ATAGI recommendation for using Bexsero vaccine as a booster dose in individuals at standard background risk of IMD

Meningococcal B booster doses in individuals at standard background risk of invasive meningococcal disease (IMD) are not recommended for individuals of any age.

Further advice will be provided on the need for booster doses in individuals at standard background risk of IMD if evidence in the future indicates a need, e.g. changing epidemiology, or if evidence of high certainty of benefits of a booster dose become available.

Justification

- IMD is a life-threatening infection with high rates of morbidity, and mortality of approximately 4%.
- In healthy individuals, disease epidemiology suggests the peak period of risk for Meningococcal B is in those aged 0-12 months, with a subsequent peak in adolescents and young adults aged 15-19 years. Numbers of cases are decreasing (1999 to 2020) despite no widespread vaccination program in healthy individuals.
- Evidence on duration of protection after the primary schedule against clinical outcomes is very limited for Bexsero but may suggest protection for at least 2 years after primary vaccination in infants and slightly longer in older children and adolescents. Immunogenicity data suggests early waning of the proportion with hSBA≥1:4 / 1:5 (the proposed correlate of protection) by 12-24 months.
- Vaccination in infancy or during adolescence is likely to provide adequate protection during these peak periods after which the risk of IMD is lower.
- There is low certainty evidence of a moderate effect from a booster dose of Bexsero based on immunogenicity data only which increases the proportion with hSBA≥1:4 or 1:5 (the proposed correlate of protection) but the increase varies in size dependent on test strain and on the degree of waning prior to the booster dose. The correlation of protection between an hSBA titre ≥1:4 is more established for serogroup C but there is limited evidence of its applicability for serogroup B disease.
- There is no evidence available on clinical outcomes after booster doses.
- Given the lower risk outside of peak age periods of incidence of Men B disease, the overall reducing incidence of Men B cases over time, and lack of current data of clinical benefit after boosters in individuals at standard risk, a routine booster dose is not considered necessary at this time in individuals who are not at increased risk of IMD.

Note: NCIRS is conducting GRADE in support of ATAGI and making results available on the NCIRS website. Please read this document as a supplement to the Australian Immunisation Handbook Meningococcal disease chapter