

Title Page

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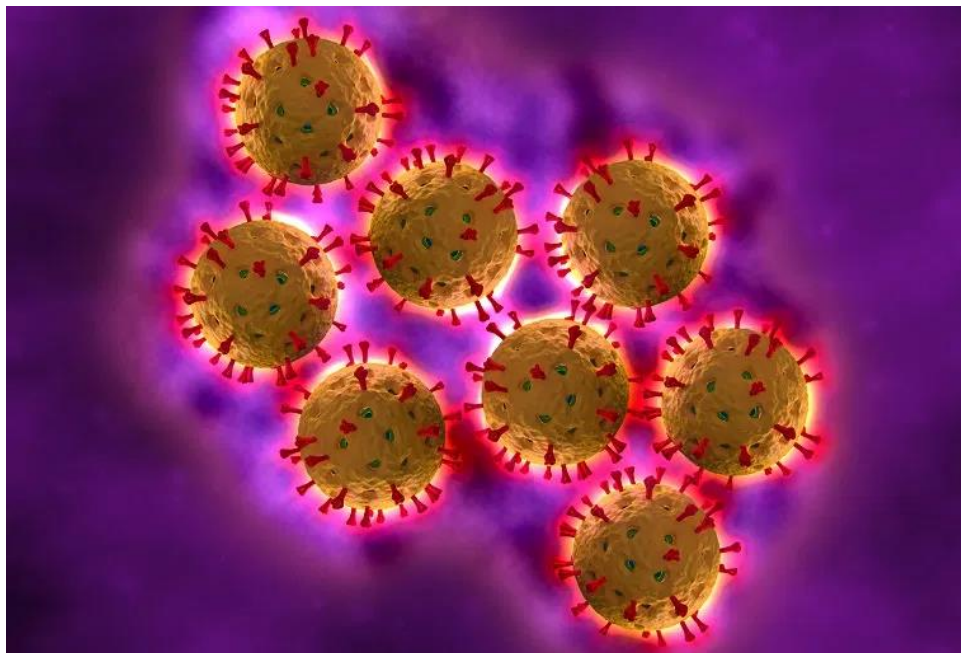
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Introduction

Rotavirus has been around since 1973, and is viral infection causing sickness and diarrhoea, this report is to show how the disease is monitored, measured and controlled. Rotaviruses are the most common cause of a diarrhoea infection, this is mainly children who get it, at least every child in the world is infected with rotavirus by the age of 5 years old. It's important has historically been underestimated with in the public health community, particularly in developing countries (Simpson E, Willet S, Bonilla J, Gamazina K, Cooley L, Winkler JL, 2007) In addition to its impact on human health, rotavirus also infects animals and is a pathogen of livestock (Dubovi EJ, Maclachlan NJ, 2010).



Strategies used in the UK to measure the incidence of rotavirus.

An outbreak of rotavirus is defined at 2 or more cases, the strategies used to measure the cases during an outbreak are, how many children are off school due to the virus also how many have been to a GP practise or even a hospital due to the virus. The Impact on non-specific outcome measures was consistently highest during the rotavirus season for children under 5 years, suggesting that the observed reduction in incidence of rotavirus. The smaller reductions seen in consultants in primary care are likely explain by the non-specific gastroenteritis outcome measure and also because of the presumed lower effectiveness of rotavirus vaccine against milder disease (Hungerford D, 2017). There has been a mathematical modelling used to quantify rotavirus vaccine impact and to look into reduced vaccine effectiveness. Overall to measure the incidence of rotavirus this has been done through data prior to the vaccine and also data after the vaccine had been introduced. It has been demonstrated that commonly used measure of vaccine effectiveness is expected to be lower after the first year of a child. Data is a good way to measure the incidence of rotavirus as this gives a good idea of how many children have been infected and if there is an outbreak. It also gives an idea of how the vaccine being introduced has helped the outbreak of rotavirus.

Strategies used in the UK to monitor the incidence of rotavirus.

To monitor a rotavirus outbreak there has been many different study's that have been used to gather information on which is the best strategies to use to monitor the rotavirus. We review the different study designs that have been used both pre and post licensure to evaluate the association of rotavirus vaccines with intussusception and discuss the pros and cons of each design. Each of these study designs has their own strengths and weakness and the choice of the design often depends on the objective and the timing pf the study and the resources available. For post-licensure monitoring of rotavirus vaccines, self-controlled case series design has become the most commonly used design to monitor the rotavirus (Rennels MB, 1998). Trials were induced to monitor the rotavirus vaccine to see how this had an effect on those who had the vaccine. There are systems available to monitor outbreak of rotavirus and all other diseases, the system also monitors the country's immunization program as an early warning system to identify potential vaccine safety problems. The use of a surveillance data is often proposed to monitor trends in an adverse event over time. Cases are identified through either active or passive surveillance, this is how the rotavirus disease is monitored and also how the rotavirus vaccine is monitored.

Strategies used in the UK to control the incidence of rotavirus.

To control an outbreak of rotavirus it is advisable for infected people to use basic hygiene like washing hands after using the toilet and also avoid preparing any food for others. Children should be home off school for at least 48 hours as long as it's been 24 hours after the last diarrhoea or sickness episode. Healthcare workers and food handlers should also be excluded from work for the same period of time as children from school. A good basic hygiene is important but to keep the disease under control, there has been vaccine brought out where children from 2 months of age can have this vaccine this prevents getting rotavirus. The vaccine was introduced in the UK for infants in July 2013 this is part of the childhood immunisations. As well as the vaccine there is also medication that can be taken to cure the infection of rotavirus when someone is suffering from it. To control the rotavirus behaviour of a person comes into it as behaviour change can help control the virus for example; If a person is not hygienic before catching the disease if they were to change their behaviour to become more hygienic with basic hand washing etc, the virus would then be kept under control. Modifying the environment also comes under controlling the disease as if the environment is kept clean there is less chance of the virus spreading to more people. Environment cleaning is fundamental principle of infection in healthcare settings. Contaminated hospital surfaces play an important role in the transmission of dangerous pathogens. Therefore, appropriate disinfection of those surfaces and equipment which patients and healthcare personnel touch are necessary to reduce exposure (HAI, 2014). As stated above to control the rotavirus disease a vaccine is the most common and best solution, but basic hygiene is also very important in cases like this, this will help keep the disease under control and to prevent further spreading of the disease.

Conclusion

As stated in this brief, the rotavirus disease has been around since 1973 and has been a very common infection mainly in young children. The disease is monitored through surveillance, data and how many children are off school and adults off work because of the infection. Before a vaccination was brought out in the UK in 2013, to control the disease basic hygiene was very important, basic hand washing and not preparing food while infected with this disease was important. When the vaccine was brought out 2013 this then became the first thing to give when keeping the disease under control. The Environment also plays a part of keep the disease under control, a keep healthy environment means a clean and healthy health for most if not all people. As said above the vaccination is given to children from the age of 2 months old this is now part of the normal immunisations that all children can have from the age of 2 months old.

Reference Page

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