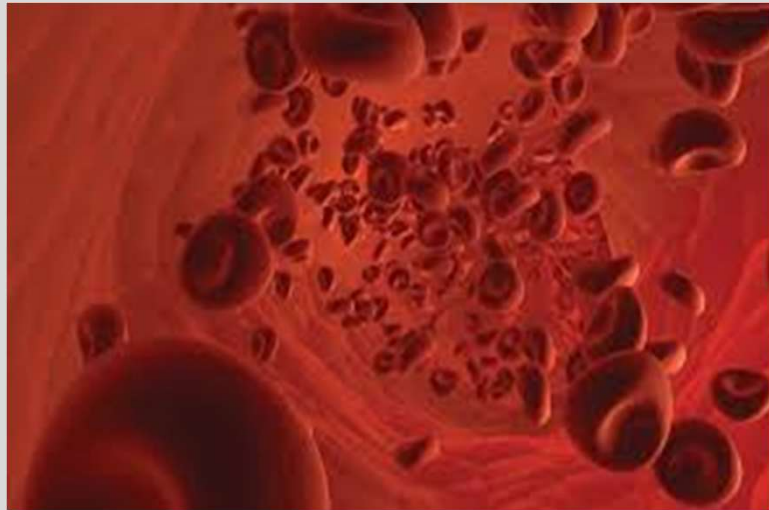


Special Requirements



BMS Study Day 24th April 2018
Tracy Nevin - RGN
Blood Transfusion Specialist Practitioner

“Don’t worry you are in good hands, the Clinical staff and the Transfusion Scientists will make sure I am”. They wouldn’t want you to have any reaction or serious adverse event”.



Special Requirements

- Red Cells
- “ Club 96 – Platelets & Frozen Plasma Products
- Granulocytes
- Irradiated
- CMV
- HEV

IUT & Exchange Transfusion

	Rationale	Specifications	Special requirements
IUT	HDFN – D positive foetus RBCs being destroyed by mothers sensitised immune system. (usually due to D / Kell)	<ul style="list-style-type: none"> Plasma reduced in CPD, Group O with low titre haemolysins (HT neg)/ ABO typed to fetus D & Kell negative, Negative for maternal alloantibodies IAT XM compatible with maternal plasma Leucocyte-depleted <5/7 old - reduce risk of Hyperkalaemia Sickle Screen negative 	<ul style="list-style-type: none"> Irradiated – shelf life 24 hours CMV negative HEV negative
Exchange	<p>Neonates with severe anaemia and hyperbilirubinemia usually caused by HDFN</p> <p>Rare procedure since introduction of prophylactic anti-D,</p>	<ul style="list-style-type: none"> As for IUT Plasma reduced with Haematocrit of 0.5-0.6 to reduce the risk of post-exchange polycythaemia 	<ul style="list-style-type: none"> Same as for IUT Irradiated if history of IUT exchange Warmed 37°C with blood warmer

Should be performed in a specialist centre & planned beforehand with NHSBT

Haemoglobinopathies

Rationale	Specifications	Risks
<p>Sickle Cell</p>	<p>Mainly affects African ancestry. Make rigid, sticky and sickle shaped cells which do not bend easily and can get stuck.</p> <p>Transfusion is used to prevent SCC / long term complications such as: Pregnancy (anaemia) Stroke, Surgery, (reduce the number of HbS Cells in circulation)</p>	<ul style="list-style-type: none"> ○ HbS negative ○ Match with – ABO, D, C.c, E, e and Kell ○ Top up - <10 days old ○ Exchange transfusion – 7 day old
<p>Thalassaemia</p>	<p>Widespread throughout Africa, the Med, Middle East, India and Asia.</p> <p>2 types alpha & beta (reduction/ absent production of normal α or β - globulin chains, reducing levels of adult HbA</p> <p>Beta-thalassaemia major - apparent by 3-6 /12 after birth with severe anaemia. Transfusion dependent - resulting in iron overload requiring chelation therapy.</p>	<ul style="list-style-type: none"> ○ Alloimmunisation - European donor population ○ SC patients often have Ro (cDe), not found in European population ○ Majority of alloantibodies to Kell, D,C ○ Acute / Delayed TR often treated as Sickle Cell Crisis ○ Multiple transfusion - multiple alloantibodies

