WEEKLY BULLETIN

Communicable Disease Threats Report

Week 27, 29 June–5 July 2024

This week's topics

1. SARS-CoV-2 variant classification
2. Human cases infected with swine influenza A(H1N2) variant virus – Multi-country – 2024
3. Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring
4. Increase in parvovirus B19 detections – Multi-country – 2024
5. Highly pathogenic avian influenza A(H5N1) in cattle and related human cases – United States – 2024
6. Mass gathering monitoring - UEFA European Football Championship - 2024 - Weekly monitoring
7. Seasonal surveillance of West Nile virus infections – 2024
8. Botulism - Germany – 2024.

Executive summary

SARS-CoV-2 variant classification

Since the last update on 31 May 2024, and as of 28 June 2024, the **following changes** have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants:

- XBB.1.5-like lineages are de-escalated from a VOI since they are no longer circulating or are circulating in very low numbers in EU/EEA countries.
- BA.2.86 lineages with additional spike protein mutations R346T or F456L have been classified as variants under monitoring (VUM), due to the potential impact of these mutations on immune evasion. This is in addition to the previously classified VUM BA.2.86 + R346T + F456L.

Currently, for weeks 23-24, BA.2.86 + F456L is circulating in the EU/EEA at a median of 90.4% (range: 82.7%-96.3%, IQR: 83.4%-93.8%), BA.2.86 + R346T is circulating at a median of 44.4% (range: 28.8%-56.6%, IQR: 30.3%-50.0%) and BA.2.86 + R346T + F456L is circulating at a median of 43.7% (range: 27.3%-55.4%, IQR: 28.8%-43.8%). The calculations are based on data reported to GISAID from five reporting countries, as of 24 June 2024.

Low SARS-CoV-2 transmission, reduced reporting and low testing volumes in sentinel systems all have an impact on ECDC's ability to accurately assess the epidemiological situation, including variant circulation. The EU/EEA population overall has a significant level of hybrid immunity (prior infection + vaccination/boosters), conferring protection against severe disease. BA.2.86 + F456L, BA.2.86 + R346T and BA.2.86 + R346T + F456L variants are unlikely to be associated with any increase in infection severity compared to previously circulating BA.2.86 variants, or a reduction in vaccine effectiveness against severe disease. However, older individuals, those with underlying conditions, and previously uninfected individuals could develop severe symptoms if infected. Vaccination continues to be protective, with stronger protection against more severe disease, although this protective effect wanes over time. Vaccine protection of individuals at high risk of severe outcomes (such as older people) remains important.

Human cases infected with swine influenza A(H1N2) variant virus – Multi-country – 2024

- Two new cases of human infection with influenza A(H1N2) variant (v) virus of swine origin have been reported in Pennsylvania, in the US.
- Although the two cases were close contacts, they attended the same event where pigs were present.
- Since the epidemiological investigation did not reveal additional infections among their close contacts, it is likely that these two cases resulted from common exposure to pigs, rather than from human-to-human transmission.
- Swine influenza A(H1N2)v cases have previously been reported in the US in 2024 (one case), 2023 (two cases), 2022 (six cases) and 2021 (four cases). The cases were from different regions of the US and were considered sporadic.
- Overall, 29 cases have been reported globally since 2019, including four cases reported in EU/EEA countries (Austria, Denmark, France and the Netherlands). The last case in the EU/EEA was reported in the Netherlands in 2022. The last four cases reported in 2023 were from Taiwan (one case), the United Kingdom (one case) and the US (two cases).
- Human infection with influenza virus of swine origin is rare, but sporadic infections may occur in individuals exposed to infected animals.

Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring

Syndromic surveillance in primary and secondary care indicates that respiratory activity is at baseline levels in EU/EEA countries.

Evidence of increased SARS-CoV-2 activity in both primary and secondary care was observed for some reporting EU/EEA countries.

- Median SARS-CoV-2 test positivity in primary care sentinel systems has increased to 11%. Pooled test positivity reached 29%, driven mainly by three countries reporting >20%.
- In SARI sentinel systems the median test positivity has increased over an eight-week period to 35%, with increases primarily among those 65 years of age and above. Test positivity increased to 24% for this age group in the current reporting week.
- While there is an increased positivity in primary and secondary care sentinel systems, sentinel syndromic ILI and ARI rates show no increases above baseline levels.
- Non-sentinel primary care data show similar trends to the sentinel system, with increases in test positivity observed in many reporting EU/EEA countries.

Seasonal influenza activity at the EU/EEA level remained stable at low levels in reporting EU/EEA countries.

Respiratory syncytial virus (RSV) activity remained low in the reporting EU/EEA countries.

Increase in parvovirus B19 detections – Multi-country – 2024

- An increase in the number of parvovirus B19 (B19V) infections had been reported by Denmark, Ireland, Lithuania, the Netherlands, Norway, Latvia, Czechia, France and Austria from the end of 2023 and throughout the first half of 2024.
- In their latest bulletin, France reported a decrease in cases for April and May while Austria is still detecting higher than expected positivity for B19V DNA in blood and plasma pools. No updated figures are available from the other countries yet.
- High rates of virus circulation in the community pose a risk for pregnant women, people with chronic haematological diseases and those who are immunocompromised and have not been exposed to the virus previously and therefore have not developed protective immunity. Up to 10% of pregnant women infected with parvovirus B19 during the first 20 weeks of gestation can experience complications, such as hydrops fetalis and miscarriage.

