Measles in South-West Germany imported from Switzerland - a preliminary outbreak description

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Since January 2008, public health authorities in the state of Baden-Württemberg, south-west Germany, have observed an increased number of measles cases (16 cases in weeks 1-7 in 2008, compared to three cases in the same weeks in 2007) with epidemiological links to an ongoing measles epidemic in Switzerland [1]. So far only unvaccinated children, adolescents and young adults have been affected.

Some cases in this outbreak relate to German citizens with residence in Switzerland or to Swiss citizens who commute to Germany. National surveillance data therefore provide only a limited view of this cross-border outbreak.

A German citizen in her 20s, resident in Basel, fell ill with measles in week 3 of 2008 and returned to her parents’ home in Karlsruhe, Germany, for care. In week 5, her sister fell ill with laboratory-confirmed measles and was admitted to a local hospital in week 6.

In the county of Breisgau-Hochschwarzwald (southern Black Forest region), two siblings of 10 and 13 years fell ill during week 4 of 2008 with laboratory-confirmed measles. One week earlier, at the occasion of a family event in Switzerland, they had been in contact with cousins who were harbouring a measles infection in the incubation period. Genotyping of the measles virus isolates from both German siblings showed D5 measles virus identical to the variant causing the current outbreak in Switzerland. A third 11-year-old sibling fell ill in week 6.

In week 6, a German citizen in his late 20s who had fallen ill with laboratory-confirmed measles during a stay in the canton of Aargau, Switzerland, was admitted to a hospital in Lörrach county, which borders Switzerland. His spouse fell ill one week later.

In a school in Lörrach county, a first clinical measles case occurred in week 4, followed by a second clinical case one week later. Subsequently, the school was closed for 13 days due to winter holidays coinciding with the local carnival season. Immediately after the school had reopened, further measles cases occurred.

Initially, notifications were only received with a delay of approximately eight days after the onset of clinical disease. It is unclear whether early cases may have gone unnoticed.

As of 20 February 2008, 19 measles cases had been identified in children, adolescents and young adults aged between seven and 20 years attending the school in Lörrach, including some students who commute from the neighbouring Swiss city of Basel. The local public health service informed all parents by leaflets. All physicians with private practices in the county of Lörrach were informed by fax of the event. Physicians were also informed about measles virus diagnostic kits available from the public health service. Genotyping of the first three laboratory-confirmed cases for whom notifications were received after the holidays is pending. The public was informed by media statements issued by the county administration and the Baden-Württemberg State Ministry of Labour and Social Affairs. Parents were advised to have the vaccination status of their children checked by a physician and, if necessary, completed.

Of note is that measles vaccine coverage in the affected region is below the federal state average (94.1% for one and 83.9% for two doses among prospective school beginners in 2007). This is due to a regional prevalence of groups with a critical attitude towards immunisation.

Public health authorities expect the outbreak to continue. Vaccination rates may improve county-wide but are unlikely to rise in the population group opposed to vaccination in which the current outbreak is occurring. Local health authorities in Germany and Switzerland maintain cross-border contact and are co-operating in outbreak investigation and prevention measures.

Author’s correction: On request of the authors, A Siedler was included in the authors list on 6 February 2008.

References

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