

# Hospital Transfusion Laboratory Let's Talk Platelets

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# Transfusion Laboratory Role for Platelet Control

- ▶ Encourage the development of policies and procedures for the optimum use of platelets in an effective way
- ▶ Increase understanding of the balance between supply and demand
- ▶ Encourage a pro- active approach to stock management and movement between the 2 hospital sites
- ▶ To reduce wastage to a minimum (< 2%)

# Meeting the Role

- ▶ Education for 'Better use of Blood' and Clinical Governance using Transfusion Nurses
  - Use of platelets appropriately
  - Audit
- ▶ Use Newcastle Hospitals as one Blood bank
  - If platelets no longer required on any site, all sites notified, transferred if required.
  - Reduce platelet wastage; Maximum expiry of 7 days from collection (< 24 hours to 4 days expiry when the Hospital receives unit)

# Common Problems

- ▶ Medics / Wards
  - BCSH Guidelines, Special requirements
- ▶ Orders
  - Rely on platelet counts, Urgent due to bleeding
- ▶ Availability
  - Limited Supply
- ▶ Transport
  - We are only a half hour away (it takes 2 or more)
- ▶ Time
  - For platelet to arrive, delay to patient
- ▶ Stock
  - Is this the answer?

# Audit of platelet transfusions in NCCC

One Month (November 2011) – Dr. Sally Pearson

- ▶ Increasing use of platelets, limited supply
- ▶ Platelet are expensive
  - £232 standard pool
  - £240 CMV negative or irradiated (£247 both)
- ▶ BCSH guidelines and Special requirements for platelet transfusion
  - Do we request appropriately?
  - Are platelets issued according to true requirements?
- ▶ 243 requests → 216 transfused → 55 patients

# BCSH Guidelines

## Based on Platelet Count

<10	1	any patient
<20	2	APML
	3	extensive superficial haemorrhage
	4	fever/sepsis
	5	abnormal coag tests
<50	6	Hickman line insertion
	7	lumbar puncture
	8	GI endoscopy/ bronchoscopy
	9	transjugular liver biopsy
	10	haemorrhagic cystitis
	11	retinal haemorrhage
	12	GI bleed
	13	heparin administration
	14	laparotomy
	15	DIC
<100	16	CNS bleeding
	17	brain surgery
	18	eye surgery
	19	multiple trauma

## Special Requirements

### CMV Negative

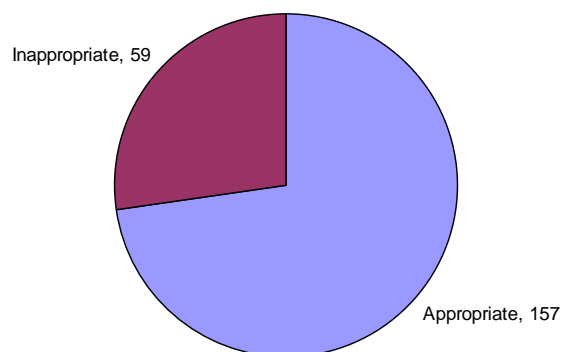
- 1 CMV negative/negative ALLO stem cell transplant
- 2 CMV negative pregnant women
- 3 Intrauterine transfusions (IUT)

### Gamma-irradiated

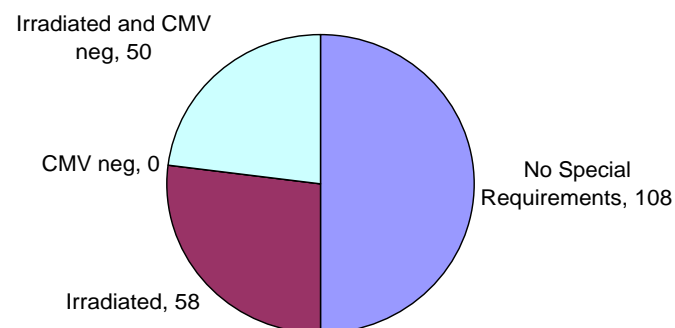
- 4 All patients with Hodgkins disease
- 5 Patients having ever received fludarabine or clofarabine
- 6 AUTO: 3 months post transplant
- 7 SCT in children with SCID: 1 year post transplant
- 8 For 7 days prior to PBSC collection
- 9 ALLO: 6mths post transplant/immunosuppressants finished
- 10 Prior to transplant: from the time of conditioning therapy
- 11 Where blood products from relatives are being used
- 12 IUT and up to 6 months post birth

# Do we transfuse according to BCSH guidelines? (n216 units Transfused)

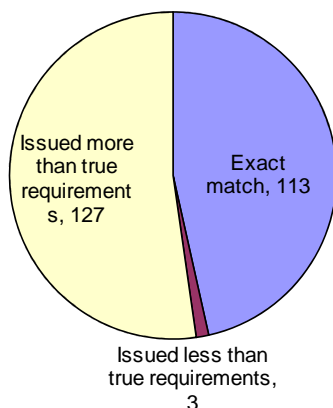
most stringent criteria



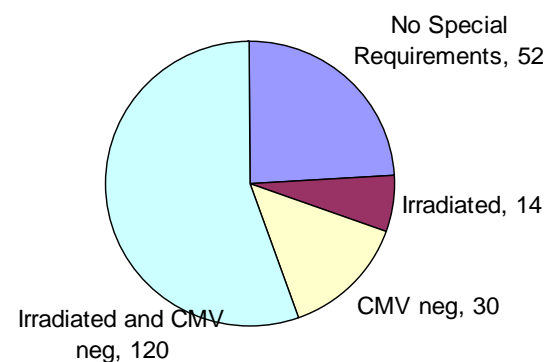
Platelets required



Special Requirements (n243 requests)



Platelets issued



# Cost of one months “inappropriate” transfusions

- ▶ 59 “inappropriate” BCSH extra cost £14,100
- ▶ 127 “extra” special requirements £ 1,192
- ▶ 27 ordered not used (wasted) £ 6,642



- ▶ Extrapolated to 12 month period:
    - “Inappropriate” £169,202
    - “Extra” £ 14,304
    - “Wasted” £ 79,704
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- “Potential extra cost” £263,210

# NUTH Platelet use in 2011

Product	Platelet (Adult)	Platelet (Single)
Total Units Issued	6523	608
Total Number of Recipients	1184	105
Total Units Transfused	6255	514
Unit Wastage	268 (4.1%)	94 (15.5%)
Cost of standard adult unit £232 Cost of standard single unit £89	£62,176	£8,366

# Summary – Nothing but Questions?

- ▶ Does CMV Negative matter?
  - ▶ What would be the impact if all platelets were irradiated?
  - ▶ How do we reduce inappropriate costs and wastage?
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- ▶ Stocks held by the Hospital with return of product if no longer required?