Assessment Requirements for MSL973016
Perform aseptic techniques
Assessment Requirements for MSL973016 Perform aseptic techniques

Modification History

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| Release 1 | This version was released in *MSL Laboratory Operations Training Package Release 2.0.*  
Supersedes and equivalent to MSL973004 Perform aseptic techniques.  
Changes to performance criteria. Range of conditions removed.  
Assessment requirements amended. |

Performance Evidence

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

- safely and effectively performed aseptic techniques when performing at least 3 different types of sample transfers from the following list:
  - body fluids (or simulated body fluids)
  - sterile liquid culture media
  - water
  - soil
  - sterile pharmaceuticals
  - yeasts and moulds
  - milk and yoghurt
  - swabs and smears
  - propagation tissue
  - plant material
  - fermented foods
  - fermented beverages
  - bacterial cultures.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- growth requirements of microorganisms including bacteria and fungi in terms of their laboratory culture
• relationship between sterile practices, hygiene procedures and the ability to obtain growth free of contamination
• relationship between sterile practices and accurate test results
• importance of pure culture techniques and aseptic transfer to the successful microbiological investigation and correct interpretation of laboratory results
• cleaning and sanitising requirements of equipment and work area, and effects of physical and chemical agents on microbial growth and death
• sterilisation techniques:
  • flaming
  • high temperature, boiling and autoclaving
  • membrane filtration
  • radiation, gas and/or chemical treatments
• disinfection and sterilisation procedures used in the collection, processing and safe disposal of samples and materials
• principles of infection control related to work health and safety (WHS), and sampling and transfer of materials in microbiological investigations including how to minimise the generation of aerosols when flaming
• relevant hazards and how to deal with the risks presented:
  • injuries from sharps, burners, molten agar
  • ultraviolet (UV) light sources
  • exposure to hazardous substances and/or infectious agents
• awareness of environmental sustainability issues as they relate to the work task
• legal, ethical and WHS requirements specific to the work task.

**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 laboratory
  • test samples
  • appropriate equipment, including:
    • transfer equipment, such as inoculating loops, pipettes (quantitative and qualitative), flasks, tubes and spatulas
    • Sterilisation equipment such as bunsen burners, bench incinerators, autoclave and/or pressure cooker
    • Storage equipment such as incubators, water baths, refrigerators, freezers, anaerobic jars as required
    • laminar flow units or biohazard cabinets as required
  • swabs
  • appropriate materials, including:
- solid and/or liquid media
- disinfecting and sterilising agents
- consumables
- receptacles for safe disposal of wastes and for processing of reusable materials
- bar coding material and labels
- workplace schedules, procedures and standard methods, SDS and documented safe work practices.

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

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