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**PUBLIC HEALTH ENGLAND
EPRR OVERSIGHT GROUP MEETING**

6th October 2017

**Public Health England Response Plan for Possible, Presumptive and
Confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
Cases**

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1. **PURPOSE OF THE PAPER**

1.1 The purpose of this document is to outline the processes by which PHE will manage the public health response to possible, presumptive and confirmed cases of MERS-CoV infection in England. This plan is a threat-specific document to be used within the PHE IERP framework.

2. **RECOMMENDATION**

2.1 The PHE EPRR OG is asked to approve and **AGREE** the response plan in order that it can be implemented. The plan has already been agreed by the PHE EPRR Delivery Group and comes to the PHE EPRR Oversight Group for final endorsement.



Public Health
England

Protecting and improving the nation's health

Public Health England Response Plan for Possible, Presumptive and Confirmed Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Cases

DRAFT UNTIL APPROVED

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About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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Purpose

The purpose of this document is to outline the processes by which PHE will manage the public health response to possible, presumptive and confirmed cases of MERS-CoV infection in England. This plan is a threat-specific document to be used within the PHE IERP framework.

This plan includes the identification and diagnosis of an index case, and the management of identified contacts of the case, and highlights the contributions of different parts of PHE to the overall public health response. This document therefore relates to other PHE guidance on MERS-CoV . This document does not provide clinical treatment advice for MERS-CoV cases; alternative documents have been published on this subject and links to these are provided in this plan.

This plan is an internal document for use by PHE colleagues to inform planning for potential MERS-CoV cases. However, this plan is not intended for use outside of the organisation; external stakeholders should consult documents already published on the PHE website related to MERS-CoV.

In addition, this plan does not direct how the NHS would organise its services in the event of a possible, presumptive and confirmed cases of MERS-CoV; this would be led by NHS England.

This document sits within a framework of existing PHE emergency preparedness resilience and response (EPRR) plans, including, PHE Concept of Operations, PHE National Incident Response Plan, communicable disease outbreak management operational guidance, and PHE centres' local incident response plans and does not replace these.

Background

MERS-CoV is a novel coronavirus that was first identified in 2012 (1). The virus has an incubation period of 2-14 days and is spread through contact with respiratory secretions from an infected individual. The infection is associated with development of severe respiratory illness, including cough, fever and pneumonia. Individuals with comorbidities such as diabetes, chronic lung disease, immunocompromise and renal failure have been observed to develop particularly severe illness or fatal consequences. This infection has been associated with a significant case fatality rate in affected countries, particularly in older adults with comorbidities.

Camels in the Middle East are considered the most likely reservoir of the infection and a source of zoonotic infection for humans in the Middle East. Due to the specific geography of this reservoir, MERS-CoV, suspect cases require a travel history to an affected country. An exception to this observation is when there is an epidemiological link to a confirmed case, as in the 2015 MERS-CoV outbreak in Republic of Korea (RoK)(2). This outbreak was triggered by an imported index case who had acquired their infection in the Middle East, returned to RoK and was the index case for multiple nosocomial infections in RoK, with over 170 secondary cases by the time the outbreak had come to an end. This outbreak highlighted the potential for rapid transmission of MERS-CoV in healthcare facilities, and the need for prompt recognition of suspect cases and implementation of effective infection prevention and control procedures while they are under investigation.

The main risk of MERS-CoV for England relates to the potential importation of sporadic cases from affected countries and subsequent secondary transmission. Since the initial identification of MERS-CoV in 2012, detailed guidance has been developed by PHE for the identification and testing of individuals at high risk of MERS-CoV infection. This plan supports these documents by providing an operational plan for PHE to respond to the identification of confirmed cases and their contacts. This plan will be reviewed regularly to reflect future developments such as the forthcoming NHS England High Consequence Infectious Disease (HCID) programme.

Identification of cases

First generation cases diagnosed in the UK are most likely to have acquired their MERS-CoV infection in an affected country as defined in the possible case algorithm. PHE and The National Travel Health Network and Centre (NaTHNaC) have raised awareness of the risk of MERS-CoV related to travel to affected countries through various media

Assessment and management of possible cases

Clinicians managing a patient who might meet the criteria of a possible case should contact the local PHE Centre Health Protection Team (PHEC-HPT) or local PHE Specialist Microbiology Services (SMS) laboratory for advice. Once the patient is assessed as meeting the criteria of a possible case, the case will need to be discussed with the nearest PHE SMS laboratory or external equivalent¹ (if not already) to arrange MERS-CoV testing. If not already contacted, the local PHEC-HPT must be informed about any patient meeting the possible case definition, or if a case does not meet the PHE case definition but is being tested. Any individual assessed as a possible MERS-CoV case should be **immediately** managed according to the PHE MERS-CoV infection control guidance. This is essential to the prevention of MERS-CoV transmission events in health care facilities including "super-spreader" events which have occurred in other countries.

