

Public health surveillance and management of persons with potential Ebola virus exposure

This enhanced surveillance plan has been developed in the context of the 2014 Ebola Virus Disease (EVD) outbreak in west Africa, which was declared by the World Health Organization to be a Public Health Emergency of International Concern in August 2014.

The purpose of this document is to provide state-wide consistent guidance to public health units (PHU) in NSW for the identification, risk assessment and management of persons with potential Ebola virus exposure in New South Wales (NSW) in the preceding 21 days.

Objectives

- To identify persons with potential Ebola virus exposure in the preceding 21 days
- To assess level of risk of EVD in persons with potential Ebola virus exposure in the preceding 21 days
- To develop and implement a management plan for persons with potential Ebola virus exposure in the past 21 days, commensurate to the level of risk; the plan would enable rapid identification of illness, appropriate access to health care and minimise risk of ongoing spread of the virus. The management plan may include:
 - Monitoring of health and temperature
 - Restricting social mixing and travel
- To conduct these activities with consideration of the dignity and privacy of individuals consistent with ethical principles

Definitions

Persons with potential Ebola virus exposure

Persons with potential Ebola virus exposure refers to asymptomatic persons who have travelled to countries with widespread EVD spread, or those who have been in the near vicinity of an EVD case in any country.

Active monitoring

Active monitoring means that state or local public health authorities assume responsibility for establishing regular communication with potentially exposed individuals and assess them for the presence of fever and other symptoms.^{1,2} People under active monitoring are required to measure their temperature regularly, report as directed to their local public health unit and immediately notify their local public health unit if they develop fever or other symptoms.

Restricted social mixing³

Restricted social mixing refers to avoiding crowded situations such as shopping centres, movie theatres, churches/mosques, school, public transport, parties, and busy times at takeaway food places. Activities at parks, beaches or other open areas are acceptable.

Isolation

Isolation means the strict separation of individuals or groups with suspected, probable or confirmed cases of Ebola from those who are not infected.¹

Quarantine

Quarantine means the separation of an individual or group exposed to Ebola virus, but without any symptoms to indicate disease, to prevent the possible spread of EVD. This is not routinely recommended.¹

Implementation of the guidelines

Identification of potentially exposed persons

The Communicable Diseases Branch (CDB) will collect information about arrivals who have visited countries with widespread EVD transmission in the past 21 days from border control, aid organisations (MSF and Red Cross) and immigration authorities.

International arrivals into Australia will be required to complete a second arrivals card and provide details about travel to Africa in the past 21 days. A list of the arrivals that have been to countries with widespread EVD transmission will be provided to CDB on a daily basis.

CDB and PHUs may also receive direct calls from the public (via HealthDirect or otherwise).

Risk assessment

Public health units will contact individuals to conduct an initial risk assessment. Initial risk assessment should be performed over the phone to minimise risk to PHU staff.

1. Is the person febrile or unwell? If febrile and unwell, treat as person under investigation (see Ebola risk assessment algorithm on the NSW health website)
2. If the person is well, collect relevant information and assess level of risk using the EVD contact reporting form

Public health management

The framework in Table 1 below provides guidance to public health units for determining appropriate public health actions based on risk factors for the 21 day monitoring period. The management plan should take into account an assessment of personal circumstances of the person including location, occupation, dependents. Please see appendix 9 of Communicable Diseases Network Australia (CDNA) Series of National Guidelines (SONG) for detailed advice on the recommendations for returning aid workers

Table 1: Framework for risk assessment and public health management of exposed persons

Risk	Casual contacts	Lower risk exposures	Higher risk exposures
Risk classification* (taken directly from the CDNA SoNG on Ebola Virus Disease)	In the near vicinity of an EVD patient Having been to a country with widespread EVD transmission in the past 21 days with no known exposures Adequate PPE when in direct contact with EVD case in Australia	Household member of EVD case (in some circumstances this might be classified as higher risk) Inadequate PPE plus close contact (being within 1 metre of a EVD case or within same room for a prolonged period of time) Inadequate PPE and brief direct contact with EVD case (e.g. shaking hands)	Percutaneous (e.g. needle stick) or mucous membrane exposure to blood or body fluids of EVD patient Inadequate PPE and direct skin contact exposure to blood or body fluids of EVD patient Inadequate PPE and lab processing of body fluids of an EVD patient

