WEEKLY BULLETIN

Communicable Disease Threats Report

Week 21, 21 - 27 May 2023

Today's disease topics

1. COVID-19 associated with SARS-CoV-2 – Multi-country (EU/EEA) – 2019 - 2023
2. Influenza – Multi-country – Monitoring 2022/2023 season
3. Marburg virus disease - Equatorial Guinea - 2023
4. Marburg virus disease - Tanzania - 2023
5. Poliomyelitis – Multi-country (World) – Monitoring global outbreaks
6. Extensively drug-resistant Pseudomonas aeruginosa (artificial tears/eye drops) - USA - 2023
7. Suspected fungal meningitis - Mexico and U.S - 2023

Executive Summary

COVID-19 associated with SARS-CoV-2 – Multi-country (EU/EEA) – 2019 - 2023

- In week 20, 2023 (ending 21 May 2023), decreasing or stable trends were observed in EU/EEA indicators in all age groups. This pattern is consistent with the one observed in recent weeks. There were 418 deaths reported from 23 countries in week 20.
- The estimated distribution of variants of concern (VOC) or of interest (VOI) was 89.0% (39.0–100.0% from 16 countries) for XBB.1.5, 3.8% (1.3–17.5% from 15 countries) for BA.2.75, 2.2% (0.4–7.7% from 11 countries) for BQ.1, 0.8% (0.4–39.0%, 39 detections from 10 countries) for XBB, 0.7% (0.2–13.6%, 14 detections from five countries) for BA.5, and 0.3% (0.2–0.5%, three detections from two countries) for BA.2.
- On 25 May 2023, several media reported an upsurge of COVID-19 cases in China around the end of April and beginning of May. The wave of infections reported from China are not driven by a new variant, and are not expected to have any impact on the epidemiological situation in the EU/EEA.

Influenza – Multi-country – Monitoring 2022/2023 season

- The seasonal epidemic activity threshold of 10% positivity in sentinel specimens was first crossed in week 45, 2022.
- Following a peak at week 51, 2022 with 39% positivity, influenza activity had been decreasing across the WHO European Region until week 4, 2023 when it reached 21% positivity. It rose again and fluctuated around 25% positivity between weeks 6 and 11, 2023. Then it decreased below 10% positivity in week 16, 2023.

- Overall in this season, influenza A(H3) viruses have dominated in sentinel primary care specimens. However, higher circulation of A(H1)pdm09 and type B viruses was observed starting from week 50, 2022 and week 2, 2023, respectively. In non-sentinel specimens, higher circulation of A(H1)pdm09 (55%) than A(H3) viruses (45%) was detected.
- Both influenza type A and type B viruses have been detected in hospitalised patients in ICU and other wards. Influenza A(H1)pdm09 viruses have dominated among severe acute respiratory infections (SARI) patients.
- Virus type and subtype prevalence by country and surveillance system have been variable across the season.
- The B/Yamagata viruses sporadically detected and reported by different countries have been further investigated and were proven to be live attenuated influenza vaccine (LAIV)-related detections.

Marburg virus disease - Equatorial Guinea - 2023

- As of 25 May 2023 and since the previous update, no relevant epidemiological updates were available.
- On 8 May 2023, WHO reported that no new Marburg virus disease (MVD) cases have been reported since 20 April 2023. As of 25 May 2023, over 21 days have passed since the last reported case.
- The total number of confirmed MVD cases since the beginning of the outbreak is 17, with 12 deaths.
- Epidemiological surveillance and contact tracing efforts are ongoing.
- WHO and partners are supporting Equatorial Guinea and neighbouring countries.

Marburg virus disease - Tanzania - 2023

- Since the previous update on 17 May 2023 and as of 25 May 2023, no new relevant epidemiological updates are available.
- According to the latest WHO Disease Outbreak News, published on 8 May 2023, as of 30 April 2023, no new Marburg virus disease (MVD) cases have been reported in the country since 11 April 2023.
- Since the beginning of the outbreak, there have been eight confirmed cases and one probable case, including six deaths (case-fatality rate (CFR) 66.7%) due to MVD in Tanzania. All cases have been reported from the Kagera region.
- The Ministry of Health of Tanzania has deployed a rapid response team in the affected area and active surveillance continues.

Poliomyelitis – Multi-country (World) – Monitoring global outbreaks

- On 3 May 2023, the Polio International Health Regulations (IHR) Emergency Committee stated that the risk of international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC) and recommended the extension of Temporary Recommendations for a further three months.
- Since the last update, in 2023, two new cases of acute flaccid paralysis (AFP) caused by wild poliovirus type 1 (WPV1) have been reported from Afghanistan.
- In 2023, and as of 23 May 2023, 26 cases of AFP caused by circulating vaccine-derived poliovirus (cVDPV1) have been reported from three countries: Democratic Republic of the Congo (14), Madagascar (9), and Mozambique (3).
- Since the last update, one new country has reported cases of AFP caused by cVDPV2 with date of onset of symptoms in 2023: Côte d'Ivoire.