¹ Some external laboratories may now offer MERS-CoV testing using CE-marked testing kits on a commercial basis

Case definitions

Possible case

Severe acute respiratory syndrome (including fever $\geq 38^{\circ}\text{C}$ or recent history of fever and cough) requiring hospitalisation AND clinical / radiologic evidence of pulmonary parenchymal disease not explained by another aetiology with one of:

- travel to or residence in an area where infection with MERS-CoV could have been acquired during the 14 days before onset of illness
- close contact in the 14 days before onset of illness with a confirmed case of MERS-CoV while the case was symptomatic
- healthcare worker based in ICU caring for patients with severe acute respiratory infection, regardless of history of travel or use of PPE
- part of a cluster of ≥ 2 epidemiologically linked cases within a 2 week period requiring ICU admission, regardless of history of travel

Presumptive case - A case that meets the possible case definition and has tested positive for MERS-CoV at the designated PHE MERS-CoV testing laboratory.

Confirmed case - A case that meets the presumptive case definition AND has been confirmed at the national reference laboratory (Virus Reference Department, Colindale).

Laboratory testing

Initial testing of possible MERS-CoV cases may be undertaken by either one of four regional PHE testing laboratories or a non-PHE laboratory using a CE-marked test. Testing by the PHE laboratories is arranged by the nearest PHE laboratory, who will liaise with one of the four PHE testing laboratories if they do not undertake testing MERS-CoV testing themselves.

Any specimen that tests positive locally must be referred to the PHE Respiratory Virus Unit, virus reference department, Colindale with appropriate packaging and transport, and should be

discussed by telephone prior to transport. At the respiratory virus unit, virus reference department, Colindale, the specimens will be tested to confirm the diagnosis of MERS-CoV. It should be noted that any further MERS-CoV testing in relation to this incident, including testing of symptomatic contacts (or clearance testing of confirmed cases) will need to be undertaken by PHE testing laboratories as part of an emergency public health response.

Alerting and communications

Clinicians should notify their local PHEC-HPT if they assess a patient to be a possible case. It is possible that clinicians may contact different parts of PHE such as SMS laboratories, PHEC-HPTs or Imported Fever Service, about possible cases. As the PHEC-HPT is likely to have close operational relationships with healthcare services, it is essential that the PHEC-HPT is made aware of the possible case by other PHE services, if the PHEC-HPT is not already involved.

Once a possible MERS-CoV case has been reported to a PHEC-HPT, the PHEC-HPT should immediately obtain the case details and remind the managing clinician of the MERS-CoV infection control advice **immediately**. The PHEC-HPT should record the basic case details in Minimum Data Set Form 1 and forward this to respiratory.lead@phe.gov.uk by the next working day. If the report of a possible case is received during the weekend, then the possible case can be reported to the Colindale Duty Doctor between 9am and 9pm (or outside these hours in extenuating circumstances e.g. media interest) and sent by email as above.

It is recognised that PHE regional communications teams will need to develop local reactive lines for possible cases. Support can be provided by the national press office. If these are shared with stakeholders then the national press office should also be informed in case of further enquiries from related organisations.

In the event that the PHE MERS-CoV testing laboratory has a positive result, then the possible case will be classified as a **presumptive case**. This information should be communicated immediately by the PHE MERS-CoV testing laboratory to the local PHE laboratory (if the

nearest PHE laboratory to the hospital does not undertake MERS-CoV testing). The local PHE laboratory should then inform the following:

- referring hospital/clinician
- local PHEC-HPT

The local HPT should then (summarised in Appendix 1):

- **immediately** inform PHE Respiratory Diseases Department Colindale (or the Colindale Duty Doctor out of hours)
- **immediately** contact the referring clinician to ensure that all infection control procedures appropriate for MERS-CoV are in place.
- confirm history of the patient's illness from the clinician to inform decisions about the public health response.
- ensure that they have all the information required for Initial Confirmed Case Report Form – 1a.
- start to compile a list of all potential contacts of the presumptive case pending results of confirmatory testing (but not to start other aspects of contact tracing until advised by Respiratory Diseases Department, Colindale). This would generally include household and all healthcare contacts.
- convene a local IMT as soon as possible (within a maximum of 12 hours).
- ensure PHE communications is aware.

