with the transfusion
- Appreciate the risks, and possible consequences of not receiving the recommended therapy
- Be given an opportunity to ask questions
- Give consent for transfusion

The consent shall be documented by a consent form or by documenting the discussed information in the

patient's case notes.

## Guide for providing informed consent

The following information is provided as a guide to assist you in gaining informed consent for blood transfusion. In non-urgent situations a discussion should take place with the parent(s) about what a blood transfusion involves and the risks. The discussion should include the following:

### Explain

#### 1. Why are you recommending a transfusion?

- Eg. Low blood count, likelihood of bleeding during surgery

#### 2. Benefits expected

#### 3. What is the product and what does it do

#### 4. Alternatives

- Are any available (for example the use of iron for treatment of iron deficiency anaemia) and if so why are you recommending transfusion?
- Blood donation from a family member (those wanting directed donation need to be referred to on call haematologist, this process takes a few weeks to complete and is only suitable for planned transfusions i.e. For major surgery)

#### 5. Risks

- Low risk, but serious eg. viral transmission
- Common but not serious eg. headache, fever
- Receiving the wrong blood
- The risk of not transfusing

#### 6. Provide written information - link to parent health info site

#### 7. Ask, the parent/care giver if there are any questions

#### 8. Document the consent process:

- On the operative consent form (MR 132) if there is reasonable likelihood of transfusion during surgery or
- A brief note in the medical history

## General Risks of Transfusion

The commonest causes of transfusion reactions seen at The Royal Children's Hospital are fever, chills, hives and red rashes, these occur in approximately 1% of all blood transfusions. The incidence can increase to 10% in children that are chronically transfused.

Circulatory overload is a risk for those patients that are already in a high risk group for circulatory overload, for example neonates, cardiac patients.

## Risks of transfusion transmitted Infection

The following information is provided as guidance, in order to provide you with the relevant information in the event that you are asked questions it is not expected that you will discuss this with every family.

### Description of transfusion related adverse events

Adverse transfusion reaction	Incidence
Allergic	1 - 3% of plasma infusions
Febrile nonhaemolytic transfusion reaction	1:100
Circulatory overload	Up to 1% of patients
Delayed haemolytic transfusion reaction	1:4,000 - 9,000
Transfusion-related acute lung injury (TRALI)	1:5,000 - 10,000
ABO incompatibility	Variably reported as 1:12,000 - 77,000
Bacterial infection	For clinically apparent reactions, variously reported to be 1:100,000 for platelets, however probably under-reported.
Anaphylactoid reactions or anaphylaxis	1:20,000 - 170,000
Viral infection	<p>The values here detail the estimated risk for July 2000 to June 2003. The figures for HIV and HCV antibody testing only are included to allow for risk comparison in the rare event that products are released without Nucleic Acid Testing (NAT).</p> <p>HIV 1 and 2 antibody only is 1 in 2,404,000; HIV antibody + NAT is 1 in 7,299,000  HCV antibody only is 1 in 330,000; HCV antibody + NAT is 1 in 3,663,000  HBV is 1 in 1,339,000  HTLV I &amp; II is considerably less than 1 in 1,000,000  vCJD is Possible. Not yet reported in Australia*</p> <p>*vCJD: To date no Australian has been identified with vCJD. In the UK there have been two reported cases of probable transfusion transmission of vCJD in 2003/04. In Australia, as a precaution, people who</p>

	have spent a cumulative period of 6 months in the UK between 1/1/80 and 31/12/96 and/or had a transfusion in the UK between 1/1/80 and the present time are not accepted as blood donors.
Classical Creutzfeldt-Jacob Disease (cCJD)	There have been no reported cases of transmission by transfusion of classical Creutzfeldt-Jacob Disease (cCJD) 44, and retrospective studies suggest that the possibility of such transmission of cCJD is remote.
Variant Creutzfeldt-Jacob Disease (vCJD)	To date no Australian has been identified with vCJD. In the UK there have been two reported cases of probable transfusion transmission of vCJD in 2003/04. In Australia, as a precaution, people who have spent a cumulative period of 6 months in the UK between 1/1/80 and 31/12/96 and/or had a transfusion in the UK between 1/1/80 and the present time are not accepted as blood donors.
Post Transfusion Purpura	Rare
Transfusion-acquired Graft-versus-host Disease	Rare
Metabolic complications	Variable
Iron overload	Not known but the risk should be considered with chronic transfusions, especially greater than 20 units.
Immune modulation	Not known

\*taken from Transfusion Medicine Manual (2003).

Fractionated blood products derived from human plasma (eg. immunoglobulins, albumin) include viral inactivation steps and therefore the viral risks are much lower. There have been no documented cases of viral transmission with albumin, and no cases of viral transmission with Australian IVIG.

## Links

- [Blood transfusion policy](#)
- [Kids Health Info, parent info leaflet](#)
- [Blood transfusion website](#)

## Reference

- [ANZSBT and RCN \(2004\) Guidelines for the administration of blood components](#), 1st Ed. Sydney, ANZSBT.
- [www.transfusion.com.au](http://www.transfusion.com.au)

## Evidence Table

- [Blood Transfusion, Consent and Documentation](#) (PDF 40KB)

## Acknowledgements

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