Suspected Cases of Severe Imported Respiratory Virus Infections Policy V2.0

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This is a joint policy between Cornwall Partnership NHS Foundation Trust and Royal Cornwall Hospitals NHS Trust.

Purpose: The purpose of this policy is to ensure that patients who may have infectious travel associated respiratory infections are promptly identified and managed correctly in order to prevent transmission to healthcare workers (HCW), and other patients.
Target audience: This policy applies to all clinical staff caring for patients with suspected severe imported respiratory (SIRS) virus infections including Avian Influenza and Middle East Respiratory Syndrome Coronavirus (MERS CoV).
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☒ Cornwall Partnership NHS Foundation Trust

☒ Royal Cornwall Hospitals NHS Trust

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Version control

Version	Date	Author and/or reviewer	Section	Changes (key points)
V1.0	06/04/2021	Rashima Hamdan, IPAC Specialist Practitioner.	Full review and formatted to joint CFT and RCHT Policy template.	Case definitions updated and added advice from Clinical management of possible human cases of Avian Influenza 2020. PPE recommendations updated. Departmental transport guidance added (6.4.6.1 to 6.4.6.6). Visiting during exceptional circumstances 6.6.4 added.
V2.0	26.12.23	Rashima Hamdan, Senior IPAC Specialist Practitioner.	Full review and formatted to current joint RCHT /CFT template.	Case definition updated based on UKHSA 2023 guidance. Changed PHE to UK Health Security Agency (UKHSA). Updated Appendix 3. Added decontamination and community hospital guidance.

This document replaces: Suspected Cases of Severe Imported Respiratory Virus Infections Policy V1.0.

Summary

Pathway for managing patients with suspected MERS-CoV/Avian Influenza

Suspected case of possible MERS-CoV/Avian Influenza infection.
Patient assessed by GP/Doctor in Acute care.

→ Check UKHSA case definition.

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A patient fulfils UKHSA criteria for case definition of possible MERS-CoV/Avian Influenza infection.

← **Discuss with on-call Consultant Microbiologist**

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Microbiologist

- Will take patient details.
- Inform Lab on-call Biomedical Scientist (BMS).
- Inform DIPC, IPAC team, Communications, Site coordinators.

→

Site Co-ordinators

- Prepare isolation area for assessment (within ED/Wheal Prosper).
- Communicate with SWAST/Patient not to come through usual route.
- Prepare full PPE (correctly fitted FFP3 respirator, full gown, gloves and eye protection).

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If the patient is able to make their own way to hospital (not on public transport) they should be advised to do so once contacted by the Clinical Site Manager.

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Wheal Prosper/Emergency Department patient assessment.

- Ensure full PPE is worn (correctly fitted FFP3 respirator, full gown, gloves and eye protection).
- Minimize the number of attendants.
- Appropriate sample collection.

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What sample to collect?

- Combined nose and throat viral swabs or NPA (2 specimens) - if possible, sputum or ET aspirate.
- Throat swab/sputum for routine bacteriology (charcoal swab).
- Urine culture and Urine for Strep pneumoniae and legionella.
- Blood culture.
- Routine blood/U/Cr/LFT.
- Any other specimen if clinically relevant or as advised by Microbiologist.

← **Before collecting sample**
Inform the on-call Microbiology BMS to bring the plastic carrier box.
Samples to be hand delivered for transport.

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Laboratory

All samples to be processed at Cat 3 within safety cabinet.
Ensure full PPE is worn (full gown, gloves and eye protection, FFP3).
Notify UKHSA laboratory (Birmingham) before sending specimen for MERS/Avian flu testing.
Blood culture bottles to put in machine after surface decontamination with Virusol wipes.
Swabs/urine to be processed for routine bacteriology.
Other respiratory samples stored and processed after the MERS/Avian flu results are available.

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Communication of the laboratory result: UKHSA reference lab will inform the result to on-call microbiologist.
Microbiologist: to inform Clinical team/DIPC/IPAC/Communications

Contents

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- Cornwall Partnership NHS Foundation Trust: Email cpn-tr.infogov@nhs.net
- Royal Cornwall Hospitals NHS Trust: Email rch-tr.infogov@nhs.net

1. Introduction

1.1. Travellers returning to the UK may present to hospital, either through primary care or directly, with febrile respiratory illness. A range of potential infections need to be considered, which include all those normally encountered in the UK, but also additional pathogens peculiar to travellers which have the potential to cause serious, life-threatening disease, and infect contacts including healthcare workers. Examples include, but are not limited to, some coronavirus and avian influenza A infections.

1.2. **Coronaviruses** cause many infections including the common cold in humans. Some coronaviruses, which have a reservoir in animal hosts, can infect people and spread from person to person. They mainly cause respiratory tract infections and are transmitted by large respiratory droplets and direct or indirect contact with infected secretions. In 2003 there was a worldwide outbreak of severe acute respiratory syndrome (SARS), a coronavirus, which spread from China via Hong Kong. The outbreak was controlled, and cases have not been seen since. The Middle East respiratory syndrome coronavirus (MERS CoV) was first recognised in 2012 and is focused in the Arabian Peninsula. It has a mortality rate of about 30%. MERS-CoV has a reservoir in camels and infection may follow contact with camels or consumption of camel milk or undercooked meat.

