

# PHS Health Protection Alert

Title	Description
Event	Update on epidemiology, risk assessment, resources and laboratory services in advance of those returning from Hajj 2024
Alert reference number	2024/11
Recipients of this alert	PHS Senior Leads Team, NHS Board Health Protection Teams (please cascade to primary care/general practice), Directors of Public Health, CMO Office (CMO and DCMO), SG Health Protection, SMVN, PHS On Call Staff, PHS EPRR, PHS Comms, PHMicro, Head of Service Infection Services, Scottish Ambulance Service, NHS 24, ID Physicians, ARHAI/ICM
Alert status	For action - monitoring and wider dissemination
Action required of initial recipients	Cascade to others for information. ARHAI, please cascade to Infection Control Managers. Action required for health protection teams, laboratories and clinicians outlined in recommendations.
Date of issue	28 May 2024
Source of event information	WHO/SMoH/ECDC/UKHSA/PHS
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HPZone context	Hajj June 2024

## Situation

The dates for Hajj 1445H (2024), the annual pilgrimage to Makkah (Mecca), Kingdom of Saudi Arabia are 14 June to 19 June 2024. It is expected travellers returning from Hajj 1445H (2024) will exceed the **1.84 million** who travelled in 1444H (2023), with **around twelve thousand** of these travelling from the UK. This alert provides travel advice, including vaccination requirements, for UK residents planning to undertake Hajj and highlights the potential risk of importing infectious diseases, including measles, meningococcal disease, Middle East Respiratory Syndrome (MERS), SARS-CoV-2 and influenza in travellers returning to Scotland from Hajj 2024.

## Background

From 2002 to 2019, between two and three million people made the Hajj pilgrimage each year. Although this reduced in recent years due to COVID-19 restrictions, pilgrim numbers increased again in 2023 to pre-pandemic levels. Umrah is another pilgrimage that can be undertaken at any time of the year and is sometimes performed in conjunction with Hajj. Mass gatherings and international travel events, such as the Hajj and Umrah, present the risk of importation and transmission of various infectious diseases from the Middle East.

## Assessment

### Measles

Measles is highly contagious in susceptible populations. There is a risk of transmission in mass gatherings and of importation as pilgrims return to their home countries. This risk is elevated considering current global measles resurgence, including recent increases in Europe due to gaps in immunity. Average MMR vaccine uptake for 2 doses in Scotland is below 95% and on the decline (WHO recommends 95% uptake of two doses of MMR by 5 years of age to prevent outbreaks and eliminate transmission). In addition, there are variations in MMR vaccine uptake rates within and between local areas.

## **Meningococcal disease**

Mandatory vaccination with MenACWY vaccine has reduced the incidence of meningococcal outbreaks associated with Hajj and Umrah. However, cases of invasive meningococcal disease caused by serogroup W (MenW) have recently been identified in England in unvaccinated travellers within days of their return from the Kingdom of Saudi Arabia following Umrah pilgrimage. In recent years, cases of ciprofloxacin-resistant non-groupable meningococcal infection have also been identified in the UK associated with travel to Makkah (Mecca).

MenACWY vaccine does not protect against all meningococcal serogroups; thus, meningococcal disease remains a public health threat associated with the gatherings.

## **Middle East Respiratory Syndrome**

The risk of infection with MERS-CoV to UK residents travelling to the Middle East is **very low** but is increased with exposure to human cases, camels, or camel products. While there have been no confirmed UK cases of MERS-CoV among UK residents associated with Hajj, sporadic cases of MERS-CoV have been reported in pilgrims returning from Umrah to countries outside the UK.

## **SARS-CoV-2 and Influenza**

Mass gatherings are associated with transmission of respiratory viruses such as SARS-CoV-2, influenza viruses and other respiratory pathogens. However, the risk of transmission and severe disease is reduced with the use of mitigations, including good respiratory hygiene and vaccination.