Extensively drug-resistant Pseudomonas aeruginosa (artificial tears/eye drops) - USA - 2023
Summary:

- The United States Centers for Disease Control and Prevention (US CDC) reported an update of an outbreak investigation on an extensively drug-resistant strain of Pseudomonas aeruginosa related to the use of artificial tears/eye drops affecting 81 patients with four deaths. The severe outcomes included 14 patients with lost vision and four others who had an eyeball removed.
- The manufacturer has recalled EzriCare Artificial Tears, Delsam Pharma Artificial Tears, and Delsam Pharma Artificial Eye Ointment products following advice from US Food and Drug Administration (FDA) and US CDC. These products have been sold in the US and on internet.
- Although the disease is severe, the likelihood of infection of VIM-GES-CRPA via exposure to contaminated artificial tears is low for EU/EEA citizens at this time, given the product recalls and public information campaigns.

Suspected fungal meningitis - Mexico and U.S - 2023

- On 26 May 2023, the Mexican health authorities informed ECDC that at the time, 14 cases have been reported in Mexico. Five have been confirmed with Fusarium solani.
- The cases underwent cosmetic surgeries with epidural anaesthesia procedures in two private medical clinics, Clínica K-3 and River Side Surgical Center, in the city of Matamoros, Mexico.
- Investigations are still ongoing.

1. COVID-19 associated with SARS-CoV-2 – Multi-country (EU/EEA) – 2019 - 2023

Overview:

Summary:
By the end of week 20, 2023 (ending 21 May 2023), decreasing or stable trends were observed in EU/EEA indicators based on pooled country data in all age groups. This is a continuation of the pattern observed in recent weeks. There were 418 deaths reported from 23 countries.

There is some variation in country-level trends across the EU/EEA. Increasing trends of 1–2 weeks' duration were reported by very few countries, and overall values of reported indicators remain low relative to the pandemic maximum. The key indicator section provides a detailed overview of country- and EU-level indicators and trends.

Among people aged 60 years and above, the cumulative uptake of a first booster was 84.9% (country range: 13.3–100.0%), and of a second booster was 35.6% (country range: 0.4–86.9%).

Among the 16 countries reporting, at least 10 results from SARS-CoV-2 sequencing or genotyping for weeks 18–19 (1 May to 14 May 2023), the estimated distribution of variants of concern (VOC) or of interest (VOI) was 89.0% (39.0–100.0% from 16 countries) for XBB.1.5, 3.8% (1.3–17.5% from 15 countries) for BA.2.75, 2.2% (0.4–7.7% from 11 countries) for BQ.1, 0.8% (0.4–39.0%, 39 detections from 10 countries) for XBB, 0.7% (0.2–13.6%, 14 detections from five countries) for BA.5, and 0.3% (0.2–0.5%, three detections from two countries) for BA.2.

Surveillance data from long-term care facilities were excluded from the surveillance summary as of week 19, 2023, due to the low number of reporting countries. Historic time series of the long-term care facility data remain available on the individual country sheets, with recent updates included where available.

For the latest COVID-19 country overviews, please see the dedicated web page.

Weekly update on SARS-CoV-2 variants:
Since the last update on 20 April 2023, and as of 25 May 2023, no changes have been made to ECDC variant classifications for variants of concern (VOC), variants of interest (VOI), variants under monitoring or deescalated variants.

For the latest information about variants, please see ECDC's webpage on variants.

Public Health Emergency of International Concern (PHEIC):
On 30 January 2020, the World Health Organization (WHO) declared that the outbreak of COVID-19 constituted a PHEIC. On 11 March 2020, the Director-General of WHO declared the COVID-19 outbreak a pandemic.

The third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, eleventh, twelfth, thirteenth, and fourteenth International Health Regulations (IHR) Emergency Committee meetings for COVID-19 were held in Geneva on 30 April 2020, 31 July 2020, 29 October 2020, 14 January 2021, 15 April 2021, 14 July 2021, 22 October 2021, 13 January 2022, 11 April 2022, 8 July 2022, 13 October 2022, and 27 January 2023 respectively. The Committee concluded during these meetings that the COVID-19 pandemic continues to constitute a PHEIC.

In the fifteenth IHR Emergency Committee meeting held in Geneva on 4 May 2023, the WHO Director-General agreed with the advice offered by the Committee and determined that COVID-19 is no longer a public health emergency of international concern (PHEIC).

