

Completing the prescription chart

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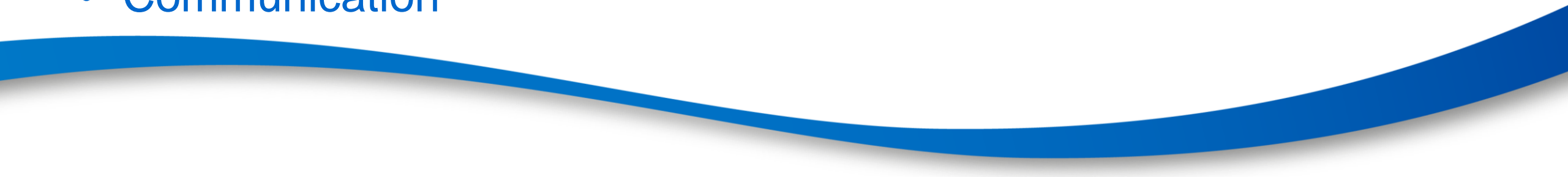
Transfusion Practitioner

James Cook University Hospital


Core principles of authorising the blood product

- Thorough clinical assessment has been undertaken and patient is fit for transfusion
- Stay within your agreed area of competency

Then ...

- Patient ID
 - Documentation
 - Communication
- 

Minimum Dataset

- Core identifiers
 - Full name
 - Date of birth
 - Unique ID number
 - Type of components
 - Red cells - FFP
 - Platelets - Cryoprecipitate
 - Date & time of transfusion
 - Special requirements if applicable
 - Signature and contact details
- 

Volume Adults

Red cells

Adult = 4ml/kg will typically give a Hb increment of 10g/L.

Platelets

1 pooled (4 donors) or apheresis unit

FFP

15ml/kg

- 50kg - 65kg 3 units
- 70kg - 85kg 4 units
- 90kg - 100kg 5 units

Cryoprecipitate

If Fibrinogen <1.5g/l (<2g/l in pregnancy)

- 2 pooled packs (10 donors)

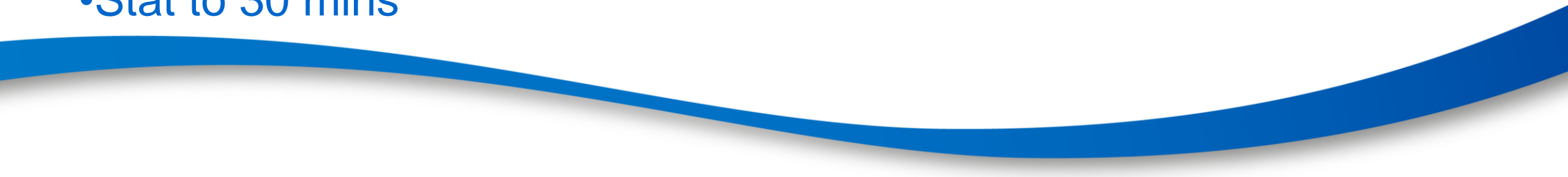
Rate

Dependent on clinical condition and co-morbidities

Red cells

- over 90 mins to 3 hours

Platelets

- over 30 minutes
 - FFP**
 - Stat to 30 mins
 - Cryoprecipitate**
 - Stat to 30 mins
- 

Paed/neonates

Transfusion formulas

- Top-up 10-20 mL/kg, (typically 15 mL/kg over 4 hours)

Desired Hb - Actual Hb
 x weight x Factor 3 to 5
 ÷ 10 ÷ hrs

15kg child with hb of 70g/dl; target Hb 100g/dl

Desired Hb = 100 - Actual Hb (70) = 30
 X 15kg = 450 x 3 = 1350mls ÷ 10 = 135mls
 ÷ 3 (hrs) = 45mls/hr
 Total amount transfused = 135mls

