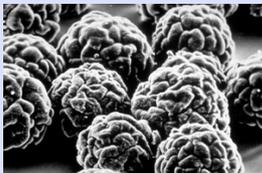


Safety Services Guidance



Poliomyelitis risk

Key word(s): Poliomyelitis, soil and water samples, clinical samples, poliovirus

Target audience: PIs, laboratory staff, safety advisors

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What is polio?

1. Poliomyelitis (polio) is a highly infectious disease caused by a virus. It invades the nervous system, and can cause total paralysis in a matter of hours. It can strike at any age, but affects mainly children under three (over 50% of all cases). The disease is transmitted by person-to-person spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine.
2. Initial symptoms include fever, fatigue, headache, vomiting, stiffness in the neck, and pain in the limbs, though one in 200 infections leads to irreversible paralysis (usually in the legs). Amongst those paralysed, 5%-10% die when their breathing muscles become immobilized. Although polio paralysis is the most visible sign of polio infection, fewer than 1% of polio infections ever result in paralysis.

What is being done to eradicate polio?

3. Until the 1950s, polio crippled thousands of children every year in industrialized countries. Soon after the introduction of effective vaccines in the late 1950s and early 1960s, polio was brought under control, and practically eliminated as a public health problem in industrialized countries. During the 1970s routine immunization with polio vaccine was introduced worldwide, helping to control the disease in many developing countries. In 1988, the Global Polio Eradication Initiative was established at a time when over 350,000 children were paralysed by polio each year in more than 125 countries.
4. A number of eradication milestones have been reached, and several regions of the world have been certified polio-free. The Americas were declared polio-free in 1994. In 2000 polio was officially eliminated in 36 Western Pacific countries, including China and Australia. Europe was declared polio-free in 2002. As of 2014, polio remains endemic in only four countries: Nigeria, Pakistan and Afghanistan.
5. Further information is at <http://www.who.int/topics/poliomyelitis/en/>

What should I do to prevent the spread of polio?

6. Anyone visiting these three countries must be vaccinated against polio.
7. In endemic areas, soil and water which may be contaminated with faecal matter samples should be considered as a potential source of polio.

8. Clinical samples taken from individuals from endemic areas may also pose a risk.
9. Anyone storing material which may pose a polio risk should inform the [University BioSafety Advisor](#).

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