Highly pathogenic avian influenza A(H5N1) in cattle and related human cases – United States – 2024

- A fourth human case of highly pathogenic avian influenza (HPAI) A(H5), associated with the ongoing multi-state outbreak of A(H5N1) in dairy cattle in the United States, was reported on 3 July 2024 in the state of Colorado.
- As of 3 July 2024, there have been four human cases of avian influenza A(H5N1) reported in workers at dairy farms with infected cows (Texas (1), Michigan (2), Colorado (1)). The viruses isolated from the previous cases belonged to HA clade 2.3.4.4b, genotype B3.13. Results of genomic analysis are pending for the fourth case.
- To date, routine population-based surveillance has not detected any increase in community rates of respiratory infections.
- The outbreak of highly pathogenic avian influenza (HPAI) A(H5N1) in cattle is still ongoing, with 138 farms affected across 12 states of the US as of 3 July 2024.

Mass gathering monitoring - UEFA European Football Championship - 2024 - Weekly monitoring

- There have been no relevant public health events related to communicable diseases detected In connection with the UEFA EURO 2024 football tournament since monitoring began (10 June 2024) and as of 4 July 2024.
- The probability of infection with communicable diseases for EU/EEA citizens during UEFA EURO 2024 is considered low if requirements and recommendations by public health authorities in Germany are followed. Together with WHO and Germany's Federal Centre for Health Education, ECDC has produced specific public health advice for the UEFA European Football Championship 2024.
- ECDC is monitoring this mass gathering event through its epidemic intelligence activities between 10 June and 19 July in collaboration with the Robert Koch Institute and the World Health Organization's Regional Office for Europe (WHO/Europe).

Seasonal surveillance of West Nile virus infections – 2024

- Since the beginning of 2024, and as of 4 July 2024, two cases of West Nile virus (WNV) infection have been reported to The European Surveillance System. One case was reported in April in Spain and one in June 2024 in Italy. In addition, one case was reported by Greece on 5 July 2024, according to the National Organisation of Public Health. This brings the total of WNV infections reported in the EU/EEA since the beginning of 2024 to three.
- ECDC's weekly surveillance report on West Nile virus infections is available online at the dedicated webpage along with a dashboard: Weekly updates: 2024 West Nile virus transmission season (europa.eu) and West Nile virus Dashboard (europa.eu). The ECDC weekly update and dashboard has information on places of infection up to 3 July 2024. The data from Greece will be updated for the next weekly update and dashboard.

Botulism - Germany - 2024

- On 26 June 2024, Germany reported two confirmed cases of botulism, caused by botulinum neurotoxin A (BoNT A), with symptom onset in April and May 2024. Both cases had consumed a mushroom-in-brine preserve of milk-white brittlegill (Russula delica).
- Until 4 July 2024, no other countries have reported botulism cases linked to the consumption of this product. However, the product has been distributed to different EU countries. Therefore, new cases may occur among consumers who already have bought the product.

1. SARS-CoV-2 variant classification

Overview

Since the last update on 31 May 2024, and as of 28 June, the **following changes** have been made to ECDC's variant classifications for variants of concern (VOCs), variants of interest (VOIs), variants under monitoring (VUMs), and de-escalated variants:

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ECDC assessment

Low SARS-CoV-2 transmission, reduced reporting and low testing volumes in sentinel systems all have an impact on ECDC's ability to accurately assess the epidemiological situation, including variant circulation. The EU/EEA population overall has a significant level of hybrid immunity (prior infection + vaccination/boosters), conferring protection against severe disease. BA.2.86 + F456L, BA.2.86 + R346T and BA.2.86 + R346T + F456L variants are unlikely to be associated with any increase in infection severity compared to previously circulating BA.2.86 variants, or a reduction in vaccine effectiveness against severe disease. However, older individuals, those with underlying conditions, and previously uninfected individuals could develop severe symptoms if infected. Vaccination continues to be protective, with stronger protection against more severe disease, although this protective effect wanes over time. Vaccine protection of individuals at high risk of severe outcomes (such as older people) remains important.

Actions

Following a long period of low SARS-CoV-2 transmission, there are signals of increased SARS-CoV-2 detection in primary and secondary care in the EU/EEA. In order to assess the impact of emerging SARS-CoV-2 sub-lineages, such as BA.2.86 + R346T + F456L, and their possible correlation with increases in COVID-19 epidemiological indicators, it is important that countries sequence positive clinical specimens and report to GISAID and/or TESSy.

For the latest update on SARS-CoV-2 variant classifications, please see ECDC's webpage on variants. Variant surveillance data, including the distribution of VOC and VOI variant proportions in the EU/EEA and detailed country-specific COVID-19 updates are available as part of the European Respiratory Virus Surveillance Summary (ERVISS).

Routine updates on the SARS-CoV-2 variant classification through the Communicable Diseases Threats Report will be provided on a monthly basis as a minimum.

Last time this event was included in the Weekly CDTR: 7 June 2024.

2. Human cases infected with swine influenza A(H1N2) variant virus – Multi-country – 2024

Overview

On 28 June 2024, the US Centers for Disease Control and Prevention (US CDC) reported two human infections with influenza A(H1N2) variant (v) virus of swine origin (A(H1N2)v) in the state of Pennsylvania in two adults who attended a livestock auction where pigs were present.

The patients are close contacts. Both sought medical care for their illnesses during the week ending June 22. One of the patients was hospitalised but has since been discharged, and both are recovering. An investigation by state health officials in Pennsylvania did not identify additional symptomatic close contacts of either patient. This investigation is still ongoing.

This is the second and third human infection with influenza A(H1N2)v of swine-origin detected in the USA this year. Previously, cases were reported in 2023 (two cases), 2022 (six cases) and 2021 (four cases). All the cases were from different regions in the US and were considered sporadic.

