New study confirms success of MenB vaccine in the UK

A new study by Public Health England (PHE) shows that infant vaccination against group B meningococcal disease (MenB) has resulted in a significant decline in cases of the disease in young children since the programme was introduced. The research was published in the New England Journal of Medicine on Wednesday 22 January 2020.

In September 2015, the UK became the first country to offer a new vaccine (Bexsero) against MenB to babies at 8 and 16 weeks of age, followed by a booster around their first birthday. Infants in the first year of life have the highest incidence of MenB disease so vaccinating at these times helps protect them when they are most at risk.

MenB is one of the leading infectious killers in young children. The disease causes meningitis and septicaemia (blood poisoning) especially in young children and, while most recover with swift medical treatment, sadly around 1 out of 20 will die of the infection. The disease can be life-changing for survivors who experience long-term complications such as brain injury, epilepsy, hearing loss, and amputation of limbs.

PHE's study shows that by the third year of the programme, cases of MenB disease were 62% lower in children who were eligible for at least 2 doses of the vaccine. Between 2015 and 2018, an estimated 277 out of an expected 446 cases were prevented because of the programme.

Dr Shamez Ladhani, Consultant Epidemiologist at Public Health England, said:

> England has one of the most comprehensive immunisation programmes in the world. The implementation of the MenB vaccine in 2015 is a great success, it is already saving lives and means fewer parents and young children will experience this devastating illness.
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> It is vital that children receive all available vaccines on time to provide the best protection at the age when they are at highest risk. PHE is working closely with NHS England to make it as easy as possible for parents to access vaccines so that they can offer their children the best possible start in life.

Linda Glennie, Director of Research for Meningitis Research Foundation (MRF) said:

> Everyone who knows about this deadly disease and its after effects will welcome the news that the MenB vaccination has reduced cases and saved lives. MRF campaigned for the introduction of the MenB

> vaccination programme, and we help people who have been affected by meningitis through our Support Services on a daily basis. Preventing meningitis is important to parents and a key part of the plan to defeat the illness, and everyone eligible for vaccinations should take the opportunity to protect their families.

Dr Tom Nutt, CEO at Meningitis Now, said:

> What this latest news shows is that vaccines save lives. We'd encourage as many families as possible to take advantage of this vaccine, protect their children from meningitis, and avoid the heartache that this devastating disease leaves in its wake.
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> We know that there's a lot of misinformation about vaccines on social media and on the internet, but this latest report shows that parents shouldn't worry about the safety of the vaccine – in fact, it saves precious lives. If people do have doubts and are concerned, they should talk to their GP or seek reassurance by calling our Helpline or visiting our website at Meningitis Now.

In England, MenB vaccinations are well-accepted by parents. Uptake has remained consistently high along with the other routine infant immunisations. In 2019 around 92% of infants completed their primary MenB vaccination by their first birthday and almost 88% received their booster dose by 2 years old. So far, almost 5 million doses of the MenB vaccine have been safely given to children in the UK.

The MenB vaccine does not protect against all causes of meningitis and septicaemia, so parents need to remain vigilant of the signs and symptoms and seek medical advice if they are concerned.

1. The UK was the first country to introduce the MenB vaccine BEXSERO into its national infant immunisation programme.
2. The vaccine BEXSERO aims to protect between 73 to 88% of MenB strains causing invasive disease such as meningitis and septicaemia in the UK.
3. Infants are routinely offered the MenB vaccine as part of the national immunisation programme at 8 and 16 weeks of age, followed by a booster around their first birthday.
4. In 2016, PHE published a paper in the Lancet which reported on the impact and effectiveness of the programme over the first 10 months of the programme.
5. PHE have reported on the safety of the vaccine after 3 million doses and found no significant safety concerns after widespread use of BEXSERO in UK infants. The paper also shows that the vaccine is accepted by parents because uptake for subsequent doses remain high.
6. More about the MenB vaccine is on NHS.UK.

7. Meningococcal disease can cause both meningitis (swelling of the lining around the brain and spinal cord) and septicaemia (blood poisoning). Septicaemia and meningitis can trigger sepsis which is a life-

threatening response to infection. Meningitis Research Foundation and Meningitis Now have more information on meningitis symptoms:

8. Full details of the meningococcal surveillance plan in England are available.
9. The full paper is available from the New England Journal of Medicine.