

SAMPLING & REQUESTING REQUIREMENTS

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Target audience
Neonatal Nurse
Practitioners ?

WHY DO YOU KEEP REJECTING OUR SAMPLES?

- *One of today's aims is to clarify requirements to minimise the risk of samples being rejected*
- *We don't do it because we want to!*
- *Governed by standards of quality & safety set by Blood Safety & Quality Regulations (BSQR 2005), policed by MHRA*
- *Ultimately there to protect the patient*

SAMPLE CONSIDERATIONS

- *Identification very important as high risk group who are unable to identify themselves*
- *Paediatric patients may be multi-transfused , require specialist products & potential long life expectancy*
- *May require blood transfusion due to anaemia from phlebotomy sampling*
- *Don't want to take more samples than necessary*

SAMPLE REQUIREMENTS - LABELLING CRITERIA

Summary of responses from NE hospitals. ALL require:

- *Surname*
- *Forename*
- *DOB*
- *Hospital number*

Some require:

- *NHS Number*
- *Signature*
- *Date of sample*

Sample & request form must agree

No addressographs

Hand written on bottle

SAMPLE REQUIREMENTS - LABELLING CRITERIA

- *Microtubes very small with no labels so have to hand write patient I.D. onto sticker*
- *Zero tolerance enforced in the majority of transfusion labs in the NE*
- *MHRA requirement (why & implications)*
- *Some will have a system of amendment for 1 amendment but not encouraged (formal system in place)*
- *In place to protect patient*
 - *Lessons learnt from WBIT*

SAMPLE REQUIREMENTS

BOTTLES

Microtubes

Paediatric EDTA

Adult EDTA (unlikely with neonates unless cord)

VOLUME

Between 0.5ml and 1ml

IMPORTANT

*Check with you local lab for requirements on
minimum patient I.D. & volume*

I.D. CHECKS

- *Your sample can be one of many*
- *On receipt into the transfusion lab the ID check is the first one we do*
- *Vital check in the quality process, will be checked on receipt, during processing and when blood released*

PROCESSING IN LAB SIZE IS IMPORTANT

- *Samples of 1ml or more usually processed on large automated analyser*
- *Minimises risk of human error in processing but does require a decent sized sample*

PROCESSING IN LAB SIZE IS IMPORTANT

- *Small samples unable to go on analysers so require to be tested manually*
- *Risk of human error greater but has advantage that very small samples can be processed*

WHAT ARE WE TESTING FOR?

- *When we process a blood sample we are looking for relevant antibodies in the blood and antigens on the red cells*
- *This will give us:*
 - *the blood group*
 - *any important antibodies*
 - *Indications of possible HDN (DAT +)*
 - *Aid us select the appropriate blood to issue for transfusion*

WHAT IS A DAT TEST & WHAT DOES IT MEAN?

- *Direct antiglobulin test*
- *Checking for the presence of antibody (in this case maternal) bound onto the red cells in vivo*
- *DAT negative, no antibodies attached*
- *DAT positive, antibodies present on red cell. Indicator of possible HDN*
- *Routinely ask for DAT when baby is jaundiced*

MUM IS IMPORTANT TOO!

- *The maternal blood group and antibodies must be taken into consideration when selecting blood*
- *If a recent maternal sample has not been tested you MAY be requested to provide one*
- *Maternal antibodies can cross the placenta causing red cell destruction and anaemia in the foetus & neonate*
- *If blood is required it must be antigen negative for that antibody*

MATERNAL SAMPLE

- *Minimum of 3 points of I.D. check with your local lab requirements*
- *Need to cross reference link to baby on request form*
- *If no maternal sample available need to carry out more testing on baby so need a bigger sample*
- *Often no need for maternal sample*

BLOOD REQUIRED-NOW
WHAT?

ORDERING FROM LAB

***Feedback from
questionnaire:***

*Generally larger hospitals in
the area with specialised
paediatric unit have
pedipacks in routine stock*

*Smaller hospitals are less
likely to keep these as a
stock item*

*So may need notice to get
product from Newcastle
Transfusion Centre*

BLOOD REQUIRED-NOW
WHAT?

ORDERING FROM LAB

Small top up transfusions

- *May need maternal sample for first transfusion only- lab will advise you*
- *Need sample from baby for blood group*
- *There after shouldn't need another sample from baby until after 4 months of age unless maternal antibodies or positive DAT*
- *If pedipacks in stock can provide at short notice*

ORDERING BLOOD PRODUCTS

Products that require advanced notice:

- *Blood for exchange transfusion (ET) or intrauterine transfusion (IUT) RVI only*
- *Blood requiring irradiation kept at Transfusion Centres until required for ET due to affect on shelf life*
- *Blood for baby when maternal antibodies are present*
- *Large volume transfusions*
- *All need to be ordered from NHSBT Transfusion Centres*

ORDERING PLASMA PRODUCTS

- *Specific fresh frozen plasma product (FFP) for neonates & paediatrics*
- *The vast majority of transfusion labs keep this as a stock item since long shelf life product*
- *Needs to be defrosted when required so give approx. 30 minutes notice*

ORDERING PLATELETS

- *Short shelf life (7 day)
specialist product*
- *Ordered in from Blood
Transfusion Centres, may
be HLA matched*
- *Like red cells pack should
be reserved just for 1
particular patient to
minimise donor exposure*
- *Additional packs kept in
lab for life of product
until required or expired*

TIME DELAYS

- *Time require to order, source (if necessary) and take delivery of product*
- *Time required to test compatibility of blood with patient &/or maternal sample*
- *Time taken to prepare product e.g. defrost FFP*

IN SUMMARY

- *All part of a team*
- *Invest the time to understand local protocols for taking blood samples and ordering blood*
- *Then able to get the most out of the systems in place leading to effective use of lab service and timely provision of blood.*