Incident management for presumptive and confirmed cases

Following the reporting of a presumptive or confirmed MERS-CoV case, the Director of Health Protection will officially confirm at which level the incident will be managed, as specified by the PHE NIERP procedures. The detail of this plan has been written on the assumption that this situation constitutes an incident requiring an enhanced national response from the outset due to the potential public health impact occurring across regional boundaries and the need for national co-ordination. According to the PHE Emergency Preparedness, Resilience and Response Concept of Operations, such an incident necessitates the formation of a national incident management team (IMT).

National IMT membership, roles and responsibilities

The exact membership of and frequency of attendance at the National IMT meetings will be agreed by the national incident director; it is likely to include the following stakeholders with the following roles for at least some or all of the incident:

- National Incident Director (Chair)
- Respiratory Diseases Department Colindale - technical advice on public health actions including specification for contact tracing, exclusion of contacts, activation of the PHE case-contact tool and overview of national surveillance including information to be included in sitreps.
- Local IMT Chair/ HPT representative
- PHE Reference Laboratory (RVU) - provides specialist virology advice
- PHE MERS-CoV testing laboratory - provision of information of testing undertaken so far
- Health Protection Directorate - provision of emergency response division support (including co-ordination and development of sitreps), communication across government departments and law enforcement agencies and other global health security considerations (additional to IHR, below)
- Field Epidemiology Services - support to PHEC-HPTs, in relation to the contact tracing process using the MERS-CoV case-contact tool and support
- Travel and Migrant Health Section – to co-ordinate IHR and EWRS communications
- PHE Communications - lead on all communications issues
- Other devolved administrations (if cases have travelled to any of these and there are associated contacts)
- Port Health (if travelled internationally while symptomatic)
- Department of Health

Frequency of meetings: initially daily and then on an as required basis (as decided by incident director)

Local IMT membership, roles and responsibilities (as part of the National Enhanced incident response)

The local PHEC-HPT should aim to convene an IMT as soon as possible (within a maximum of 12 hours), to ensure that initial working by multiple agencies is co-ordinated. The purpose of this is to facilitate action at the local level, on behalf of the national incident management team.

The first meeting of the local IMT will be followed by a national IMT chaired by the national incident director.

The local IMT will include some or all the following stakeholders with the specified roles, depending on how the incident progresses. Meeting attendance will be managed by the local IMT chair to ensure that IMT members have sufficient time to deliver the public health response.

- Local IMT Chair - normally a representative of the PHEC-HPT
- Respiratory Diseases Department Colindale - technical advice on public health actions including specification for contact tracing, exclusion of contacts, etc.
- PHE Reference Laboratory (RVU) - provides specialist virology advice (attendance on an as required basis)
- PHE MERS-CoV testing laboratory/local PHE laboratory - information on testing undertaken so far (attendance on an as required basis)
- Field Epidemiology Services - support to the contact tracing process using the MERS-CoV case-contact tool
- PHE Centre Communications - lead on all local communications issues as agreed with other stakeholders
- Representatives of Acute Trust where patient admitted:
 - Acute trust clinical team - provide updates on patient status
 - Acute trust infection prevention and control/microbiology/virology team - provide updates on infection prevention and control and local liaison for virological investigations
 - Acute trust occupational health team - provides input on follow-up of healthcare worker contacts (if not undertaken by infection prevention and control)
 - Acute trust communications - liaises with PHE communications team (attend on as required basis)
- Director of Public Health (for place of residence of case) - supports multi-agency working for the public health response and liaises on communications with local government
- Regional Infectious Diseases Unit (if not the same as Acute Trust clinicians)
- Ambulance service (if case was transported or transport is planned – attend on an as required basis)

Frequency of meeting: initially daily on an as required basis (as decided by Chair)

Note: if information arises that the case has had multiple contacts with different healthcare facilities, it may be necessary to form different cells within the local IMT to manage these more effectively. Only a representative of each cell would attend the local IMT, to enable colleagues to support incident response and minimise time attending meetings.

