

Measles – Also a problem in Europe

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Measles is an infectious disease, caused by a virus (*paramyxovirus*). The virus is transmitted via droplets from the respiratory tract and is highly contagious (approximately 90%). With a high contagiousness-index, a high manifestation-index and also a high grade of immunity – the measles are a typical childhood disease. Typical symptoms – that occur in general 10 to 12 days after the infection – are high fever, a running nose, cough and red, watery eyes. A couple of days after the beginning of the first symptoms usually a rash erupts, especially on the neck, face and upper part of the body. Feared are the complications that this virus can cause. In well developed countries, complications are seen, according to standard medical literature, in around 15%. The complications are often due to a bacterial superinfection, the most common one is the infection of the middle ear. Other complications are pneumonia and laryngotracheitis that can lead to asphyxia. One of the most feared complications and with a rate of 1:1000 (in industrial nations, children > 1y.) also quite common, is the measles encephalitis with a lethality of almost 30% - in well developed countries (!).

There's no specific treatment. All doctors can do is giving supportive care. In developing countries, it's recommended to give vitamin A, to prevent blindness and death.

Best treatment therefore is prevention! WHO recommends to vaccinate every child, if possible with two doses! Two doses, because according to the WHO, 15% of the children fail to develop immunity from the first dose. For eradication of measles, at least 95% of the population must be vaccinated with two doses (WHO). The vaccine is safe and cheap. According to the WHO, in 2008 164'000 children died because of measles – mostly in poorly developed countries. This are 18 deaths per hour.

In 2001 the "Measles Initiative" was founded – supported by WHO, UNICEF, the American Red Cross, CDC and the United Nations Foundation. The aim is to reduce global measles mortality due to mass vaccination. More than 1 billion children have been vaccinated thanks to the initiative and globally, deaths have plunged by 78% between 2000 and 2008. It's a goal to reduce mortality by 95% until 2015, compared to the level from 2000.

Situation in the world – Africa & South-East Asia:

Africa was/is the most affected region in the world. Due to that fact the above mentioned Measles Initiative had its focus on that region (at least in the beginning). The vaccination coverage has improved from 53% (2000) to 84% (2007). Until October 2011, there were more than 35'000 cases in Africa in 2011 (WHO). In 2010 we have seen more than 120'000 cases!

In the South-East Region, traditionally also a region with many cases (especially in India), were more than 32'000 cases reported by the WHO so far.

The Western Pacific Region, the Eastern Mediterranean Region and the Region of Americas:

According to local health professionals, the case rate is dropping dramatically in Western Pacific Region. WHO reports almost 20'000 cases so far in 2011.

In the Eastern Mediterranean roughly 10'000 cases are reported so far in 2011 and the Region of Americas only reported a little bit more than 1000 cases.

Europe:

Normally, when it comes down to topic like this, people from Europe can lean back and relax. Not this time. One could be optimistic about the goal of eliminating measles in the European Region by 2010, a good progress in reduction of case rate was seen since 2003. Then, in late 2009 a sharp raise of reported cases (measles are a notifiable disease in all Member States of the European Region). In 2010 more than 30'000 cases were reported, in 2011 so far (end of October) more than 26'000 cases. 83.3% of the cases were seen in the western European subregion (Austria, France, Germany, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, ...)! The most cases were reported in France (> 14'000). Most patients were older children and young adults who had not

been vaccinated. So the main reason for the outbreak is failure to vaccinate. In 2011, 9 people died measles-associated (6 in France, 1 in Germany, 1 in Kyrgyzstan and 1 in Romania) – 7 of those were aged > 10 years. They either had not been vaccinated (4 cases) or the vaccination status was unknown (5).

According to the editor of the latest WHO report about measles, the principal factors for the decreased demand for vaccine are “lack of knowledge of the seriousness of the disease, scepticism about the benefits of vaccination, increased fear of adverse events following immunization...”.

Measles are not “just” causing death but also financial costs (thousands of measles-associated hospitalizations). An other problem is, that the European Region has become a source of virus introduction into other areas, eg. the Region of the Americas. According to an article from the WHO, the most measles importations into the US are from the European Region. Different measures are taken and also necessary with upcoming mass gatherings in mind, like the European Football Championship in Poland and Ukraine (2012) and the Olympic Games in London, also next year.

Switzerland:

According to the Federal Office of Public Health in Switzerland (BAG) we have seen more than 680 cases since December 2010 (same period in 2009/10: 51). The peak of the epidemic was April 2011 with more than 200 cases. In September and October 2011 just a few sporadic cases were reported, so the epidemic was declared to be over. A third of the cases were seen with people older than 20 years. 10% of all patients had to be hospitalized, none died.

Switzerland has a “long history” with measles epidemic in the still young 21th century. There was an epidemic from End of 2006 to July 2009, where a case rate of 57.3/100'000 has been seen! An other was in 2003 (8.3 / 100'000).

Facit:

Measles are a burden for the health system and can cause death and disability, especially in developing countries. The best treatment is prevention with two doses vaccine.

Measles are still an unsolved problem, with a raising number of cases in Europe – mostly because of fail to vaccinate. Measures are taken by the WHO and local governments - it's still a goal to reduce the case rate about 95% from the level in 2000.

Several sources have been used in order to produce this report.