1.3. **Influenza A** - Some subtypes of Influenza A naturally circulates in wild and domestic birds. Some strains cause little or no disease but sometimes outbreaks with high mortality in birds are due to “highly pathogenic avian influenza” (HPAI) strains. Some avian strains have the potential to affect humans; examples include H5N1, H7N9, H10N8. Human infection from birds is rare and follows direct or very close contact with infected birds or their excretions. Human symptoms vary from mild conjunctivitis to serious, life-threatening pneumonia. Although the mortality rate is high in human H5N1 pneumonia (about 50%), infection is rare and human to human spread is very limited.

1.4. The key to recognising the possibility of serious travel associated respiratory infections is the taking of an accurate travel history from anyone presenting to hospital with a fever and respiratory symptoms. This allows potential cases to be

managed appropriately, which includes the use of isolation and personal protective equipment to prevent spread of infection.

1.5. This Policy focuses on **MERS CoV** and **Avian Influenza outside UK strains/species**. However other infections may be added should the risk be identified. The initial management, especially containment methods to protect staff and other patients from infection are appropriate for all serious infections transmitted via the respiratory route.

1.6. This version supersedes any previous versions of this document.

2. Scope

This policy applies to all clinical staff caring for patients with suspected severe imported respiratory virus infections including Avian Influenza and MERS CoV.

3. Definitions and glossary

Severe travel associated respiratory infection is an infection of the respiratory tract that is severe enough to result in an infected patient being admitted to hospital and which occurs in a person who has travelled outside the UK in the 14 days prior to being seen.

4. Ownership and responsibilities

4.1. Role of the Chief Executive and Board of Directors

The Chief Executive and Board of Directors are responsible for ensuring the provision of suitable and sufficient resources and facilities to enable effective management of a patient admitted with a severe travel associated respiratory infection.

4.2. Role of the Director of Infection Prevention and Control

The Director of Infection Prevention and Control (DIPC) is responsible for providing support to the IPAC team and reporting of any suspected cases to the Executive team.

4.3. Role of Medical and Nursing staff

Medical and nursing staff in the Emergency Department, or the Infection Control Ward in which a patient who may have severe travel associated respiratory infection is expected or identified, are responsible for ensuring that a risk assessment is completed and that with the support of the Microbiologist and Infection Prevention and Control Team, appropriate actions are taken on the result of the risk assessment.

4.4. Role of the Infection Prevention and Control Team

The Infection Prevention and Control Team (with support from the DIPC) are responsible for advising on infection control measures required for severe travel associated respiratory infection cases. Especially on the correct use and where necessary alongside the health and safety team the fitting of personal protective equipment including FFP3 standard respirators.

4.5. Role of the Infection Control Doctor and Consultant Microbiologists

The Infection Control Doctor and Consultant Microbiologists are responsible for providing advice on the diagnosis of severe travel associated respiratory infection and use of antibiotics or antivirals. Where appropriate they will liaise with specialist reference diagnostic laboratories.

They are responsible for informing UKHSA and the DIPC of any patient suspected or confirmed as having a severe travel associated respiratory infection.

4.6. Role of the Patient Flow Manager and Site Co-ordination Team

Patient Flow Manager and Site Co-ordination Team are responsible for organising the direct admission where possible a negative pressure isolation room on the isolation ward. Where direct admission is not feasible the site co-ordination team are responsible for organising the safe transfer of patients to the Isolation ward if the Risk Assessment deems this, as necessary.

4.7. Role of the Security and Portering Teams

The Security and Portering Teams are responsible assisting in the movement of patients with suspected severe travel associated respiratory infection to isolation facilities if required.

4.8. Role of Isolation Ward Staff

Isolation Ward staff are responsible for the area in which patients with a severe travel associated respiratory infection will be cared for at least until the infective agent has been identified and the level of infectious risk confirmed.

4.9. Role of Diagnostic Laboratory Staff

The Microbiology Consultant and Biomedical Scientist staff are responsible for providing services to diagnose respiratory infections, and to direct specimens to reference and specialist laboratories when appropriate.

4.10. Role of the Trust Communications Team

Should an incident involving severe travel associated respiratory infection become the subject of press attention the Trust Communications Team are responsible for providing the necessary reports and press releases for the public and local and national press. This includes appropriate liaison with NHS England and Public Health England communications functions.

4.11. Role of UK Health Security Agency

UK Health Security Agency (UKHSA) are responsible for the public health response in cases where an infectious agent may have the potential to spread in the community. This includes identifying and following up potential contacts.

4.12. Role of the Occupational Health Department

Occupational Health Department in liaison with PHE are responsible for following up staff that are contacts of a confirmed case a severe travel associated respiratory infection.

5. Standards and practice

5.1. Identifying Patients at risk of having a Severe Travel Associated Respiratory Infection

5.1.1. All patients who present to primary or secondary care with a fever should be asked about a travel history to determine whether they are at risk of an imported infectious disease. The key aim is that patients should receive an appropriate risk assessment in a safe environment, minimising the risk of transmission to contacts, including healthcare staff. This allows the patient to be managed appropriately.

