

Evaluation of patients with possible Ebolavirus disease (Ebola) in general practice in Australia

GPs and other practice staff should be alert to the possibility of Ebola in unwell travellers returning from affected areas of Africa. A range of measures are in place to reduce the possibility of a case of Ebola presenting to general practice for Ebola related symptoms and it is very unlikely that a febrile patient in primary care will have Ebola. The transmission risk from a patient with Ebola in the early stages of disease with limited symptoms is much lower than a patient with severe disease.

1. Identify relevant travel or exposures

Has the patient:

- Lived in or travelled to a country with an outbreak of Ebola?
- Had contact with someone who may have had Ebola?
- Attended a funeral in an Ebola-affected country?



NO

Continue with normal triage and care



YES

2. Identify symptoms

Does the patient have a recent history of fever? OR

Does the patient have other Ebola-compatible symptoms such as vomiting, diarrhoea, headache, myalgia, respiratory symptoms, unexplained bleeding?



NO

Continue with normal triage and care.

Notify state/territory health department that patient is seeking care and pass on all relevant details to enable public health authorities to monitor the person.



YES

3. Isolate and avoid direct contact

If the patient is phoning in, tell them not to attend the practice while you seek advice from state/territory public health authorities.

If the patient presents to the practice, maintain at least 1 metre separation between patient and others:

- If in the waiting room, place in a single room. Assign a clinical staff member to manage the other patients in the waiting room.
- If in consulting room, withdraw from the immediate vicinity of the patient and maintain >1metre distance. Complete taking any history from a distance. Provide vomit bags, wipes.

In general practice, no-one should have direct unprotected contact with a possible Ebola patient. No clinical samples are to be collected and it is not necessary to measure the temperature.

If direct contact is unavoidable, a single staff member should be assigned. Pay close attention to hand hygiene; and use appropriate protection including a fluid repellent surgical mask, disposable fluid resistant gown, gloves, and eye protection (e.g. goggles).



4. Inform and transfer

The GP must immediately notify their state/territory health department to discuss referral.

Where there is an urgent clinical need for an ambulance, this should precede contact with the state/territory health department. The ambulance must be informed that the patient is under investigation for Ebola.

If, following discussion with public health authorities and infectious disease physicians, it is decided that the patient does **not** require further assessment and/or testing for Ebola, the patient should be managed as per usual practice.

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*Important information for **general practitioners (GPs) and other staff in general practice***

6 June 2018

Key points and actions

GPs and other practice staff should be alert to the possibility of Ebola in unwell travellers returning from affected areas of Africa and obtain a full travel and exposure history. The risk of infection is very low unless there has been direct exposure to the bodily fluids of an infected person or animal (alive or dead).

For patients with compatible clinical symptoms and exposure history as per the case definition in the section **“What are the symptoms and what are the case definitions?”** the following procedure should be followed:

- If the patient is phoning in, tell them not to attend. Call your state/territory health department for advice, and then contact the patient again (see **“Who do I contact if I have a suspected case?”** for contact information).
- If patient identifies to reception or is in the waiting room, place in a single room.
- If patient is in a consulting room, withdraw from the immediate vicinity of the patient (stay at least 1metre away).
- Contact public health immediately to discuss risk assessment, the possible need to patient transfer to hospital and, if relevant, the management of contacts (see **“Who do I contact if I have a suspected case?”** for contact information).
- No-one in general practice should have direct contact with a person under investigation for Ebola. If direct contact with the patient is unavoidable, apply infection control measures.

In the event of a person under investigation for Ebola being referred from your practice, public health authorities will follow-up with staff to provide information and will provide advice about any further steps that are required.

What are the symptoms and what are the case definitions?

The likelihood that a febrile illness in a returned traveller is due to Ebola is very low, however GPs should be aware of the possibility of Ebola in patients with a compatible travel history. The risk of infection is very low even in persons with a compatible travel history, unless there has been direct

exposure to the bodily fluids of an infected person (including unprotected sexual contact with confirmed cases up to three months after they have recovered) or animal (alive or dead).

The onset of symptoms is sudden and typically includes fever, myalgia, fatigue and headache. The next stage may include symptoms that are gastrointestinal (vomiting, diarrhoea), neurological (headaches, confusion), vascular, cutaneous (maculopapular rash), and respiratory (sore throat, cough) with prostration. Cases may develop a septic shock-like syndrome, and progress to multi-organ failure, sometimes accompanied by profuse internal and external bleeding. The case-fatality rate (CFR) for Zaire strain of Ebola cases during previous outbreaks is estimated to be between 50% and 90%, while for other species, the CFR may be lower.

