

Infection Prevention and Control Guidance for Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in Acute Care Settings

PROTECTING AND EMPOWERING CANADIANS TO IMPROVE THEIR HEALTH



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INNOVATION AND ACTION IN PUBLIC HEALTH.**

—Public Health Agency of Canada

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Table of Contents

List of major revisions	1
Infection prevention and control measures at a glance.....	2
Recommended infection prevention and control measures.....	3
1. Organizational controls.....	3
2. Triage, screening, and assessment.....	4
3. Public health surveillance and notification.....	4
4. Laboratory testing and reporting	4
5. Immunization	5
6. Respiratory hygiene	5
7. Hand hygiene.....	5
8. Spatial separation.....	5
9. Patient placement and accommodation	5
10. Patient flow and activities	6
11. Personal protective equipment.....	6
12. Aerosol-generating medical procedures	7
13. Patient care equipment	7
14. Environmental cleaning	8
15. Handling linen, dishes, cutlery.....	8
16. Waste management.....	8
17. Discontinuing additional precautions	8
18. Education of HCWs, patients, families, and visitors.....	9
19. Management of visitors.....	9
20. Handling deceased bodies.....	9
21. Management of HCWs and inpatients exposed to a symptomatic confirmed or probable case of MERS-CoV infection	10
22. Management of asymptomatic HCWs and inpatients who are RT-PCR positive for MERS-COV	12
Bibliography	14

Appendix A: Point-of-care risk assessment	16
Appendix B: Aerosol-generating medical procedures	17
Appendix C: Infection Prevention and Control Expert Working Group.....	19
Endnotes	21

Update February 2016

List of major revisions

- Gown use now aligned with recommendations for *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings*
- The Agency's *Biosafety Advisory: Middle East Respiratory Syndrome Coronavirus (MERS-CoV)* is now referenced
- New section on management of healthcare workers and inpatients exposed to symptomatic confirmed case of MERS-CoV infection
- New section on management of asymptomatic healthcare workers and inpatients who are RT-PCR¹ positive for MERS-CoV
- New appendix with expanded description of aerosol-generating medical procedures
- New appendix with list of Infection Prevention and Control Expert Working Group members

The Public Health Agency of Canada (the Agency) has developed this document to provide infection prevention and control (IPC) guidance to healthcare organizations and healthcare workers (HCWs) for:

- Management of patients presenting to acute care settings² in Canada, who have travelled to an affected area³ and/or been in contact with someone who has travelled to an affected area, within 14 days before onset of illness
- Management of HCWs and inpatients who have been exposed to a symptomatic confirmed case of MERS-CoV infection
- Management of asymptomatic HCWs and inpatients who are RT-PCR¹ positive for MERS-CoV

The content of this guidance has been informed by technical advice provided by members of the Agency's Infection Prevention and Control Expert Working Group. This guidance is based on current, available scientific evidence and is subject to review and change as new information becomes available.

The following guidance should be read in conjunction with relevant provincial, territorial, and local legislation, regulations, and policies.

Infection prevention and control measures⁴ at a glance

Refer to [Recommended Infection Prevention and Control Measures](#), sections 1 to 22, for details.

Routine practices

- For all patients, at all times, in all healthcare settings including performing a [point-of-care risk assessment](#) (PCRA), hand hygiene, and adhering to respiratory hygiene

Contact and droplet precautions

- Contact and droplet precautions should be implemented empirically in all patients presenting with fever and respiratory illness
- Gloves should be worn upon entering the patient's room⁵
- A long-sleeved gown should be worn if it is anticipated that clothing or forearms will be in direct contact with the patient or with environmental surfaces or objects in the patient care environment
- Facial protection (mask⁶ and eye protection, or face shield, or mask⁶ with visor attachment) should be used when within two metres of the patient
- All personal protective equipment (PPE) should be put on prior to entering the patient's room⁵
- PPE for contact and droplet precautions should be removed prior to exiting the patient's room⁵