For the latest COVID-19 country overviews, please see the dedicated web page.

Please refer to the data reported by the World Health Organization (WHO) on COVID-19 and WHO's Weekly Epidemiological Updates and Monthly Operational Updates page for non-EU/EEA countries.

ECDC assessment:

SARS-CoV-2 continues to circulate in the EU/EEA with varying intensity. The epidemiological picture in the EU/EEA over the past 12 months has been characterised by periodic waves of infection, approximately every two to three months, with an overall downward trend in the height of the associated peaks in reported cases, hospitalisations, ICU admissions, and deaths in this period. The emergence of new variants of concern or the population immunity waning over time may impact the epidemiological situation in the future.

For the most recent risk assessment, please visit ECDC's dedicated webpage.

Actions:

Detailed country-specific COVID-19 updates are available on ECDC's website. For the latest update on SARS-CoV-2 variants of concern, please see ECDC's webpage on variants.

For EU/EEA- and country-specific epidemiological trends and forecasts, visit ECDC's Country Overview Report (updated on Fridays). In addition to actions described in the latest COVID-19 risk assessments, on 5 April 2023 ECDC published a guidance, Interim public health considerations for COVID-19 vaccination roll-out during 2023 to support countries with vaccination strategy decision-making. This guidance aims to offer advice on the optimal timing and targeting of vaccination campaigns in order to limit the continued burden of disease experienced by the elderly and those with comorbidities. It complements the guidance, Long-term qualitative scenarios and considerations of their implications for preparedness and response to the COVID-19 pandemic in the EU/EEA published in August 2022 to support country preparedness activities in the post-acute phase of the COVID-19 pandemic.

Further information:

COVID-19 associated with SARS-CoV-2 – China – 2022–2023
Overview
On 25 May 2023, several media reported an upsurge of COVID-19 cases in China around the end of April and beginning of May. Cases are predicted to peak around the end of June reaching approximately 65 million infections per week. Dr Zhong Nanshan, director of the National Clinical Medical Research Center for Respiratory Diseases under the First Affiliated Hospital of Guangzhou Medical University, recently provided these remarks during the 2023 Greater Bay Area Science Forum.

According to the latest available report from the Chinese Center for Disease Control and Prevention (China CDC) on 29 April 2023, the number of positive acid nucleic tests were on an increasing trend since 24 April, reaching 6 752 positive cases on 27 April. Both severe hospitalisations, hospital-related fatalities remained at very low levels as of 27 April.

Virus variants
As per GISAID EpiCoV data on 20 May 2023, the reporting volume of China is comparable to other countries, during the same period. Approximately 500–1000 sequences are being deposited every week, based on the sample collection dates.

Data reported by China to GISAID EpiCoV from week 16 onwards indicate that mainly a mix of XBB.1.5-like lineages are circulating in China (XBB.1.5, XBB.1.9.1, XBB.1.9.2, XBB.1.16, XBB.2.3, and their sub-lineages) (Figure 1). This is very similar to the variant situation in the EU/EEA (Figure 2), which makes it unlikely that specific variants in China could have an impact on the epidemiological situation in the EU/EEA. The shift from the dominance of BA.5-like lineages to XBB.1.5-like lineages is a likely contributing factor to the increase of cases in China.

Assessment
The current wave reported by media in China likely results from the emergence of XBB.1.5-like variants in the country in recent weeks. The previous surge of infections observed in January 2023 followed the relaxation of strict non-pharmaceutical measures, which permitted widespread circulation of Omicron sub-lineages BA.5.2 and BF.7. The XBB.1.5-like variants carry mutations that allow immune escape from antibodies developed against earlier circulating variants.

The EU/EEA has already experienced widespread circulation of XBB.1.5-like Omicron sub-lineages, and these are currently the dominant sub-lineages in circulation in the EU/EEA. As such, the wave of infections reported from China are not driven by a new variant, and are not expected to have any impact on the epidemiological situation in the EU/EEA.

There are currently no data suggesting the emergence of new variants of concern in China. The ECDC assessment is based on the information currently available. ECDC will revisit its assessments as new information becomes available.

Last time this event was included in the CDTR: 12 May 2023

2. Influenza – Multi-country – Monitoring 2022/2023 season

Overview:

Week 20, 2023 (15 May–21 May 2023)

- The percentage of all sentinel primary care specimens from patients presenting with influenza-like illness (ILI) or acute respiratory infections (ARI) symptoms which tested positive for an influenza virus decreased to 2% from 4% in the previous week, which is below the epidemic threshold at 10%.
- Fifteen out of 39 countries or areas reported low intensity; there were no reports of medium or higher intensity. Two out of 38 countries across the WHO European Region reported widespread activity.
- Two countries and areas with more than 10 specimens tested, reported sentinel primary care specimen influenza virus positivity at or above the 10% epidemic threshold.
- Influenza type A and type B viruses were detected in sentinel and non-sentinel surveillance, with type B predominating in both systems.
- Hospitalised patients with confirmed influenza virus infection were reported from ICU (one each of type A and B viruses), other wards (one type A virus detected), and SARI surveillance (with higher proportions of type B viruses). No country reported influenza virus positivity rates above 10% in SARI surveillance.

