Donor Blood Type Determination

ABO Subtype Determination

Potential Safety Concern:
Assigning incorrect ABO subtype to a donor due to ineffective verification processes, failure to follow standard protocols or misinterpreting subtyping results.

The following are a few effective practices for ABO subtyping determination:

Assign multiple staff to verify that two donor samples were drawn prior to match run on separate occasions. Samples must:

- Have different collection times
- Be submitted as separate samples

Create a "QA Coordinator" role or responsibility to ensure verification of ABO determination is conducted and documented according to the OPO's written protocol.

Assign a staff member to verify your organization's standardized **process to address conflicting or indeterminate primary blood type results is up to date and written** in internal protocol.

- Schedule periodic reviews to identify any recent updates
- Include routine competency testing in reporting subtyping results to ensure consistent practice and to avoid OPO staff interpretation of results

ABO Source Documentation and Labeling

Potential Safety Concern:
Source documentation labeled with incorrect donor ABO.

To support effective verification and labeling, assign a second OPO staff member to verify source documentation correctly.

Donor ABO Determination with Mixed Results

Potential Safety Concern:
Incorrectly assigning ABO to a donor whose multiple ABO typings reported mixed results and discrepancies.

The following are a few effective practices to help your program avoid donor ABO verification failures in the case of mixed results:

Assigned Roles

Assign a staff member to verify all known and available blood type results of the donor are reviewed to confirm there are no conflicting results before proceeding.

The best source of ABO typing by blood sample is ideally a sample obtained prior to the donor receiving blood transfusions.

Protocols and Training

In situations where there are conflicting donor blood typing results, OPOs are required to have written protocols in place to attempt to resolve the conflicting results.

Conduct periodic training to ensure staff are knowledgeable and aware of protocols in place.

Donor ABO determination with Mixed Results continued:

Consult Experts

Consult with blood banking physicians and scientist experts to review the entirety of the circumstances, donor medical history, transfusion history and blood type results to ensure the safest course is followed when making the final determination of donor blood type.

Unresolved Results

As a last resort, when donor blood typing results remain in conflict and unable to be resolved, the safest course of action is to consider the donor to be blood type AB. This ensures that only AB blood type candidates (as universally ABO compatible recipients) would be considered to receive the organs from that donor.

Conduct simulations involving conflicting blood typing results to assess staff awareness and to ensure compliance.

Resources

Check internal protocols to ensure all elements required in *OPTN Policy 2.6: Deceased Donor Blood Type Determination and Reporting* or *14.5: Living Donor Blood Type Determination and Reporting* are included and up to date.

Refer to the ABO determination guidance document to questions regarding mass transfusions or mixed or conflicting results.

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