Summary: Overall, 29 cases have been reported globally since 2019, of which four were reported in the EU/EEA: Austria (in 2021), Denmark (in 2019), France (in 2021) and the Netherlands (in 2022). Outside the EU/EEA, cases have been reported in Brazil (three cases), Canada (three cases), Taiwan (three cases), the United Kingdom (one case) and the US (thirteen cases).

Source: US Centers for Disease Control and Prevention, US CDC

ECDC assessment

Sporadic human cases infected with an influenza virus of swine origin have been reported from several countries globally. Infection following exposure to pigs represents the most common risk factor. Limited, non-sustained human-to-human transmission of variant influenza viruses has previously been documented, but is rare. All cases need to be thoroughly followed up to exclude human-to-human transmission and implement control measures. Influenza viruses from patients with severe infection should be further characterised, as well as shared with the national influenza reference laboratories and World Health Organization (WHO) Collaborating Centres.

Actions

ECDC is monitoring zoonotic influenza events through its epidemic intelligence activities and disease experts in order to identify significant changes in the epidemiology of the virus. Cases should be immediately reported to the Early Warning and Response System (EWRS) and International Health Regulations (IHR).

ECDC published guidance in October 2022: Testing and detection of zoonotic influenza virus infections in humans in the EU/EEA, and occupational safety and health measures for those exposed at work and in June 2023 Enhanced surveillance of severe avian influenza virus infections in hospital setting in the EU/EEA.

Last time this event was included in the Weekly CDTR: 5 April 2024.

3. Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring

Overview

Virus characterisation

Influenza for week 40, 2023 to week 26, 2024

During the above period 3 882 A(H1)pdm09, 1 557 A(H3) and 505 B/Victoria viruses from sentinel and non-sentinel sources were genetically characterised. Of the viruses that have been assigned to a clade:

- In total, 3 875 were A(H1)pdm09 - 2 676 (69%) were subclade 5a.2a and 1 199 (31%) were subclade 5a.2a.1.
- In total, 1 554 were A(H3) - 30 (2%) were subclade 2a, 11 (0.7%) were subclade 2a.3a, 1 512 (97%) were subclade 2a.3a.1 and 1 (0.1%) were subclade 2a.3b.
- In total, 505 were B/Vic - all were subclade V1A.3a.2.

SARS-CoV-2 variants for weeks 24-25 (10 June to 23 June 2024)

The estimated distribution (median and IQR of proportions from five countries submitting at least 10 sequences) of variants of concern (VOCs) or variants of interest (VOIs) was:

- 96% (95–96%) for BA.2.86 (813 detections from five countries).

For information on SARS-CoV-2 variants classified as variants under monitoring (VUM), visit ECDC's variant page.

ECDC assessment

Influenza and RSV activity in the EU/EEA remain at low levels. Following a period of very low activity, there is evidence of increased SARS-CoV-2 activity for some reporting countries in both primary and secondary care, with those aged 65 years and above at greatest risk of experiencing severe disease. Although COVID-19 hospital admissions, ICU admissions and deaths remain low at the EU/EEA level, increases in SARS-CoV-2 activity highlight the continued need to monitor the impact of SARS-CoV-2 at national and regional level.

Actions

In order to assess the impact of emerging SARS-CoV-2 sub-lineages, and their possible correlation with increases in COVID-19 epidemiological indicators, it is important that countries continue to sequence SARS-CoV-2-positive clinical specimens and report to GISAID and/or TESSy. It is therefore important that testing of symptomatic individuals for SARS-CoV-2 continues during the summer period.

Vaccination remains critically important to protect individuals at high risk of severe outcomes, such as older adults. While COVID-19 vaccination continues to protect against severe disease, its effect wanes over time and individuals at higher risk should stay up-to-date with COVID-19 vaccination, as per national recommendations.

ECDC monitors rates of respiratory illness presentation and respiratory virus activity in the EU/EEA, presenting findings in the European Respiratory Virus Surveillance Summary (ERVISS.org). Updated weekly, ERVISS describes the epidemiological and virological situation for respiratory virus infections across the EU/EEA and follows the principles of integrated respiratory virus surveillance outlined in 'Operational considerations for respiratory virus surveillance in Europe'.

Further information

- Short-term forecasts of influenza-like illness (ILI) and acute respiratory infection (ARI) rates in EU/EEA countries are published on ECDC's RespiCast.
- EuroMOMO is a weekly European mortality monitoring activity, aiming to detect and measure excess deaths related to seasonal influenza, pandemics and other public health threats.
- WHO recommends that trivalent vaccines for use during the 2023–2024 influenza season in the northern hemisphere contain the following (egg-based and cell culture or recombinant-based vaccines respectively): an A/Victoria/4897/2022 or A/Wisconsin/67/2022 (H1N1)pdm09-like virus (subclade 5a.2a.1); an A/Darwin/9/2021 or A/Darwin/6/2021 (H3N2)-like virus (clade 2a); and a B/Austria/1359417/2021 (B/Victoria lineage)-like virus (subclade V1A.3a.2).
- Antigenic characterisation data presented in the WHO 2024-2025 northern hemisphere vaccine composition report indicate current northern hemisphere vaccine components are well matched to circulating 5a.2a and 5a.2a.1 A(H1N1)pdm09 subclades and V1A.3a.2 B/Victoria subclades. While components also appear well matched for 2a.3a A(H3) clade viruses, 2a.3a.1 clade viruses are less well matched. Based on human post-vaccination serology studies, haemagglutination inhibition and virus neutralisation against some recent 2a.3a.1 viruses were significantly reduced for some serum panels.

- ECDC has published interim influenza vaccine effectiveness (VE) estimates for the 2023–2024 season. Analysis of data submitted from multi-country primary care and hospital study sites between September 2023 and January 2024 indicated that up to 53% and 44% of vaccinated individuals in primary care or hospital settings, respectively, were protected against mild and severe influenza.