Source: Flu News Europe

ECDC assessment:

The 2022/23 influenza season is ending in all EU/EEA Member States. Cases, including severe infections, can still occur. Therefore, it remains essential to continue testing all patients presenting with severe acute respiratory symptoms for influenza and SARS-CoV-2 in order to guide treatment and inform epidemiological assessments.

Actions:

ECDC and WHO monitor influenza activity in the WHO European Region. Data are available on the **Flu News Europe** website.

Further information:

Last time this event was included in the CDTR: 12 May 2023

3. Marburg virus disease - Equatorial Guinea - 2023

Overview:

Update:
As of 25 May 2023, and since the previous update, there are no relevant epidemiological updates. According to the latest **Disease Outbreak News Item**from WHO, as of 8 May, the last confirmed case was reported on 20 April 2023. According to the **Ministry of Health of Equatorial Guinea**, of 10 May, the Nsok district in the Wele-Nzas province has concluded follow-up after not reporting any new cases or contacts for 42 days. Bata district in the Litoral province, has completed 21 days of follow-up, with 21 days remaining to complete. Since the beginning of the outbreak, and as of 10 May 2023, 17 confirmed cases – including 12 deaths, four recoveries, and one case with an unknown outcome – have been **reported**.

Summary: On 8 February 2023, the **Ministry of Health of Equatorial Guinea** published an epidemiological alert regarding an unknown disease causing haemorrhagic fever in two neighbouring communities in the district Nsok-Nsomo, in the province of Kié-Ntem. On 13 February 2023, **Equatorial Guinea** confirmed the first MVD outbreak in the country. The **index case** died in **early January 2023** and the Ministry of Health of Equatorial Guinea was notified on 7 February 2023.

According to the **Ministry of Health of Equatorial Guinea**, as of 1 May 2023, 17 confirmed MVD cases, including 12 deaths, had been reported from four districts in four provinces: Ebibeyin, Kié-Ntem province (three cases, including two deaths); Evinayong, Centro Sur province (two cases, including two deaths); Nsok, Wele-Nzas province (one case, including one death); Bata, Litoral province (11 cases, including seven deaths). Of the **16 confirmed cases** for which information is available, 10 are female and six are male, and 35% are between 30 and 44 years old. Five of the confirmed cases are healthcare workers, two of whom have died.

The last confirmed case was **reported** on 20 April in Bata district, Litoral province. According to the latest **Disease Outbreak News item**, published on 8 May 2023 by WHO, there are currently no confirmed cases receiving care at the Marburg treatment centre since the last case was discharged on 26 April 2023.

On 14 February 2023, during an **emergency meeting of the Marburg virus vaccine consortium (MARVAC)**, the **WHO** representative for Equatorial Guinea reported that epidemiological surveillance in the country was increasing, including intensified contact tracing. A 30-day response plan was also being developed to assess the needs and impact of the current situation.

The National Technical Committee of Health Emergencies is **working** closely with the Ministry of Health and Social Welfare to coordinate and strengthen disease control and prevention. **WHO** and its **partners** are supporting Equatorial Guinea and **neighbouring countries**.

Marburg virus disease is a severe disease in humans caused by Marburg marburgvirus (MARV), with a case-**fatality ratio of up to 88%**. Although MVD is uncommon, the virus has the potential to cause epidemics with significant case fatality rates. All recorded MVD outbreaks have originated in Africa.

Since 1967, when MVD was first detected, approximately **600 MVD cases** have been reported as a result of outbreaks in Angola, the Democratic Republic of the Congo, Ghana, Guinea, Equatorial Guinea, Kenya, South Africa, Tanzania and Uganda.

Please refer to ECDC's **factsheet** on MVD for additional information.

ECDC assessment:

This is the first MVD outbreak to occur in Equatorial Guinea.

Although the disease is severe with a high fatality rate, the likelihood of exposure and infection by MARV for EU/EEA citizens travelling to or residing in the affected areas of Equatorial Guinea is currently very low. As a result, the risk of MVD for EU/EEA citizens travelling to or residing in Equatorial Guinea is currently very low.

The most likely route of introduction for MARV into the EU/EEA would be via infected travellers. While importation of the virus cannot be excluded, it is currently very unlikely to occur. Nevertheless, if a case were to be imported, the likelihood of the virus spreading within the EU/EEA is considered to be very low.

