

Situation Summary

On 22 November 2023, the World Health Organization (WHO) issued a statement on the increase in respiratory diseases in children in northern China (2). According to the statement, the country's respiratory disease surveillance system indicated an increase in outpatient consultations and pediatric hospital admissions for pneumonia due to *Mycoplasma pneumoniae* since May 2023 and for respiratory syncytial virus, adenovirus, and influenza since October 2023.

China attributed this increase to the lifting of COVID-19 restrictions and the start of the winter season. Although the increase in respiratory disease activity has occurred earlier than expected, the country's health authorities reported no new or unusual pathogens; only an overall increase due to known etiologic agents was noted, with no hospital overload. Authorities also highlighted that expanded surveillance has been implemented since mid-October, covering a broad spectrum of viruses and bacteria, including *M. pneumoniae* (3).

In their weekly bulletin for epidemiological week (EW) 47, the European Center for Disease Prevention and Control (ECDC) reported increases in *M. pneumoniae* detections in six Member States (Denmark, France, Ireland, the Netherlands, Norway and Sweden) at the national level or in specific hospitals. This increase has been observed in all age groups but is predominant among children and adolescents. No different strains are reported nor are there changes in resistance to first-line macrolides. ECDC note that such increases may be due to the typical recurrence of the disease, possibly aggravated by a three-year period of limited transmission. The Korea Disease Control and Prevention Agency (KDCA) reported on 20 November 2023 an increase in infections in children due to *M. pneumoniae* (4).

In France, the French Public Health Agency reported on 30 November that unusual increases in respiratory infections from *M. pneumoniae* were detected in EW 47 of 2023. Increases in suspected cases were observed in school communities and confirmed cases in intensive care units (ICUs), occurring in several regions (5). It is important to note that in France there is no national system of notification or specific surveillance for *M. pneumoniae* infections.

On 29 November 2023, the Statens Serum Institut of Denmark reported a significant increase in respiratory infections by *M. pneumoniae*, reaching epidemic levels with 541 new cases in

Mycoplasma pneumoniae is a bacterium that causes approximately 20% of community-acquired pneumonia and can most often cause bronchitis or bronchiolitis, frequently accompanied by upper respiratory tract manifestations. Symptoms include: headache, malaise, paroxysmal cough, sore throat, and, occasionally, chest discomfort.

The duration of the infection varies from days to months. Secondary bacterial infection and other complications, such as central nervous system disease and Stevens Johnson syndrome, are rare; fatal cases are rare (1).

Worldwide, it occurs sporadically, endemic and sometimes epidemic, affecting all ages and with variable attack rates. Epidemics occur most often in late summer and fall; the endemic disease does not follow a seasonal rhythm, but there may be variation from year to year and between different geographical areas. *M. pneumoniae* causes frequent outbreaks in schools and at home.

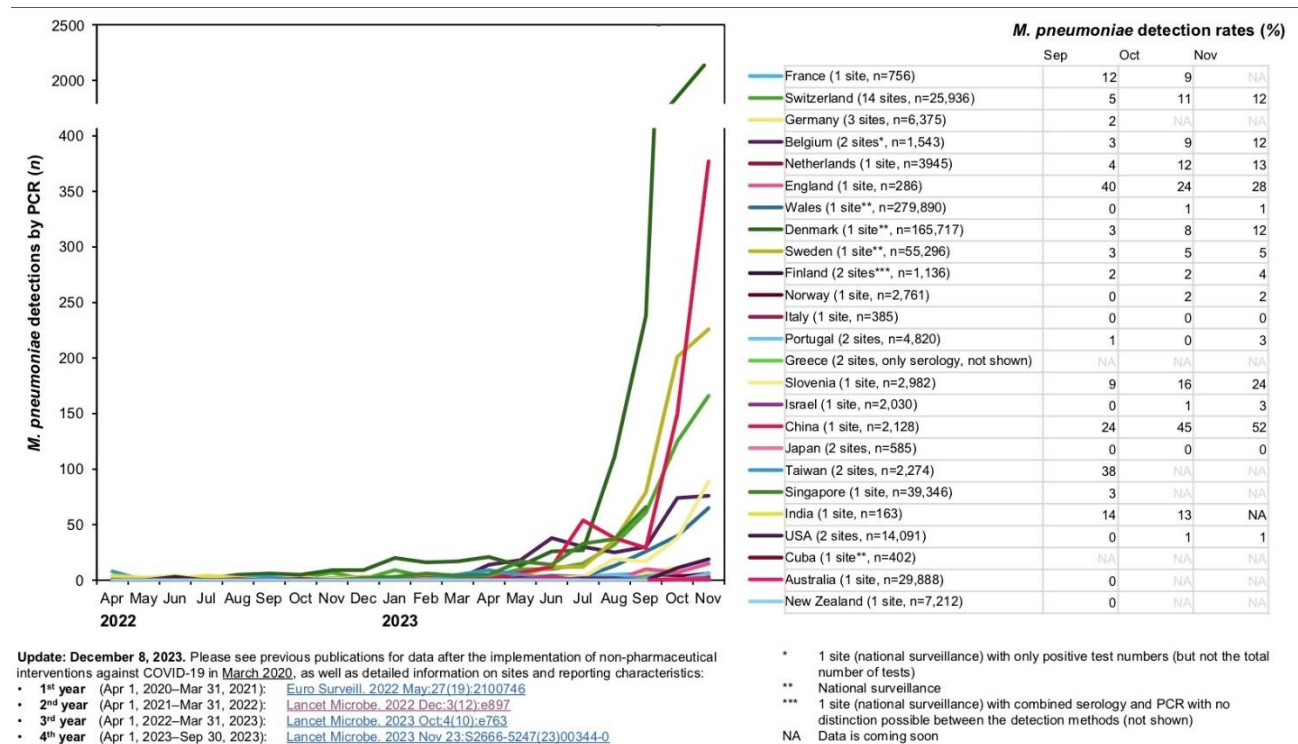
Transmission occurs through inhalation of droplets or by direct contact, with secondary cases among contacts being common. The incubation period is 6 to 32 days and transmissibility can be extended up to 20 days, although the duration of immunity is unknown and there may be second bouts of pneumonia (1).