Sources: ERVISS
Last time this event was included in the Weekly CDTR: 28 June 2024.

Maps and graphs

Figure 1. Virological distribution for week 26 and the period week 25, 2024 to week 26, 2024

Pathogen or (sub-)type	Primary care sentinel						SARI sentinel						Non-sentinel			
	Week 26			Period 2024-2025			Week 26			Period 2024-2025			Week 26		Period 2024-2025	
	n	%	positivity	n	%	positivity	n	%	positivity	n	%	positivity	n	%	n	%
Influenza	9	100	1.2%	23	100	1.3%	6	100	0.8%	13	100	0.8%	196	100	379	100
Influenza A (total)	4	44	0.5%	13	57	0.7%	3	100	0.4%	4	80	0.2%	99	54	161	46
A(H1)pdm09	2	67		8	73								13	72	23	79
A(H3)	1	33		3	27								5	28	6	21
A (unknown)	1			2			3			4			81		132	
Influenza B (total)	5	56	0.7%	10	43	0.6%				1	20	0.1%	83	46	188	54
B/Vic	3	100		5	100								3	100	4	100
B (unknown)	2			5						1			80		184	
Influenza untyped							3		0.4%	8		0.5%	14		30	
RSV	0		0%	1		0.1%	1		0.1%	1		0.1%	18		45	
SARS-CoV-2	196		28.8%	469		28.1%	151		18.7%	310		17.6%	9 538		18 638	

Source: ECDC

Figure 2. Overview of key indicators of activity and severity in week 26

Indicator	Syndrome or pathogen	Reporting countries		EU/EEA summary		Comment
		Week 26	Week 25	Description	Value	
Primary care consultation rates	ARI	7 rates (5 MEM)	9 rates (7 MEM)	Distribution of country MEM categories	5 Baseline	
	ILI	11 rates (11 MEM)	13 rates (13 MEM)		10 Baseline 1 Low	
Primary care sentinel positivity	SARS-CoV-2	11	13	Pooled (median; IQR)	29% (11; 2.1–19%)	An increasing trend in median test positivity has been observed since week 22, with three countries reporting >20% positivity this week.
	Influenza	9	12		1.2% (2.1; 0–5%)	Decreasing or stable trends continue to be observed at a country level.
	RSV	11	12		0% (0; 0–0%)	Stable trends continue to be observed at country level.
SARI consultation rates	SARI	7	7			Stable or decreasing rates continue to be reported at levels comparable to the same time last year.
SARI positivity	SARS-CoV-2	5	5	Pooled (median; IQR)	19% (35; 12–38%)	An increasing trend in median test positivity has been observed since week 18, with three countries reporting >30% positivity this week. In data from non-sentinel sources, four countries reported an increase in hospitalisations and one country reported an increase in deaths in the age group 65 years and above.
	Influenza	5	5		0.8% (0.4; 0–0.5%)	Decreasing or stable trends continue to be observed at a country level.
	RSV	5	5		0.1% (0; 0–0%)	Stable trends continue to be observed at country level.
Intensity (country-defined)	Influenza	15	16	Distribution of country qualitative categories	10 Baseline 5 Low	
Geographic spread (country-defined)	Influenza	14	15	Distribution of country qualitative categories	6 No activity 6 Sporadic 1 Local 1 Regional	

Source: ECDC

4. Increase in parvovirus B19 detections – Multi-country – 2024

Overview

Update

On 28 June 2024, France updated their epidemiological data on B19V infections in EpiPulse. Santé Publique France initially organised an ad-hoc monitoring system, based on a non-specific national data collection system that was adapted to B19V and has now become permanent. This combined serological data from medical laboratories and clinical data, has been reported by clinicians working at emergency departments and in ambulatory settings throughout the country. Analysis of the data confirmed the B19V epidemic, with a sharp increase at the end of 2023 and numbers continuing to rise during the first trimester of 2024, affecting all French regions and all age groups/gender categories. The number of deaths related to B19V infection has risen sharply since 2023, with five deaths reported in the first trimester of 2024, in non-immunocompromised children under one year of age. However, according to the latest data as of 31 May 2024, the number of B19V cases in all age groups had decreased in April and May 2024. The IgM positivity rate in children was 33% in April and 32% in May, compared to 38% in March 2024. No additional deaths linked to B19V were reported in April and May. Provisional data showed a B19V positivity rate in amniotic fluid or foetal blood of 23% between January and May 2024, compared to <1% in 2022 and 3% in 2023. These figures show that the epidemic is in a downward phase. Santé Publique France is continuing to monitor the incidence of the infection to confirm the decreasing trend.

On 6 June 2024, blood safety authorities in Austria posted a message on EpiPulse reporting increased positivity for B19V DNA in blood and plasma pools, especially compared to the same period a year ago. Parvovirus infection is not a notifiable infection in Austria.

Background

On 22 March 2024, public health authorities in Denmark posted a message in EpiPulse reporting an increase in detections of B19V in pregnant women during the first quarter of 2024.

Following this notification, public health authorities in Norway reported an increase in positive tests – mainly for IgM but also via PCR – in the adult population (aged 30–59 years). The positivity rate increased from late January 2024.

On 17 April 2024, public health authorities in Lithuania posted a message in EpiPulse concerning increased detections of B19V in the screening of blood donors in several counties.

On 16 April 2024, public health authorities in France posted a message on EpiPulse describing a signal detected in July 2023 related to an unusual number of severe paediatric cases admitted with B19V infection. Several perinatal health services reported cases of B19V infection in pregnant women and an unusual number of miscarriages and abortions. Following these initial reports, French authorities performed an analysis which confirmed a sharp increase in B19V infections since the end of 2023, continuing into the first trimester of 2024. The increase affects all French regions and all age groups/gender categories. The weekly number of B19V cases observed in 2023-2024 is well above the average observed over the previous five seasons. The number of deaths related to parvovirus B19 infection has risen since 2023. In the first trimester of 2024, five deaths were reported among children under one year, which is higher than the average number of deaths in previous years. Four of the five deaths were among new-borns and due to congenital infections.

