COMMUNICABLE DISEASE THREATS REPORT

CDTR
Week 16, 15-21 April 2012

All users

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Contamination of a medical product - ViaSpan – Multistate (worldwide)

Opening date: 4 April 2012 Latest update: 20 April 2012

On 30 March 2012, after reports of potential contamination with *Bacillus cereus,* Bristol-Myers Squibb issued a voluntary precautionary recall of all batches of ViaSpan®, a solution used for the preservation of kidney, liver and pancreas before transplantation, produced since 4 July 2011.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 19 April 2012

Measles is still endemic in many countries of Europe due to a low uptake of immunisation. In the past decade the susceptible population has increased, leading to a resurgence of the disease. More than 30 000 cases were reported in EU Member States in each of the last two years.
So far in 2012, outbreaks or clusters were reported by 17 of the 29 reporting EU and EEA countries. The highest numbers were noted in the United Kingdom followed by Romania and Spain. In neighbouring Ukraine, an ongoing major outbreak is of concern, with nearly 7 700 cases reported so far in 2012.

➔Update of the week
From the 14 to 21 April there were no new outbreaks or clusters detected in EU Member States. Update from the UK outbreaks show that the number of cases is still increasing.

Influenza - Multistate (Europe) - Monitoring 2011-2012 season

Opening date: 2 December 2011 Latest update: 19 April 2012

Following the 2009 pandemic, vaccine-preventable influenza transmission in Europe has returned to its seasonal epidemic pattern with peaks seen during winter months. ECDC monitors influenza activity in Europe during the winter seasons and publishes the results on its website in the Weekly Influenza Surveillance Overview.

➔Update of the week
During week 15, decreasing trends were reported by 14 countries, 13 of which have reported such trends for at least two consecutive weeks.

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Non EU Threats

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005 Latest update: 12 April 2012

The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections, and sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

➔Update of the week

In the period 14 to 21 April 2012, WHO did not acknowledge any new human cases of avian influenza A(H5N1).

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 19 April 2012

Dengue fever is one of the most prevalent vector-borne diseases in the world, affecting an estimated 50 to 100 million people each year, mainly in the tropical regions of the world. There are no important recent developments in global dengue epidemiology. However, the identification of sporadic autochthonous cases in non-endemic areas in 2010 and 2011 highlights the risk of occurrence of locally acquired cases in EU countries where the competent vectors are present.

➔Update of the week

There have been no reports of autochthonous dengue infections in Europe so far in 2012.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 19 April 2012

Polio, a crippling and potentially fatal vaccine-preventable disease mainly affecting children under five years of age, is close to being eradicated from the world after a significant global public health investment and effort. The WHO European Region is polio-free. Forty-seven cases have been reported in 2012 worldwide so far.

➔Update of the week

During week 15, six new polio cases with symptom onset in 2012 were reported to WHO.

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II. Detailed reports

Contamination of a medical product - ViaSpan – Multistate (worldwide)

Opening date: 4 April 2012 Latest update: 20 April 2012

Epidemiological summary

On 30 March, Bristol-Myers Squibb (BMS) issued a voluntary precautionary recall of all batches of ViaSpan®, produced since 4 July 2011, after reports of potential contamination with *Bacillus cereus*. ViaSpan® is a solution used for the preservation of kidney, liver and pancreas before transplantation. This solution is manufactured by a third party, Fresenius Kabi in Austria and is supplied to a number of countries around the world.
Bacillus cereus, a germ commonly found in the environment, was isolated from an aseptic process simulation (so called "media fill") which is performed every 6-8 months in the production plant to test sterility. *B. cereus* has not been isolated from batches of the ViaSpan® perfusion solution. According to a BMS risk assessment dated 11 April, 240 samples taken from four batches of ViaSpan retained at the plant had no growth after five days of incubation. ViaSpan® solution inoculated with *B. cereus* and incubated for 15 days at 4° C indicated no growth (the recommended storage temperature of ViaSpan® is 2-8° C).
Antibiotic behaviour study (antibiogram) for *B. cereus* performed by BMS found it to be sensitive to Clindamycin, Erythromycin, Moxifloxacin, Gentamycin, Imiprenem, Linezolid, Tigecyclin and Vancomycin. *Bacillus cereus* was found to be resistant to Cefepim, Cefuroxim, Penicillin and Ampicillin. Sensitivity testing by the Health Protection Agency revealed slightly different results with additional resistance to Clindamycin and Vancomycin identified.