During the first local IMT, the issues to be considered, among others, will be:

- case clinical presentation and current status
- review of infection control and clinical needs of case (including specialist ID expertise, infection control facilities and critical care needs)
- information about contacts and case travel history (as known so far)
- recommendations for contact tracing and key messages for contacts (as advised by PHE Colindale)
- infection control
- risk assessment
- action plan
- communications plans (to be agreed nationally)
- arrangements for next meeting

Public health management of cases

Symptomatic cases

The key elements of the public health management of presumptive/confirmed cases are:

- Isolation and re-inforcement of infection control measures

PHE guidance on infection control should be adhered to while the patient is infectious. The end of infectivity is currently defined as the recording of two negative MERS-CoV test results on adequate samples, 48 hours apart. Decisions on where care is delivered should be informed by the infection control guidance but also be based on the patient's clinical needs.

- Confirmation of diagnosis (for presumptive cases)

This will be undertaken by the PHE reference laboratory (respiratory virus unit)

- Contact tracing

Effective identification and management of contacts is essential for the control of MERS-CoV transmission. This is addressed by the following section.

- Communications

This will likely include media communications to the public, healthcare staff, government and (via international health regulation national focal point) to WHO/ECDC.

Asymptomatic cases

It is possible that previously symptomatic cases may become well enough to be discharged from hospital care but still be PCR positive for MERS-CoV or be asymptomatic contacts diagnosed on respiratory swabbing. In such a situation, there may be requests for the individual to be discharged home. Due to the potential risk of infection, this should only occur if the following criteria can be met:

- the individual is living alone, away from any other individuals, with use of a private room and separate bathroom and toilet facilities,

AND

- the individual agrees not to receive visitors in person (using telecommunication methods instead),

AND

- arrangements are made to monitor the individual's health on daily basis and to take additional specimens for PCR testing (the latter via personnel with appropriate PPE)

AND

- standby arrangements are made to transport the individual to a healthcare facility in case of development of symptoms, in accordance with infection control guidance

AND

- the individual agrees not to use public transport and to avoid crowded public spaces (individuals will need to be provided with written advice including examples of the above).

It is understood that these conditions may be challenging to implement within normal residential accommodation (including considerations for basic supplies e.g. food), and that alternative arrangements may need to be identified.

Any asymptomatic healthcare workers with such results should self-isolate at home until two consecutive negative MERS-CoV PCR tests from adequate respiratory samples taken at least 48 hours apart.

Public health management of contacts

Household and close contacts

These contacts are defined as anyone who has stayed overnight in the same dwelling or had close contact with the case (e.g. more than 15 minutes' face-to-face contact), while the case was symptomatic.

MERS-CoV transmission has been documented among households both in the UK and other countries. Therefore, active, daily follow-up is required for these contacts. This will include initial telephone calls to the contact to explain the risk of MERS-CoV infection, advice on symptoms and actions to take if these develop and relevant telephone numbers for PHE. In addition, the local PHE IMT arrange telephone follow-up with the contacts every day for the remainder of the 14 day period after last effective contact with the index case.

Healthcare workers – with/without PPE

An exposed healthcare worker is defined as any healthcare worker who has been within 2 metres of a symptomatic case or had direct contact with body fluids from a symptomatic case, for any length of time.

Healthcare facilities have been shown to be important sites for MERS-CoV transmission e.g. in Saudi Arabia and Republic of Korea. Two levels of exposure for healthcare workers have been defined (firstly without full PPE recommended by PHE MERS-CoV guidance or secondly use of recommended PPE).

Healthcare workers exposed to the symptomatic case without full PPE, should be actively followed up by the acute trust occupational health service or local equivalent. This will include initial telephone calls to the contact to explain the risk of MERS-CoV infection, advice on symptoms and actions to take if these develop and relevant emergency telephone numbers. In addition, occupational health will telephone the contacts every day for the remainder of the 14 day period after last effective contact with the index case. Alternative forms of communication

such as text messaging are acceptable if agreed with the healthcare worker. These healthcare workers should be restricted to self-isolating at home or caring for the case (with full PPE); this would be needed to be decided within the incident management team. They should not care for other patients during the follow-up period.

For healthcare workers who have used full PPE during all contact with the symptomatic case, only passive follow-up by occupational health is required; exclusion and self-isolation will not be required. This would involve the individual being contacted, being informed of the low risk of MERS-CoV and information on symptoms and advice on actions to take including emergency contact details. This would again be co-ordinated by occupational health. This passive follow-up would be valid for the duration of the period spent caring for the case and extend for a 14 day period after their last effective contact with the case. Last effective contact may be when the case has tested negative for MERS-CoV for a second time (at least 48 hours after a first negative result). The local PHE IMT may support occupational health according to the individual situation.

