



Australian Government

MSL975058 Perform immunohaematological tests

Release: 1

MSL975058 Perform immunohaematological tests

Modification History

Release 1. Supersedes and equivalent to MSL975030 Perform immunohaematological tests. Minor changes to Performance Criteria, Performance Evidence and Knowledge Evidence.

Application

This unit of competency describes the skills and knowledge to perform routine tests and procedures that are part of the requirements of pre- and post-blood transfusion practice. The unit also covers tests and procedures that are indicated in laboratory investigations in obstetric and perinatal medicine, in suspected haemolysis and haemolytic episodes, and in other clinical circumstances.

This unit applies to technical officers and laboratory technicians working in the biomedical industry sector. It is understood that the management of any transfusion laboratory would establish for itself, in terms of its own responsibility and purposes, the ability of any worker to work in a transfusion science laboratory, regardless of the education and training record or presumed ability of any worker.

Tests will be related to the determination of blood groups and the detection of antibodies of significance in:

- transfusion (as laboratory evidence that in vivo cell destruction or immunisation may occur)
- pregnancy and the perinatal period (as evidence of sensitisation of foetal red cells by transplacental maternal antibody)
- the investigation of haemolysis or haemolytic episodes.

The tests that the worker will use will be validated and authorised procedures, clearly described in the laboratory's manual of procedures. The unit of competency is based on the assumption that technical personnel would perform tests and procedures under the close supervision of scientific and/or medical staff. The parameters of interpretation will be clearly described, indicating for the worker what they are permitted to sign-off without reference to supervisors or managers.

No licensing or certification requirements exist at the time of publication. However, regulations and/or external accreditation requirements for laboratory operations exist, so local requirements should be checked. Relevant legislation, industry standards and codes of practice within Australia must also be applied.

Pre-requisite Unit

Nil.

Competency Field

Testing

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Process samples and associated request forms	1.1 Identify specimens and request forms that do not comply with workplace requirements 1.2 Record any discrepancies and indicate action required 1.3 Register samples in accordance with workplace procedures, recording details that allow accurate tracking and chain of custody traceable to employee
2. Perform tests	2.1 Conduct individual tests in accordance with workplace procedures 2.2 Use appropriate manual techniques to determine patient/donor red cell phenotype and antibody status 2.3 Read and grade tube and card agglutination reactions 2.4 Correctly interpret results 2.5 Validate test results using control cells and reagents 2.6 Complete documentation required to permit the issuing of blood or blood components that have been cleared for use by clinical staff
3. Maintain laboratory records	3.1 Record and/or check data in accordance with workplace procedures 3.2 Follow procedures to ensure traceability of sample from receipt to reporting of results

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Supersedes and is equivalent to MSL975030 Perform immunohaematological tests.

Links

MSL Laboratory Operations Companion Volume Implementation Guide is available from VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL975058 Perform immunohaematological tests

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- safely performed and interpreted at least 5 immunohaematological tests following the laboratory's validated and authorised procedures, including:
 - forward and reverse ABO typing
 - Rh phenotyping
 - crossmatching
 - antibody screen
 - antibody identification cell panel
 - Direct Antiglobulin Test

with 100% accuracy of patient identification in all steps.

- performing tests accurately and organising work to ensure the timely release of blood and blood products and needs of relevant patients and clients are met.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- medical terminology relevant to normal and abnormal immunohaematology
- immunological concepts, including:
 - acquired immunity
 - antibody structure and function
 - antigen antibody reactions
- principle and purpose of test methods implemented (why they are used and what they demonstrate)
- Interpretation of antibody identification cell panel results
- basic principles of transfusion reactions
- types of blood products, their approved storage and transport conditions, safe handling and clinical use
- relationship between maintaining transport and storage conditions and timely delivery of blood products on patient safety

- blood products inventory management requirements including maintaining accurate records of ordering, receiving, storing and returning blood and blood products to supplier
- what blood products may be issued in an emergency transfusion
- actions required when result interpretation is outside parameters of authorised approval
- significance of accurately checking product and patient details against what has been ordered and consequences of the release of incorrectly matched blood products on patient safety
- relationships that exist between the storage conditions for transfusion reagents and the test results
- technological advances in immunohaematology including computer cross matching and genotyping to determine blood group
- National Pathology Accreditation Advisory Council (NPAAC) standards for pretransfusion testing
- Australian and New Zealand Society of Blood Transfusion (ANZSBT) Guidelines for Transfusion and Immunohaematology Laboratory Practice
- environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety (WHS) requirements specific to the work task including traceability, confidentiality and security requirements of all clinical information, and laboratory data and records.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - a standard transfusion/immunohaematology laboratory with relevant equipment, samples, and reagents
 - information management system
 - workplace procedures, test methods and equipment manuals.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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