



Australian Government

Assessment Requirements for MSL973008 Perform histological procedures

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL973008A Perform histological procedures

Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- safely performing straightforward processing, sectioning (by hand or rotary microtome) and staining of at least three (3) different plant and animal tissue specimens in paraffin wax to clearly demonstrate the required tissue and/or cellular features
- consistently following workplace safety procedures and/or standard methods to process, embed, cut and stain animal and plant tissue
- performing pre-use equipment checks, including safety, serviceability, cleanliness and routine maintenance
- cutting sections at the specified thickness that are free of wrinkles, scores and folds
- staining sections of animal/human tissue and plant tissue using stains, such as regressive haematoxylin and eosin, and safranin and fast green
- cover slipping slides, ensuring that no air bubbles are formed to preserve the material for the life of the slide
- labelling slides clearly with case number, specimen and stain details
- managing tasks and organising work to ensure the timely completion of tasks
- using specimens, reagents and materials economically and disposing of wastes safely
- maintaining equipment and recording/reporting malfunctions appropriately
- minimising cross-contamination between specimens and contamination of the laboratory and environment
- maintaining traceability through all steps from receiving a specimen to completion of a procedure.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- nature of tissues, processing and sectioning methods used in job role
- functions of the components of a rotary microtome
- importance and appropriate use of certified reference materials
- relationship of the anatomy and morphology of tissue types and the macroscopic and microscopic appearance of stained sections
- correlation between poorly maintained processing reagents and resultant tissue blocks being difficult to cut or unsuitable for cutting

- relationship between correct orientation of the tissue during embedding and ability to cut sections from surface required for subsequent microscopic examination
- workplace and/or legal traceability requirements
- workplace procedures for safe collection and environmentally responsible disposal of wastes
- workplace safety procedures and precautions relevant to:
 - handling microorganisms and agents associated with human or animal tissue and fluids
 - handling irritating, volatile, flammable and potentially carcinogenic chemicals and stains, such as formaldehyde, xylene, histoclear, ethanol and chloroform
 - tissue processing, embedding and microtomy
 - aerosols
 - sharps and broken glassware.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL973007 Perform microscopic examination
- Holistic assessment methods include:
 - inspection of sections and slides prepared by the candidate
 - review of quality control records for sections and slides prepared by the candidate
 - feedback from supervisors and peers about the candidate's adherence to workplace/technical procedures
 - observation of the candidate performing tissue processing, embedding, cutting, pickup and mounting
 - oral/written questioning about workplace procedures covering safe processing and sectioning of plant and animal tissues and common quality issues.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:

- a standard laboratory equipped with appropriate equipment, reagents, specimens and systems, such as:
 - tissue processors
 - microtomes and microtome knives (non-disposable or disposable), and microtome knife sharpeners
 - a processing system for paraffin blocks
 - flotation baths and drying ovens
 - reagents, such as formaldehyde, ethanol, xylene, paraffin and stains
 - reference material for automated and manual quality control and quality assurance systems
 - fresh and fixed specimens
 - computer information systems, databases, record and filing systems, including specimen accessioning
- workplace procedures and standard methods
- associated safety equipment, such as extractor systems.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -

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