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MUMPS REPORT

INTRODUCTION TO PUBLIC HEALTH – LCHS4004
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Introduction

According to the Centers for Disease Control and Prevention (CDC, n.d.; UK.HSA, 2022), Mumps is a disease that only affects humans, it is transmitted from saliva through direct contact with a person infected with mumps or saliva droplets when coughing and sneezing. Mainly affects the parotid, sublingual and submandibular glands and is caused by a paramyxovirus, a Rubulavirus family member. This virus incubates within 16 to 18 days and can last up to 25 days in the human body. The most contagious stage of the disease is in the first five days of the infection been onset. This virus can affect any age group and if not treated in time can become pancreatitis, deafness, meningitis, and encephalitis amongst others, though these complications occurred in less than 1% in the U.S. alone.

Measure the incidence of mumps

The importance of the data collection is to measure mortality and morbidity is essential to analyze the acuity and damages of the disease, and to define the actions to take. Mortality rates identify as the amounts of deaths caused by disease or events. Morbidity is a specific illness or disease, or unhealthy state. (Dictionary, 2020)

Before the MMR (measles-mumps-rubella) vaccine was introduced in 1967, the CDC (n.d.) reported over 100,000 cases a year in the U.S. as the main age group was children. Since 1988, when the vaccine was introduced in the UK, mumps cases have decreased enormously, nearly to 3,700 cases in 2020 in England and Wales, though in prior years incidence was leaser the incidence exist still due to the lack of education, migration, and low level of vaccination (UK.HSA, 2022). According to the Cambridge University Press, updated in 2009, “mathematical models and statistical analyses of epidemiological data are employed to assess the potential impact of mass vaccination on the incidences of cases of mumps-related complications”. These analyses reveal that the average age with the mumps virus is between 6 and 7 years. To eliminate virus transmission 85% of children aged 2 years are vaccinated. As well the UK Government campaign invites all adults and children non vaccinated to promptly rise the issue with their General Practitioner as soon as possible in order to avoid the propagation of the virus as much as possible.

Monitor the incidence of mumps

As defined by EUPHA, 2022, monitoring is the collection of relevant data on health components and determinants in the population aimed to inform the public health policy process. To monitor, four main streams have been identified (Vyse, 2002):

a) data on vaccination coverage:

Before computer data storage was introduced in England and Wales in 1988, data was collected once a year, nowadays digital health registers cover the complete population in a more timely and specific aim. The COVER (cover of vaccination evaluated rapidly) program focuses on vaccination coverage and being able to adapt vaccination strategies quicker.

b) clinical notifications:

Since 1988, Mumps is a statutory notifiable infectious disease, and 'clinicians are legally required to report any cases diagnosed to the appropriate officer of the local government authority'.

c) laboratory-confirmed cases:

'Laboratory confirmation by the detection of specific immunoglobulin M (IgM) in an appropriate clinical specimen can be used in association with notification to improve the accuracy of the data'.

d) antibody prevalence:

The prevalence of antibodies to Mumps is monitored by using anonymized residues of specimens yielded for microbiologic or biochemical, detecting specific Immunoglobulin G (IgG), that rest in the individual system for the rest of its life.

These methods of surveillance can be supplemented with hospital admissions data, death certificates, and sentinel surveillance in general practices from the Royal College of General Practitioners Birmingham Research Unit.

Control the incidence of mumps

Immunisation is the best way to keep this disease under control (NHS, 2022). The MMR and the MMRV (measles-mumps-rubella-varicella) vaccines should be received by children by the age of 5 years, two doses are required to help to reduce by 88% the risk of mumps complications, though, immunity is not a warranty after having the official two doses of the vaccine (UK.HSA, 2022). The vaccine will only reduce the acuity of the disease and can still be transmitted and acquired by any vaccinated or not vaccinated person. This is the reason why education plays an essential role in the community, to be informed of the circumstances and possible outcomes.

In June 2022 the UK Health Security Agency showed that roughly 80.7% of children in London have had the first MMR vaccine dose, and 74.8% had the second by the age of 5. (NHS, 2022).

Dr. Chris Streater, Medical Director for the NHS in London, said:

“We are urging parents to check their child’s Red Book or speak to their GP practice to ensure all immunisations are up-to-date.”

He added that: “The MMR vaccine is safe, quick, and free as part of the NHS routine immunisation schedule and it’s never too late to get both doses to give your child protection.”

Immunisation is vital but is not the only way to be protected from this or many other diseases. Environmental awareness and lifestyle are of great importance to prevent it. Healthy living is as important as being vaccinated. (NHS, 2022).

- Eating a balanced diet: eating 5 fruits and vegetables a day, drinking at least 1.5 litres of water, having some dairy or dairy alternatives, fibre, eating beans, eggs, fish, meat, or other types of protein, small amounts of unsaturated oils and spreads, as avoiding too much sugar or salt.
- Exercise or physical activity: Running, stretching, flexing, cardio-vascular and aerobic activities daily.
- To sleep well (from 6 to 8 hours), and avoid over-tiredness.
- Mental health and sexual awareness.
- Avoid addiction, such as tobacco, alcohol, and drug consumption.
- Cleanliness or sanitary personal awareness and care.
- And last but not least, to have good communication and follow up with a General Practitioner.

Conclusion

Even though the incidence of this disease is not impacting health broad national scale, is important to maintain monitoring of this disease and its prevalence, to avoid unhealthy lifestyles and activities, and to report all cases to the Health Protection Team (HPT). As is important to maintain primary care and educate people about the risks of this contagious virus and the consequences of the virus complications. Keeping in mind that good health is the base of well-being, thus, promotes a better quality of life and to better enjoy our time spent in this world.

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