



Australian Government

DEFPHL014 Investigate and control outbreak of disease

Release: 1

DEFPHL014 Investigate and control outbreak of disease

Modification History

Release 1. This is the first release of this unit of competency in the DEF Defence Training Package.

Application

This unit specifies the skills and knowledge required to investigate and control disease outbreak as a member of the Australian Defence Force (ADF).

It includes gathering data and analysing that information to draw conclusions to classify the disease. It also includes identifying and determining control measures to prevent the re-occurrence of disease outbreak.

This unit applies to personnel working in ADF preventive health. This function may be performed in collaboration with other health service personnel and may be initiated and led by a medical officer.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Persons undertaking this unit work independently and perform complex tasks in a range of familiar contexts.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Preventive Health

Unit Sector

Not applicable.

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 Gather data in support of the investigation

- 1.1** Gain consent for investigation from relevant personnel within affected organisation and inform them of the investigation process
- 1.2** Determine and address factors affecting scope, risks and complexity of investigation to facilitate commencement of investigation activities
- 1.3** Task and guide personnel assisting with the investigation to enable them to assist independently
- 1.4** Analyse data gathered and confirm disease outbreak by comparison of reported cases with the usual incidence of cases experienced
- 1.5** Obtain a presumptive diagnosis from medical officer to focus investigation effort where feasible
- 1.6** Instigate initial control measures to limit the spread of disease and to provide early treatment to those displaying symptoms of disease, in accordance with operational procedures
- 1.7** Conduct interviews with affected and non-affected personnel to identify common factors in disease outbreak including potential disease source/s
- 1.8** Conduct on-site inspections of areas found to be common to those affected by the disease to gather site information to assist with the identification of disease source/s, in accordance with organisational procedures
- 1.9** Analyse and assess risk from site inspection and make appropriate recommendations to assist investigation

2 Analyse data to classify the path of disease

- 2.1** Collate data from relevant sources to enable comparison and analysis in accordance with organisational procedures
- 2.2** Assess disease characteristics and risk factors to determine disease route and likely targets
- 2.3** Determine disease attack rate to establish cumulative incidence rate of disease over the period of the outbreak
- 2.4** Develop an endemic curve diagram to show the spread

- of infection over time and to identify the likely incidents of exposure to the disease
- 2.5 Identify risk factors using infection attack rate data and likely incidence of exposure
 - 2.6 Gather additional data based on identified risk factors and integrated into analysis
 - 2.7 Classify the disease source, route and target by comparing information gathered during on-site inspection with analysis findings
 - 2.8 Document and communicate the findings from the analysis to relevant personnel to enable appropriate notification to occur and to inform the development of disease control measures
- 3 Determine and implement disease control measures**
- 3.1 Review compliance factors to identify systemic issues that may have contributed to the disease and which require corrective action
 - 3.2 Determine clean up procedures to allow facilities and/or environment connected with disease source to return to normal activity as soon as possible
 - 3.3 Determine disease control measures to provide immediate and long term control of disease in accordance with organisational procedures
 - 3.4 Determine monitoring procedures to confirm compliance with initial clean up and disease control measures
 - 3.5 Compile investigation findings and disease control measures into a disease outbreak report and issue to relevant personnel for review and implementation
 - 3.6 Debrief stakeholders on disease outbreak to clarify investigation outcomes and provide lessons learned, in accordance with organisational procedures
 - 3.7 Integrate disease control measures into wider environmental health support plan to apply lessons learnt for other operating areas and groups

Foundation Skills

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

competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to DEFPHL014A Investigate and control outbreak of disease.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFPHL014 Investigate and control outbreak of disease

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate investigation scenarios and include:

- administering questionnaires to gather information about common factors in the outbreak of disease
- applying relevant legislation, and organisational policies and procedures
- classifying the path of disease using calculated attack rates, endemic curve diagrams and assessed risk factors as the basis for analysis
- communicating clearly and concisely
- communicating professionally with members of the organisation and health services
- conducting disease investigational activities
- determining control measures applicable to the disease
- establishing and maintaining cooperative working relationships with those contacted in the course of work
- establishing and maintaining relevant administrative procedures
- gathering data using a minimum of three data collection methods
- interpreting the significance of medical, health and other data obtained from a variety of sources
- interviewing cases to determine demographic, medically relevant information and risk factor data
- leading, planning, assigning and reviewing the work of personnel assisting with the investigation
- maintaining confidentiality
- prioritising tasking.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- aetiology of infectious diseases including:
 - microbiology
- biological, ecologic and social factors that promote the spread of a disease

- chronic and communicable diseases including:
 - bioterrorism agents and their transmission
 - prevention
 - control methods
- common factors in the outbreak of disease
- control measures for disease transmission including:
 - initial control measures to limit the spread of disease
- current disease surveillance methods
- epidemiologic investigative principles, practices and procedures
- epidemiology of disease including:
 - calculating disease attack rate (biostatistical measure of frequency)
 - incidence rate of disease
 - population risk factors
- factors affecting the complexity of the disease investigation
- food safety standards including:
 - food storage and distribution standards
 - hazard analysis and critical control points (HACCP) approach to food control
- monitoring procedures
- planning and control systems
- relevant documentation processes
- relevant legislation, and organisational policies and procedures
- risk management principles and disease risk factors
- role and capabilities of other health care providers including environmental health team
- water quality assurance measures.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations of disease outbreak with all supporting information

- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry required to perform measurement, testing and on-site inspection
- relevant documentation including operational procedures, regulations, codes of practice and operation manuals.

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