5.1.2. Examples of serious travel associated infections which fall into this category include MERS CoV, and Avian Influenza (bird flu). However, there may occasionally be alerts of other potential threats. Alerts and updates to current threats are issued by UKHSA from time to time and when necessary, these will be cascaded to appropriate departments by Microbiology or Infection Prevention and Control.

5.1.3. **Case Definition** The case definition used currently to identify patients in need of a risk assessment depends on two elements:

1) The presenting clinical features.
2) The risk of exposure to agents.

It aims to identify patients at risk of MERS CoV or Avian Influenza as these are the main recognised threats. For a suspect case, patients must fulfil the conditions in both the clinical and the exposure categories.

5.1.3.1. **Middle East Respiratory Syndrome Coronavirus (UKHSA 2023)**

1) **Clinical presentations** – **must** fulfil one of the following:
   - Fever ≥38°C or history of fever and cough **and** evidence of pulmonary parenchymal disease (for example, clinical or radiological evidence of pneumonia or acute respiratory distress syndrome (ARDS)).
   - Acute Influenza-like illness (ILI) - sudden onset of respiratory infection with fever of ≥38°C.

- Acute respiratory illness (ARI) - sudden respiratory infection with at least one of: shortness of breath, cough, or sore throat.

2) **Exposure** - at least one of the following, in the **14** days before symptoms onset:
   - History of travel to, or residence in an area where infection with MERS-CoV could have been acquired.
   - Close contact** with a symptomatic confirmed case of MERS-CoV infection.
   - Healthcare worker based in Intensive Care Unit (ICU) caring for patients with severe acute respiratory infection, regardless of history of travel or use of personal protective equipment (PPE).
   - Part of a cluster of two or more epidemiologically linked cases within a two-week period requiring ICU admission, regardless of history of travel.
   - History of travel to, or residence in an area where infection with MERS-CoV could have been acquired and has been in contact with camels, camel environments or consumption of camel products or contact with a hospital.

   Note: Clinicians must be alert to the possibility of atypical presentations in patients who are immunocompromised such as absence of fever.

   ** **Close contact** - the following are considered close contacts of MERS CoV:
      - Prolonged face to face contact of more than 15 minutes with a symptomatic confirmed case of MERS CoV.
      - A health or social care worker who provided direct clinical or personal care or examination of a symptomatic confirmed case.
      - Has been in a close vicinity of aerosol generating procedure or direct contact with body fluids of symptomatic case and was NOT wearing full PPE at the time.

5.1.3.2. **Avian Influenza (UKHSA 2023)**

1) **Clinical presentations – must** have at least one of the following:
   - Fever ≥38°C.
   - Acute respiratory symptoms (cough, hoarseness, nasal discharge or congestion, shortness of breath, sore throat, wheezing or sneezing).
   - Other severe/life-threatening illness suggestive of an infectious process.

2) **Exposure -** at least one of the following, in the **10** days before symptoms onset:
   - Close contact* with live, dying or dead domestic poultry or wild birds, including live bird markets, in an area of the world affected by avian influenza or with any confirmed infected animal. For list of countries with cases of Avian Influenza, refer to: https://www.gov.uk/guidance/high-consequence-infectious-disease-country-specific-risk
   - Close contact* with:
     - A confirmed human case of avian influenza.
     - Human case of unexplained illness resulting in death from affected areas.
     - Human cases of severe unexplained respiratory illness from affected areas.

   *This includes handling laboratory specimens from cases without appropriate precautions, or was within 1 metre distance, directly providing care, touching a case or within close vicinity of an aerosol generating procedure, from 1 day prior to symptom onset and for duration of symptoms or positive virological detection.

5.1.4. There have been several countries with confirmed cases high consequence infectious disease including MERS CoV and Avian Influenza. The full list of countries can be found in UKHSA High consequence infectious disease:

country specific risk: https://www.gov.uk/guidance/high-consequence-infectious-disease-country-specific-risk

5.1.5. If MERS CoV, Avian Influenza or another infectious respiratory disease is considered a possible diagnosis then before continuing with the initial assessment:

- In the admitting areas like emergency department patients should be directed to a designated single room with the door closed as soon as possible.
- In other parts of the hospital patients should be isolated in a single room as soon after they are identified as possible. Positive pressure rooms must not be used.
- The patient should be asked to wear a surgical mask if not contraindicated to patient condition. If oxygen therapy is required, oxygen ideally may be given by nasal prongs.
- Clinical staff assessing the patient should don personal protective equipment – please see appendix 2. The wearer should be fit tested for a FFP3 respirator.
- Restrict visitors and keep list of contacts including staff contacts.
- Infection prevention and control team and the on-call medical microbiologist should be called to assist in the assessment.
- UKHSA local health protection team must be informed.
- Cases should only be managed in hospital if their current clinical condition warrants it. Therefore, patients identified in primary care, should only be admitted if the clinical condition warrants it. Otherwise, cases should be managed in their own homes and followed up by Primary Care / UKHSA Health Protection Team.
- If admission is not indicated but the patient is thought to have possible severe travel associated respiratory infection there must be extensive liaison between hospital staff, the GP and Consultant in Communicable Disease Control (CCDC) before the patient is sent home. Written as well as verbal advice must be given to the patient.

