The Laboratory Services Reform Programme

ADVICE NOTE

Sharing of maternal transfusion information when neonate transferred to another hospital

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Clinical Practice Guidance Document Cover Sheet

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The Laboratory Services Reform Programme offers the following advice:

1.1 Advice for Laboratory Users

1. Blood group antigens may not be fully expressed in early life and blood group antibodies present in the neonatal serum reflect those of the mother. When transfusion is likely to be required, both the neonate (considered as under 4 months of age in the transfusion context) and mother should have ABO and RhD blood group testing (forward group) done if possible. Antibody testing (including reverse group) and crossmatching should preferably be done on the maternal sample to avoid oversampling of neonates.
2. Maternal samples should be collected within 3 days before delivery or post-delivery.
3. Where a neonate is being transferred between healthcare institutions, the maternal blood group and full antibody history should be included with the transfer documentation.
4. Where the neonate received an intrauterine transfusion, this should be highlighted as further transfusion requires the use of irradiated blood components.
5. Where the transfer occurs between sites using the MN-CMS electronic patient record, the full history is available to all relevant clinicians.

1.2 Advice for Laboratories

1. If notified that a neonate is being transferred, maternal blood results and transfusion history should be provided to accompany the neonate (as standard) and/or provided if requested by the transfusion service or the medical or nursing team in the receiving hospital. If this information does not accompany the neonate, it should be subsequently shared with the treating hospital laboratory.
2. Maternal blood grouping antibody screen results and transfusion history (including or administration of anti-D) should be linked to the infant and accompany them if moved to another site.
3. Transfusion history of the infant should accompany the infant in the case of transfer including any intrauterine transfusion as further transfusion requires the use of irradiated blood components.
4. This information is essential to provide optimal patient care for the infant. It is appropriate to assume that the parent's agreement to transfer of care of the infant to another hospital for care implies their consent to transfer of all information relevant to the care of the infant, including all information on transfusion related testing and administration of blood products related to the mother or the infant. Failure to provide such information represents an avoidable risk to the care of the infant.

2 Background

Blood group antigens are not always fully expressed at birth. Provision of blood for neonates requires blood grouping of both mother and neonate for ABO and RhD status. The antibody screen of a neonate reflects that of the mother as antibodies are actively transferred during pregnancy including ABO and Rh antibodies. This includes exogenous anti-D antibody administered to prevent Haemolytic Disease of the Fetus and New-born (HDFN) as well as endogenous antibody produced by the mother. Crossmatching using a maternal sample to avoid repeated phlebotomy in a neonate is advised.

The maternal history of transfusion is required to guide neonatal transfusion for a number of reasons including to ascertain antibody status and to aid interpretation of a positive antibody screen in the context of recent anti-D administration to the mother. Information on any intrauterine transfusion is essential as

this indicates an irradiated cellular blood components requirement. Any blood issued for the neonate must be compatible with both mother and baby and be antigen negative for any clinically significant red cell antibodies present in the mother.

Acknowledging the importance of protecting patient data, it is appropriate to assume parental consent to secure transfer of all information held by the laboratory and relevant to the infants care to those clinical staff in the receiving hospital who may need that information to provide optimal care for the infant. As above, this includes relevant information related to the mother and infant. This information should ideally be provided as a routine at the time of transfer. If not provided at time of transfer it should be provided promptly in response to subsequent request of medical, nursing or transfusion laboratory staff in the receiving hospital. This is reinforced by the recent Health Information Bill (2024).

3 References

1. Br J Haematol - 2016 - New - Guidelines on transfusion for fetuses neonates and older children.pdf
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