ECDC assessment

No cases of *B. cereus* infection in transplanted patients have been reported to date. However, *B. cereus* can cause serious infection in immune-suppressed patients. The product is widely distributed to several countries in the world.
The ECDC rapid risk assessment of 3 April was updated on the 18 April following new information received from Bristol-Myers Squibb and the Health Protection Agency (HPA) and recommends the following approach for reducing the risk:
1. Patients who have already undergone transplantation with organs or tissues kept in Viaspan® after July 2011 should be monitored for early detection of signs and symptoms of infection. Clinicians and laboratories should be alerted about this potential risk.
2. In the event that a patient, who has received an organ previously exposed to this solution, presents with symptoms and signs of infection, a thorough microbiological investigation should be conducted and *B. cereus* considered a cause rather than a contaminant if isolated from clinical specimens.
3. All decisions regarding antibiotic therapy should be the responsibility of the treating physicians, taking into account available susceptibility results and patient-specific factors. All *B. cereus* isolates detected by culture should have antimicrobial susceptibility performed in order to appropriately tailor final antibiotic therapy. Empiric antibiotic therapy, pending results of the microbiological investigation, should include antibiotics which have been reported susceptible by BMS and HPA (UK).
4. For patients who need to undergo transplantation of organs or tissues preserved in the Viaspan® batches produced since July 2011, treating physicians should consider adapting antibiotics used for peri-operative antibiotic prophylaxis to include antibiotics to which *B. cereus* is likely to be susceptible, taking into consideration the list of antibiotics active on *B. cereus* as provided by both Bristol-Myers Squibb and the HPA (UK).
5. Alternatives for preservation fluid for organs and tissues should be considered whenever possible.
The slightly different antibiotic sensitivity testing results between Bristol-Myers Squibb and HPA are not entirely surprising as different methods might have been used.

Actions

ECDC prepared a rapid risk assessment dated 3 April 2012, which has been distributed to national and EC authorities responsible for organ safety.
On 12 April, ECDC received additional information from Bristol-Meyer-Squibb (BMS). HPA also shared results of their antibiotic susceptibility testing on 16 April and the rapid risk assessment was reviewed in light of this new information. An updated rapid risk assessment was shared with the commission.

Measles - Multistate (EU) - Monitoring European outbreaks

Opening date: 9 February 2011 Latest update: 19 April 2012

Epidemiological summary

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I. European Union Member States

UK -update

Source: HPA Notifications of Infectious Diseases and Health Protection Report

There have been 1 122 suspected cases of measles in the UK as of 15 April 2012 compared to 690 cases during the same period in 2011. The majority of cases were diagnosed in the North West region where there is an ongoing outbreak with 172 confirmed cases so far (an increase by more than 20 cases since last week). The virus genotype is B3. An outbreak in North Wales which began in February has primarily been linked with one secondary school with spread to younger unvaccinated children within families in the locality. The virus genotype associated with this outbreak is D8. The South East and London regions have reported cases during the first months of 2012 and the predominant virus genotype is D4.

France -update

Source: InVS

France has reported around 15 000 cases during 2011. The number of cases has declined since May and it seems that there will not be a fourth wave of epidemic as feared. Between 1 January and 31 March 2012, 356 cases were reported (including 17 severe pneumonia), with a stable number of monthly cases since December 2011.

II. Neighbouring countries

Ukraine

Source: MOH

Since the beginning of this year, as of April 17, 7695 cases of measles were recorded in 6 western regions.

III. Publications

EU Newspaper supplement on immunization

Source: the media

The European Parliament Magazine has published a special supplement highlighting both the critical role of immunisation in global health and the effectiveness of vaccines in addressing major diseases behind child mortality including a section prepared by ECDC.

Web sources: ECDC Monthly Measles Monitoring 19 March 2011 | MedISys Measles Webpage |EUVAC-net ECDC | ECDC measles factsheet | ECDC RRA on the measles outbreak in Ukraine | WHO Epidemiological brief |

ECDC assessment

A decline in the uptake of immunisation in the past decade in Europe has increased the susceptible population, and measles has re-emerged in the region. When the number of susceptible individuals increases, the incidence of measles increases as well, and the interval between epidemic peaks decreases.

Transmission follows the traditional seasonal pattern of measles. Last year's outbreaks in Europe peaked in May and declined over the rest of the year. The number of reported cases started to increase in some of the EU Member States (Romania and France) towards the end of 2011. To date, three countries have noted large outbreaks in 2012: the UK, Romania and Spain. In other EU Member States the reported numbers are lower so far this year than those reported for the corresponding period last year.

ECDC closely monitors measles transmission and outbreaks in the EU and neighbouring countries in Europe through enhanced surveillance and epidemic intelligence activities. The countries in the WHO European Region, which includes all EU Member States, have committed to eliminate measles and rubella transmission by 2015. Elimination of measles requires consistent vaccination coverage above 95% with two doses of measles vaccine in all population groups, strong surveillance and effective outbreak control measures.

Actions

In June 2012, Ukraine and Poland will host the UEFA European Championship with hundreds of thousands of visitors expected from several European countries. ECDC has prepared a rapid risk assessment to assess the risk of visitors to Ukraine becoming infected and subsequently importing and spreading measles within the EU on their return.