5.2. Management of Cases of Severe Travel Associated Respiratory Infection

5.2.1. **Patients identified as possible severe travel associated respiratory infection cases in the admitting areas.**

5.2.1.1. As soon as the potential severe travel associated respiratory infection is recognised, the patient should be moved to the dedicated cubicle room with the door closed.

5.2.1.2. If the patient's condition allows it, they should wear surgical face mask. If required, oxygen may be given by nasal prongs.

5.2.1.3. Attending staff should put on PPE see Appendix 2 before any further action is taken.

5.2.1.4. If patient meets the case definition for Avian Influenza, start Oseltamivir treatment immediately. For guidance on dosage refer to microbiologist or the UKHSA guidance on https://www.gov.uk/government/publications/influenza-treatment-and-prophylaxis-using-anti-viral-agents

5.2.1.5. If assessment shows the patient possibly has a risk of a severe travel associated respiratory infection such as MERS CoV or avian influenza, and that admission is indicated, then they must be admitted to a negative pressure room on Wheal Prosper or Critical Care (if respiratory support is required) as soon as assessment is complete, and the receiving ward is ready. Paediatric patients will also be admitted to Wheal Prosper or Critical Care with appropriate paediatric nursing support.

5.2.1.6. When either side rooms 6 or 7 Wheal Prosper Ward are used, the remaining room will be vacated, and this end of the ward divided from the remaining ward and staff allocated specifically to this area.

5.2.1.7. Patients identified as possible severe travel associated respiratory case in community hospitals and mental health facilities must be transferred to a single room as soon as possible. The IPAC team must be notified immediately during office hours or the on-call microbiologist and on-call manager during out-of-hours.

5.2.1.8. IPAC team, clinical site managers, Portering teams and the receiving ward will coordinate to ensure that the patient is moved safely when the receiving ward is ready. The patient should wear a surgical mask whilst transferring if tolerated and the staff moving the patient should wear PPE as per Appendix 2.

5.2.1.9. The area vacated by a patient will require deep cleaning and treatment with hydrogen peroxide vapour (HPV) before being used for other patients. HPV cannot be used on multi-bedded bay unless completely vacated by patients. In this case, IPAC team must be informed and further advice will be given by them.

5.2.1.10. The IPAC team should advise on identifying patient contacts. Occupational health should identify and follow up staff contacts.

5.2.1.11. UKHSA should be notified and will be responsible for identification and management of contacts outside the hospital.

5.2.1.12. If admission is not indicated but the patient is thought to have possible severe travel associated respiratory infection there must be extensive liaison between hospital staff, the GP and Consultant in Communicable Disease Control (CCDC) before the patient is sent home. Written as well as verbal advice must be given to the patient.

5.2.2. Patients identified as possible severe travel associated respiratory infection cases after admission.

5.2.2.1. Patients identified as possible severe travel associated respiratory cases must be transferred to a negative pressure room in Wheal Prosper or Critical Care as soon as possible, including paediatric cases. If paediatric patient is moved to Wheal prosper, they must be looked after by paediatric trained staff.

5.2.2.2. Patients identified as possible severe travel associated respiratory case in community hospitals and mental health facilities must be transferred to a single room as soon as possible. The IPAC team must be notified immediately during office hours or the on-call microbiologist and on-call manager during out-of-hours.

5.2.2.3. IPAC team, clinical site managers, Portering teams and the receiving ward will coordinate to ensure that the patient is moved safely when the receiving ward is ready. The patient should wear a surgical mask and those moving the patient wears PPE as per Appendix 2. It is essential that receiving ward is prepared to receive the patient.

5.2.2.4. Patient must be given surgical facemask to use until they are transferred to single room, unless contraindicated to patient condition.

5.2.2.5. When either side rooms 6 or 7 Wheal Prosper Ward are used, the remaining room will be vacated, and this end of the ward divided from the remaining ward and staff allocated specifically to this area.

5.2.2.6. Start Oseltamivir treatment immediately if the patient meets the case definition for Avian Influenza (do not wait for results of avian influenza diagnostic tests). Close contacts must be risk assessed for the need of chemoprophylaxis of Oseltamivir. Liaise with Microbiologist and Pharmacist regarding guidance and dosage.

5.2.2.7. All contact tracing following exposure in the healthcare environment should only take place following consultation with the local UKHSA health protection team.

5.2.2.8. UKHSA should be notified immediately. UKHSA is responsible for identification and management of contacts outside the hospital.

5.2.2.9. The area vacated by a patient identified after admission will require deep cleaning and treatment with hydrogen peroxide vapour before being used for other patients.

5.2.2.10. The IPAC team should advise on identifying patient contacts. Occupational health should identify and follow up staff contacts.