Direct contact with blood and other body fluids of infected people or indirect contact with contaminated surfaces and materials such as clothing, bedding, and medical equipment should be avoided. Furthermore, habitats that may be populated by bats, such as caves or mines in areas where MVD has been reported, should be avoided. Similarly, any form of close contact with wild animals, including monkeys, forest antelopes, rodents, and bats, alive or dead, and the manipulation or consumption of any type of bushmeat should be avoided.

Actions:

ECDC is monitoring this event through its epidemic intelligence activities and will report when relevant information is available.

ECDC is in contact with partners.

Last time this event was included in the CDTR: 17 May 2023

4. Marburg virus disease - Tanzania - 2023

Overview:

Update: As of 25 May 2023, and since the previous update on 17 May 2023, there are no relevant epidemiological updates. On 8 May, WHO published a **Disease Outbreak News item**, according to which, the last confirmed Marburg virus disease (MVD) was reported on 11 April 2023. Overall, nine cases, including six deaths, have been reported since the beginning of the outbreak.

Summary: On 17 March 2023, the **Ministry of Health of Tanzania** reported seven people affected by an undiagnosed disease in Kagera, northern Tanzania, including five deaths and two people treated at hospitals. The affected individuals presented with symptoms of fever, vomiting, bleeding from various parts of their body, and kidney failure. An investigation was initiated to determine the cause of the outbreak.

On 21 March 2023, according to the **Africa Centres for Disease Control and Prevention (Africa CDC)**, the Ministry of Health confirmed an outbreak of MVD in the Bukoba rural district of the Kagera region, northwest Tanzania. On 8 May 2023, WHO reported in a **Disease Outbreak News** item that overall, eight confirmed and one probable MVD case have been reported in the Bukoba district of the Kagera region. Since the beginning of the outbreak, six deaths have been reported (five among the confirmed cases and the one probable case) (case-fatality ratio: 66.7%). The last confirmed case was reported on 11 April 2023. As of 30 April 2023 there were no further cases in treatment. Among the 212 contacts identified, all have concluded their monitoring period.

This is the first reported outbreak of **MVD** in Tanzania. The Kagera region borders Uganda, Rwanda, and Burundi. The **population** in this region is highly mobile, creating the risk of cross-border spread. MVD outbreaks have been previously reported in Uganda in regions neighbouring the currently affected area in Tanzania, which is remote, not densely populated, and not often frequented by tourists.

The Ministry of Health of Tanzania has sent a rapid response team to the affected area. Contact tracing, case management, and risk communication are being carried out. **Africa CDC** and **WHO** are also assisting the Ministry of Health with the deployment of teams of experts. During a **press conference** on 21 March 2023, a WHO representative emphasised the internal capacity and preparedness of Tanzania for managing the situation and stated that WHO is committed to supporting the Tanzanian government in their response.

Marburg virus disease is a severe disease in humans caused by Marburg marburgvirus (MARV), with a case-**fatality ratio of up to 88%**. Although MVD is uncommon, the virus has the potential to cause epidemics with significant case-fatality rates. All recorded MVD outbreaks have originated in Africa.

Since 1967, when MVD was first detected, approximately **600 MVD cases** have been reported as a result of outbreaks in Angola, the Democratic Republic of the Congo, Ghana, Guinea, Equatorial Guinea, Kenya, South Africa, Tanzania, and Uganda.

Please refer to the ECDC **factsheet** on MVD for additional information.

ECDC assessment:

This is the first MVD outbreak to occur in Tanzania.

Although the disease is severe, with a high fatality rate, the likelihood of exposure and infection with MARV for EU/EEA citizens travelling to or residing in the Kagera region of Tanzania is currently very low. As a result, the risk of MARV infection for EU/EEA citizens travelling to or residing in the affected region is currently very low, provided they adhere to the recommended precautionary measures.

The most likely route of introduction for MARV into the EU/EEA would be via infected travellers. While importation of the virus cannot be excluded, it is currently very unlikely. Nevertheless, if a case were to be imported, the likelihood of the virus spreading within the EU/EEA is considered to be very low.

Direct contact with blood and other body fluids from infected people, or indirect contact with contaminated surfaces and materials such as clothing, bedding, and medical equipment should be avoided. It is advisable to avoid habitats that may be populated by bats, such as caves or mines in areas/countries where MVD has been reported, as well as any form of close contact with wild animals, including monkeys, forest antelopes, rodents, and bats, alive or dead, and the manipulation or consumption of any type of bushmeat.

Actions:

ECDC is closely monitoring this event through its epidemic intelligence activities.

