

Possible case definitions (either 1, 2 or 3)

- 1 Any person with severe acute respiratory infection requiring admission to hospital with symptoms of fever ($\geq 38^{\circ}\text{C}$) or history of fever, and cough **plus** evidence of pulmonary parenchymal disease (eg clinical or radiological evidence of pneumonia or acute respiratory distress syndrome (ARDS))¹

AND AT LEAST ONE OF:
 - history of travel to, or residence in an area where infection with MERS-CoV could have been acquired² in the 14 days before symptom onset
 - close contact³ during the 14 days before onset of illness with a symptomatic confirmed case of MERS-CoV infection
 - person is a healthcare worker based in ICU caring for patients with severe acute respiratory infection, regardless of travel or PPE use
 - part of a cluster of two or more epidemiologically linked cases within a two-week period requiring ICU admission, regardless of history of travel
- 2 Acute influenza-like-illness symptoms (ILI), **plus** contact with camels, camel environments or consumption of camel products (e.g. raw camel milk, camel urine) **or** contact with a hospital, in an affected country² in the 14 days prior to onset.
ILI is defined as sudden onset of respiratory infection with measured fever of $\geq 38^{\circ}\text{C}$ and cough.
- 3 Acute respiratory illness (ARI) **plus** contact with a confirmed case of MERS-CoV in the 14 days prior to onset.
ARI is defined as sudden onset of respiratory infection with at least one of: shortness of breath, cough or sore throat.

¹ Clinicians should additionally be alert to the possibility of atypical presentations in patients who are immunocompromised, atypical presentations may include absence of fever.
² Bahrain, Jordan, Iraq, Iran, Kingdom of Saudi Arabia, Kuwait, Oman, Qatar, United Arab Emirates, Yemen – see [map](#) and [Risk Assessment](#)
³ For close contact definition, see page 2.
⁴ For IPC precautions see Page 2.
⁵ See [laboratory guidance](#) for further information.
⁶ A presumptive positive case will trigger an IMT.

Local clinician/microbiologist:

- ensure [appropriate samples](#) are taken and contact the nearest MERS-CoV testing laboratory
- ensure full PPE is worn (correctly fitted respirator [FFP3], gown, gloves and eye protection) & patient managed as per [MERS-CoV infection control advice](#)⁴
- notify local [PHE health protection team \(HPT\)](#)
- consider testing for Legionnaire's disease

PHE Health Protection:

- inform PHE Colindale by email at respiratory.lead@phe.gov.uk and enter case details on HPZone (Infection and unlisted managed context: MERS-CoV)
- collect possible case dataset ([Form 1](#)) – email to PHE Colindale (respiratory.lead@phe.gov.uk)
- if a cluster is suspected, establish if there is an epidemiological link between cases

TESTING LABORATORY RESULT **POSITIVE** FOR MERS-COV
(PRESUMPTIVE POSITIVE)^{5,6}

TESTING LABORATORY RESULT **NEGATIVE** FOR MERS-COV⁵

Clinician/microbiologist: ensure full PPE is worn (see [infection control advice](#))

MERS-CoV testing laboratory: Inform local HPT, the referring laboratory and PHE reference laboratory (RVU) and send residual material urgently to PHE reference laboratory (RVU) for confirmatory testing – see [laboratory guidance](#)

PHE HPT: Telephone PHE Colindale immediately or contact the duty doctor if out of hours. Start to identify and collate [list of close contacts](#)³ – email to PHE Colindale

REFERENCE
LABORATORY
RESULT **NEGATIVE**
FOR MERS-COV

**DISCARD as
MERS-CoV**

REFERENCE LABORATORY RESULT **POSITIVE** FOR MERS-COV = **CONFIRMED CASE (SEE PAGE 2)**

CONFIRMED CASE ACTIONS

Clinician/microbiologist: collect appropriate baseline samples and send to PHE reference laboratory (RVU) – see [laboratory guidance](#)

PHE HPT : complete confirmed case initial form ([Form 1a](#)) – email to respiratory.lead@phe.gov.uk

ADDITIONALLY FOLLOW [PHE MERS-CoV CLOSE CONTACT ALGORITHM](#)



FOLLOW UP

Clinician/ microbiologist: ensure appropriate sequential follow-up samples are taken after discussion with the PHE Colindale incident management team. See [laboratory guidance](#)

PHE HPT: complete confirmed case follow-up [Form 1b](#) **14-21 days since Form 1a completed** – email to respiratory.lead@phe.gov.uk

Important Notes

CLOSE CONTACT: Close contact is defined as:

- prolonged face-to-face contact (>15 minutes) with a **symptomatic confirmed** case in a household or other closed setting OR
- healthcare or social care worker who provided direct clinical or personal care or examination of a **symptomatic confirmed** case, or within close vicinity of an aerosol generating procedure AND who was not wearing full PPE at the time ([infection control advice](#)).
- **all persons** meeting the close contact definition should be notified to the local HPT regardless of decision to test or test results.
- the HPT to discuss with the National infections service

IPC Precautions: It is recommended that patient assessment and collection of clinical specimens for MERS-CoV testing is undertaken in settings where appropriate [Infection Prevention and Control \(IPC\) measures](#) can be implemented. This may not be feasible in primary care settings, in which case an appropriate local secondary care service should be contacted to discuss if patient referral is appropriate and to ensure IPC measures can be implemented.

Co-infection: MERS-CoV co-infection with other respiratory pathogens has been reported previously – therefore any patient meeting the possible case definition should be tested for MERS-CoV infection regardless of other infections being identified