5.3. Diagnostic Investigations

5.3.1. Diagnostic investigations are those necessary to manage a severe respiratory tract infection. Special arrangements and sampling are required for respiratory pathogens.

5.3.2. Testing should not be delayed, and samples must be obtained and sent to appropriate laboratory within **12 hours** of suspicion.

5.3.3. **Radiological investigation** where possible must be carried out in the single room. Should departmental investigation be essential, arrangements must be discussed with IPAC team. Chest X ray is best done with a portable machine that can be decontaminated and a machine should be designated for the patient until the infectious risk is over. The Radiographer will wear full PPE as per Appendix 2.

5.3.4. **Microbiological investigation** includes tests appropriate to the **normal** investigation of severe respiratory tract infection and specific investigations which will be referred to specialised laboratories.

- Blood culture.
- Viral Swabs.

5.3.4.1. Duplicate nose and throat swabs in viral transport media
- Sputum if produced.
- Invasive respiratory samples if ventilated.

5.3.4.2. Nasopharyngeal aspirate, Endotracheal aspirate or Bronchial lavage
- Blood.

5.3.4.3. Clotted and EDTA samples for serology and PCR investigation.
- Urine for pneumococcal and legionella antigens.

Obtaining invasive respiratory specimens requires great care as aerosols may be generated. They should only be taken if the investigation is essential and full protective clothing must be worn.

5.3.5. Haematology and Biochemistry samples can be processed using normal precautions without special containment precautions.
- FBC.
- Liver and Renal function tests.
- Blood gasses.

5.3.6. All specimens and request forms for Microbiology, Biochemistry and Haematology must have “Risk of Infection” and severe travel associated respiratory infection included in the clinical details. Specimens must be double bagged, and the outer surface of the bag is wiped with appropriate cleaning product prior transporting. Microbiological specimens **must** be transported in a plastic carrier box directly to the laboratory and **not** the vacuum tube system.

5.3.7. Other essential investigations which require the patient to visit a department need to be organised in consultation with the IPAC team to ensure that appropriate precautions and decontamination arrangements are in place.

5.3.7.1. The department receiving must be informed in advance of the patient’s arrival.

5.3.7.2. The patient must be taken straight to and from the investigation/treatment room and must not wait in communal area.

5.3.7.3. Patient should wear surgical mask if not contraindicated- this will prevent large droplets being expelled into the environment. If patient unable to wear mask, contact IPAC team for further advice.

5.3.7.4. Patient should be scheduled at the end of the list, as far as possible to enable appropriate decontamination described in 5.4.4 after the procedure.

5.3.7.5. The procedure room, trolley/chair and all equipment should be decontaminated after use as per cleaning protocol described in 5.4.4.

5.3.7.6. Staff within 2meters of the patient must wear the recommended PPE described in Appendix 2.

5.4. Infection Control

5.4.1. Isolation

5.4.1.1. Patients with a suspected or confirmed infectious travel associated respiratory tract infection will be admitted to a negative pressure isolation room with a lobby on Wheal Prosper. If they require ventilatory support, a negative pressure room on ICU must be used instead. Doors must always be kept closed with signage.

5.4.1.2. Anterooms or “Lobby” is essential for confirmed MERS-COV cases to prevent cross-contamination and for safe removal of PPE. This area must be regularly decontaminated as described in section 6.4.4.

5.4.1.3. Paediatric patients will be isolated on Wheal Prosper or ICU with appropriate paediatric support.

5.4.2. Personal Protective Equipment (PPE)

5.4.2.1. MERS CoV and Avian influenza are both transmitted by droplets and fine droplet nuclei - airborne - and also by direct and indirect contact. Other imported respiratory pathogens are likely to be transmitted by the same routes.

5.4.2.2. Although there is little evidence to support airborne transmission from human to human in the outbreaks of avian 'flu A H5N1 there is good evidence of human-to-human infection with animal coronaviruses. Because of the high mortality of these infections and the difficulty in initially providing a definitive diagnosis until specific investigations can be completed, it is appropriate to use full personal protective equipment (see Appendix 2).

5.4.2.3. To be worn by **all** persons entering the room where a suspected, possible, presumptive, or confirmed case is being cared for:

- Long sleeved, fluid-repellent disposable gown – wearing scrubs underneath obviates problems with laundering of uniforms and other clothing.
- Non-sterile surgical gloves.
- Double gloving will be required if there is a need to disinfect items from the room prior to their removal (such as in the specimens, mobile devices and handling dead bodies sections).
- An FFP3 respirator conforming to EN149:2001 must be worn by all personnel in the room. Fit testing must be undertaken before using this equipment and a respirator should be fit-checked every time it is used.
- Eye protection must be worn (prescription glasses do not provide adequate protection against droplets sprays and splashes).

- It is recommended that eye protection should be single-use and disposed as clinical waste after use. This is due to the difficulties associated with cleaning to eliminate contamination.
- Staff caring for these patients should be trained in use of PPE.
- Buddy system is recommended to observe for inadvertent contamination especially in donning and doffing of PPE and in high-risk procedures.
- PPE must be worn at all times when in the patient room.

