

Guidelines for the Blood Transfusion Services

20.7: Deceased donor samples

<http://transfusionguidelines.org/red-book/chapter-20-tissue-banking-selection-of-donors/20-7-deceased-donor-samples>

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Appropriate mechanisms must be in place to ensure:

- The secure identification of samples obtained from hospital laboratories. Where there is doubt about the identity of a blood sample from a tissue donor (inadequate labelling), DNA profiling may be accepted as an accurate method for confirming the identity of the blood sample.
- Documentation of the date and time the sample was taken, the name of the individual and laboratory supplying the sample and sample storage conditions.

An ante-mortem blood sample, up to 7 days preceding death, is always preferable to a post-mortem sample for testing. Where no ante-mortem sample is available, then a post-mortem sample can be used. Samples for testing must not be taken more than 24 hours post-mortem and the time from sampling to testing or freezing of the sample should be minimised and must be consistent with the test kit manufacturer's recommendations or validated for the purpose.

The anatomical site from which the post-mortem sample was obtained should be documented. The sample appearance should be documented. If the sample appears dilute or grossly haemolysed, a repeat sample, preferably from an alternative site, should be obtained if possible. Tissue Establishments should have a protocol for post-mortem sampling, clearly defining preferred sites for sampling (e.g., cardiac puncture or femoral vessel puncture and avoiding sites close to intravenous lines).

Where a deceased donor with significant blood loss has received ante-mortem transfusions, a pre-transfusion sample should be used whenever possible for testing. If a pre-transfusion sample is not available, Tissue Establishments must employ an algorithm incorporating the timing, nature and volume of the fluids infused and the donor's own blood volume to assess any resultant plasma dilution (see the JPAC *Donor Selection Guidelines*³ for an example of a deceased donor intravenous fluid report form). Samples of blood estimated to be more than 50% dilute are not suitable for testing unless the testing procedure is validated.

For post-mortem samples, concluded test results other than negative for current infection will debar tissues from release unless a superior sample can be obtained (e.g., obtained ante-mortem or closer to the time of death), and this sample is tested and negative results are obtained. The acquisition of the 'superior' sample must be subject to the same requirements given above.

There must be a documented process for the resolution of discrepant test results, underpinned by a risk assessment authorised by the Designated Individual

For neonatal sample requirements for testing, see Chapter 9.