Airborne precautions

- Airborne precautions should be in place during an [aerosol-generating medical procedure](#) (AGMP)
- [AGMPs](#) should be performed in an airborne infection isolation room (AIIR) whenever feasible
- A respirator and face or eye protection should be used by all HCWs present in a room where an AGMP is being performed on a patient suspected or confirmed to have MERS-CoV infection. The respirator should be removed after exiting the patient's room⁵
- Implement [strategies to reduce aerosol generation](#) during an AGMP

Recommended infection prevention and control measures

1. Organizational controls

A major role of all healthcare organizations is to minimize the risk of exposure to and transmission of microorganisms within healthcare settings. This can be achieved by having policies, procedures and programs based on the following engineering and administrative controls.

a. Engineering controls

Facility design should include:

- single rooms with private toilet, patient sink, and designated staff handwashing sink
- installation of point-of-care alcohol-based hand rub (ABHR)
- an appropriate supply of and accessibility to PPE
- an appropriate number of no-touch waste receptacles for disposal of paper towels, tissues, masks, gloves, etc.; and
- installation of designated handwashing sinks for HCW use

Other examples of engineering controls include AIIRs and physical barriers (e.g., partitions in triage areas to prevent exposure to patients symptomatic with respiratory infections).

b. Administrative controls

Policies and procedures should be developed and implemented for the prevention and control of the transmission of microorganisms including:

- hand hygiene programs
- environmental cleaning
- the application of routine practices and additional precautions
- the selection and use of PPE
- education, surveillance, and auditing practices

In addition to providing ABHR, healthcare facilities should provide:

- supplies for respiratory hygiene for patients, visitors, and families

- instructions on how and where to dispose of used supplies
- instructions on the importance of performing hand hygiene after handling these materials

2. Triage, screening, and assessment

Signs to direct patients with symptoms of acute infection (e.g., cough, fever, vomiting, diarrhea, coryza, rhinorrhea, rash, conjunctivitis) should be posted in specific waiting areas.

A physical barrier (e.g., plastic partition at triage desk) should be located between infectious sources (e.g., patients with symptoms of a respiratory infection) and susceptible persons.

Patients presenting to triage should be asked about recent travel to an affected area and/or contact with someone who has had recent travel to an affected area within the last 14 days before the onset of their symptoms. **Patients presenting with fever and respiratory symptoms who are suspected or confirmed to have MERS-CoV infection should be assessed in a timely manner and placed on contact and droplet precautions immediately.** Note that atypical MERS-CoV presentation with absent respiratory symptoms has been documented in the presence of comorbidity, notably immunosuppression.

Accompanying individuals should be screened for symptoms of acute respiratory infection, referred for medical assessment, and managed as per this guidance document if necessary.

3. Public health surveillance and notification

Refer to the *National Case Definition - Middle East respiratory syndrome coronavirus* and the *Emerging Respiratory Pathogens and Severe Acute Respiratory Infection (SARI) Case Report Form*.

Provincial and territorial public health authorities should report confirmed and probable⁷ cases of MERS-CoV nationally within 24 hours of their own notification.

4. Laboratory testing and reporting

All requests for laboratory testing for MERS-CoV should be forwarded to the relevant Provincial Public Health Laboratory (PPHL). Initial screening tests specific for MERS-CoV can be performed in select laboratories (i.e., provincial public health and hospital-based laboratories); however, confirmation of diagnosis should be sought from Canada's National Microbiology Laboratory (NML) before being considered conclusive. Such cases are considered probable⁷ pending NML confirmation. Standard practice is for the results generated by the NML to be reported to the submitting PPHL.

For proper laboratory biosafety procedures when handling samples containing MERS-CoV, refer to the Agency's *Biosafety Advisory: Middle East Respiratory Syndrome Coronavirus (MERS-CoV)*.

5. Immunization

There is no vaccine available at this time.