On 11 April 2024, public health authorities in the Netherlands posted a message on EpiPulse saying that they had also observed an increase in B19V detections since the end of 2023. This increase continued in the first few months of 2024. In the Netherlands B19V infections are not notifiable. However, an increase in B19V detections has been observed in blood and plasma donors at the national blood bank, in national virological surveillance, and in reports from local health authorities of an increase in fifth disease (slapped-cheek syndrome) in the paediatric population since November 2023.

On 12 April 2024, public health authorities in Ireland posted a message on EpiPulse describing increased detections during the first months of 2024. Parvovirus B19 is not notifiable in Ireland. The National Virus Reference Laboratory analysed data between 2016 and the end of the first quarter of 2024. During the first quarter of 2024, 102 PCR positive results were identified, which is significantly higher than the annual number of positive PCR results for the years 2020 to 2023 inclusive (ranging from 30 to 61 cases annually). During the previous peak of B19V infections in Ireland in 2017/2018, there were a total of 208 positive PCR results in 2017 and 341 in 2018.There have been 51 positive B19V IgM samples detected in Quarter 1 of 2024. The total number of positive IgM samples during the years 2020 to 2023 ranged from 60 to 84. During the previous peak in activity in 2017 and 2018, a total of 213 and 366 positive IgM samples were recorded, respectively. The positivity rate of parvovirus B19 IgM increased in the first quarter of 2024 to 3.5%. This is higher than the average recorded positivity rates for 2019 to 2023, but lower than the average positivity rates seen in 2017 (3.6%) and 2018 (4.8%).

On 22 April 2024, ECDC contacted the SoHO-Net National Focal Points (NFPs) for blood to inquire about B19V testing among blood donors and whether any increases in B19V infections have been observed in the donor population. A total of 18 countries responded to the request. Most countries do not routinely test blood donors. As of 6 May 2024, 10 countries that reported data on blood donors or donations of plasma for fractionation (Finland, Hungary, Luxembourg, Lithuania, the Netherlands, Czechia, Denmark, France, Germany, and Slovakia), all reported an increase in reactive tests for B19V in their respective donor populations during the first months of 2024, compared to the same period in 2023.

On 26 April 2024, public health authorities in Czechia posted a message on EpiPulse reporting a ten-fold increase in erythema infectiosum in 2024, compared to 2023.

On 25 April, public health authorities in Latvia posted a message on EpiPulse reporting an increase in cases of B19V. B19V is not under systematic surveillance but authorities have compared data coming from the National Reference Laboratory over the past five years and have identified 58 cases (56% positive test results) for the season 2023-2024. For reference, in the previous years during the same period (December to March), zero to six cases were identified. Of the 58 cases reported during the current season, 67% were children.

ECDC assessment

Parvovirus B19 infection is not under systematic surveillance in most EU/EEA Member States, therefore a full assessment of the situation in the EU/EEA is not possible. However, based on the unusually high numbers of B19V cases reported in 14 EU/EEA countries, the risk of infection is assessed in four population groups as follows:

- **The risk for the general population** is assessed as **low**, since most infections are in the form of a mild exanthematous disease of childhood, although some complications may occur.
- **The risk for pregnant women**, less than 20 weeks gestation, is assessed as **low to moderate**, considering the uncertainties about the virus circulation, the fact that an estimated 30–40% of women of childbearing age are susceptible to the infection, and severe outcomes occur in only a small percentage of infected pregnancies.
- **The risk for immunosuppressed people** is assessed as **moderate**, as these patients cannot clear the infection and can suffer chronic anaemia, pancytopenia, graft loss or dysfunction and organ-invasive disease.
- **The risk for people with chronic haematological diseases** (e.g. sickle cell disease, thalassaemia, etc.) is assessed as **moderate**, as B19V infection can cause transient aplastic crisis.

Additional systematic testing of blood donors for B19V infection is not required. However, if a B19V infection is suspected or confirmed for a donor, the B19V-positive blood or blood components should not be transfused to individuals susceptible to severe clinical outcomes of B19V infections (i.e. pregnant women, patients with chronic haemolytic diseases or hemoglobinopathies, or immunosuppressed people.

ECDC published a Threat Assessment Brief entitled 'Risks posed by reported increased circulation of human parvovirus B19 in the EU/EEA' on 5 June 2024.

Actions

ECDC contacted the national focal points in the network for the blood safety of substances of human origin, asking if any increases in B19V infections had been observed in the donor population.

ECDC published a Threat Assessment Report titled 'Risks posed by reported increased circulation of human parvovirus B19 in the EU/EEA' on 5 June 2024.

ECDC conducted two teleconferences with affected countries on 6 and 21 May 2024.

ECDC is monitoring this event via epidemic intelligence activities and encourages EU Member States to post information on the national situation in EpiPulse.

Further information

Eurosurveillance | New atypical epidemiological profile of parvovirus B19 revealed by molecular screening of blood donations, France, winter 2023/24
Eurosurveillance | An unusual outbreak of parvovirus B19 infections, France, 2023 to 2024
Eurosurveillance| Epidemic of parvovirus B19 and disease severity in pregnant people, Denmark, January to March 2024

Last time this event was included in the Weekly CDTR: 3 May 2024.