5.4.3. Hand hygiene

5.4.3.1. The infective agents likely to be encountered in severe travel associated respiratory infections include bacteria and enveloped viruses (coronaviruses and influenza viruses for example). These agents are susceptible to alcohol. Hand hygiene must be performed using soap and water if visible soiling is present or there is contamination with body fluids and secretions. Otherwise, alcohol hand rub is appropriate.

5.4.3.2. Hand hygiene must be performed after removing protective clothing and prior to leaving the isolation room. Hands must then be further cleaned, using alcohol hand rub after exiting the isolation room. Hand hygiene must also be performed after cleaning of contaminated equipment.

5.4.4. Environmental Decontamination

5.4.4.1. Daily cleaning of isolation rooms with chlorine-based disinfectant will initially be a nursing responsibility as staff in contact with the isolation room should be minimised and protective clothing needs to be worn. Frequent cleaning of ward areas, doorknobs, staff toilets, sluice etc. is also essential. Damp dusting should be performed wherever possible to avoid aerosolisation of virus.

5.4.4.2. Chlorine-based disinfection with a minimum strength of 1,000ppm available chlorine should be used for cleaning.

5.4.4.3. If aerosol generating procedure are undertaken inside patient's own room, cleaning should commence 20 minutes after the procedure to allow the particles suspended in the air to settle. However, this should depend on the room air exchanges per hour, contact IPAC for guidance on this.

5.4.4.4. There should be more frequent cleaning of high-touched surfaces and of the anteroom or 'lobby' at least twice a day.

5.4.4.5. Re-useable equipment used must be decontaminated as per manufacturer's instruction using Trust approved disinfectants.

5.4.4.6. Terminal cleaning is the responsibility of Domestic Services and Nursing Team. A terminal clean should include hydrogen peroxide vapour. Curtains must be changed and disposed of as infected linen. Terminal clean sign off sheet must be completed.

5.4.5. Waste

5.4.5.1. Infected patients may excrete viruses in respiratory secretions and in faeces. En suite facilities in the isolation rooms must be used if possible. If unable to use the en suite the patient should use a disposable bedpan / urinal. Urine can then be poured carefully down the en suite toilet. Faeces and the receptacle should be disposed of in a clinical waste sack.

5.4.5.2. All clinical waste must be placed in clinical waste bags and bags sealed in the normal way **and kept within the isolation room**. Double bagging is not necessary. Waste will be collected by the porters wearing appropriate PPE and taken for disposal by incineration.

5.4.6. Laundry

Laundry should be placed in water-soluble bags and then into a red outer bag. This bag must be labelled as **infected**. Contact the Porters to arrange for separate collection of the laundry bag. Linen bags waiting for collection **must** be kept inside the isolation room.

5.4.7. Cutlery and Crockery

Disposable cutlery and crockery are not necessary for infection control purposes. However, for small numbers of patients the use of disposable cutlery and crockery may well be administratively easier. If used it should be disposed of in clinical waste.

5.4.8. Equipment

5.4.8.1. Where possible, re-usable equipment should be avoided. Use dedicated equipment in the isolation and decontaminate according to manufacturer's instructions.

5.4.8.2. Ventilators should be protected with high efficiency filters and discard after use.

5.4.8.3. Closed suction system **must** be use for ventilated patients.

5.4.8.4. Mobile equipment **must** be decontaminated by the operator/user after use and **must** not be left inside the isolation room. Wheels must be disinfected by spraying chlorine-based solution.

5.5. Occupational Health and Management of Contacts

5.5.1. MERS CoV and Avian influenza may be transmitted from human to human, but transmissibility is variable for different agents. Nevertheless, these pathogens may have a high risk of mortality and therefore potential contacts should be monitored closely.

5.5.2. Household or other close contacts out of hospital

These should be monitored for evidence of infection. Contact tracing and monitoring in the community is a role of UKHSA Health Protection Team.

5.5.3. Staff contacts

5.5.3.1. Only essential healthcare workers should have access to the isolation room. Nursing and junior medical staff should be dedicated and trained in infection control procedures and use of PPE including fit tested for FFP3 respirators. If avian 'flu is confirmed by the specialist Laboratory, then all healthcare workers in contact with a patient with avian 'flu should take prophylaxis if recommended by UKHSA. This is likely to include immunisation with current influenza vaccines and taking Oseltamivir.

5.5.3.2. A visitors' book system should be maintained to record the names and times that staff and visitors have contact with severe travel associated respiratory infections. The names of staff attending suspected or probable cases must be documented and a list sent to the Occupational Health Department who will monitor them for the appropriate period during and after exposure.

5.5.3.3. Staff contacts who develop a fever >38 °C or respiratory symptoms should stay at home. They should contact their GP informing them of the organism they have been exposure to. They should also contact their line manager or the on-call manager who will liaise with Occupational Health and the Microbiologist.

5.5.4. Visitors

5.5.4.1. Any visitors must be advised of the risks of infection and preferably not visit.

5.5.4.2. Allowing visitors in exceptional situation ex. End of Life patients should be discussed with IPAC team. A key consideration for

decisions about visitors is the risk to their health and their ability to adhere to infection prevention and control procedures.