Case definition

Public Health authorities and treating clinicians will consider testing for persons with epidemiological and clinical evidence as per the Communicable Diseases Network of Australia (CDNA) case definitions:

Person under investigation

Requires clinical evidence and limited epidemiological evidence.

*Note: If a risk assessment determines that a **person under investigation** should be tested for Ebolavirus, the person should be managed as a **suspected case** from that point forward regardless of clinical and epidemiological evidence.*

Suspected case

Requires clinical evidence and epidemiological evidence.

Definitions

Clinical evidence requires fever of $\geq 38^{\circ}\text{C}$ or history of fever in the past 24 hours. Additional symptoms such as unexplained haemorrhage or bruising, severe headache, muscle pain, marked vomiting, marked diarrhoea, abdominal pain should also be considered.

Limited epidemiological evidence requires only travel to an Ebola affected area (country/region)* in the 21 days prior to onset.

Epidemiological evidence requires a lower risk exposure or higher risk exposure in the 21 days prior to onset as defined below.

Lower risk exposures:

- Household contact with an Ebola case (in some circumstances this might be classified as higher risk such where the household was in a resource poor setting).
- Being within approximately 1 metre of an Ebola patient or within the patient's room or care area for a prolonged period of time (e.g., healthcare workers, household members) while not wearing recommended personal protective equipment (see "What are the recommended isolation and PPE recommendations for patients in hospital?" for details).
- Having direct brief contact (e.g., shaking hands) with an Ebola patient while not wearing recommended personal protective equipment.

Higher risk exposures:

- Percutaneous (e.g. needle stick) or mucous membrane exposure to blood or body fluids of an Ebola patient (either suspected or confirmed).
- Direct skin contact with blood or body fluids of an Ebola patient without appropriate personal protective equipment (PPE).
- Laboratory processing of body fluids of suspected, probable, or confirmed Ebola cases without appropriate PPE or standard biosafety precautions.
- Direct contact with a dead body without appropriate PPE in a country where an Ebola outbreak is occurring.
- Direct handling of sick or dead animals from disease-endemic areas or consumption of "bushmeat" in country where Ebola is known to occur.

*Areas affected by outbreaks can be found at the [WHO Disease Outbreak News page](#).) Filoviruses are endemic in sub-Saharan Africa.

Reporting and further assessment

The GP must notify a suspected case immediately to their state/territory communicable disease branch/centre to discuss referral (see "**Who do I contact if I have a suspected case?**" for contact information).

If, following discussion with public health authorities and infectious disease physicians, it is decided that the patient does **not** require further assessment and/or testing for Ebola, the patient should be managed as per usual practice.

Where there is clinical need for an ambulance, this should precede contact with the state/territory communicable disease branch/centre. The ambulance must be informed that the patient is under investigation for Ebola.

What are the recommended isolation and PPE recommendations for patients in general practice?

For patients with a compatible travel and a history of fever or with other compatible symptoms (see **“What are the symptoms and what are the case definitions?”**) the following procedure should be followed:

- If the patient is phoning in, tell them not to attend. Call your state/territory health department for advice, and then contact the patient again (see **“Who do I contact if I have a suspected case?”** for contact information).
- If patient identifies to reception or is in the waiting room, place in a single room or at least 1 metre away from other patients.
- If patient is in a consulting room, withdraw from the immediate vicinity of the patient (stay at least 1metre away).
- Contact public health immediately to discuss risk assessment, the possible need to patient transfer to hospital and, if relevant, the management of contacts (see **“Who do I contact if I have a suspected case?”** for contact information).

No-one in general practice should have direct contact with a person under investigation for Ebola. If direct contact with the patient is unavoidable, apply the following infection control measures as a minimum:

- A single staff member should be assigned to care for the patient.
- Pay close attention to hand hygiene.
- Use a fluid repellent surgical mask, disposable fluid resistant gown, gloves, and eye protection (e.g. goggles).

[The Royal Australian College of General practitioners \(RACGP\) provides infection control standards for office-based practice](http://www.racgp.org.au/your-practice/standards/infectioncontrol/) (<http://www.racgp.org.au/your-practice/standards/infectioncontrol/>).