6. Respiratory hygiene

Respiratory hygiene should be encouraged for patients and accompanying individuals who have signs and symptoms of an acute respiratory infection, beginning at the point of initial encounter in any healthcare setting (e.g., triage in Emergency Departments or reception in ambulatory clinics). Respiratory hygiene includes using tissues or masks⁶ when coughing, sneezing, or for controlling nasal secretions with immediate disposal of tissues in an appropriate receptacle followed by hand hygiene. Coughing into one's sleeve is a less desirable alternative and should only be done when tissues and masks⁶ are not available.

7. Hand hygiene

HCWs should perform hand hygiene whenever indicated and, in particular, after removing gloves and gown; before removing mask⁶, facial protection or respirator; after touching blood and body fluids, including respiratory secretions; and after leaving the patient care environment, preferably using an ABHR (60-90%) or plain soap and water if hands are visibly soiled.

8. Spatial separation

There should be at least a two-metre separation between patients with signs and symptoms of suspected or confirmed MERS-CoV infection and all other patients and/or visitors.

9. Patient placement and accommodation

Patients suspected or confirmed to have MERS-CoV infection should be cared for in single rooms with designated private toilets and patient sinks. If cohorting is necessary, only patients who are **confirmed** to have MERS-CoV infection should be cohorted together. Infection prevention and control signage should be placed at the room⁵ entrance indicating contact and droplet precautions are required upon entry to the room.

10. Patient flow and activities

Patients suspected or confirmed to have MERS-CoV infection should be restricted to their room and should not participate in group activities until symptoms have resolved. Patient movement and/or transport should be restricted to essential diagnostic and therapeutic tests. If patients need to leave their room, they should be accompanied by a HCW; wear a mask⁶; be instructed on respiratory hygiene; perform hand hygiene (with assistance as necessary); and be provided with clean bedclothes and bedding.

Transfer within and between facilities should be avoided unless medically indicated in the patient's interest as this may place additional HCWs and patients at risk. Transfer is not normally indicated for IPC purposes. If a medically indicated transfer is necessary, the following measures should be taken:

- a. The transferring service and receiving unit should be advised of the required contact and droplet precautions for the patient being transported
- b. A request to have the patient promptly seen to minimize time in waiting areas should be considered
- c. After preparing the patient for transport, the transport personnel should remove and dispose of their PPE and perform hand hygiene prior to transporting the patient; and
- d. The transport personnel should put on clean PPE if necessary to handle the patient during transport and at the transport destination

11. Personal protective equipment

HCWs should use a PCRA approach before and during each patient interaction to evaluate the likelihood of exposure to different microorganisms.

PPE for contact and droplet precautions should be provided outside the patient's room⁵ and put on prior to entering the patient's room⁵.

HCWs, families, and visitors should use the following PPE:

a. Gloves

Gloves should be worn upon entering the patient's room⁵.

b. Gowns

A long-sleeved gown should be worn if it is anticipated that clothing or forearms will be in direct contact with the patient or with environmental surfaces or objects in the patient care environment. It should be remembered that HCWs tend to underestimate the degree of contact they have with environmental surfaces. They should be particularly vigilant of their

actions and activities in the patient's environment and proactively apply the appropriate PPE in order to avoid unanticipated contact with the patient or environment.

c. Facial protection

Facial protection (mask⁶ and eye protection, face shield or mask⁶ with visor attachment) should be worn when within two metres of a patient suspected or confirmed to have MERS-CoV infection.

In a shared room or cohort setting of patients with confirmed MERS-CoV infection, facial protection may be worn without changing for the care of successive patients.

d. Respiratory protection

Wearing a respirator is recommended when performing AGMPs on a patient suspected or confirmed to have MERS-CoV infection.

All PPE, except the respirator, should be removed before leaving the patient's room⁵ and discarded into a no-touch receptacle. The respirator should be removed after leaving the patient's room⁵ and discarded into a no-touch waste receptacle.

Hand hygiene should be performed after removing gloves and gown, before removing facial protection, and upon exiting the patient's room⁵ and removing the respirator.