## **Legionella**

Legionnaires' disease is an infection spread through inhalation of droplets/aerosols through contaminated artificial water systems such as air conditioning units, cooling towers, whirlpool spas, and shower units. It can cause a severe form of pneumonia that can be life threatening. Infection is not spread person to person.

# Recommendations

## Health professionals providing travel health advice

Prior to travel, UK residents planning to undertake Hajj should be advised to:

- Check with a **travel health professional** as early as possible to identify what vaccines or boosters are required before travelling to Hajj. MenACWY vaccine is required at least 10 days prior to travel as part of the Hajj/Umrah visa. It is recommended that travellers have received two doses of MMR vaccine.
- Follow the **Foreign, Commonwealth and Development Office (FCDO) travel advice for Saudi Arabia**.
- Follow **official KSA Ministry of Hajj and Umrah** guidance for registering and booking Hajj travel.
- Refer to the **fitfortravel Hajj and Umrah page** for information on how to protect themselves, their family and the community from travel-related ill health during Hajj.
- Obtain comprehensive **travel insurance** before travelling for Hajj.

Returning travellers from Saudi Arabia are advised to call their GP or NHS24 on 111 (out of hours) if experiencing flu-like symptoms (including fever, cough and/or shortness of breath) within 14 days of returning from Hajj, mentioning their recent travel.

## Detection and management of suspected case(s) and contacts

### Measles

- **Clinicians:** consider the possibility of measles in people returning from Hajj and Umrah, particularly in people who are unvaccinated or where vaccination status is uncertain or incomplete. All suspected measles should be reported to local HPT.
- **Health Protection Teams:** be alert to the risk of measles in individuals returning from Hajj and Umrah or those with close links to recent returnees. Current **PHS measles health protection guidance** advises health protection teams to follow the

**UKHSA Guidance and information for health professionals** for public health management of measles.

- **Laboratories:** **PHS measles health protection guidance** has details on testing, and the **UKHSA guidance and information for health professionals** has further information on laboratory investigation of measles.

## **Meningococcal disease**

- **Clinicians** should consider the possibility of meningococcal disease in people returning from Hajj and Umrah and their close contacts and should be aware of atypical presentations such as acute gastrointestinal symptoms, septic arthritis, pneumonia or epiglottitis.
- **Clinicians and Health Protection Teams:**
  - Consider the possibility of ciprofloxacin-resistance in *N. meningitidis* in cases of meningococcal infection in individuals with recent travel to Mecca, Saudi Arabia or close links to recent returnees from Hajj and Umrah.
  - Follow the current UK **guidance on meningococcal disease** for public health management of invasive meningococcal disease or conjunctival infection for cases and contacts. In addition, follow the specific recommendations in the recent UKHSA briefing note (BN2024/014) for the antibiotic prophylaxis of close contacts:

**Rifampicin** should be considered for first-line antibiotic prophylaxis of close contacts of both invasive meningococcal disease and meningococcal conjunctivitis cases with a history of recent travel to the Kingdom of Saudi Arabia or with close links to recently returned pilgrims due to increasing ciprofloxacin resistance among meningococcal isolates in the Middle East. Rifampicin should also be offered for index cases who were not treated with cephalosporins. Further guidance, including rifampicin prophylaxis dosage is included in UKHSA Briefing Note BN2024/014.
- **Laboratories:** screen all invasive and ophthalmic *N. meningitidis* isolates for penicillin and ciprofloxacin resistance, in line with **EUCAST guidance**, applying the prescribed breakpoints developed for prophylaxis of meningococcal disease.

Laboratories should test as a minimum for third-generation cephalosporin and rifampicin susceptibility.

All meningococcal isolates should be submitted to the Reference Laboratory Bacterial Respiratory Infections Service consistent with current referral protocols (see [Scottish Microbiology Reference Laboratories Glasgow User Manual](#)).