		Adequate PPE when in direct contact with EVD case if in an area of widespread EVD transmission	Inadequate PPE and direct contact with deceased EVD patient or person with unknown cause of death in an EVD affected area
Management	Casual contacts	Lower risk exposures	Higher risk exposures
Active Monitoring*	Daily self-monitoring of health and temperature Weekly contact by PHU - more frequent contact is recommended for refugee/migrant groups to build rapport and provide support	Twice daily self-monitoring of health and temperature Daily contact with PHU	Twice daily self-monitoring of health and temperature Daily contact by PHU
Information and home monitoring kit	Thermometers, alcohol swabs and hand sanitizer Temperature log Fact sheet (casual risk)	Thermometers, alcohol swabs and hand sanitizer Temperature log Fact sheet (low risk)	Thermometers, alcohol swabs and hand sanitizer Temperature log Fact sheet (high risk)
Symptoms requiring further assessment	<p>If person under monitoring develops any of the following:</p> <ul style="list-style-type: none"> • Fever $\geq 37.5^{\circ}\text{C}$ • Severe headache • Vomiting or diarrhoea • Muscle pain • Stomach pain • Unexplained bruising or bleeding <p>Take the following steps:</p> <ol style="list-style-type: none"> 1. Repeat temperature 2. Implement home isolation, advise avoiding contact with household members 3. Escalate to PHU director and CDB on call to discuss whether further clinical assessment is required 		
Restrictions on social mixing*	No restrictions on social mixing Manage children as lower risk on the principle that they may not have the self-awareness to withdraw if unwell	<p>Consider implementing the following:</p> <ul style="list-style-type: none"> • Assess school and consider home-schooling • Assess work commitments and consider working from home • Limit social mixing • Maintain hand hygiene and minimise intimate bodily contact • Discuss any travel with Chief Health Quarantine Officer (CHQO) on call (cdoncall) • Timely access to appropriate healthcare 	
Restrictions on travelling*	Ensure ready access to health care Discuss travel with CHQO	Ensure ready access to health care Discuss travel with CHQO – in general air travel is not recommended	Ensure ready access to designated quarantine hospitals Discuss travel with CHQO – in general air travel is not allowed
Reporting	Casual contacts	Lower risk exposures	Higher risk exposures
On detection of person with possible exposure	Report to CHQO Enter patient and upload management plan into NCIMS within 24h	Report to CHQO In consultation with CHQO, advise local & Westmead/CHW ID physician on call.	Report to CHQO In consultation with CHQO, advise local & Westmead/CHW ID physician on call.

		Enter patient and upload management plan into NCIMS within 24h	Enter patient and upload management plan into NCIMS within 24h
Follow-up	Weekly follow-up on NCIMS	Daily follow-up on NCIMS	Daily follow-up on NCIMS

*Please refer to appendix 9 of the SoNG for detailed advice on the recommendations for returning aid workers