12. Aerosol-generating medical procedures

AGMPs should be performed on patients suspected or confirmed to have MERS-CoV infection only if medically necessary. Strategies to reduce aerosol generation should be applied. The number of HCWs present during an AGMP should be limited to those essential for patient care and support. A respirator and face or eye protection are recommended for all HCWs present in a room where an AGMP is being performed on a patient suspected or confirmed to have MERS-CoV infection.

AGMPs should be performed in an AIIR whenever feasible. If not feasible, AGMPs should be carried out using a process and in an environment that minimizes the exposure risk for HCWs, ensuring that non-infected patients, visitors, and others in the healthcare setting are not unnecessarily exposed to the MERS-CoV virus.

13. Patient care equipment

All equipment and supplies should be identified and stored in a manner that prevents use by, or for, other patients. Reusable non-critical equipment (e.g., blood pressure cuffs, stethoscopes, pulse oximeters, commodes), along with toys, electronic games, personal effects, etc. should be dedicated to the use of the patient, and should be cleaned and disinfected before reuse with

another patient. Items that cannot be appropriately cleaned and disinfected should be discarded upon patient transfer or discharge. Single-use devices should be discarded into a no-touch waste receptacle after use.

14. Environmental cleaning

Environmental cleaning products registered in Canada with a Drug Identification Number and labelled as a broad-spectrum virucide are sufficient for MERS-CoV. All horizontal and frequently touched surfaces should be cleaned at least twice daily and when soiled. The healthcare organization's terminal cleaning protocol for cleaning of the patient's room⁵ following discharge, transfer, or discontinuation of contact and droplet precautions should be followed.

15. Handling linen, dishes, cutlery

No special precautions are recommended; routine practices are sufficient.

16. Waste management

No special precautions are recommended; routine practices are sufficient.

17. Discontinuing additional precautions

Contact and droplet precautions for patients with MERS-CoV infection should be discontinued upon resolution of symptoms, or in accordance with provincial or territorial guidance or the organization's policy.

Duration of precautions should be determined on a case-by-case basis when patient symptoms are prolonged or when the patient is immune suppressed.

The patient with persistent symptoms should be re-evaluated for underlying chronic disease or a secondary infection. Repeat microbiological testing may sometimes be warranted.

The decision to discontinue additional precautions should be made in consultation with the infectious disease physician and infection control professional or delegate.

18. Education of HCWs, patients, families, and visitors

a. HCWs

All HCWs should receive education on MERS-CoV including: symptoms; measures to control its spread; reinforcement of routine practices; contact and droplet precautions, including selection and safe removal of PPE; and safe work practices (e.g., no eating or drinking in patient care areas). Additional education, including strategies to reduce aerosol generation during AGMPs and respiratory protection, should be provided to HCWs who have patient-care responsibilities.

b. Patients, families, and visitors

Patients, families, and visitors should receive education about the precautions being used; the duration of precautions; the prevention of transmission of infection to others; appropriate use of PPE; and hand hygiene.

19. Management of visitors

Visitors should be instructed to speak with a nurse before entering the room of a patient on contact and droplet precautions for MERS-CoV to evaluate the risk to the health of the visitor and the ability of the visitor to comply with precautions.

The number of visitors should be minimized to essential visitors (e.g., immediate family member or parent, guardian, or primary caretaker) only. Visitors should be restricted to visiting only one patient who is on contact and droplet precautions. If the visitor must visit more than one patient, the visitor should be instructed to use the same barriers as the HCWs and perform hand hygiene before going to the next patient room.

Visitors with symptoms of an acute infection (e.g., cough, fever, vomiting, diarrhea) should not visit unless the visit is essential (e.g., parent, guardian, or primary caretaker), in which case they should be instructed and supervised in precautions to minimize transmission of infection. These visitors should limit their movement within the facility by visiting the patient directly and exiting directly after the visit.