It is possible that a healthcare worker may have a mix of exposures, starting without PPE and then switching to use of PPE. In this situation, they should be actively followed-up for 14 days after the last exposure without PPE, and then passively followed-up until 14 days after last effective contact with the case, using PPE. Similarly, any restrictions on working following exposure without full PPE should extend for 14 days after the last exposure without full PPE.

Other hospital contacts

Due to the importance of healthcare-associated transmission in MERS-CoV infection, follow-up of other patients or visitors exposed to the symptomatic case and fitting the contact definition is essential. Although rapid implementation of infection control of a possible case is essential, exposures may have occurred prior to the identification of the case.

These contacts are defined as patients and visitors who have been within 2 metres of the index case, for more than 15 minutes. This definition is based on observations from previous outbreaks that hospitalised patients are potentially highly infectious.

For those contacts who are no longer in hospital, follow-up will include initial telephone calls to the contact to explain the risk of MERS-CoV infection, advice on symptoms and actions to take if these develop and relevant telephone numbers for PHE. In addition, PHE will telephone the contacts every day for the remainder of the 14 day period after last effective contact with the index case. In these circumstances, the general practitioner for the contact and any care givers should be advised of this information.

For those contacts who are inpatients, the acute trust will co-ordinate active follow-up with information on the risk of MERS-CoV infection, advice on symptoms and daily monitoring of these patients by healthcare staff for 14 days after last effective contact with the index case. To facilitate this, it may be prudent to cohort these patients or to isolate these patients in side rooms, if patient numbers allow this. However, MERS-CoV-specific infection control advice would not apply unless a contact met the criteria for a possible case.

Airline passengers

First generation MERS-CoV cases are, by definition, likely to have travelled internationally. However, there is only a potential risk requiring public health action if the case has a history of respiratory symptoms while travelling on the aircraft. If this is confirmed, then PHE will follow the MERS-CoV commercial aircraft contact tracing protocol. In brief, this will involve requests for the passenger manifest from the airline, and passively follow-up other passengers on the flight who were seated in 3 rows in front and behind the case during the flight and relevant members of the cabin crew.

This passive follow-up will consist of the passenger being contacted, being informed of the low risk of MERS-CoV, information on symptoms to be aware of and advice on actions to take if they become symptomatic including PHE contact details. The contact will need to be informed about the time period over which any MERS-CoV related symptoms would be expected. The nearest PHEC-HPT contact details will be given to these contacts.

In addition to the direct communications to passengers, PHE may release a media statement or send an email message to other passengers seated outside of the 3 row area.

Passengers seated in the 3 rows who are in other countries or who are citizens of other countries, will be notified to the international health regulations national focal point of relevant country by the Travel and Migrant Health Section, Colindale, for passive follow-up.

This approach is based on previous experience by PHE in undertaking contact tracing. To date, there has never been a proven transmission of MERS-CoV between airline passengers.

In a scenario where there is uncertainty about where the case was sitting, or if the case was a member of the cabin crew, then Respiratory Diseases Department will risk assess the situation and provide advice as appropriate.

Symptomatic contacts

Individuals who fulfil the criteria for being a contact of the presumptive/confirmed case and meet the relevant clinical criteria (onset of any acute respiratory symptom), would be classified as a possible case. These individuals should then be managed as a possible case, including the implementation of MERS-CoV infection control guidance. These persons are likely to require admission to hospital for assessment and testing, in accordance with per PHE MERS-CoV Infection prevention and control guidance.

Overall co-ordination of contact tracing and monitoring

Once contact monitoring has begun, summary information will need to be available on a daily basis about the findings from this process. This will include the outcomes of active contact tracing (a record of whether the contacts are symptomatic or not) and passive follow-up. This information will need to be collated by the acute trusts (for healthcare staff/ other hospital contacts) or by PHE (PHEC-HPT or FES) using the MERS-CoV case-contact tool. This will need to be completed by 12.00 each day in order to inform the incident management team meetings and production of the national sit-rep.

Restrictions on travel and work for contacts under active follow-up

Contacts of cases in this group should generally self-isolate at home, so that they can easily contact health services if they become symptomatic and be quickly reached by first responders. This will also help minimise the risk of infection to others, should they become symptomatic. Any difficulties with these restrictions should be discussed on a case-by-case basis in the local IMT.

