



Suspected outbreak of poliomyelitis in Syria: Risk of importation and spread of poliovirus in the EU

21 October 2013

Main conclusions and recommendations

This cluster of cases of AFP among Syrian citizens increases the risk for the importation of wild polio virus in the EU/EEA and further re-establishment and transmission in the EU/EEA.

Recommendations:

- Countries hosting Syrian citizens in designated areas (camps) should assess the level of transmission of wild poliovirus among them. Such assessments can be done through environmental sampling and through the collection of stool samples.
- EU Member States receiving refugees and asylum seekers from Syria should assess their vaccination status on arrival and provide polio vaccination and other vaccinations as needed.
- The European Commission and EU Member States should support regional and international efforts to assess the risk and provide vaccination and other public health services in Syria and to Syrian refugees hosted by neighbouring countries.
- This situation stresses the need for Member States to consider implementing the recommendations made in the [ECDC risk assessment](#) of wild-type poliovirus transmission in Israel.

Source and date of request

European Commission 19 October 2013.

Public health issue

To assess the risk for the EU in relation with the cluster of cases of acute flaccid paralysis (AFP) with onset in early October 2013 reported from Deir Al Zour province in eastern Syria.

Consulted experts

ECDC staff:

Kaja Kaasik Aaslav, Niklas Danielsson, Edit Szegedi, Camilla Croneld, Birgitta de Jong, Lucia Pastore-Celentano, Emma Huitric, Romit Jain, Denis Coulombier

Event background information

On 19 October 2013, WHO announced on its [Disease Outbreak Network site](#) about a 'hot' cluster of AFP in Deir Al Zour province in Syria, located 250 km of Damascus in the east of the country along the Iraqi border. The first cases were detected in early October. Initial tests in the national reference laboratory in Damascus indicate wild poliovirus in two cases. Samples have been sent to the regional reference laboratory of the Eastern Mediterranean Region of WHO for confirmation. According to the WHO, the Ministry of Health of the Syrian Arab Republic has confirmed that they are addressing this event as a cluster of 'hot' AFP cases, while they wait for final laboratory confirmation. Rapid response is being planned across the country.

Syria has been polio-free since [March 1995](#). The last laboratory confirmed imported case was reported in 1999. No polio cases have been confirmed in Syria since.

Immunisation against polio has been mandatory in Syria since 1964 and the [reported coverage](#) with three doses of oral polio vaccine (OPV) was above 95% in children under one year of age between 2002 and 2010. Vaccination coverage for all vaccine preventable diseases, including polio, has declined since 2010 and the estimated [coverage with OPV3](#) in the 12-23 month of age cohort in 2012 was 52%. Acute Flaccid Paralysis surveillance has been implemented since 1993 and the surveillance indicators were reported to be [satisfactory since 1996](#).

According to several reports, including a recent article in [the Lancet](#), the health situation in Syria has progressively deteriorated during the past years due to the on-going conflict with more than half of the country's public hospitals and 78 percent of ambulances damaged. In some areas, up to 70 percent of health workers had fled. There has been dramatic increase in communicable disease outbreaks of measles, typhoid, leishmaniasis, acute diarrhoea and hepatitis. There were unconfirmed indications of acute flaccid paralysis cases [occurring in July 2013](#).

Due to the current situation, Syria is at high-risk for polio and other vaccine-preventable diseases. WHO has intensified the surveillance alert in the region in search for additional potential cases. In the neighbouring countries, extra immunization activities are being planned.

Humanitarian situation in Syria

According to [UNHCR](#) there are currently 2 050 860 registered Syrian Refugees, of these 18.5 % are children under age of five; 129 315 people are still waiting for registration.

The number of refugees seeking asylum in the EU is constantly increasing since the start of the crisis. The latest available official data are published by the [Migration Policy Centre](#) who states: "in 2011, 8 920 Syrians applied for asylum within EU borders, while in the first three quarters of 2012 applications increased slightly, reaching a total of 11 573. Only 1 490 irregular entries of Syrians were recorded during the last three quarters of 2011, which rose to 2 739 in the first two quarters of 2012." The same report estimates 112 000 Syrian refugees are living in EU countries. The [exodus of Syrian refugees accelerated dramatically](#) in recent months, with over 1 million refugees arriving in the first five months of 2013 alone. More than half of registered refugees are children and three quarters are living with local host families and communities in both urban and rural areas.

Since 2012, there has been [an increase of the number of Syrians detected for illegal border-crossing](#) into the European Union. Syrians were mostly reported to enter the EU from the Aegean Sea and at the Bulgarian land border with Turkey. The majority of the illegal

immigrants were men travelling alone as well as families with the end destination in Germany and Sweden.

ECDC threat assessment for the EU

The probability is very high that the cluster of cases of acute flaccid paralysis in Deir Al Zour province in Syria is caused by wild-type poliovirus, and this risk assessment is based on the assumption that poliovirus will be confirmed.

As a result of the conflict in Syria, public health services are failing, vaccination coverage has dropped dramatically, sanitary conditions have deteriorated, displaced people are living under crowded conditions and there are large movements of people. These are all conditions that favour the spread of infectious and vaccine preventable diseases as evidenced by the reports from Syria of outbreaks of measles and gastroenteritis.

Confirmation of the polio outbreak in Deir Al Zour province would signal widespread transmission of poliovirus in Syria and possibly in the areas bordering Syria.

Large numbers of people are leaving Syria and it is expected that the number of asylum seekers, refugees and illegal migrants entering the EU will continue to be high and possibly increase as the conflict evolves.

If poliovirus is indeed circulating in Syria, it should be assumed that a proportion of Syrian refugees are also transmitting the virus. The risk will be highest for children born since 2011 because of the interruptions in vaccination services.

Refugees from Syria are more likely to mix with undervaccinated populations living under poor sanitary conditions.

The likelihood of poliovirus spreading from Syria to neighbouring countries hosting Syrian refugees is high.

Conclusion/recommendations

This cluster of cases of AFP among Syrian citizens increases the risk for the importation of wild polio virus in the EU/EEA and further re-establishment and transmission in the EU/EEA.

Countries hosting Syrian citizens in designated areas (camps) should assess the level of transmission of wild poliovirus among them. Such assessments can be done through environmental sampling and through the collection of stool samples.

EU Member States receiving refugees and asylum seekers from Syria should assess their vaccination status on arrival and provide polio vaccination and other vaccinations as needed.

The European Commission and EU Member States should support regional and international efforts to assess the risk and provide vaccination and other public health services in Syria and to Syrian refugees hosted by neighbouring countries.

This situation stresses the need for Member States to consider implementing the recommendations made in the [ECDC risk assessment](#) of wild-type poliovirus transmission in Israel.

References