20. Handling deceased bodies

Routine practices should be used, along with contact precautions as required, for handling deceased bodies, preparing the bodies for autopsy, or transferring the bodies to mortuary services.

21. Management of HCWs and inpatients exposed to a symptomatic confirmed or probable⁷ case of MERS-CoV infection

The organization's occupational health professional, attending physicians and infection control professional should work collaboratively with public health authorities to manage exposed HCWs and inpatients.

a. Exposure definition

A HCW is considered exposed if he/she was within two metres or provided care to a symptomatic confirmed or probable⁷ MERS-CoV patient **while not wearing the appropriate PPE.**

A patient is considered exposed if he/she shared a room with a symptomatic confirmed or probable⁷ MERS-CoV patient.

Consideration for follow up should also be given to patients who may have been exposed while in proximity (within 2 metres) to the case patient, prior to the initiation of contact and droplet precautions (e.g., point of entry to the facility).

b. Risk assessment to confirm exposure

A risk assessment of the potential exposure should be performed by the organization's occupational health professional and/or the inpatient's attending physician, in collaboration with the infection control professional and/or public health authorities.

Factors to be considered in assessing the potential exposure include but are not limited to:

- type of exposure
- infectivity of source, and
- immune competence of exposed person

c. Monitoring of exposed inpatients

A list of all exposed inpatients should be maintained by the Infection Prevention and Control Program. This list should include the date of first and last exposure and, if relevant, date of onset of the inpatient's fever or respiratory symptoms. If an inpatient is discharged prior to the identification of an exposure incident(s), public health authorities should be notified to ensure appropriate monitoring is implemented.

Exposed inpatients should be assessed for signs and symptoms of respiratory infection on a minimum twice daily basis for 14 days after their last exposure. If the exposed inpatient

develops signs and symptoms of respiratory infection (e.g., temperature greater than 38 degrees Celsius and/or new or worsening cough and/or shortness of breath) within 14 days of their last exposure, initiate IPC measures for MERS-CoV as described in sections 1 to 20 of this guidance.

If an exposed inpatient is discharged prior to the end of the 14-day monitoring period, arrangements should be made with public health authorities for ongoing monitoring before the inpatient leaves the facility.

Refer to the Agency's *Public Health management of human illness associated with MERS-CoV: Interim guidance for containment when imported cases with limited human-to-human transmission are suspected/confirmed in Canada* for recommendations on management of exposed persons in the community setting.

d. Quarantine of exposed inpatients

Quarantine is not recommended for asymptomatic exposed inpatients at this time.

e. Monitoring of exposed HCWs

A list of all exposed HCWs should be maintained by the organization's Occupational Health Department. This list should include the date of first and last exposure and, if relevant, date of onset of HCW's fever or respiratory symptoms. Exposed HCWs should perform a self-assessment for signs and symptoms of respiratory infection on a twice daily basis and prior to the start of their work rotation, for 14 days after their last exposure.

A facility may choose to keep a separate list of all HCWs who care for a patient with MERS-CoV infection, regardless of their use of PPE; advise them to perform a self-assessment; and immediately self-isolate and report any signs or symptoms of an acute respiratory infection to the supervisor and the organization's Occupational Health Department.

The Occupational Health Department and public health authorities should be in daily contact with the exposed HCWs for the duration of the monitoring period.

f. Work restrictions and quarantine

Work restrictions and quarantine are not routinely recommended for exposed asymptomatic HCWs at this time. However, enhanced additional measures may be required if transmission is detected within the facility. If the exposed HCW develops signs and symptoms of respiratory infection (e.g., temperature greater than 38 degrees Celsius and/or new or worsening cough and/or shortness of breath) within 14 days of the last exposure, the HCW should be restricted from work immediately, advise the supervisor and the organization's Occupational Health Department, and self-isolate at home.

A fitness-for-work assessment should be performed for HCWs who have recovered from a MERS-CoV infection prior to their return to work. This should be done by an occupational health or infectious disease physician in collaboration with public health authorities.