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EW 47 of 2023; this is triple the number of cases in EW 42. This increase follows a pattern of national epidemics occurring every four years, mainly affecting children aged 6 to 12 years in autumn and winter (6).

A global prospective surveillance study of *M. pneumoniae*, conducted by the international collaborative network established by the Mycoplasma and Chlamydia Infections Study Group (ESGMAC), which aims to characterize the behavior of *M. pneumoniae* infections and their resurgence after disruption during the COVID-19 pandemic, indicated that a resurgence of *M. pneumoniae* is being recorded in late 2023, more than 3 years after the introduction of COVID-19 pandemic restrictions (Figure 1) (7).

Figure 1. Detection of *M. pneumoniae*, April 2022 to November 2023. Study Group for Mycoplasma and Chlamydia Infections – ESGMAC



Source: European Society of Clinical Microbiology and Infections. Study of the international collaborative network established by the Study Group for Mycoplasma and Chlamydia Infections. Basel; ESCMID: ESGMAC MAPS; 2023. Disponible en: <https://www.escmid.org/research-projects/study-groups/study-groups-g-n/mycoplasma-and-chlamydia/esgmac-maps-study>

PAHO/WHO Note

The increase in the circulation of *M. pneumoniae* reported in some countries in Asia and Europe highlights the importance of acute respiratory disease surveillance systems with the integration of different etiological agents. Routine sentinel surveillance systems for respiratory syndromes, with the inclusion of *M. pneumoniae*, can facilitate monitoring different circulation patterns and severity of disease caused by these agents, as well as patterns of susceptibility to the antimicrobials of choice. So far, with the data reported through the regional platform for sentinel surveillance of Influenza-like Illness (ILI) and Severe Acute

Respiratory Infection (SARI), and through FLUID, no unusual patterns have been detected in the trends of STI and SARI cases in the Region of the Americas (8).

PAHO/WHO notes that adequate antimicrobial treatment shortens the duration of symptoms and accelerates radiological and clinical recovery from pneumonia. In view of the clinical suspicion of pneumonia caused by *M. pneumoniae*, the use of macrolides (azithromycin, clarithromycin) is recommended in children and adults. Other therapeutic alternatives include tetracyclines (doxycycline) for those over 8 years of age and respiratory quinolones (levofloxacin, moxifloxacin) in adults (1).

In view of the increase in macrolide resistance in other regions of the world, clinicians are advised to monitor patient progress and consider alternatives (e.g., doxycillin, levofloxacin, moxifloxacin) if initial macrolide treatment does not lead to symptom improvement. Protocols for the empirical treatment of pneumonias caused by infectious agents, including *M. pneumoniae*, are detailed in the [Guidelines for the Treatment of Infectious Diseases](#) (9).

Diagnosis of *M. pneumoniae* infections can be made by culture, serology, or nucleic acid amplification methods. However, there are currently at-home protocols and molecular diagnostic PCR kits that have acceptable confidence with good specificity and sensitivity for *M. pneumoniae* (1). Molecular detection is usually performed using nasopharyngeal and/or oropharyngeal swabs.

PAHO/WHO encourages countries to be alert to an unusual increase in pneumonia caused by this pathogen and to notify under the International Health Regulations (IHR) channel according to the result of the decision algorithm, Annex 2 of the IHR (10).

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