Further information:

Last time this event was included in the CDTR: 17 May 2023

5. Poliomyelitis – Multi-country (World) – Monitoring global outbreaks

Overview:

Global public health efforts to eradicate polio are continuing through the immunisation of every child until transmission of the virus stops and the world becomes polio-free. On 5 May 2014, polio was declared a public health emergency of international concern (PHEIC) by the World Health Organization (WHO) due to concerns over the increased circulation and international spread of wild poliovirus in 2014. On 3 May 2023, the 35th meeting of the Polio Emergency Committee under the International Health Regulations (IHR) (2005) was held to discuss the international spread of poliovirus and it was agreed that this remains a PHEIC. It was recommended that the Temporary Recommendations be extended for a further three months.

In June 2002, the WHO European Region was officially declared polio-free.

Update:

Wild poliovirus (WPV1):

Since 18 April 2023 and as of 23 May 2023, with date of onset of symptoms in 2023, two new cases of acute flaccid paralysis (AFP) caused by WPV1 have been reported from Afghanistan.

Circulating vaccine-derived poliovirus (cVDPV):
Since the previous update, the following cases of polio due to circulating vaccine-derived poliovirus (cVDPV) have been reported with the date of onset of symptoms in 2022:

- A total of 14 new cases of AFP caused by cVDPV1 have been reported from the Democratic Republic of the Congo (DRC).
- A total of 19 new cases of AFP due to cVDPV2 have been reported from the DRC.
- No new cases of AFP due to cVDPV3 have been reported.

Since the previous update, the following cases of polio due to cVDPV have been reported with the date of onset of symptoms in 2023:

- Nine new cases of AFP caused by cVDPV1 have been reported from the DRC (5), and Madagascar (4).
- One new country has reported cases of AFP caused by cVDPV2: Côte d'Ivoire.
- Twenty-six new cases of AFP caused by cVDPV2 have been reported from six countries: Central African Republic (2), Chad (1), Côte d'Ivoire (1), the DRC (16), Nigeria (5), and Somalia (1).
- No new cases of AFP due to cVDPV3 have been reported.

Summary:

Wild poliovirus:
In 2022, and as of 23 May 2023, 30 cases of AFP caused by WPV1 have been reported. These have been reported from the two endemic countries: Pakistan (20) and Afghanistan (2), and one non-endemic country, Mozambique (8). One associated death has been reported in Pakistan.

In 2023, and as of 23 May 2023, three cases of AFP caused by WPV1 have been reported from Afghanistan (2) and Pakistan (1) with the date of onset of symptoms in 2023.

Circulating vaccine-derived poliovirus (cVDPV):

With the date of onset of symptoms in 2022:
In 2022, and as of 23 May 2023, 187 cases of AFP caused by cVDPV1 have been reported from five countries: Congo (1), the DRC (146), Mozambique (22), Madagascar (14) and Malawi (4).

Overall, in 2022, 676 cases of AFP caused by cVDPV2 have been reported from 20 countries: Algeria (3), Benin (11), Burundi (1), the DRC (363), Cameroon (3), Central African Republic (5), Chad (44), Eritrea (1), Ethiopia (1), Ghana (3), Indonesia (1),
Mali (2), Mozambique (4), Niger (15), Nigeria (48), Somalia (5), Sudan (1), Togo (2), United States of America (1), and Yemen (162).

In 2022, one case of AFP caused by cVDPV3 was reported from Israel.

With the date of onset of symptoms in 2023:
In 2023, and as of 23 May 2023, 26 cases of AFP caused by cVDPV1 have been reported from three countries: the DRC (14), Madagascar (9), and Mozambique (3).

In 2023, 58 cases of AFP caused by cVDPV2 have been reported from nine countries: Benin (2), Central African Republic (7), Chad (6), Côte d'Ivoire (1), the DRC (30), Indonesia (3), Israel (1), Nigeria (6), and Somalia (2).

In 2023, no cases of AFP caused by cVDPV3 have been reported.

Sources: **Global Polio Eradication Initiative** | **ECDC** | **ECDC dashboard** | **WPV3 eradication certificate**

ECDC assessment:

The WHO European Region, including the EU/EEA, has remained polio-free since 2002. Inactivated polio vaccines are used in all EU/EEA countries.