Found in high frequency where malaria is endemic and they probably offer some protection

“Club 96”

- Food chain deemed safe from vCJD
- Protect children (potentially safe future donor population)
- Extended age group now young adults
- More awareness required by Lab and Clinical staff



SABTO advice on reducing risk of vCJD

2007 / 8 – requirement for 80% of Platelets Apheresis, all products are leucocyte depleted

2013 – reconsidered their decision, better understanding of vCJD risk, 80% minimum provision of apheresis platelets no longer necessary. Both pooled and apheresis platelets should be re-suspended in Platelet Additive Solution (PAS).

Each UK blood service should set their own level of apheresis to collect.

Platelets

	Rationale	Specifications	Special Requirements
NAIT	NAIT – similar to HDN, maternal alloantibodies increased risk of intra cranial bleeding	<ul style="list-style-type: none"> ○ HPA compatible with Maternal alloantibody ○ Hyper-concentrated ○ Slow transfusion – slower than IUT of RBCs due to risk of stroke 	<ul style="list-style-type: none"> ○ Apheresis ○ Irradiated if previous IUT (keep their shelf life) ○ CMV negative
recurrent severe allergic / febrile reactions to standard platelet transfusions	Washed to remove most of the Plasma and then suspended in PAS	<ul style="list-style-type: none"> ○ Shorter shelf life to 24 hrs when prepared ○ Some platelets lost in the process ○ Contains approx. 10mls residual Plasma 	<ul style="list-style-type: none"> ○ PAS – specially ordered at NHSBT
HLA	<p>Failure to increment following platelet transfusion</p> <p>Immune Platelet alloantibodies:- HLA, HPA, Other antibodies:- Platelet auto antibodies, Drug-dependent platelet Antibodies, ABO Immune complexes</p> <p>Non immune – sepsis/infection, bleeding, splenomegaly, DIC, medications</p>	<ul style="list-style-type: none"> ○ Assess transfusion response ○ Test for HLA / HPA (if no response) alloantibodies ○ Trial HLA Platelets ○ If no increment check compatibility and see if there is a Non-immune causes ○ Trial HPA Platelets ○ Still not incrementing liaise with NHSBT H&I for advice 	<ul style="list-style-type: none"> ○ Apheresis ○ Irradiated (keep their shelf life) ○ NHSBT – keep panel of HLA typed donors

Frozen Plasma Products

	FFP (adults)	SDFFP (Octaplas) Born after 01.01.1996	MBFFP
Where	UK	NON - UK	NON UK
No. donors	Single donor	Several hundred	Single donor Previously tested for HLA in past 2 years (Male / Female)
Made	Separated from whole blood donation -	Treated with Solvent Detergent	(Methylene Blue treated at NHSBT)
Storage	Freezer 3 years Fridge - 24 hours post thawing	Freezer 3 years Fridge - 24 hours post thawing	Freezer 3 years Fridge - 24 hours post thawing
Thaw time	15 minutes	15 minutes	15 minutes
Dose	15mls / kg (dry weight)	15 - 20mls/kg	15 - 20mls/kg
Rate	30 minutes per pool	10-20ml/kg/hr (child) 30 minutes per pool (Adult)	10-20ml/kg/hr (child) 30 minutes per pool (Adult)

Cryoprecipitate

	Adults	Born after 01.01.1996
Where	UK Plasma -	Non UK Plasma
No. donors	1 pool = 5 donations	1 pool = 6 donations due to the lower quantity of Fibrinogen
Made	UK from thawed Plasma	(Methylene Blue treated at NHSBT)
Storage	Freezer 3 years 20-24°C, use by 4 hours post thaw	Freezer 3 years 20-24°C, use by 4 hours post thaw
Thaw time	15 minutes	15 minutes
Dose	2 pools	5-10mls / kg (child)
Rate	30 minutes Unless stat in emergency	10-20ml / kg (child)