Platelets volume and rate formula

<15 kg child

10–20 ml/kg over 1 or 2 hours

>15 kg child

Single apheresis unit over 1 or 2 hours

FFP volume and rate formula

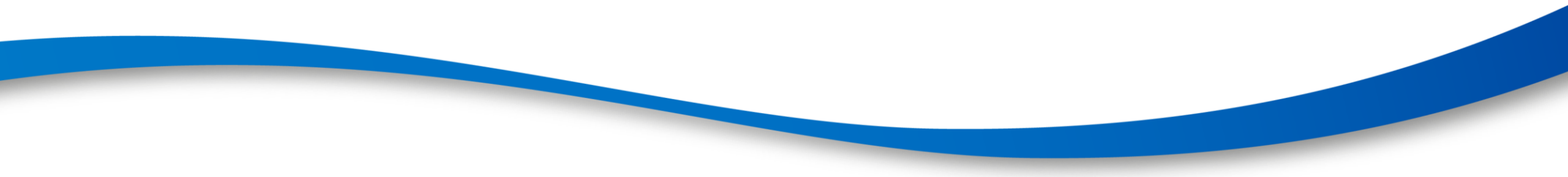
10 to 20 ml/kg over 1 or 2 hours

Cryo volume and rate formula

5ml/kg over 1 or 2 hours

Medication during/pre transfusion

E.G. Frusemide, Hydrocortisone, Piriton, Paracetamol

- Determined by local policies/assessment procedure
 - Assessment should highlight if the patient is fit for transfusion
 - Has the decision been made to administer medication
 - Do you need to challenge this prior to transfusion
- 

Apps to help.



Available on [Google Play](#) and at the [App Store](#)



The Blood Component Indication App summarises relevant national transfusion guidelines for Adults, Infants & Children and Neonates.

Menu	Adults	Neonates															
<p>These summaries should be used in conjunction with relevant BSH and other published guidelines.</p> <p>Adults This guidance is based on the NICE Patient Blood Component for Transfusion (June 2015).</p> <p>Infants & Children This summary guidance is based on the Guidelines on transfusion for Infants, neonates and other (June 2014, 2016).</p> <p>Neonates This summary guidance is based on the Guidelines on transfusion for Infants, neonates and other (June 2014, 2016).</p>	<p>Adults</p> <p>RBC PLT FFP CBG/CC PCC</p> <p>Red Cells</p> <p>Red Cell Concentrates</p> <p>Dose - in the absence of active bleeding, use the minimum number of units required to achieve a target Hb. Consider the size of the patient, assume an increment of 13g/L per unit for an average 70kg adult.</p> <p>R1 Acute Bleeding</p> <p>Acute blood loss with haemodynamic instability. After resuscitation has been achieved/maintained, frequent measurement of Hb (including by near patient testing) should be used to guide the use of red cell transfusion - see suggested thresholds below.</p> <p>R2 Hb < 70g/L, stable patient</p> <p>Acute anaemia.</p> <p>Back</p>	<p>Neonates</p> <p>RBC PLT FFP CBG/CC</p> <p>Red Blood Cells</p> <p>Red cells for top-up transfusions</p> <ul style="list-style-type: none"> • Studies support restrictive transfusion thresholds. <p>Suggested transfusion thresholds for preterm neonates</p> <table border="1"> <thead> <tr> <th rowspan="2">Postnatal age</th> <th colspan="3">Suggested transfusion threshold Hb (g/L)</th> </tr> <tr> <th>Withhold</th> <th>On request/APPV**</th> <th>Off oxygen</th> </tr> </thead> <tbody> <tr> <td>1st 24 hours</td> <td>>120</td> <td>>120</td> <td>>100</td> </tr> <tr> <td>post 24 hours < 1.5h</td> <td>>120</td> <td>>120</td> <td>>100</td> </tr> </tbody> </table> <p>Back</p>	Postnatal age	Suggested transfusion threshold Hb (g/L)			Withhold	On request/APPV**	Off oxygen	1st 24 hours	>120	>120	>100	post 24 hours < 1.5h	>120	>120	>100
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Questions ?

