Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
SECONDARY CARE ALGORITHM – Version 16 (based on PHE case algorithm v27) – December 2016

For a POSSIBLE CASE, patients must fulfil the conditions in the Clinical and Exposure conditions
(i.e. Clinical 1 AND Clinical 2 AND Clinical 3 AND EITHER Exposure 1 OR Exposure 2 OR Exposure 3 OR Exposure 4)

Clinical 1 Any person with severe acute respiratory infection requiring admission to hospital AND Fever ≥ 38°C or history of fever, and cough AND
Clinical 2 Evidence of pulmonary parenchymal disease (e.g. clinical or radiological evidence of pneumonia or Acute Respiratory Distress Syndrome (ARDS)) AND
Clinical 3 Not explained by any other infection or aetiology

Exposure 1 History of travel to, or residence in an area where infection with MERS-CoV could have been acquired in the 14 days before symptom onset OR
Exposure 2 Close contact during the 14 days before onset of illness with a confirmed case of MERS-CoV infection while the case was symptomatic OR
Exposure 3 Healthcare worker based in ICU caring for patients with severe acute respiratory infection, regardless of history of travel or use of PPE OR
Exposure 4 Associated with a cluster of two or more epidemiologically linked cases requiring ICU admission within a two week period, regardless of history of travel

Does patient fulfil both clinical and exposure criteria? No

1. Clinicians should additionally be alert to the possibility of atypical presentations in patients who are immunocompromised.
2. If the patient has an alternative aetiology, but this does not fully explain the presentation and/or clinical course, then the patient should be considered a possible case and tested for MERS-CoV. It may be appropriate to arrange for testing for other respiratory pathogens in parallel to testing for MERS-CoV at the WoSSVC (or RIE for Lothian/Borders/Fife patients), until all other criteria to constitute a possible case are fulfilled. Use existing arrangements to contact the local microbiology, virology, infectious disease or respiratory consultants and discuss testing arrangements for individual cases with the WoSSVC (or RIE for Lothian/Borders/Fife patients).
3. MERS-CoV area, as of 24/12/2015: Bahrain, Jordan, Iraq, Iran, Kingdom of Saudi Arabia, Kuwait, Oman, Qatar, United Arab Emirates and Yemen – see map and UK Risk Assessment
4. Contact definitions (from date of illness onset in index case and throughout their symptomatic period): A) Health and social care workers: workers who provided direct clinical or personal care or examination of a symptomatic confirmed case or within close vicinity of an aerosol generating procedure AND who was not wearing appropriate/recommended PPE at the time. B) Households or close contact: any person who has had prolonged face-to-face contact (>15 minutes) with a symptomatic confirmed case any time during the illness after onset in a household or other closed setting.
5. In secondary care, for all patient contact, Personal Protective Equipment (PPE) includes correctly fitted filtering face piece respirator (FFP3), long sleeved, fluid-resistant disposable gown, gloves and eye protection. For guidance on PPE and infection control precautions, please refer to the National Infection Prevention and Control Manual and Infection control guidance for MERS-CoV.
6. HPT to inform HPS by phone: 0141 300 1100 (day) or 0141 211 3600 (out of hours) and e-mail NSS.HPSCoronavirus@nhs.net
7. Initial samples: lower respiratory tract specimen (i.e. Bronchoalveolar lavage (BAL) or induced sputum) AND a duplicate set of nose and throat swabs in viral transport media (VTM) AND acute serum.
8. For more information on lab guidance and other algorithms see: HPS algorithms for MERS-CoV
9. Forms will be provided to the HPT by HPS on being alerted to a possible case.
10. Baseline samples: upper and lower respiratory tract samples, serum & EDTA blood, and in addition, for hospitalised patients, urine & faeces - lab guidance