MB Products have been treated to inactivate bacteria and most encapsulated virus, reducing the risk vCJD

Granulocytes

	Rationale	Specifications	Risks
Granulocytes	<p>Given to patients with impaired bone marrow function.</p> <p>Such as:-</p> <ul style="list-style-type: none"> ▪ Leukaemia ▪ Chemotherapy, ▪ Congenital Neutrophil condition - can cause severe bacterial / fungal infections 	<p>Buffy coat:-</p> <ul style="list-style-type: none"> ○ *WBC & Platelets left once RBC and Plasma has been removed <p>Pooled Buffy Coat:-</p> <ul style="list-style-type: none"> ○ Less Red Cells and Plasma, suspended in male plasma reduces risk TA-GvHD <p>Apheresis:-</p> <p>Non stimulated</p> <ul style="list-style-type: none"> ○ Selected donors who do not receive GCSF – given to children <30kg <p>Stimulate</p> <ul style="list-style-type: none"> ○ Relatives & Friends donors given GCSF & steroids to increase production 	<ul style="list-style-type: none"> ○ Increase in haematocrit and Platelets ○ Increase risk of reaction – patients require close monitoring ○ *Small amount of RBC and Platelets in Buffy Coat ○ Must be ABO & D typed ○ Adult dose is 10 pools (bags) ○ children between 30-50kg dose of 10ml/kg

Irradiated, Cytomegalovirus & Hepatitis E Virus

TREATMENT	HOW	WHY
Irradiated	<p>To inactivate lymphocytes in cellular components (RBCs & Platelets) from multiplying and causing harm.</p> <p>Either by:-</p> <ul style="list-style-type: none"> ▪ Gamma Irradiation ▪ X-Ray irradiation 	<p>Minimise risk of Transfusion related Graft versus Host disease (TA-GvHD) in the immune-compromised patient</p>
CMV	<p>Herpes virus:-</p> <ul style="list-style-type: none"> ○ Mild flu like symptoms ○ 50 -60% - adult population are life-long carriers ○ Donor blood screened for CMV AB in their blood when requested by Hospital 	<p>Can cause:-</p> <ul style="list-style-type: none"> ○ Hearing loss ○ Cerebral Palsy ○ Primary infection that can lead to spontaneous abortion, stillbirth and foetal hydrops ○ Cataracts, blindness, Chorio-retinitis
HEV	<p>1st May 2017 –all Blood products are screened by NHSBT for HEV AB</p> <p>MB products are HEV screened</p>	<ul style="list-style-type: none"> ○ Virus that affects the liver can infect both humans & animals. 4 types of virus. ○ Causes mild symptoms such as: jaundice, fever, nausea, vomiting, loss of weight & appetite. ○ Transmitted by faeco-oral route. ○ Undercooked pork products , shellfish and via transfusion / Organ transplant

In Summary

Indication	CMV	IRRADIATED	HEV
Pregnancy	Yes	No	No
During delivery	No	No	No
Transfusion -1 st degree relative	Yes	Yes	No
IUT	Yes	Yes	Routine
Neonatal exchange	Yes	Yes unless emergency	No
Neonates up to 28/7 post EDD	Yes	No unless previous IUT (6 months)	No
Granulocyte Transfusion	No	Yes	No
HLA selected components	No	Yes	No
Receiving Purine Analogues (Fludaribine, Cladribine)	No	Yes Indefinitely -	No
Newer ones		Yes until further data	No
Hodgkins Lymphoma	No	Yes for life	No
T-cell immunodeficiency	No	Yes	No
BMT /SCT Allogenic HSC Autologous	No	Yes – 6 months post-transplant Yes- 7 days prior to harvesting HSC Yes- 7 days prior & during HSC, Start of conditioning / 6 months if Total Body Irradiation	Yes Yes Yes
Aplastic anaemia on Immune suppressants ATG/anti-CD52	No	Yes	No
SOT on ATG/anti-CD52	No	Yes	Yes
Acute Leukaemia	No	No	Yes if for transplant
Extracorporeal (dialysis)	No	No	Yes