5.5.4.3. Those visitors that have been close contacts may be incubating the disease or already be infectious due to common exposure. They must be advised not to come to the hospital if they have a fever or feel unwell and to contact their GP, informing the GP that they are unwell and have had contact with avian influenza. UKHSA should also be informed.

5.6. Discharge of Patients

5.6.1. All suspected or probable cases of a severe travel associated respiratory infection who are admitted must remain in appropriate isolation until discharge, or until the appropriate period after resolution of fever as advised by the Microbiologist. This will vary for the infecting agent, the age and immune status of the patient.

5.6.2. Staff who become infected should not return to work until advised by Occupational Health in liaison with the Microbiologist.

5.7. Care of the Deceased

5.7.1. Standard precautions should be followed when caring for a person who dies of a travel associated severe respiratory pathogen. If they die during the infectious period full PPE should also be worn for last offices. The body should be placed in an impermeable bag prior to transfer to the mortuary.

5.7.2. Family should be able to view the body if they wish. If the person died during the infectious period, they should wear gloves and gowns.

5.7.3. If a full or limited postmortem examination needs to be performed, this must be discussed first with Infection Prevention and Control and the Consultant Microbiologist and UKHSA. This is to allow appropriate precautions to be undertaken and to make arrangements for specialist diagnostic services.

6. Related legislation, national and local guidance

- PHE 2020 Investigation and initial clinical management of possible human cases of Avian Influenza viruses that have been associated with severe human disease.
- PHE 2016 Middle East respiratory syndrome coronavirus (MERS-CoV) Infection Prevention and Control Advice.
- PHE 2016 Middle East respiratory syndrome coronavirus (MERS-CoV) Infection Prevention and Control Guidance.
- PHE 2018 Risk Assessment of MERS-CoV.
- PHE 2017 The Referral of Samples for Testing for the Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in England.
- Public Health England (2018) Investigation and public health management of people with possible Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection v30.
- WHO 2015 Fact sheet Middle East respiratory syndrome coronavirus (MERS-CoV).
- WHO 2003 Case Definitions for Surveillance of Severe Acute Respiratory Syndrome (SARS).
- UKHSA (2023) Investigation and initial clinical management of possible human cases of avian influenza with potential to cause severe human disease.
- UKHSA (2023) Algorithm for the investigation and management of possible cases of MERS-CoV.

Links to key external standards:

- CQC Outcome 8, Regulation 12.

7. Training requirements

PPE training (see appendix 2) and FFP3 mask fit testing provided by respective Trusts.

8. Implementation

This policy to be implemented via the following routes:

- Infection Prevention and Control Steering Group.
- Infection Prevention and Control Committee.

- Via Care Group and locality leads.

9. Document Monitoring arrangements

Information category	Detail of process and methodology for monitoring compliance
Element to be monitored	Management of any suspected cases.
Lead	Louise Dickinson, Director of Infection Prevention and Control (DIPC).
Tool	Adherence to guidelines will be monitored as part of the ongoing audit process within the department on a Word or Excel template specific to the topic.
Frequency	Section 6 of this policy will be used with an Audit and review Tool.
Reporting arrangements	For each case as they occur.
Acting on recommendations and lead(s)	Any cases and the management of such cases will be reported to the Infection Prevention and Control committee.
Change in practice and lessons to be shared	The Infection Prevention and Control committee will undertake subsequent recommendations and action planning for any or all deficiencies and recommendations within reasonable timeframe.

10. Updating and review

This policy will be updated within 3 years or as new guidance is received.

11. Equality and diversity

This document complies with the Cornwall Partnership NHS Foundation Trust and Royal Cornwall Hospitals NHS Trust equality and diversity statements. The statements can be found in the RCHT Equality Diversity And Inclusion Policy and CFT Equality, Diversity and Inclusion Statement.

The initial equality impact assessment screening form is at appendix 1.

12. Appendix 1: Equality Impact assessment Form

Title of policy or document for assessment: Suspected Cases of Severe Imported Respiratory Virus Infections Policy V2.0.

Document library section: Clinical / Infection Prevention and Control.

Is this a new or existing document? Existing.

Date of assessment: 26 December 2023.

Person responsible for the assessment: Rashima Hamdan, Senior IPAC Specialist Practitioner.

What is the main purpose of the document?

To ensure that patients who may have infectious travel associated respiratory infections are promptly identified and managed correctly.

Who is affected by the document?

☐ Staff ☐ Patients ☐ Visitors ☐ Carers ☐ Other ☒ All

The document aims to improve access, experience and outcomes for all groups protected by the Equality Act 2010.

Concerns

Are there concerns that the procedural document could have a differential impact on the following areas?

