IMMUNISATIONS Supporting information

This guideline has been prepared with reference to the following:

Public Health England. Immunisation: collection. 2019. Public Health England. London

https://www.gov.uk/government/collections/immunisation

NHS Choices. Men B vaccine. 2018. NHS

http://www.nhs.uk/Conditions/vaccinations/Pages/meningitis-B-vaccine.aspx

Salisbury D & Ramsay M. Immunisation against infectious disease: the green book. 2016. Public Health England. London

https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

NHS Choices. The NHS vaccination schedule. 2016. NHS

https://www.nhs.uk/conditions/vaccinations/nhs-vaccinations-and-when-to-have-them/

British HIV Association (BHIVA). British HIV Association guidelines for the management of HIV infection in pregnant women 2012 (2014 Interim Review).

Immunisation of pre-term babies should not be delayed because of prematurity or low body weight?

A 2015 narrative review concludes that "preterm infants should be vaccinated using the same schedule as term infants, with the exception of the HBV vaccine, where the full schedule needs to be repeated in infants who received their first dose when they weighed less than 2000g" (Gagneur. 2015).

A prospective observational study in 473 infants with a birth weight under 1500g (Furck, 2010) concluded that "Premature infants should be vaccinated at the appropriate vaccinating age, without correcting for their gestational week and regardless of their weight." The frequency of adverse events for local reactions/fever was 2.8% and for apnea/bradycardia it was 10.8%.

Furck AK, Richter JW, Kattner E. Very low birth weight infants have only few adverse events after timely immunization. J Perinatol 2010;30:118-21

Gagneur A, Pinquier D & Quach C. Immunization of preterm infants. Hum Vaccin Immunother. 2015;11:2556–63 <u>http://europepmc.org/articles/PMC4685684</u>

Evidence Level: III

What are the high-risk groups for rotavirus-associated morbidity/mortality?

2020 guidance from the European Academy of Paediatrics (EAP) and the European Society for Paediatric Infectious Diseases (ESPID) stated that there is no accountable evidence on increased severity of rotavirus infection in specific risk groups, including children previously born preterm or immunocompromised children (Dornbusch, 2020).

A population-based, case-control study in 1606 infants hospitalised with viral gastroenteritis (Newman, 1999) found that very low birth weight infants (< 1500 g) were at the highest risk (OR 2.6; 95% CI 1.6-4.1), low birth weight infants (1500-2499 g) were at intermediate risk (OR 1.6; 95% CI 1.3-2.1) and large infants (> 4000 g) had a reduced risk (OR 0.8; 95% CI 0.6-0.9) of rotavirus infection. Other factors that were associated with increased risk of hospitalisation were male gender (OR 1.4; 95% CI 1.3-1.6), maternal smoking (OR 1.2; 95% CI 1.1-1.4), and maternal age <20 years (OR 1.2; 95% CI 1.0-1.5).

Dornbusch HJ, Vesikari T, Guarino A et al. Rotavirus vaccination for all children or subgroups only? Comment of the European Academy of Paediatrics (EAP) and the European Society for Paediatric Infectious Diseases (ESPID) recommendation group for rotavirus vaccination. Eur J Pediatr. 2020;179:1489-93

Newman RD, Grupp PJ, Shay DK, et al. Perinatal risk factors for infant hospitalisation with viral gastroenteritis. Pediatrics 1999;103:E3

Evidence Level: III

Patient Information is available from: NHS Choices. Vaccinations. 2019. NHS Choices https://www.nhs.uk/conditions/vaccinations/

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