NHS
Blood and Transplant

**I am at risk of
transfusion-associated
graft-versus-host disease**

If I need to have a blood transfusion,
cellular blood components
(Red Cells, Platelets and Granulocytes)
MUST BE IRRADIATED
Please inform the blood transfusion laboratory

CMV, HEV
Bags to be
updated June/
July 2018

Irradiated sign
soon to change
to blue

Risk reduction by NHSBT

- ✓ Excluded “at risk” donors – including those who have had a transfusion or solid organ transplant since 1980
- ✓ Leucocyte depletion
- ✓ Importing plasma from US; MB treated plasma
- ✓ 2012 decision made to continue to provide MBFFP for all recipients born on or after 1996
- ✓ 1st May 2017 decision to ensure all products are HEV negative



Risks for Lab and Clinical Staff

- Do you have frozen products in your freezers that were issued to your Hospital prior to 1st May 2017
- Added confusion for clinical and Laboratory staff to remember all the various products
- ?Treated at a Specialist Unit no historic data on your LIMS
- Poor communication from Specialist Centre to the patient / referring Hospital

Risk Reduction in the Hospital setting

- ❑ Effective training for all relevant staff especially Clinicians and Nursing staff – use of lanyard, posters, handbooks, transfusion pathway
- ❑ Shared Care Form for any Special Requirements, LIMS and SOPs cover all elements
- ❑ Request form (paper / electronic) is it user friendly and cover all / relevant special requirements,
- ❑ Use of DATIX & lessons learnt from Serious Incidents used in Training – very effective way to get the message across

IRRADIATED AND SPECIALIST BLOOD COMPONENTS COMMUNICATIONS DOCUMENT

Section A: To be completed by a member of the Clinical Team and then sent to the Transfusion Laboratory for the remainder of the form to be completed.

Referring hospital: _____ ABO and RhD Group Details (Transplant Centres only): _____

Specialist Treatment Hospital: _____ Donor Group: _____

Diagnosis: _____ Patient Group: _____

Specialist Treatment required or received: _____

Signed: _____ Print Name: _____

Date: _____ Contact number / Bleep: _____

Sections B & C are ONLY to be completed by the Transfusion Laboratories

Section B: Please document below the ABO and D (where applicable) group of the blood components that the patient currently requires

Platelets	Specialist Requirements	Yes / No	RBC Phenotype	Yes / No
HLA / HPA abs.	Specificity:		Washed RBCs:	Yes / No
			Washed Platelets:	Yes / No

Section C: Please document below the audit trail

Copy of completed form to be sent by Secure Fax after entering information into Shared Care Hospital LIMS computer

Date entered to LIMS: _____

Signed: _____ Print Name: _____

Date Fax sent: _____

Signed: _____ Print Name: _____

Ratified by the East of England RTC 18/10/12 V2 25/02/16

Before each unit is transfused, ensure you check if the patient requires:

Transfusion Special Requirements Checklist

- ❖ Irradiated Components (Pre HSC donation or transplant: also donor 14 days pre and during harvest, also recipient from conditioning and post HSC transplant on GvHD prophylaxis, also within 7 days harvest and from conditioning to 3 months post transplant or 6 months during transplant. Patients who have received Flu-Aden, children: rubella, measles, mumps, chickenpox, hepatitis, HIV, hepatitis B, hepatitis C, hepatitis E, hepatitis F, hepatitis G, hepatitis H, hepatitis I, hepatitis J, hepatitis K, hepatitis L, hepatitis M, hepatitis N, hepatitis O, hepatitis P, hepatitis Q, hepatitis R, hepatitis S, hepatitis T, hepatitis U, hepatitis V, hepatitis W, hepatitis X, hepatitis Y, hepatitis Z, hepatitis AA, hepatitis AB, hepatitis AC, hepatitis AD, hepatitis AE, hepatitis AF, hepatitis AG, hepatitis AH, hepatitis AI, hepatitis AJ, hepatitis AK, hepatitis AL, hepatitis AM, hepatitis AN, hepatitis AO, hepatitis AP, hepatitis AQ, hepatitis AR, hepatitis AS, hepatitis AT, hepatitis AU, hepatitis AV, hepatitis AW, hepatitis AX, hepatitis AY, hepatitis AZ, hepatitis BA, hepatitis BB, hepatitis BC, hepatitis BD, hepatitis BE, hepatitis BF, hepatitis BG, hepatitis BH, hepatitis BI, hepatitis BJ, hepatitis BK, hepatitis BL, hepatitis BM, hepatitis BN, hepatitis BO, hepatitis BP, hepatitis BQ, hepatitis BR, hepatitis BS, hepatitis BT, hepatitis BU, hepatitis BV, hepatitis BW, hepatitis BX, hepatitis BY, hepatitis BZ, hepatitis CA, hepatitis CB, hepatitis CC, hepatitis CD, hepatitis CE, hepatitis CF, hepatitis CG, hepatitis CH, hepatitis CI, hepatitis CJ, hepatitis CK, hepatitis CL, hepatitis CM, hepatitis CN, hepatitis CO, hepatitis CP, hepatitis CQ, hepatitis CR, hepatitis CS, hepatitis CT, hepatitis CU, hepatitis CV, hepatitis CW, hepatitis CX, hepatitis CY, hepatitis CZ, hepatitis DA, hepatitis DB, hepatitis DC, hepatitis DD, hepatitis DE, hepatitis DF, hepatitis DG, hepatitis DH, hepatitis DI, hepatitis DJ, hepatitis DK, hepatitis DL, hepatitis DM, hepatitis DN, hepatitis DO, hepatitis DP, hepatitis DQ, hepatitis DR, hepatitis DS, hepatitis DT, hepatitis DU, hepatitis DV, hepatitis DW, hepatitis DX, hepatitis DY, hepatitis DZ, hepatitis EA, hepatitis EB, hepatitis EC, hepatitis ED, hepatitis EE, hepatitis EF, hepatitis EG, hepatitis EH, hepatitis EI, hepatitis EJ, hepatitis EK, hepatitis EL, hepatitis EM, hepatitis EN, hepatitis EO, hepatitis EP, hepatitis EQ, hepatitis ER, hepatitis ES, hepatitis ET, hepatitis EU, hepatitis EV, hepatitis EW, hepatitis EX, hepatitis EY, hepatitis EZ, hepatitis FA, hepatitis FB, hepatitis FC, hepatitis FD, hepatitis FE, hepatitis FF, hepatitis FG, hepatitis FH, hepatitis FI, hepatitis FJ, hepatitis FK, hepatitis FL, hepatitis FM, hepatitis FN, hepatitis FO, hepatitis FP, hepatitis FQ, hepatitis FR, hepatitis FS, hepatitis FT, hepatitis FU, hepatitis FV, hepatitis FW, hepatitis FX, hepatitis FY, hepatitis FZ, hepatitis GA, hepatitis GB, hepatitis GC, hepatitis GD, hepatitis GE, hepatitis GF, hepatitis GG, hepatitis GH, hepatitis GI, hepatitis GJ, hepatitis GK, hepatitis GL, hepatitis GM, hepatitis GN, hepatitis GO, hepatitis GP, hepatitis GQ, hepatitis GR, hepatitis GS, hepatitis GT, hepatitis GU, hepatitis GV, hepatitis GW, hepatitis GX, hepatitis GY, hepatitis GZ, hepatitis HA, hepatitis HB, hepatitis HC, hepatitis HD, hepatitis HE, hepatitis HF, hepatitis HG, hepatitis HH, hepatitis HI, hepatitis HJ, hepatitis HK, hepatitis HL, hepatitis HM, hepatitis HN, hepatitis HO, hepatitis HP, hepatitis HQ, hepatitis HR, hepatitis HS, hepatitis HT, hepatitis HU, hepatitis HV, hepatitis