If a negative impact has been identified, please complete a full EIA by contacting the Equality, Diversity, and Inclusion Team. For RCHT please contact rcht.inclusion@nhs.net and for CFT please contact cft.inclusion@nhs.net

Concern area	Response	If yes, what existing evidence (either presumed or otherwise) do you have for this?
Age	☐ Yes ☒ No	

Concern area	Response	If yes, what existing evidence (either presumed or otherwise) do you have for this?
Disability	☐ Yes ☒ No	
Sex	☐ Yes ☒ No	
Gender reassignment	☐ Yes ☒ No	
Pregnancy and maternity	☐ Yes ☒ No	
Race	☐ Yes ☒ No	
Religion and belief	☐ Yes ☒ No	
Sexual orientation	☐ Yes ☒ No	
Marriage and civil partnership	☐ Yes ☒ No	
Groups at risk of stigma or social exclusion such as offenders or homeless people	☐ Yes ☒ No	
Human rights	☐ Yes ☒ No	

Are there any associated objectives of the document? If yes, what existing evidence (either presumed or otherwise) do you have for this?

No.

Signature of person completing the equality impact assessment:

Name: Rashima Hamdan

Date: 26 December 2023

13. Appendix 2. Personal protective equipment (PPE)

To be worn by all persons entering the room where a suspected, possible, presumptive, or confirmed case is being cared for:

- Long sleeved, fluid-repellent disposable gown – wearing scrubs underneath obviates problems with laundering of uniforms and other clothing.
- Non-sterile surgical gloves.
- Wearing 2 gloves in each hand at the same time will be required if there is a need to disinfect items from the room prior to their removal (such as in the specimens, mobile devices and handling dead bodies sections). The first pair of gloves will be taken off after touching and cleaning the contaminated item.
- An FFP3 respirator conforming to EN149:2001 must be worn by all personnel in the room. Fit testing must be undertaken before using this equipment and a respirator should be fit-checked every time it is used.
- Eye protection must be worn (prescription glasses do not provide adequate protection against droplets sprays and splashes).
- It is recommended that eye protection should be single-use and disposed as clinical waste after use. This is due to the difficulties associated with cleaning to eliminate contamination.

Putting on and removing personal protective equipment

Putting on PPE

Staff should wear the following PPE, put on in the following order:

1. Gown.
2. FFP3 respirator and fit check.
3. Eye protection (i.e. goggles or face shield).
4. Disposable gloves.

The order given above is practical but the order for putting on is less critical than the order of removal given below.

Figure 1 below, summarising putting on of PPE, comes from the document 'Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care'. https://www.who.int/publications/i/item/infection-prevention-and-control-of-epidemic-and-pandemic-prone-acute-respiratory-infections-in-health-care

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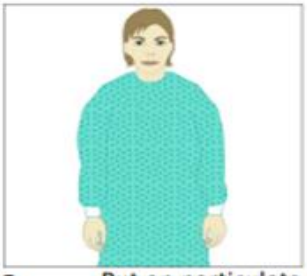
A. Putting on PPE (when all PPE items are needed)

1

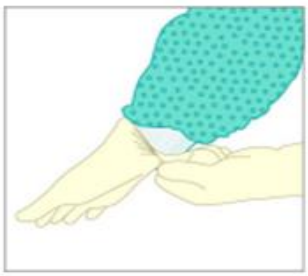
- Identify hazards and manage risk.
- Gather the necessary PPE.
- Plan where to put on and take off PPE.
- Do you have a buddy? Mirror?
- Do you know how you will deal with waste?



2 Put on a gown.

3 Put on particulate respirator or medical mask; perform user seal check if using a respirator.

4 Put on eye protection, e.g. face shield/goggles (consider anti-fog drops or fog-resistant goggles). Caps are optional: if worn, put on after eye protection.



5 Put on gloves (over cuff).

Removal of PPE

PPE should be removed in an order that minimises the potential for cross-contamination. Before leaving the side room, gloves, gown and eye protection should be removed (in that order, where worn) and disposed of as clinical (also known as infectious) waste.

After leaving the area, the respirator can be removed and disposed of as clinical waste.

The order of removal of PPE is suggested as follows, consistent with WHO guidance, as follows:

1. Peel off gloves and gown together and roll inside out. Dispose in clinical waste.
2. Perform hand hygiene.
3. Remove goggles from behind and dispose in clinical waste.
4. Remove respirator from behind.
5. Perform hand hygiene.

Figure 2 below, summarising putting on of PPE, comes from the document ‘Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care’. https://www.who.int/publications/i/item/infection-prevention-and-control-of-epidemic-and-pandemic-prone-acute-respiratory-infections-in-health-care

9B. Taking off PPE

1

- Avoid contamination of self, others & the environment
- Remove the most heavily contaminated items first

Remove gloves & gown:
- peel off gown & gloves and roll inside, out
- dispose gloves and gown safely

2 **Perform hand hygiene**

3

- Remove cap (if worn)
- Remove goggles from behind
- Put goggles in a separate container for reprocessing

4 Remove respirator from behind

5 **Perform hand hygiene**

14. Appendix 3. Staff Exposure Record

Hospital: **Ward:** **Date:**

This record must be kept up to date to monitor staff/visitor exposure.

Name	Job Title/ Role	Date of Exposure	Length of time exposed (e.g. 1 hour)	Date of the start of symptoms

15. Appendix 4. Visitor Log

Hospital: **Ward:** **Date:**

This record must be kept up to date to monitor visitors.

Name	Date of Visit	Contact details