

Incidence of disease in communities:
Polio/VPV2

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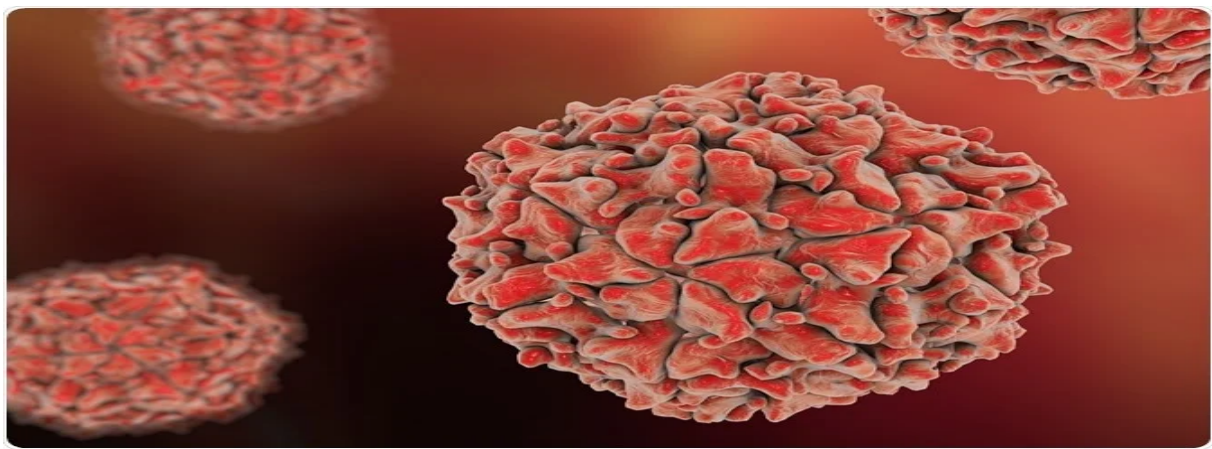
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Introduction

According to the NHS, poliomyelitis, usually called polio, is a disease highly infectious, caused by a virus. It is very rare to find in the UK because of the vaccination programme. There are three types of polioviruses: WPV1 which is type 1, WPV2 which is type 2, WPV3 which is type 3, they are infectious and cause severe paralysis and if left untreated it can lead to death. The parts of the body that are affected by this virus are the nerves in the spinal cord and the brain. This infection causes 95% of people to not show any symptoms once they contract this disease (NHS,2023). However, for those that contract the disease, will have flu-like symptoms such as high temperatures, extreme tiredness, headaches and muscle pain. The last outbreak of the disease was in the 1970's and the last case was in 1984 since the vaccination was successful. In terms of transmission, it passes from an infected person to a non-infected one. This is normally transmitted through droplets from coughs or sneezes and through the contact with the faeces of an infected person.



Kon,K.[no title][no year]. Available at:

<https://www.news-medical.net/life-sciences/Polio-Virion-Infection.aspx>

Strategies used in UK to measure the incidence of disease polio

Mortality observes the number of the deaths in the integer population from specific illness or condition and the number of deaths caused by health situation, under investigation. It is very important to know the dates and number of people's death during the year and do a comparison about age specific death rates for a population to be used as standard. Before the vaccine in the 1950s, paralytic polio epidemic reached case numbers of 8,000 in the UK, with up to 75 deaths. Fatality ratio typically ranges from 2%, in the UK the last case of polio was in 1984 and in 2003 Europe announced polio free. However, around February 2022 the type 2 of polio has been found in north and east London sewage, it is believed that this virus was found through testing. To prevent further spread and avoid an epidemic, the government decided to launch an immunisation campaign so the population in London is up to date with the polio vaccines (Balogun,2022).

Another method to measure the incidence of polio virus is through the measure of morbidity. Morbidity is the symptoms of a disease or condition and state of a disease. When the polio epidemic was present in the UK in the 1950s, the average number of cases was 4,000 per year, this shows that the disease was highly active in society. However, this epidemic was finally considered finished in 2003 because of the immunisation programmes. Even with this, the disease managed to appear in London in 2022 after almost 40 years.

Strategies used to monitor Polio in the UK

To monitor the poliovirus there needs to be surveillance and this is an important tactic to keep aware of the destruction of poliomyelitis. Surveillance can be the analysis and comparisons of data and information between different seasons on different locations, verifying age groups and gender. The method of surveillance allows certain actions to be taken and this could be the tracking of the virus, check the trends of occurrence; meaning they would see how many cases per area and it allows to look after the risk factors that are allowing the disease to be spread. The actions allow us to know what to do when it comes to controlling polio. To make sure the surveillance of polio is done properly, and the monitoring is successful, there needs to be the reporting of children with acute flaccid paralysis, collect the faeces of suspected or infected person, isolate and identify the poliovirus in the laboratories and to map the virus so they can figure out the origins of the strain (GPEI,[no date]).

Strategies used to control Polio disease in the UK

The control of diseases is very important to keep the population healthy and safe (GOV UK,2022). The UK authorities had and have different methods to control the Poliovirus and this includes immunisation programmes. This is the process where the population gets protected against a disease, for this case, the population was vaccinated against polio, however, for children, it is better to take an oral vaccine. To control diseases, antibiotics, antivirals and antifungals can also be used to protect the population and have a better control of the disease. So the control of the disease can be successful, governments must use health campaigns to inform people of the benefits of immunisation programmes and how they should protect others and themselves if they contract contagious diseases. In this case, when type 2 polio virus reappeared in 2022 in London after almost 40 years, health authorities urged parents to book appointments for their children aged between 1 to 9 years old as the disease mainly affects children (NHS,[no date]).



Source: <https://www.addisonroadmedicalpractice.nhs.uk/news/polio-vaccinations>

Conclusion

For a successful prevention, detection and control of the poliovirus, the immunisation programmes are the most ideal as it will decrease the transmission rates and will protect the population from the risk of getting their nerves damaged and get paralysed. Another method that helps to have a successful prevention, detection and control of this disease is surveillance. Surveillance allows the data information and statistics to be saved meaning it would be easier to determine the severity of the outbreak. Since all factors that help to identify the incidence are being followed, the poliovirus is not around anymore.

References

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