Restrictions on travel and work for contacts under passive follow-up

Contacts in this group are able to attend work normally without restrictions (unless they are a health-care worker). They should be advised to plan any domestic travel to allow for the possibility of seeking medical attention rapidly. This would generally be equivalent to being able to access medical help within one hour. Therefore, it is suggested that modes of transport which cannot be easily exited (e.g. flights or ferries) should be limited to approximately one hour at a time. It should be noted that WHO has advised that contacts should not travel internationally during their follow-up period.

Daily Battle Rhythm

This proposed battle rhythm will be based on the assumption that this incident will be managed from the outset as a national enhanced response requiring national co-ordination.

- 11.30 - complete entry of contact follow-up information
- 12.30 - local incident team meeting
- 14.00 - national incident team meeting
- 16.00 - release of national sitrep

- National reporting

A national sitrep will be produced by the national incident management team co-ordinated by the National Incident Co-ordination Centre each day, including epidemiological information collated by the Respiratory Diseases Department (as at 12.00) and local and national incident meetings.

Criteria for closing incident

The following milestones are proposed as endpoints for a MERS-CoV incident, and will need to be confirmed by the incident director:

- (A) Date of second negative RT-PCR result (48 hours after the first result) from last MERS-CoV case, from the last positive body fluid tested.
- (B) End of the 14 days' follow-up for health care workers, after (A)

(C) End of the 28 day period after (A) without additional non-travel related MERS-CoV cases being reported in the UK. This should be reported to WHO as this will meet the criteria for the end of MERS-CoV transmission in the United Kingdom.

It is proposed that the local and national incident teams be stood down after milestone (C). The final incident report from the national IMT should be completed at this stage.

Debrief and Lessons Identified

The following process is in line with the debriefing and lessons identified process set out in

PHE's CONOPs and NIERP

Lessons Identified Process

The Incident Director is responsible for activating the lessons identified process. The lessons identified process will be implemented when this plan is activated and continued during and after the incident until all actions are completed. The final incident report should include lessons identified from the structured debrief process and be submitted to the EPRR Delivery Group, through ERD and completed within agreed timescales to meet the organisation's emergency preparedness governance arrangements as detailed in PHE's guidance <insert link to guidance>.

Debriefing

There are a number of recognised methodologies for capturing observations and data from real emergencies or exercises, with the main one being the post-event review, or debrief.

The types of debriefs are as follows:

- Hot Debrief – this must be held immediately after the incident/exercise or once a shift or response is completed;
- Internal Organisational or Structured Debrief – ideally this should be held within 2 - 4 weeks of the incident or exercise;
- Multi – Agency Debrief – ideally this should be held within 4 -6 weeks of the incident or exercise.

It is important to capture information as soon as possible after the event in a non-threatening, blame-free environment. If the incident continues to be managed over the medium to long-term it may be necessary to hold regular debriefs at the key milestones set out above.

All incidents will be subject to a structured debrief and following this reports should be produced within 4 – 6 weeks of the debrief, so that lessons can be taken forward in a timely manner as described in section 10.1

Following the structured debrief reports should be produced within 4 – 6 weeks of the debrief, so that lessons can be taken forward in a timely manner as described in above.

References

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2. Cho SY, Kang J-M, Ha YE, Park GE, Lee JY, Ko J-H, et al. MERS-CoV outbreak following a single patient exposure in an emergency room in South Korea: an epidemiological outbreak study. *Lancet Lond Engl*. 2016 Jul 8;

Appendix 1 Health Protection Team Action Card

After receiving a report about a patient who meets the possible case definition:

- recommend MERS-CoV infection control measures as per PHE guidance (immediately)
- add unlisted managed context “MERS-CoV” case to the case on HPZone
- complete and return the Minimum Data Set Form 1 to respiratory.lead@phe.gov.uk the next working day

After receiving a presumptive result for MERS-CoV:

- ensure MERS-CoV infection control measures have been implemented as per PHE guidance
- inform Respiratory Diseases Department Colindale (or the Colindale Duty Doctor at any time of evenings or weekends)
- obtain relevant history to complete Initial Confirmed Case Report Form 1
- start to compile information about contacts names, etc (but do not start calling these contacts or giving information prior to first local IMT teleconference OR advice from Respiratory Diseases Department, Colindale)
- arrange first local IMT meeting to be held within 12 hours and communicate details to Colindale Duty Doctor