If possible, prior to placing the patient in a single room, remove all unnecessary objects and equipment from that room to minimise the complexity of cleaning and decontaminating after the patient has been transferred out if they later test positive for Ebola.

Where a person under investigation for Ebola has been referred from your practice, public health authorities will follow up with the GP and other practice staff to determine the level of exposure that each staff member may have had to the person, or to advise if no follow-up is required. Public Health authorities will provide information about the risks to staff and will keep staff informed about whether the patient is to be tested for Ebola, and the test results.

Further information about environmental cleaning is available from the public health unit (see **“Who do I contact if I have a suspected case?”** for contact information).

Advice for contacts of possible cases

The state/territory communicable disease branch or public health units will undertake the public health management of contacts of cases. However, in the event of a possible case in general practice, patients who were in the waiting room may have concerns, and a clinical staff member in the practice should be assigned to manage these other patients. It may be useful to distribute a fact sheet to these patients (see **Appendix 1 Fact Sheet for Patients in General Practice**) and to note the names of each person present.

Contacts of cases should be directed to your state/territory communicable disease branch/centre for management.

Are health workers at risk from Ebola?

Healthcare workers who have direct contact with a symptomatic Ebola patient may be at risk of infection, unless appropriate infection control practices are followed. Healthcare workers in resource poor settings with inadequate infection control are at increased risk.

In the event of a person under investigation for Ebola being referred from your practice, public health authorities will follow-up with staff to provide information and will provide advice about any further steps that are required.

Pre-travel advice for travellers to outbreak areas

Advice for travellers can be found on the [Smartraveller website](#), including about other diseases of risk to travellers to affected areas, such as malaria.

Information about outbreaks can be found at the [WHO Disease Outbreak News](#) page.

GPs should advise patients travelling to areas with current outbreaks of Ebola that outbreaks of Ebola have the potential to overwhelm local health facilities in Africa. Options for obtaining routine or emergency medical care may be limited. Medical evacuations for any potential Ebola patient – and particularly symptomatic Ebola patients - may be extremely difficult, if not impossible, to conduct.

For unavoidable travel, GPs should emphasise that travellers should avoid direct exposure to the bodily fluids of an infected person or animal (alive or dead), including unprotected sexual contact with patients up to three months after they have recovered. GPs should advise travellers to ensure that if they are in the region for work, that their employer has relevant contingency plans, and if they travel to the region independently, they should ensure that their travel insurance will cover medical evacuation and treatment if necessary.

If a traveller becomes unwell while in transit they should advise airline staff or border officers. If they become unwell on their return to or arrival in Australia they should contact your state or territory communicable disease branch listed below.

What is happening at the border?

Australian health authorities closely monitor disease outbreaks overseas and our border protection agencies are alert to watch for people who are unwell both inflight and at airports. As part of routine procedures, incoming flights to Australia have on-board announcements encouraging ill passengers to identify themselves for further assistance and screening.

At times, specific border measures such as increased screening, information and follow up for travellers from outbreak destinations may be implemented.

These measures will greatly reduce the possibility of an Ebola patient presenting to primary care in Australia.

Who do I contact if I have a suspected case?

Contact your state/territory communicable disease branch/centre.

State/territory	Public health unit contact details
ACT	02 6205 2155
NSW	1300 066 055 Contact details for the public health offices in NSW Local Health Districts (http://www.health.nsw.gov.au/Infectious/Pages/phus.aspx)
NT	08 8922 8044 Monday-to Friday daytime and 08 8922 8888 ask for CDC doctor on call –for after hours
QLD	13 432 584 Contact details for the public health offices in QLD Area (https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units)
SA	1300 232 272
TAS	1800 671 738 (from within Tasmania), 03 6166 0712 (from mainland states) After hours, follow the prompt “to report an infectious disease”
VIC	1300 651 160
WA	08 9388 4801 After hours 08 9328 0553 Contact details for the public health offices in WA (http://healthywa.wa.gov.au/Articles/A_E/Contact-details-for-population-public-health-units)

How do I test for Ebola?

Testing for Ebola should not be conducted in a general practice setting and patients should be notified and referred as per the previous sections.