Refer to the Agency's *Public Health management of human illness associated with MERS-CoV: Interim guidance for containment when imported cases with limited human-to-human transmission are suspected/confirmed in Canada* for recommendations on management of cases of MERS-CoV in the home setting.

g. Laboratory testing and reporting of asymptomatic exposed persons

Laboratory testing of asymptomatic exposed HCWs, inpatients, and other persons is not recommended. However, it may be done under certain circumstances (e.g., research) in consultation with the provincial public health laboratory, public health authorities, the inpatient's attending physician, and infectious disease specialist.

Exposed HCWs who become symptomatic should be referred for medical assessment.

Provincial or territorial legislation should be followed for notification of relevant departments of a HCW's occupationally-acquired MERS-CoV infection.

Refer to the Agency's *National Surveillance Guidelines for Human Infection with Middle East Respiratory Syndrome Coronavirus (MERS-CoV)* for information on testing of contacts.

22. Management of asymptomatic HCWs and inpatients who are RT-PCR¹ positive for MERS-COV

The risk of transmission from asymptomatic RT-PCR¹ positive HCWs, patients, and other contacts is currently unknown. Testing of asymptomatic exposed HCWs and inpatients is not currently recommended. However, if an asymptomatic exposed HCW and/or inpatient is tested and found to be RT-PCR¹ positive for MERS-CoV, the following IPC measures should be considered:

a. HCWs

HCWs should be quarantined in their home if feasible, with daily monitoring for signs and symptoms of MERS-CoV infection.

Testing for MERS-CoV should be done at least weekly. Quarantine can be discontinued once two consecutive upper respiratory tract samples taken at least 24 hours apart test negative for RT-PCR¹.

If symptoms of respiratory infection develop (e.g., temperature greater than 38 degrees Celsius and/or new or worsening cough and/or shortness of breath), they should advise the organization's Occupational Health Department, which should refer the HCW for medical assessment.

Refer to the Agency's *Public Health management of human illness associated with MERS-CoV: Interim guidance for containment when imported cases with limited human-to-human transmission are suspected/confirmed in Canada* for recommendations on management of cases of MERS-CoV in the home setting.

A fitness-for-work assessment should be performed for HCWs who have recovered from a MERS-CoV infection prior to their return to work. This should be done by an occupational health or infectious disease physician in collaboration with public health authorities.

If applicable, monitoring for symptoms of MERS-CoV in household members should also be considered by public health authorities.

b. Inpatients

Routine practices should be adhered to at all times. They include performing a PCRA and hand hygiene and appropriate use of PPE. Inpatients should be quarantined in a single room and not leave the room unless medically necessary. They should be monitored twice a day for signs and symptoms of MERS-CoV infection. If signs and symptoms of MERS-CoV infection develop (e.g., temperature greater than 38 degrees Celsius and/or new or worsening cough and/or shortness of breath), the recommendations in sections 1 to 20 of this guidance document should be followed.

Testing for MERS-CoV should be done at least weekly. Inpatient quarantine can be stopped once two consecutive upper respiratory tract samples, taken at least 24 hours apart, test negative for RT-PCR¹.

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Appendix A: Point-of-care risk assessment

Prior to any patient interaction, all HCWs have a responsibility to assess the infectious risk posed to themselves and other patients, visitors, and HCWs by a patient, situation or procedure. This risk assessment is based on professional judgment (i.e., knowledge, skills, reasoning and education) about the clinical situation as well as up-to-date information on how the specific healthcare organization has designed and implemented engineering and administrative controls and use and availability of PPE.

Point-of-Care Risk Assessment (PCRA) is an activity whereby a HCW (in any healthcare organization):

1. Evaluates the likelihood of exposure to infectious agents (e.g., MERS-CoV)
 - **for a specific interaction**
 - **with a specific patient**
 - **in a specific environment** (e.g., single room, hallway)
 - **under available conditions** (e.g., air exchanges in a large waiting area or in an airborne infection isolation room);
2. Chooses the **appropriate actions and/or PPE** needed to minimize the risk of exposure for the specific patient, other patients in the environment, the HCW, visitors, contractors, etc.