5. Highly pathogenic avian influenza A(H5N1) in cattle and related human cases – United States – 2024

Overview

Update: A fourth human case of highly pathogenic avian influenza (HPAI) A(H5), associated with the ongoing multi-state outbreak of A(H5N1) in dairy cattle in United States, was reported by US CDC on 3 July 2024 in Colorado. The dairy farm worker had exposure to infected cows, suggesting probable cow-to-human transmission. The patient reported eye symptoms only, received antiviral treatment (oseltamivir) and has recovered. The designation of the influenza virus neuraminidase (the N in the subtype) is pending genetic sequencing at CDC. Attempts to sequence the virus in the clinical specimen are underway and will be made available within 1-2 days if successful.

Based on the information available at this time, this infection does not change the CDC's current H5N1 bird flu human health risk assessment for the US general public, which the Agency considers to be low. However, this development underscores the importance of recommended precautions in people with exposure to infected animals. People with close or prolonged, unprotected exposure to infected birds or other animals (including livestock), or to environments contaminated by infected birds or other animals, are at greater risk of infection.

On 1 April 2024, the first human case of HPAI A(H5N1) was reported in an individual who had prior exposure to dairy cattle presumed to be infected with HPAI A(H5N1) in Texas, US (US CDC). The virus isolated from this case belonged to the HA clade 2.3.4.4b of HPAI A(H5N1), genotype B3.13, and was closely related to the virus detected in dairy cattle in Texas. Genetic analysis revealed some changes in the virus sequence from the patient specimen compared to the viral sequences found in the cattle. The virus sequence from the human case displayed the PB2 E627K mutation, which is associated with viral adaptation to mammalian hosts. However, the virus remains avian-like (i.e. retaining a strong preference for avian and not mammalian receptors). There were no markers identified that are known to be associated with resistance to influenza antiviral medications.

On 22 May 2024, the US CDC reported the second human infection with avian influenza A(H5) in a farm worker in Michigan, associated with an ongoing multi-state outbreak of A(H5N1) in dairy cows. The farm worker was being monitored because of work exposure to A(H5N1) infected cattle. Similar to the previous human case of HPAI A(H5N1) reported on 1 April 2024 in Texas, the individual's only symptom was conjunctivitis. Two specimens were collected from the dairy farm worker after reporting symptoms of conjunctivitis to the local health authorities. The nasal specimen tested negative, while a sample from the eye was confirmed positive for A(H5N1) at the CDC laboratory. According to genomic analysis performed by US CDC, the virus identified belonged to HA clade 2.3.4.4b, genotype B3.13 (GISAID ID: EPI_ISL_19162802). The genome of the virus was closely related to viruses found in dairy cattle, suggesting cow-to-human transmission. The E627K mutation observed in the PB2 segment of the virus from the Texas case was not present. The genome of the virus from the Michigan case did, however, have the PB2 M631L change, which is associated with viral adaptation to mammalian hosts and has been observed in 99% of virus sequences from dairy cows, but only occasionally in birds. No markers of antiviral resistance were detected in the virus sequences from the Michigan case and the virus was closely related to existing HPAI A(H5N1) candidate vaccines.

A third human case of highly pathogenic avian influenza (HPAI) A(H5N1), associated with the ongoing multi-state outbreak of A(H5N1) in dairy cattle in the US, was reported by the US CDC on 30 May 2024 in Michigan. The dairy farm worker had exposure to infected cows, suggesting probable cow-to-human transmission. Unlike the previous two cases, the patient reported upper respiratory tract symptoms, including a cough but no fever, as well as eye discomfort with watery discharge. The patient received antiviral treatment (oseltamivir), is isolating at home, and their symptoms are resolving. Household contacts and other workers at the farm are being monitored, with no symptoms having been reported so far. Household contacts have been offered oseltamivir. There is no indication of human-to-human transmission of A(H5N1) viruses at this time. From publicly available sequences (GISAID ID: EPI_ISL_19177746), most segments were missing and the deposited HA segment was partial, which limited the possibility of determining mutations. However, a high similarity to the virus sequences from US cattle could be confirmed.

Michigan Department of Health and Human Services further mentioned that neither of the two cases reported in Michigan were wearing full personal protective equipment (PPE). The case reported on 22 May 2024 developed eye symptoms after having milk splashed in their eye, highlighting the importance of appropriate PPE. Since the three reported cases had direct contact with infected cattle, the US CDC's current assessment of the human health risk of A(H5N1) to the general public in the US does not change.

The United States' Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS) has detected viral particles of HPAI A(H5N1) in tissue samples, including muscle, from a culled dairy cow that had been condemned (declared unfit for consumption) during a post-mortem inspection due to signs of systemic disease. Dairy cattle

slaughtered for beef production undergo routine inspection before and after slaughter by the FSIS. Meat from dairy cattle condemned at slaughter due to systemic disease do not enter the human food supply.

A study of ground beef inoculated with A(H5N1) suggested cooking burgers medium to well done (to a temperature of 63C to 71C) inactivated the virus, while cooking burgers to 49C (rare) also substantially inactivated the virus.

HPAI A(H5N1) virus has been detected in dairy cattle in several states in the US. As of 3 July 2024, the USDA reports the detection of HPAI A(H5N1) in 12 states, affecting 138 dairy farms/herds. The most recently reported detection was on 1 July 2024 in Colorado. Markers of influenza A(H5) have also been detected in wastewater in Texas (Tisza et al., 2024; Wolfe et al., 2024). Furthermore, cats fed unpasteurised milk and colostrum from affected cows developed systemic, fatal infection (Burrough et al., 2024).

HPAI A(H5N1) has also been reported in some other mammals in the US, including goats and alpacas at farms with infected poultry. The virus genotype identified in the infected goats was different to the one identified in cattle (B3.13), while a virus from the same genotype B3.13 had infected the alpacas.