HW, hepatitis HX, hepatitis HY, hepatitis HZ, hepatitis IA, hepatitis IB, hepatitis IC, hepatitis ID, hepatitis IE, hepatitis IF, hepatitis IG, hepatitis IH, hepatitis II, hepatitis IJ, hepatitis IK, hepatitis IL, hepatitis IM, hepatitis IN, hepatitis IO, hepatitis IP, hepatitis IQ, hepatitis IR, hepatitis IS, hepatitis IT, hepatitis IU, hepatitis IV, hepatitis IW, hepatitis IX, hepatitis IY, hepatitis IZ, hepatitis JA, hepatitis JB, hepatitis JC, hepatitis JD, hepatitis JE, hepatitis JF, hepatitis JG, hepatitis JH, hepatitis JI, hepatitis JJ, hepatitis JK, hepatitis JL, hepatitis JM, hepatitis JN, hepatitis JO, hepatitis JP, hepatitis JQ, hepatitis JR, hepatitis JS, hepatitis JT, hepatitis JU, hepatitis JV, hepatitis JW, hepatitis JX, hepatitis JY, hepatitis JZ, hepatitis KA, hepatitis KB, hepatitis KC, hepatitis KD, hepatitis KE, hepatitis KF, hepatitis KG, hepatitis KH, hepatitis KI, hepatitis KJ, hepatitis KK, hepatitis KL, hepatitis KM, hepatitis KN, hepatitis KO, hepatitis KP, hepatitis KQ, hepatitis KR, hepatitis KS, hepatitis KT, hepatitis KU, hepatitis KV, hepatitis KW, hepatitis KX, hepatitis KY, hepatitis KZ, hepatitis LA, hepatitis LB, hepatitis LC, hepatitis LD, hepatitis LE, hepatitis LF, hepatitis LG, hepatitis LH, hepatitis LI, hepatitis LJ, hepatitis LK, hepatitis LL, hepatitis LM, hepatitis LN, hepatitis LO, hepatitis LP, hepatitis LQ, hepatitis LR, hepatitis LS, hepatitis LT, hepatitis LU, hepatitis LV, hepatitis LW, hepatitis LX, hepatitis LY, hepatitis LZ, hepatitis MA, hepatitis MB, hepatitis MC, hepatitis MD, hepatitis ME, hepatitis MF, hepatitis MG, hepatitis MH, hepatitis MI, hepatitis MJ, hepatitis MK, hepatitis ML, hepatitis MN, hepatitis MO, hepatitis MP, hepatitis MQ, hepatitis MR, hepatitis MS, hepatitis MT, hepatitis MU, hepatitis MV, hepatitis MW, hepatitis MX, hepatitis MY, hepatitis MZ, hepatitis NA, hepatitis NB, hepatitis NC, hepatitis ND, hepatitis NE, hepatitis NF, hepatitis NG, hepatitis NH, hepatitis NI, hepatitis NJ, hepatitis NK, hepatitis NL, hepatitis NM, hepatitis NO, hepatitis NP, hepatitis NQ, hepatitis NR, hepatitis NS, hepatitis NT, hepatitis NU, hepatitis NV, hepatitis NW, hepatitis NX, hepatitis NY, hepatitis NZ, hepatitis OA, hepatitis OB, hepatitis OC, hepatitis OD, hepatitis OE, hepatitis OF, hepatitis OG, hepatitis OH, hepatitis OI, hepatitis OJ, hepatitis OK, hepatitis OL, hepatitis OM, hepatitis ON, hepatitis OO, hepatitis OP, hepatitis OQ, hepatitis OR, hepatitis OS, hepatitis OT, hepatitis OU, hepatitis OV, hepatitis OW, hepatitis OX, hepatitis OY, hepatitis OZ, hepatitis PA, hepatitis PB, hepatitis PC, hepatitis PD, hepatitis PE, hepatitis PF, hepatitis PG, hepatitis PH, hepatitis PI, hepatitis PJ, hepatitis PK, hepatitis PL, hepatitis PM, hepatitis PN, hepatitis PO, hepatitis PP, hepatitis PQ, hepatitis PR, hepatitis PS, hepatitis PT, hepatitis PU, hepatitis PV, hepatitis PW, hepatitis PX, hepatitis PY, hepatitis PZ, hepatitis QA, hepatitis QB, hepatitis QC, hepatitis QD, hepatitis QE, hepatitis QF, hepatitis QG, hepatitis QH, hepatitis QI, hepatitis QJ, hepatitis QK, hepatitis QL, hepatitis QM, hepatitis QN, hepatitis QO, hepatitis QP, hepatitis QQ, hepatitis QR, hepatitis QS, hepatitis QT, hepatitis QU, hepatitis QV, hepatitis QW, hepatitis QX, hepatitis QY, hepatitis QZ, hepatitis RA, hepatitis RB, hepatitis RC, hepatitis RD, hepatitis RE, hepatitis RF, hepatitis RG, hepatitis RH, hepatitis RI, hepatitis RJ, hepatitis RK, hepatitis RL, hepatitis RM, hepatitis RN, hepatitis RO, hepatitis RP, hepatitis RQ, hepatitis RR, hepatitis RS, hepatitis RT, hepatitis RU, hepatitis RV, hepatitis