As long as there are non-vaccinated or under-vaccinated population groups in European countries and poliomyelitis is not eradicated globally, the risk of the virus being reintroduced in Europe remains. One EU/EEA country (Romania) and three neighbouring countries (Bosnia and Herzegovina, Montenegro, and Ukraine) remain at high risk of a sustained polio outbreak following wild poliovirus importation or the emergence of cVDPV, due to sub-optimal programme performance and low population immunity, according to the **European Regional Certification Commission for Poliomyelitis Eradication (RCC)** report published in February 2023, referring to data from 2021. According to the same report, eight EU/EEA countries are at intermediate risk of sustained polio outbreaks. The continuing circulation of wild poliovirus type 1 (WPV1) in Pakistan and Afghanistan and detection of WPV1 cases in Mozambique in 2022, genetically linked to a strain from Pakistan, shows that there is still a risk of the disease being imported into the EU/EEA. Furthermore, the worrying outbreaks of circulating vaccine-derived poliovirus (cVDPV), which emerges and circulates due to lack of polio immunity in the population, illustrate the potential risk for further international spread.

To limit the risk of reintroduction and sustained transmission of WPV and cVDPV in the EU/EEA, it is crucial to maintain high vaccine coverage in the general population and increase vaccination uptake in pockets of under-immunised populations. EU/EEA countries should review their polio vaccination coverage data, ensure there are no immunity gaps in the population, and that there is capacity to identify virus circulation through well-performing surveillance systems.

ECDC endorses WHO's temporary recommendations for EU/EEA citizens who are residents of or long-term visitors (>4 weeks) to countries categorised by WHO as having the potential risk of the international spread of polio: an additional dose of poliovirus vaccine should be administered between four weeks and 12 months prior to international travel. Travellers to areas with active transmission of a wild or vaccine-derived poliovirus should be vaccinated according to their national schedules.

ECDC links: ECDC comment on risk of polio in Europe | ECDC risk assessment

Actions:

ECDC provides updates on the polio situation on a monthly basis. ECDC also monitors polio cases worldwide through its epidemic intelligence activities in order to highlight polio eradication efforts and identify events that increase the risk of wild poliovirus being reintroduced into the EU/EEA.

ECDC maintains a dashboard showing countries that are still endemic for polio and have ongoing outbreaks of cVDPV.

Further information:

Sources: 35th IHR Emergency Committee for Polio

Last time this event was included in the CDTR: 21 April 2023

6. Extensively drug-resistant Pseudomonas aeruginosa (artificial tears/eye drops) - USA - 2023

Overview:

Update: As of 15 May 2023, the US Centers for Disease Control and Prevention (**US CDC**) reported that 81 patients in 18 states – California (CA), Colorado (CO), Connecticut (CT), Delaware (DE), Florida (FL), Illinois (IL), North Carolina (NC), New Jersey (NJ), New Mexico (NM), Nevada (NV), New York (NY), Ohio (OH), Pennsylvania (PA), South Dakota (SD), Texas (TX), Utah (UT), Washington (WA), and Wisconsin (WI) – have been identified with Verona integron-mediated metallo-β-lactamase and Guiana extended-spectrum-β-lactamase (VIM-GES-CRPA), a drug-resistant strain of Pseudomonas aeruginosa. Specimens were collected from May 2022 to April 2023. Out of the 81 patients, 14 experienced vision loss, four required enucleation (surgical removal of the eyeball), and four died within 30 days of VIM-GES-CRPA clinical culture collection.

Three products have been voluntarily recalled by their manufacturer, Global Pharma (Chennai, India), in association with this outbreak: EzriCare Artificial Tears, Delsam Pharma Artificial Tears, and Delsam Pharma Artificial Eye Ointment. No other products have been linked to this outbreak.

To date, no EU/EEA country has reported identification of isolates compatible with this event to ECDC (EpiPulse).

Summary: On 21 March 2023 the US Centers for Disease Control and Prevention (US CDC) published an update on their investigation of an extensively drug-resistant strain of Pseudomonas aeruginosa related to the use of artificial tears/eye drops. The outbreak strain, carbapenem-resistant Pseudomonas aeruginosa combining Verona integron-mediated metallo-β-lactamase and Guiana extended-spectrum-β-lactamase (VIM-GES-CRPA) had not been reported before in the US.

As of 14 March 2023, 68 patients, including three deaths, were detected in 16 states. Of the 68 cases, eight people reported vision loss and four had surgical eyeball removal; 37 patients were related to four healthcare facility clusters. The majority of the patients used EzriCare or Delsam Pharma's Artificial Tears products among over ten other brands of artificial tears. This preservative-free product is sold in multi-dose bottles and was the only common artificial tears product identified across all four healthcare facility clusters.

The presence of VIM-GES-CRPA, matching the outbreak strain, was detected via laboratory testing in opened EzriCare bottles, which were collected from patients with and without eye infection in two states. Test results are pending for the samples from unopened bottles to evaluate if contamination might have occurred during manufacturing. US CDC and FDA advise to immediately stop the use of EzriCare or Delsam Pharma's Artificial Tears products, pending additional information and guidance from US CDC and FDA.