Legal powers

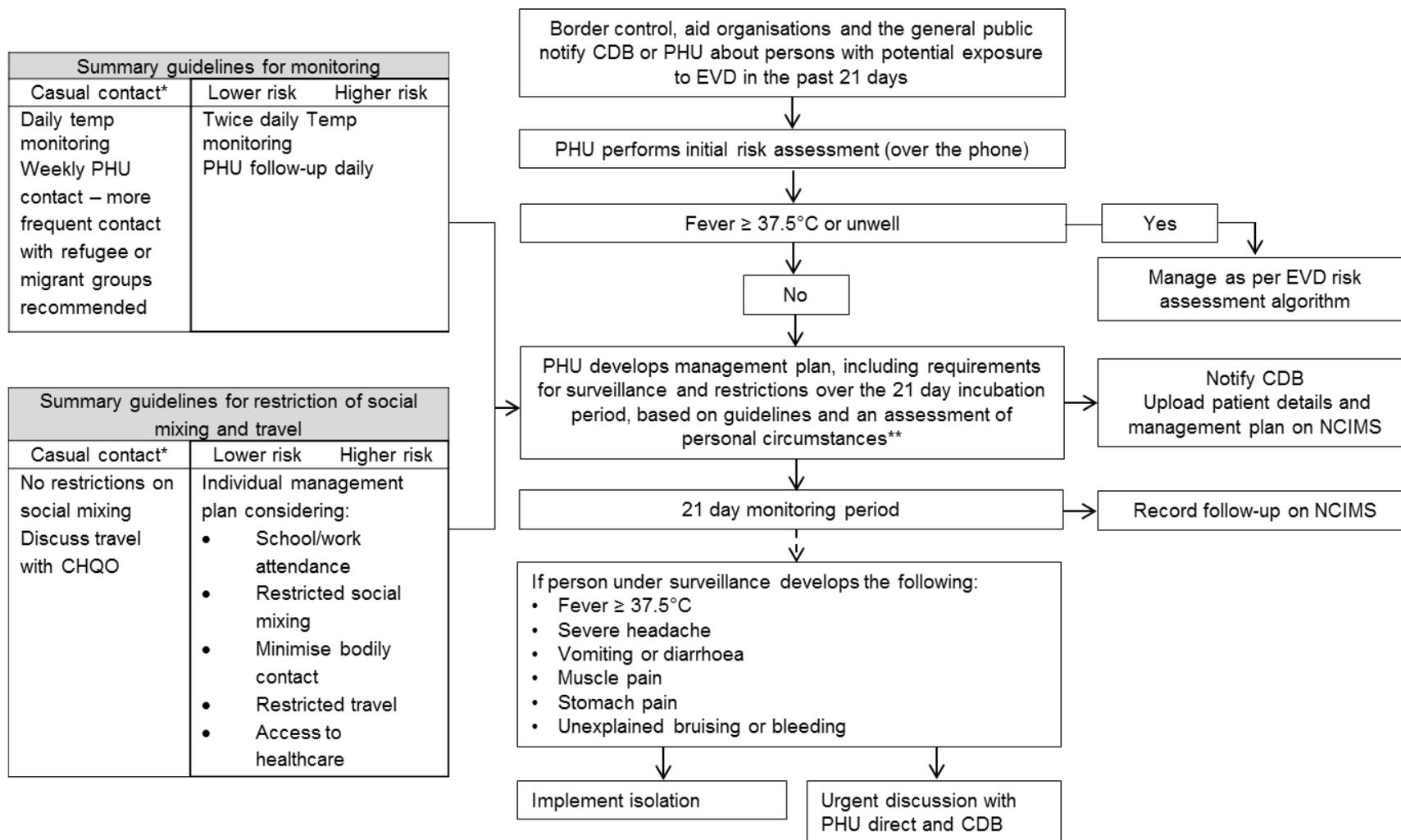
There are provisions in Part 2 Section 7 of the Public Health Act 2010 (NSW) for the Minister to respond to risks to public health however this section of the Act has yet to be tested for the quarantine of people exposed to Ebola.

In practical terms, follow-up persons with potential Ebola virus exposure will rely on gaining voluntary cooperation through building rapport. Ensure all actions are consistent with ethical principles to protect the dignity and privacy of the individual when implementing any monitoring or restriction of movement.

References

1. Centers for Disease Control and Prevention (CDC), Interim US guidance for Monitoring and Movement of Persons with Potential Ebola Virus Exposure, 3 November 2014, <http://www.cdc.gov/vhf/ebola/exposure/monitoring-and-movement-of-persons-with-exposure.html>
2. European Centre for Disease Prevention and Control (ECDC), Public health management of healthcare workers returning from Ebola-affected areas, 7 November 2014, <http://ecdc.europa.eu/en/publications/Publications/management-healthcare-workers-returning-Ebola-affected-areas.pdf>
3. Communicable Diseases Network Australia (CDNA), Series of National Guidelines (SoNG) for Ebola Virus Disease – modified for use by NSW Health, 28 October 2014 <http://www.health.nsw.gov.au/Infectious/controlguideline/Pages/ebola-virus.aspx>

Flow diagram of plan for public health surveillance and management of potentially exposed persons



*Managing children as low risk on the principle that children do not have the self-awareness to withdraw if they are feeling unwell

**Please see appendix 9 of Series of National Guidelines (SONG) for detailed advice on the recommendations for returning aid workers