

Completing the prescription chart

Carolyn Carveth-Marshall

Transfusion Practitioner

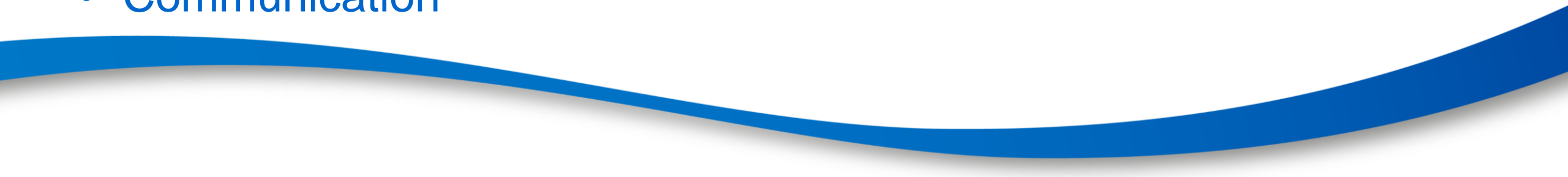
James Cook University Hospital

Presented by Sue Rabett

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)

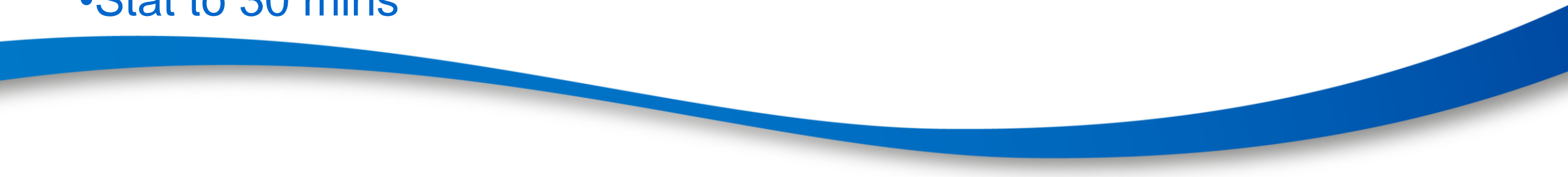
Rate

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

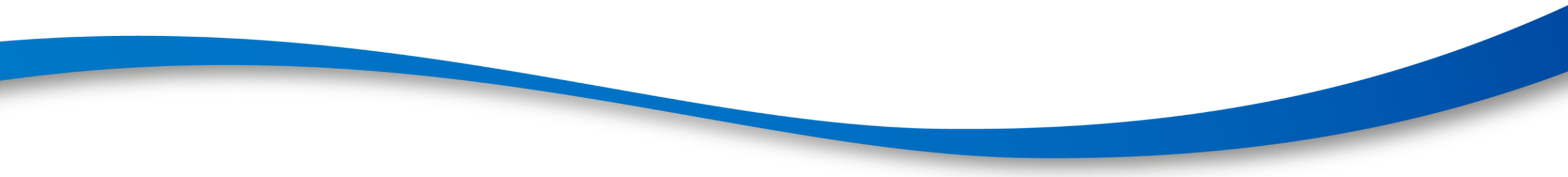
10 to 20 ml/kg over 1 or 2 hours

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.

The screenshots show the app's navigation menu with three options: 'Adults', 'Infants & Children', and 'Neonates'. The 'Adults' screen shows a 'Red Cells' section with 'Red Cell Concentrates' and 'R1 Acute Bleeding' sub-sections. The 'Neonates' screen shows a 'Red Blood Cells' section with a table of 'Suggested transfusion thresholds for preterm neonates'.

Postnatal age	Suggested transfusion threshold Hb (g/L)		
	Threshold	On oxygen/APP/PPV	Off oxygen
1st 24 hours	>120	>120	>100
postnatal age > 1-2h	>120	>120	>100

Questions ?