The products involved are manufactured in India and are sold over-the-counter in the US and via the internet. They are not sold in the EU/EEA. However, EU/EEA citizens could potentially purchase them through the internet or while travelling.

Pseudomonas aeruginosa is one of the leading causes of severe healthcare-associated infections, especially in the immunocompromised patients. The reported strain produces the Verona integron-mediated metallo-β-lactamase (VIM) and the Guiana extended-spectrum-β-lactamase (GES). Isolates are P. aeruginosa sequence type (ST) 1203 and harbor blaVIM-80 and blaGES-9. The isolates are extensively resistant to most of the broad-spectrum antibiotics. US CDC reports that five of the isolates tested susceptible for cefiderocol.

Sources: US CDC outbreak report, media, FDA, Global Pharma: Recall of Artificial Tears Lubricant Eye Drops , Recall of Artificial Eye Ointment Lubricant

ECDC assessment:

This is the first documented outbreak of Pseudomonas aeruginosa containing VIM and GES. VIM carbapenemases and GES beta-lactamases, which confer high-level resistance to bacteria, were once considered rare and have become more common in many countries worldwide. Of note, VIM has been found in humans, animals, and the environment in India, as summarised in a recent review article on carbapenemases in India.

Carbapenem-resistant Pseudomonas aeruginosa (CRPA) is associated with high morbidity and mortality, as seen with this outbreak. Treatment is difficult and can require novel and experimental treatments such as bacteriophage therapy.

Although the disease is severe, the likelihood of infection of VIM-GES-CRPA via exposure to contaminated artificial tears/eye drops is low for EU/EEA citizens at this time, given the product recalls and public information campaigns.

This outbreak highlights the known risk for bacterial contamination of multi-use vials of preservative-free products. While investigation into the source of contamination is complicated by complex international supply chains, the network of clinical and public health laboratories that screened for VIM-CRPA helped identify cases for epidemiological investigation and product traceback. Continued testing for plasmid-mediated carbapenemase genes and whole genome sequencing are important for cluster detection and infection prevention. Where such testing capacity is limited, public health laboratories can assist with appropriate testing.

Actions:

ECDC informed the European Medicines Agency (EMA), which also contacted other relevant stakeholders. ECDC is monitoring this event through its epidemic intelligence activities.

Further information:

Sources: Sources: US CDC outbreak report, media, FDA, Global Pharma: Recall of Artificial Tears Lubricant Eye Drops , Recall of Artificial Eye Ointment Lubricant

Last time this event was included in the CDTR: 23 May 2023

7. Suspected fungal meningitis - Mexico and U.S - 2023

Overview:

Update: On 26 May 2023, the Mexican health authorities informed ECDC that atthe time, 14 cases have been reported in Mexico. The cases underwent cosmetic surgeries with epidural anaesthesia procedures in two private medical clinics, Clínica K-3 and River Side Surgical Center, in the city of Matamoros. Among the 14 Mexican cases, four are suspected cases, five probable, and five have been confirmed with Fusarium solani.

In a recent press conference, the Mexican president Andrés Manuel López Obrador informed that the source of the outbreak is a contaminated drug used for anaesthesia in cosmetic surgeries.

Summary: On 24 May 2023, the United States Centers for Disease Control and Prevention (US CDC) reported an outbreak of suspected fungal meningitis linked with procedures performed in Matamoros, Mexico. According to the same report, the US and Mexican authorities are collaborating on the investigations of this outbreak. Two clinics have been identified to be associated with the outbreak, which were closed on 13 May 2023.

The hypothesis of fungal infections is based on elevated cerebrospinal fluid (CSF) and serum levels of the fungal biomarker (1,3)-beta-D-glucan in several patients. Additionally, the Mexican national laboratory (Institute of Epidemiological Diagnosis and Reference - InDRE) has reported that four patients in Mexico have had spinal fluid test positive by a DNA test for the fungus Fusarium solani.

The US authorities are aware of at least 224 people from 25 US states who had epidural anaesthesia in the two clinics identified in Matamoros, Mexico, from January 1 to May 13, 2023, and who might therefore be at risk for developing meningitis.

Background: In 2022, an outbreak of meningitis linked to epidural anaesthesia was reported in the state of Durango, Mexico. As of May 2023, a total of 74 cases and 38 fatalities were reported since the start of the outbreak.

ECDC assessment:

Given the confirmation provided by the Mexican authorities that there are no EU citizens exposed, there is currently no risk associated to this specific event for EU citizens. However, as the investigation is still ongoing and the source of the outbreak has not been confirmed, ECDC will continue monitoring the event through the Epidemic Intelligence activities.

Actions:

ECDC will keep monitoring this event through epidemic intelligence activities.

Last time this event was included in the CDTR: 25 May 2023