Influenza - Multistate (Europe) - Monitoring 2011-2012 season

Opening date: 2 December 2011 Latest update: 19 April 2012

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Epidemiological summary

The 2011/12 influenza season started late and has been without any clear geographic progression across Europe.

During week 15, decreasing trends were reported by 14 countries, 13 of which have reported such trends for at least two consecutive weeks. Of 302 sentinel specimens tested, 29% were positive for influenza virus. This proportion has decreased for seven consecutive weeks from a peak of nearly 60% in week 8. Since week 40/2011, 1 710 cases of severe acute respiratory infection (SARI), including 101 fatalities, have been reported by seven countries. Most of these cases were influenza-related.

Web source: ECDC Weekly Influenza Surveillance Overview

ECDC assessment

The decrease in the proportion of influenza-positive sentinel specimens together with the growing number of countries reporting continuously decreasing trends in the incidence of influenza-like illness or acute respiratory infection indicate that the epidemic peak has passed in most European countries. As often observed late in the season, the proportion of influenza B viruses among the detected influenza viruses has been increasing over the past eight weeks.

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005 Latest update: 12 April 2012

Epidemiological summary

No new cases of A(H5N1) were reported by WHO during the last week.

Since 2003, 602 cases (including 355 deaths) have been notified in 15 countries. Of these, 24 (including 15 deaths) were notified in 2012.

Web sources: ECDC Rapid Risk Assessment | WHO Avian Influenza | Avian influenza on ECDC website

ECDC assessment

Most human infections are the result of direct contact with infected birds, and the World Health Organisation notes it has never identified a 'sustained human-to-human spread' of the virus since it re-emerged in 2003. Countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. Hong Kong reported the world's first recorded major outbreak of bird flu among humans in 1997, when six people died.

ECDC follows the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis. There are currently no indications that from a human health perspective there is any significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Dengue - Multistate (world) - Monitoring seasonal epidemics

Opening date: 20 April 2006 Latest update: 19 April 2012

Epidemiological summary

Europe: No autochthonous cases in 2011 or in 2012 to date.
Africa: In la Reunion, The French Public Health Surveillance Institute (Invs) is reporting 10 autochthonous cases (5 confirmed and 5 probable).
Asia: High number of cases reported in Sri Lanka compared to the same period last year (9317 cases compared with 3103). In Pakistan cases are still reported from Karachi.
Latin America : Paraguay, Ecuador and Brazil are reporting cases. There is special media attention on a large outbreak affecting Rio de Janeiro state. The Ministry of Health reports 31 176 dengue cases since 1 January 2012

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Web sources:
DengueMap CDC/HealthMap| MedISys dengue|ProMED dengue lates update|WPRO dengue latest update | ECDC dengue fever factsheet|

ECDC assessment

ECDC monitors individual outbreaks, seasonal transmission patterns and inter-annual epidemic cycles of dengue through epidemic intelligence activities in order to identify significant changes in disease epidemiology. Of particular concern is the potential for the establishment of dengue transmission in Europe. Local transmission of dengue was reported for the first time in France and Croatia in 2010 and imported cases were detected in other European countries, highlighting the risk of locally acquired cases occurring in countries where the competent vectors are present.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005 Latest update: 19 April 2012

Epidemiological summary

On 19 April 2012, WHO reported six new cases (five type WPV1 cases and one type WPV3 case), all of them from northern Nigeria. All six of the cases had onset of paralysis in 2012, bringing the number of cases in 2012 to 23. This raises the concern that too many children continue to be missed during immunisation activities. A continued surge in cases in northern Nigeria poses the risk of renewed spread of the virus to other nations in west Africa. In the past, the polio virus has spread from northern Nigeria to Niger, then onto Burkina Faso and Mali. The risk is further magnified given the security situation in Mali.

So far, 47 cases with onset of disease in 2012 have been reported globally compared with 103 for the same period in 2011.

Web sources: Polio Eradication: weekly update | MedISys Poliomyelitis

ECDC assessment

ECDC follows reports of polio cases worldwide through epidemic intelligence in order to highlight polio eradication efforts and to identify events that could indicate the re-introduction of wild poliovirus (WPV) into the EU.

The WHO European Region is polio-free. The last polio cases in the European Union occurred in 2001 when three young Bulgarian children of Roma ethnicity developed flaccid paralysis from WPV. Investigations showed that the virus originated from India. The latest outbreak in the WHO European Region was in Tajikistan in 2010 when WPV1 imported from Pakistan caused an outbreak of 460 reported cases. The last indigenous WPV case in Europe was in Turkey in 1998. An outbreak in the Netherlands in a religious community opposed to vaccinations caused two deaths and 71 cases of paralysis in 1992.

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