Genetic material of HPAI A(H5N1) has been detected in milk samples. Studies performed by US FDA have shown that pasteurisation inactivates HPAI in milk and dairy products, with no viable virus being detected following pasteurisation. For further information, please refer to the US FDA update. Samples of ground beef from states with affected dairy herds tested negative for HPAI A(H5N1) (USDA).

ECDC assessment

Based on available information, the World Health Organization, the Food and Agriculture Organization of the United Nations and the World Organisation for Animal Health have assessed the overall public health risk posed by A(H5N1) to be low, and for those exposed to infected animals or contaminated environments, the risk of infection is considered low-to-moderate. The US CDC has also stated that the overall threat of HPAI A(H5N1) clade 2.3.4.4b to the general public in the US remains low. However, individuals with close or prolonged exposure to infected animals or contaminated environments are considered at greater risk of infection. The USDA and US FDA highlight that commercially produced, pasteurised milk is safe for consumers and recommend that milk from cattle with clinical signs of infection is removed from the human food chain.

In the latest joint ECDC/EFSA/EURL monitoring report, ECDC assessed the risk of infection from the circulating HPAI A(H5N1) clade 2.3.4.4b viruses as low for the general population and low-to-moderate for those with activities that expose them to infected animals or a contaminated environment (e.g. occupationally exposure to infected animals). To date, there have been no confirmed cases of A(H5N1) infection in humans and no reports of A(H5N1) infection in cattle in the EU/EEA. The genotype B3.13 identified in cattle and the human case in the US has not currently been detected in Europe. The current available evidence does not change the overall assessment of the risk for the EU/EEA population. ECDC is monitoring the situation together with partner organisations in Europe and will continue to update its assessment of the risk for humans in the EU/EEA accordingly as new information becomes available.

The EU Wastewater Observatory for Public Health has gathered information on ongoing wastewater surveillance for avian influenza in the EU, with 13 EU countries expressing interest for a coordinated approach. Twelve countries are running preliminary studies that can be upgraded. At present, HPAI A(H5N1) has not been detected in European (waste)water.

In addition to enhanced surveillance, active monitoring and testing of exposed individuals is recommended for early detection of human cases and to assess the possibility of human-to-human transmission, according to the relevant ECDC guidance documents (Testing and detection of zoonotic influenza virus infections in humans; Investigation protocol of human cases of avian influenza virus; Enhanced surveillance of severe avian influenza virus infections in hospital settings). Given the uncertainties related to mammal-to-mammal transmission and depending on the epidemiological situation, a low threshold can be considered for testing individuals exposed to potentially infected mammals (for example symptomatic individuals with conjunctivitis or respiratory symptoms). Due to the higher risk of infection for individuals exposed to infected animals and contaminated environments, appropriate personal protective measures and other precautionary measures should always be taken to reduce the risk of infection.

ECDC relevant publications:

- Testing and detection of zoonotic influenza virus infections in humans in the EU/EEA, and occupational safety and health measures for those exposed at work
- Enhanced influenza surveillance to detect avian influenza virus infections in the EU/EEA during the inter-seasonal period
- Investigation protocol of human cases of avian influenza virus infections in the EU/EEA
- Joint ECDC-EFSA Drivers for a pandemic due to avian influenza and options for One Health mitigation measures

Actions

ECDC is in contact with the US Centers for Disease Control and Prevention (CDC) for further information and is closely following any updates on the event. ECDC monitors avian influenza strains through its influenza surveillance programme and epidemic intelligence activities in collaboration with the European Food Safety Authority (EFSA) and the EU Reference Laboratory for Avian Influenza in order to identify significant changes in the virological characteristics and epidemiology of the virus. Together with EFSA and the EU Reference Laboratory for Avian Influenza, ECDC produces a quarterly updated report of the avian influenza situation.

Sources: FAO
Last time this event was included in the Weekly CDTR: 31 May 2024.

6. Mass gathering monitoring - UEFA European Football Championship - 2024 - Weekly monitoring

Overview

Since 10 June when the monitoring of the UEFA European Football Championship 2024 started, and as of 4 July, no relevant public health events related to communicable diseases have been detected in connection with the event.

Background

The UEFA European Football Championship 2024 is taking place in Germany between 14 June and 14 July. Around 2.8 million people are expected to follow the 51 scheduled matches of the 24 qualified national teams, which will take place in 10 stadiums in 10 German cities: Berlin, Dortmund, Düsseldorf, Frankfurt (Main), Gelsenkirchen, Hamburg, Cologne, Leipzig, Munich, and Stuttgart.

The stadiums have registered different capacities for EURO 2024 with Berlin, Munich and Dortmund having the largest stadiums and Leipzig and Cologne having the venues with the smallest capacities.

National teams from the following 24 countries, including host country Germany, have qualified for EURO 2024: Albania, Belgium, Denmark, England, France, Georgia, Italy, Croatia, the Netherlands, Austria, Poland, Portugal, Romania, Scotland, Switzerland, Serbia, Slovakia, Slovenia, Spain, Czech Republic, Turkey, Ukraine and Hungary.

In addition to the matches in the stadiums, a large number of public viewing events are being planned in Germany, such as the transmission of football matches shown on television outside the home environment. These include the viewing of matches in the official fan zones that UEFA will operate in each of the ten host cities for each EURO 2024 match. Most visitors are expected in Berlin and in Frankfurt. Non-commercial and commercial public viewing events can be registered in other German cities by arranging a mandatory UEFA public viewing licence.

ECDC assessment

Mass gathering events involve a large number of visitors in an area at the same time. This may increase the risk of communicable disease outbreaks and non-communicable health risks, including heat stroke, crowd injury and drug- and alcohol-related conditions.