Appendix B: Aerosol-generating medical procedures

The following is an extract from the Agency's *Routine Practices and Additional Precautions for Preventing Transmission of Infection in Healthcare Settings*.

Aerosol-generating medical procedures (AGMPs) are medical procedures that can generate aerosols as a result of artificial manipulation of a person's airway. There are several types of AGMPs associated with a documented increased risk of TB or SARS transmission: Intubation and related procedures (e.g., manual ventilation, open endotracheal suctioning); cardiopulmonary resuscitation; bronchoscopy; sputum induction; nebulized therapy; non-invasive positive pressure ventilation (continuous or bi-level positive airway pressure).

There is debate about whether other medical procedures result in the generation of aerosols through cough induction and lead to transmission of infection. However, there is no published literature that documents the transmission of respiratory infections (including TB, SARS and influenza) by these methods. Examples of these procedures include: high-frequency oscillatory ventilation; tracheostomy care; chest physiotherapy; nasopharyngeal swabs, nasopharyngeal aspirates.

Strategies to reduce the level of aerosol generation during AGMPs

The following strategies should be applied to reduce the level of aerosol generation when performing AGMPs for patients with suspected or confirmed tuberculosis, severe acute respiratory syndrome and an emerging pathogen for which transmission characteristics are not yet known. Strategies to reduce aerosol generation should also be implemented when AGMPs are necessary on patients with viral hemorrhagic fevers.

- i. AGMPs should be limited to those that are medically necessary.
- ii. AGMPs should be anticipated and planned for.
- iii. Appropriate patient sedation should be used.
- iv. The number of personnel in the room should be limited to those required to perform the AGMP.
- v. AGMPs should be performed in airborne infection isolation rooms whenever feasible.
- vi. Appropriate ventilation (e.g., level of air filtration and direction of air flow) should be maintained.

- vii. Single rooms (with the door closed and away from high-risk patients), should be used in settings where airborne infection isolation rooms are unavailable.
- viii. Respirators should be worn by all personnel in the room during the procedure.
- ix. Closed endotracheal suction systems should be used wherever possible.

Note: When responding to a code (cardiac arrest) on a patient with an airborne infection who is not in an airborne infection isolation room, and if transfer to a single room or airborne infection isolation room is not feasible, the privacy curtain should be pulled and all personnel in the room or within the privacy curtain area should wear appropriate personal protective equipment. Visitors and other patients should be removed from the room/area (if feasible).

Appendix C: Infection Prevention and Control Expert Working Group

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Endnotes

¹ RT-PCR: Reverse transcription polymerase chain reaction

² Acute care settings: A facility or setting where a variety of inpatient services is provided and where patients with an acute respiratory infection are most likely to present. For the purpose of this document, acute care also includes ambulatory care settings such as hospital emergency departments and free-standing ambulatory (day) centres.

³ Affected areas: As affected areas are subject to change, consult the [Summary of Assessment of Public Health Risk to Canada Associated with MERS-CoV](#) for the most up-to-date information.

⁴ IPC measures included in this guidance are based on the Agency's [Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings](#) and are considered the minimum recommendations.

⁵ Patient's room, cubicle, or designated bed space

⁶ Surgical or procedure masks

⁷ A probable case is defined as a person: 1) epidemiologically-linked through close contact to a laboratory-confirmed case and meeting illness criteria but in whom laboratory diagnosis of MERS-CoV is not available or negative (if specimen quality or timing is suspect); or 2) meeting exposure and illness criteria and in whom laboratory screening test for MERS-CoV was positive but not confirmed by the NML. Refer to the [National Case Definition - Middle East respiratory syndrome coronavirus](#) available at <http://www.phac-aspc.gc.ca/eri-ire/coronavirus/case-definition-cas-eng.php> for details.