RW, hepatitis RX, hepatitis RY, hepatitis RZ, hepatitis SA, hepatitis SB, hepatitis SC, hepatitis SD, hepatitis SE, hepatitis SF, hepatitis SG, hepatitis SH, hepatitis SI, hepatitis SJ, hepatitis SK, hepatitis SL, hepatitis SM, hepatitis SN, hepatitis SO, hepatitis SP, hepatitis SQ, hepatitis SR, hepatitis SS, hepatitis ST, hepatitis SU, hepatitis SV, hepatitis SW, hepatitis SX, hepatitis SY, hepatitis SZ, hepatitis TA, hepatitis TB, hepatitis TC, hepatitis TD, hepatitis TE, hepatitis TF, hepatitis TG, hepatitis TH, hepatitis TI, hepatitis TJ, hepatitis TK, hepatitis TL, hepatitis TM, hepatitis TN, hepatitis TO, hepatitis TP, hepatitis TQ, hepatitis TR, hepatitis TS, hepatitis TT, hepatitis TU, hepatitis TV, hepatitis TW, hepatitis TX, hepatitis TY, hepatitis TZ, hepatitis UA, hepatitis UB, hepatitis UC, hepatitis UD, hepatitis UE, hepatitis UF, hepatitis UG, hepatitis UH, hepatitis UI, hepatitis UJ, hepatitis UK, hepatitis UL, hepatitis UM, hepatitis UN, hepatitis UO, hepatitis UP, hepatitis UQ, hepatitis UR, hepatitis US, hepatitis UT, hepatitis UU, hepatitis UV, hepatitis UW, hepatitis UX, hepatitis UY, hepatitis UZ, hepatitis VA, hepatitis VB, hepatitis VC, hepatitis VD, hepatitis VE, hepatitis VF, hepatitis VG, hepatitis VH, hepatitis VI, hepatitis VJ, hepatitis VK, hepatitis VL, hepatitis VM, hepatitis VN, hepatitis VO, hepatitis VP, hepatitis VQ, hepatitis VR, hepatitis VS, hepatitis VT, hepatitis VU, hepatitis VV, hepatitis VW, hepatitis VX, hepatitis VY, hepatitis VZ, hepatitis WA, hepatitis WB, hepatitis WC, hepatitis WD, hepatitis WE, hepatitis WF, hepatitis WG, hepatitis WH, hepatitis WI, hepatitis WJ, hepatitis WK, hepatitis WL, hepatitis WM, hepatitis WN, hepatitis WO, hepatitis WP, hepatitis WQ, hepatitis WR, hepatitis WS, hepatitis WT, hepatitis WU, hepatitis WV, hepatitis WW, hepatitis WX, hepatitis WY, hepatitis WZ, hepatitis XA, hepatitis XB, hepatitis XC, hepatitis XD, hepatitis XE, hepatitis XF, hepatitis XG, hepatitis XH, hepatitis XI, hepatitis XJ, hepatitis XK, hepatitis XL, hepatitis XM, hepatitis XN, hepatitis XO, hepatitis XP, hepatitis XQ, hepatitis XR, hepatitis XS, hepatitis XT, hepatitis XU, hepatitis XV, hepatitis XW, hepatitis XX, hepatitis XY, hepatitis XZ, hepatitis YA, hepatitis YB, hepatitis YC, hepatitis YD, hepatitis YE, hepatitis YF, hepatitis YG, hepatitis YH, hepatitis YI, hepatitis YJ, hepatitis YK, hepatitis YL, hepatitis YM, hepatitis YN, hepatitis YO, hepatitis YP, hepatitis YQ, hepatitis YR, hepatitis YS, hepatitis YT, hepatitis YU, hepatitis YV, hepatitis YW, hepatitis YX, hepatitis YY, hepatitis YZ, hepatitis ZA, hepatitis ZB, hepatitis ZC, hepatitis ZD, hepatitis ZE, hepatitis ZF, hepatitis ZG, hepatitis ZH, hepatitis ZI, hepatitis ZJ, hepatitis ZK, hepatitis ZL, hepatitis ZM, hepatitis ZN, hepatitis ZO, hepatitis ZP, hepatitis ZQ, hepatitis ZR, hepatitis ZS, hepatitis ZT, hepatitis ZU, hepatitis ZV, hepatitis ZW, hepatitis ZX, hepatitis ZY, hepatitis ZZ)
- ❖ CMV Negative Components (Neonate up to 28 days post delivery, pregnancy)
- ❖ HbS Negative Components (Sickle Cell Disease (SCD), Sickle Cell)
- ❖ Kell Negative Components (Women of childbearing potential)
- ❖ HEV Negative Components (3 months pre planned SOT or date of living, post SOT on immunosuppression, acute leukaemia infection not for HSC, 3 months pre allo HSC to 6 months post or while immunosuppressed. Extra corporate procedures for above indications)
- ❖ High Titre Negative Components (A, B or AB patients receiving O component and AB retaining A or B)
- ❖ Methylene Blue/ Solvent Detergent Components (if born after 01/01/96)