The probability of EU/EEA citizens becoming infected with communicable diseases during the UEFA European Football Championship 2024 is considered to be low if preventive measures are applied - e.g. being fully vaccinated according to the national immunisation schedule, following hand and food hygiene, respiratory etiquette, refraining from any activities or contact with people should symptoms occur, and seeking prompt testing and medical advice, as needed. This is particularly important in relation to vaccine-preventable diseases that may be on the increase in the EU/EEA, such as measles and whooping cough.

In collaboration with the German Federal Centre for Health Education (BZgA) and ECDC, WHO has published public health advice for travellers attending the UEFA EURO 2024. In addition, given that Europe will be hosting a range of other high-profile events this summer, including the 2024 Summer Olympics and Paralympics in Paris, ECDC has published recommendations for public health authorities preparing for mass gathering events.

Actions

ECDC will monitor this mass gathering event through epidemic intelligence activities between 10 June and 19 July 2024 in collaboration with the Robert Koch Institute and the World Health Organization Regional Office for Europe (WHO/Europe), and including weekly updates in the Communicable Disease Threats Report (CDTR).

Last time this event was included in the Weekly CDTR: 28 June 2024.

7. Seasonal surveillance of West Nile virus infections – 2024

Overview

Epidemiological summary

Since the beginning of 2024, and as of 5 July 2024, three human cases of West Nile virus infection have been reported in EU/EEA countries. Two cases have been reported in The European Surveillance System. The first case was reported in April 2024 in Seville, Spain and the patient had developed symptoms in March 2024. The second case was reported in June 2024 in Modena, Italy. On 5 July 2024, Greece reported that one West Nile virus case had been detected in the region of Larissa, with symptom onset at the end of June 2024.

More background information on the Commission Directives on blood safety and EU/EEA notifications of West Nile virus infections can be found in ECDC's weekly surveillance report on West Nile virus infections which is available online (Weekly updates: 2024 West Nile virus transmission season (europa.eu) and at the West Nile virus Dashboard (europa.eu)).

Actions

ECDC in monitoring West Nile virus through indicator- and event-based surveillance activities.

Last time this event was included in the Weekly CDTR: 28 June 2024.

8. Botulism - Germany - 2024

Overview

Two confirmed botulism cases, caused by botulinum neurotoxin A (BoNT A), were reported by Germany on 26 June 2024. Both cases had consumed a mushroom-in-brine preserve of milk-white brittlegill (Russula delica). The two confirmed cases' dates of symptom onset were in April and May, about six weeks apart, with delays in clinical diagnosis.

The consultant laboratory for neurotoxin-producing clostridia in Germany (located at the Robert Koch Institute) has found BoNT A in an unopened jar of the same product from the second case's household. The product is marked with an expiry date of May 2025.

According to the RASFF notification (2024.4920) the food product originates from Russia and has been distributed to Belgium, Czechia, Germany, Italy, Luxembourg, Spain, Sweden, Switzerland and the United Kingdom. Authorities in the Member States are implementing measures, such as public warnings, recalls and withdrawals.

As of 4 July 2024, no other EU/EEA country had reported any cases of botulism linked to this product.

ECDC assessment

Given the distribution of the implicated product in EU countries and the long shelf life (May 2025), the risk of contracting botulism is high among consumers who have bought the implicated product and do not return it to the point of sale. New cases may occur in the EU countries involved.

Actions

ECDC is monitoring the event through Epidemic Intelligence activities and is in contact with Member States and EFSA.

Events under active monitoring

- Chikungunya and dengue – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 31 May 2024
- Poliomyelitis – Multi-country – Monthly monitoring of global outbreaks - last reported on 31 May 2024
- Overview of respiratory virus epidemiology in the EU/EEA - weekly monitoring - last reported on 31 May 2024
- Cholera – Comoros and Mayotte – 2024 – Weekly monitoring - last reported on 31 May 2024
- Highly pathogenic avian influenza A(H5N1) in cattle and related human cases – United States – 2024 - last reported on 31 May 2024
- Imported invasive meningococcal disease in travellers returning from the Kingdom of Saudi Arabia – Multi-country – 2024 - last reported on 31 May 2024
- Influenza A(H5N2) - Multi-country (World) - Monitoring human cases - last reported on 28 June 2024
- Mass gathering monitoring - UEFA European Football Championship - 2024 - Weekly monitoring - last reported on 28 June 2024
- Seasonal surveillance of West Nile virus infections – 2024 - last reported on 28 June 2024
- Cholera – Multi-country (World) – Monitoring global outbreaks - Monthly update - last reported on 28 June 2024
- Avian influenza A(H5N6) – Multi-country – Monitoring human cases - last reported on 20 June 2024
- Risk assessments under production - last reported on 20 June 2024
- Avian influenza A(H9N2) – Multi-country (World) – Monitoring human cases - last reported on 14 June 2024
- Measles – Multi-country (World) – Monitoring European outbreaks - monthly monitoring - last reported 14 June 2024
- Middle East respiratory syndrome coronavirus (MERS-CoV) – Multi-country – Monthly update - last reported on 7 June 2024
- SARS-CoV-2 variant classification - last reported on 7 June 2024
- Seasonal surveillance on West Nile virus infections starts in week 23 - last reported on 7 June 2024
- Out-of-season increase in norovirus (NoV) activity - last reported on 7 June 2024
- Oropouche virus disease - Cuba - 2024 - last reported on 7 June 2024
- Botulism - Germany - 2024 - last reported on 5 July 2024
- Human cases infected with swine influenza A(H1N2) variant virus – Multi-country – 2024 - last reported 5 July 2024
- Increase in parvovirus B19 detections – Multi-country – 2024 - last reported on 5 July 2024.