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Event Increase in laboratory detection of *Mycoplasma pneumoniae* infections in England

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Contact

Clinical queries should be managed through local infection services. Laboratories requiring more information should contact UKHSA Reference laboratory (Respiratory and Vaccine Preventable Bacteria Reference Unit; RVPBRU) to discuss further. Telephone number: **020 8327 6495**

IRP Level N/A (non-incident communication)

Incident Lead N/A (non-incident communication)

Instructions for Cascade

- Devolved Administrations to cascade to Medical Directors and other DA teams as appropriate to their local arrangements
- Regional Deputy Directors to cascade to Directors of Public Health
- UKHSA microbiologists to cascade to non-UKHSA labs (NHS and private laboratories)
- UKHSA microbiologists to cascade to NHS Trust infection leads
- NHS Trust infection leads to cascade to relevant local services (e.g. Paediatrics Emergency Medicine, General Medicine, Acute Medicine, and antimicrobial pharmacists)
- Royal College of Physicians
- Royal College of General Practitioners
- Royal College of Paediatrics and Child Health
- Royal Pharmaceutical Society

Summary:



Surveillance data suggests that we are entering an epidemic winter for *Mycoplasma pneumoniae*. *Mycoplasma pneumoniae* infections are seen regularly in the UK and epidemic peaks are normally seen every 3 to 4 years in winter. The last UK *Mycoplasma pneumoniae* epidemic season was 2019/20 and the current increase is therefore not unexpected.

Other countries, mainly in Europe, are also reporting high levels of *Mycoplasma pneumoniae* infections. As there has been very little *Mycoplasma pneumoniae* infection detected in the past three years in the UK, UKHSA is undertaking surveillance to monitor the season and assure that there are no changes in antimicrobial susceptibility.

Background and Interpretation:

Mycoplasma pneumoniae (*M. pneumoniae*) is a bacterial pathogen. It is one cause of respiratory tract infections with a wide range of clinical presentations ranging from mild respiratory symptoms (cough, fever) to severe pneumonias. It commonly affects young adults and children. It is not detected using standard bacterial culture, but it can be detected by PCR. In more severe cases where treatment is needed, it is treated with non-penicillin-based antibiotics such as macrolides or tetracyclines, as described in the [NICE guidance](#).

UKHSA monitors *M. pneumoniae* through positive laboratory results (PCR and serology) reported into the Second Generation Surveillance System (SGSS).

The last epidemic peak of laboratory detections was seen in late 2019 and early 2020 and subsequent to that there was very little *M. pneumoniae* reported.

Increasing detections of this infection have been reported in 2023. Whilst there is likely to be improved ascertainment of *M. pneumoniae* infection generally due to increasing use of PCR, the rapid increase in positive results during the autumn is likely to indicate that winter 2023/24 is an epidemic season. However, changes in testing means that we cannot comment on this season compared to historical epidemic peaks and previous very limited numbers of sample referrals also mean that the prevalence of antimicrobial resistance requires confirmation.

Other countries are also reporting an increase in *M. pneumoniae* infections including 6 European countries

https://www.ecdc.europa.eu/sites/default/files/documents/communicable-disease-threats-report-week-48-2023_0.pdf

Implications & Recommendations for UKHSA sites and services

The UKSHA reference laboratory (Respiratory and Vaccine Preventable Bacteria Reference Unit; RVPBRU) undertakes confirmatory *M. pneumoniae* PCR testing and macrolide resistance testing using a PCR and sequencing method for determination of point mutations.

Implications & Recommendations for NHS

Treatment should continue to follow local and national guidance. [The NICE guideline](#) for pneumonia makes the recommendation to take into account the current epidemiology of



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influenza and *M. pneumoniae*. Clinicians are reminded to consider *M. pneumoniae* in the differential of appropriate clinical presentations. Microbiology services may wish to consider appropriate local testing for the epidemic season and are requested to report all positive tests (PCR and serology) via SGSS for national voluntary surveillance.

Diagnostic laboratories are asked to refer *M. pneumoniae* PCR positive samples (original respiratory samples) to the UKSHA reference laboratory (Respiratory and Vaccine Preventable Bacteria Reference Unit; RVPBRU) for detection of any changes in antimicrobial resistance, though this is not expected. This testing is free of charge and done for surveillance purposes. Please indicate on the request form if the sample is PCR positive locally. If any change in susceptibility profiles are detected, further clinical briefing will be provided. Individual reporting will be provided however **this is not a clinical test and will not be undertaken in clinical time frames.**

The request form is available here:

[Zoonotic and acute respiratory section: request form - GOV.UK \(www.gov.uk\)](#)

Information for general practice from NHSE:

- *Mycoplasma pneumoniae* usually presents with an unresolving persistent cough, low-grade fever, headache, hoarseness, rash, and rarely (5%) bullous myringitis (ear drum infection). [BMJ Best Practice 2022; <https://bestpractice.bmj.com/topics/en-gb/605>]
- It is not necessary to take specific clinical specimens for mycoplasma in primary care or to notify health protection teams.
- Continue to follow current NICE guidance for treatment of pneumonia. [<https://www.nice.org.uk/guidance/ng138/chapter/Recommendations>]
- Continue to treat low-severity pneumonia (based on clinical judgement and guided by a CRB65 score 0) with amoxicillin* for 5 days as first-line treatment in accordance with NICE guidance.
- For patients with moderate severity pneumonia (based on clinical judgement and guided by a CRB65 score 1 or 2) who are managed in primary care, addition of a macrolide or doxycycline to amoxicillin* is recommended in NICE guidance.

*Use appropriate alternatives for patients with penicillin allergy.

References/ Sources of information

1. [Mycoplasma pneumoniae - GOV.UK \(www.gov.uk\)](#)
 2. [Overview | Pneumonia \(community-acquired\): antimicrobial prescribing | Guidance | NICE](#)
 3. [Bacteriology reference department user manual - GOV.UK \(www.gov.uk\)](#) – (page 56- 58).
 4. [Referral of specimens for confirmation of Mycoplasma pneumoniae infection and detection of macrolide resistance markers \(publishing.service.gov.uk\)](#)
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