Scenario 1

AGE: 15 months

Diagnosis:- Joint care with GOSH,
Neuroblastoma - currently on Chemotherapy.
Due to have stem cell harvesting at some point

Request:- for red cell and platelet transfusion,

Weight:- 16kg

1. What Red Cells would you issue?
2. What Platelets would you issue?

Red Cells

What Red Cells would you issue?

A. Neonatal Red Cells, XM, O neg / ABO compatible, CMV neg

B. Adult Red Cells, XM, ABO compatible

AB. Adult Red Cells, XM, ABO compatible, request for SCF

O. Adult Red Cells, XM, ABO compatible, Irradiated, CMV neg,

Platelets

What Platelets would you issue?

A. Neonatal Platelets group specific

B. Apheresis Platelets, group compatible with SCF

AB. Apheresis group A Platelets

O. Apheresis, Irradiated, CMV neg

Scenario 2

AGE: 2 days old

Diagnosis:- Pre term 33 weeks 4/7days, Sepsis, deranged clotting,
on Gentamycin suspected NEC

O/E: lethargic, pale, increased respiratory effort, breathing pauses, cyanotic,
changes in BP and heart rate

Weight: 2 kg

Bloods on admission:

Hb 228, Platelets 75, Prothrombin time 34.4, INR 2.0, APTT 75.0, Fibrinogen 1.1

Plan:- For Plasma transfusion 15 - 20mls/kg, request placed with the Laboratory.
Component was defrosted and placed in the Blood Bank fridge.
The porter was paged, given the babies details and asked to collect the Plasma.
The unit was transfused to the baby.

Plasma product

The ticket showed that MBCryo had been transfused instead of MBFFP, what do you think the root cause (s) were?

- A. Someone had put MBCryo into the MBFFP drawer in the freezer
- B. Senior BMS did not routinely work in the Department, covering a night shift. Recalled that children and neonates have MB products and selected the wrong one
- AB. The drawer for MBCryo and the drawer for MBFFP were next to each other
- O. The BMS on the late shift had already put the unit into thaw and printed the labels, the night BMS failed to check the label against the unit

Any questions?

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