Background information

Ebolaviruses

Ebolaviruses are part of the family *Filoviridae*, which also includes Marburg virus. Fruit bats of the *Pteropodidae* family are considered to be a likely natural host of the Ebolavirus, with outbreaks amongst other species such as chimpanzees, gorillas, monkeys and forest antelope from time to time. Five species of Ebolavirus have been identified, namely Zaire, Sudan, Reston, Tai Forest and Bundibugyo, but Reston and Tai Forest species are not known to have caused outbreaks amongst humans.

Transmission

Ebolavirus is introduced into the human population through direct contact (through mucous membranes or broken skin) with the blood, secretions, or other bodily fluids of infected animals (often therefore through hunting or preparation of "bushmeat"). In Africa, infection has been

documented through the handling of infected chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead or in the rainforest.

Ebolavirus then spreads through person-to-person transmission via direct contact (through mucous membranes or broken skin) with:

- the blood or bodily fluids (including but not limited to urine, saliva, feces, vomit, and semen) of people with Ebola, and the bodies of people who have died of Ebola; and/or
- objects (e.g. needles, syringes) contaminated with blood or bodily fluids of people with Ebola.

Transmission through sexual contact may be possible for up to three months after clinical recovery. Participating in traditional burial ceremonies in affected areas of Africa is a known high risk activity for transmission.

The risk of transmission in healthcare settings can be significantly reduced through the use of appropriate infection control precautions and environmental cleaning.

Airborne transmission to humans, as occurs for tuberculosis or measles, has never been documented.

Incubation period

From 2 to 21 days; most commonly 8 to 10 days.

Treatment

There are no widely available prophylactic (vaccine) or therapeutic (antiviral drugs) options available to treat human infections, and care is largely supportive. Use of an ebola vaccine for the prevention of spread is being used in outbreak settings by the WHO.

Listed Human Disease

Ebola is a listed human disease in Australia, and as such risks can be mitigated and managed through a range of biosecurity measures at the border, including enforcing appropriate isolation measures if suspected cases of disease are identified.

See the [WHO website](http://www.who.int/csr/don/en/) (http://www.who.int/csr/don/en/) for the latest information about outbreaks.

Further advice

CDNA Series of National Guidelines (SoNG) for public health units on Ebola, available from [the Department of Health website](http://www.health.gov.au/ebola) (www.health.gov.au/ebola)

WHO situation updates and resources for health professionals are available from [the WHO website](http://www.who.int/csr/disease/ebola/en/) (http://www.who.int/csr/disease/ebola/en/)

Surveillance case definition for confirmed and probable cases, available from [the Department of Health website](http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_vhf.htm) (http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_vhf.htm)

Appendix 1 – Fact sheet on Ebolavirus disease (Ebola) for patients

This fact sheet provides information to patients who may have been present in a general practice waiting room at the same time as another patient with possible Ebola

In the event that you may have been near someone (in the same room etc.) who may possibly have Ebola, health authorities may contact you to assess whether you may have had any contact with the person who is ill.

It is very important to note that the risk of acquiring Ebola is very low unless there has been direct physical contact with the bodily fluids of an infected person. You cannot catch Ebola just by sharing the same room without close physical contact and/or direct exposure to the bodily fluids of a person with Ebola.

Public health authorities and infectious diseases experts will assess the likelihood that the ill person has Ebola and may obtain contact details for all the people in the same place as the person who was ill. You may be asked to monitor your health for up to 21 days.

What is Ebola and what are the symptoms?

Ebola is a serious and often fatal disease caused by a virus. Outbreaks of Ebola occur from time to time in certain areas of Africa, and there is a very large outbreak occurring in West Africa at present.

Ebola can cause a serious illness, with a sudden onset of fever, muscle and joint aches, weakness, and headache. The disease can progress to more serious symptoms and may be fatal.

How is it spread between people and how can this be prevented?

Ebola can spread from person to person via direct contact with the blood, secretions, or other bodily fluids of infected people, and contact with environments contaminated with such fluid, including in healthcare settings. Airborne transmission is not known to occur.

Hand hygiene is an important infection control measure; the Ebolavirus is readily inactivated, for example, by soap and water or by alcohol.

How do I contact the relevant public health unit?

The phone number for your public health unit is:

Further information

- World Health Organization (WHO) EVD updates available from [the WHO website:](http://www.who.int/csr/disease/) (www.who.int/csr/disease/)
- Australian Department of Health – [Ebola website](https://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-ebola.htm) (https://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-ebola.htm)