### **Middle East Respiratory Syndrome:**

- ***Clinicians:*** ascertain if a patient presenting with Acute Respiratory Infection (ARI) or Influenza-Like Illness (ILI) has travelled to the Middle East in the 14 days before symptom onset. If they meet the [possible case definition](#), isolate the patient, immediately implement [infection prevention control measures](#), test appropriately and inform the local HPT if considered a possible case.
- ***Health Protection Teams:***
  - Cases of MERS-CoV continue to occur in the Middle East, and the risk of importation of a case to the UK may be greater in individuals making Hajj and Umrah pilgrimage.
  - Be familiar with the location of [guidelines](#) for the public health management of possible cases and confirmed cases of MERS-CoV and their contacts, as well as PHS/NSS [guidance on infection control for MERS-CoV](#).
- ***Laboratories:***
  - Be aware of the [testing criteria](#) for MERS-CoV and referral guidance, and be familiar with the location of [guidelines](#) for public health management of possible and confirmed cases of MERS-CoV and their contacts.

Testing for MERS in Scotland is provided by the [WoSSVC \(Glasgow\) and SVC in Edinburgh](#). Testing is available 7-days per week (and out of hours if urgent testing is considered appropriate following discussion with the on-call virologist). All suspected cases need to be discussed with the duty/on-call virologist in advance of sending samples. Where possible, upper respiratory tract samples should be collected in Molecular Sampling Solution (MSS).

Samples should be packaged and transported in accordance with Category B (UN 3373) transportation regulations.

## SARS-CoV-2 and Influenza

**Clinicians:** consider the possibility of SARS-CoV-2 or influenza in people returning from Hajj and Umrah, and proactively test and treat vulnerable symptomatic individuals.

- **Health protection teams:** remain vigilant for potential increases in SARS-CoV-2, influenza, and other respiratory pathogens, and consider testing for these pathogens.
- **Laboratories:** Hospital laboratories are encouraged to continue testing samples for SARS-CoV-2 & influenza to ensure appropriate treatment is sought quickly, healthcare resources can be mobilised, and preventative measures put in place. Laboratories are asked to refer influenza positive samples to the West of Scotland Specialist Virology Centre (WoSSVC) for sequencing, especially for severe cases. Laboratories are also asked to refer SARS-CoV-2 positive samples with Ct  $\leq$ 30 to WoSSVC or the Specialist Virology Centre, Edinburgh (SVC) as appropriate for sequencing.

## Legionella

- **Clinicians:** consider the possibility of Legionnaires' disease in patients presenting with severe pneumonia who have travelled in the two to 10 days prior to onset of illness. Individuals at greater risk of infection include those aged over 50 years, current or previous smokers, those with weakened immune systems or chronic heart, lung, kidney or liver disease. Both urine and lower respiratory tract samples should be collected to confirm a diagnosis of Legionnaires' disease.
- **HPTs:** should submit **enhanced surveillance forms** for all cases for investigation and to assist the early detection of any potential clusters.
- **Laboratories:** Urinary antigen testing generally only confirms *L. pneumophila* serogroup 1 infection and so respiratory samples should be investigated by RT-PCR and culture to enable detection of non-*Legionella pneumophila* serogroup 1 cases. All

positive urine and respiratory samples should be forwarded to the Scottish Microbiology Reference Laboratory (SMiRL) for confirmation and typing.

## Laboratory contact details

### Edinburgh SVC

**Email:** [virologyadvice@nhslothian.scot.nhs.uk](mailto:virologyadvice@nhslothian.scot.nhs.uk)

**Phone** (9am - 5pm, Monday to Friday): 0131 536 3373 (option 2)

**Out of hours:** 0131 536 1000 (ask for on-call virologist)

### West of Scotland SVC

**Email:** [west.ssvc2@nhs.scot](mailto:west.ssvc2@nhs.scot)

**Phone** (9am - 5pm Monday to Friday): 0141 201 8721

**Out of hours:** 0141 211 4000 (ask for on-call virologist)

### Scottish Microbiology Reference Laboratories

**Email:** [ggc.glasgowsmrl@nhs.scot](mailto:ggc.glasgowsmrl@nhs.scot)

**Phone** (9am – 5pm Monday to Friday): 0141 242 9633 (ask to be directed to appropriate laboratory section)