衞生防護中心
Centre for Health Protection

Scientific Committee on Vaccine Preventable Diseases

Updated Recommendations on the Use of Meningococcal Vaccines in Hong Kong (As of 28 July 2025)

Background

Invasive meningococcal disease (IMD) is a serious acute bacterial disease caused by *Neisseria meningitidis* which mostly presents as meningitis and/or septicemia. Meningococci are spread by droplets or direct contact with respiratory secretions from infected individuals. Risk factors of IMD include age (infants, adolescents, young adults, elderly), cigarette smoking, immunodeficiency (advanced HIV infection, terminal complement component deficiencies and asplenia), close contact of infected patients (e.g. household members), overcrowded living conditions, travelling to areas with high prevalence or epidemic meningococcal disease (e.g. sub-Saharan Africa), and attending mass gatherings (e.g. religious pilgrimages like Hajj and Umrah).

2. IMD occurs worldwide, and the majority are caused by one of the six most prevalent serogroups, namely A, B, C, W, X or Y. In 2019, over 700,000 IMD cases were estimated globally, including more than 400,000 meningococcal meningitis cases of which about 32,000 were fatal[1].

3. The highest meningococcal disease burden takes place along the sub-Saharan Africa region extending from Senegal to Ethiopia (meningitis belt), where the average annual incidence of suspected and confirmed meningitis cases stood at 31.3 and 7.5 cases per 100,000 population respectively during 2011 to 2023[2]. Seasonal outbreaks and recurring epidemics typically occur from November to June. After the implementation of mass and routine meningococcal A vaccination since

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[1] Shen S, Findlow J, Peyrani P. Global Epidemiology of Meningococcal Disease-Causing Serogroups Before and After the COVID-19 Pandemic: A Narrative Review. Infect Dis Ther. 2024 Dec;13(12):2489-2507.
[2] World Health Organization. Meningococcal vaccines: WHO position paper on the use of multivalent meningococcal conjugate vaccines in countries of the African meningitis belt. Geneva: World Health Organization; 2024 Jan 12.

2010, serogroup A has been disappearing in the meningitis belt while other meningococcal serogroups (such as C, W, X) still cause epidemics albeit with lower frequency and smaller in size.

4. Increases in IMD cases have been observed in some overseas countries after COVID-19 pandemic. The incidence rates of IMD in United States (US), Canada, United Kingdom, France, Australia and New Zealand range from 0.13 to 0.92 cases per 100,000 population per year in recent two years[3]. Serogroup B was the most prevalent serogroup causing IMD cases reported among these countries, except US where serogroup Y had dominated since 2022[4].

5. Pilgrimages associated IMD cases were also reported in the first quarter of 2025[5], involving unvaccinated persons who had performed Umrah in Saudi Arabia. Given this recent IMD event, the World Health Organization (WHO) strongly advises all individuals aged one year or above planning to visit Saudi Arabi for Hajj and Umrah to receive the quadrivalent (serogroups A, C, Y and W135) meninogococcal vaccine at least 10 days prior to travel.

6. In Hong Kong, 94 IMD cases (annual number ranged from 0 to 14) were notified during 2005 to 2025 (up to June), giving an annual incidence rate of 0 to 0.19 per 100,000 population (median 0.07). While the majority were local sporadic cases, a cluster of two workers at a public hospital construction site was recorded in April 2025. Individuals aged 19 to 64 years constituted the highest proportion of all cases (54%). Overall, the case fatality rate was 13%. Serogroup B (50%) was the most dominant serogroup identified.

Meningococcal Vaccines

7. In Hong Kong, three quadrivalent polysaccharide conjugate meningococcal vaccines (MenACWY), and one recombinant protein meningococcal B vaccine (MenB) are currently available. Real-world data

[3] World Health Organization. Invasive meningococcal disease reported cases and incidence [Internet]. Geneva: World Health Organization; 2025. Available from: https://immunizationdata.who.int/global/wiise-detail-page/invasive-meningococcal-disease-reported-cases-and-incidence [Retrieved 21 Jul 2025].

[4] Centers for Disease Control and Prevention. Meningococcal Disease Surveillance and Trends [Internet]. Atlanta: Centers for Disease Control and Prevention; 2025 May 9. Available from: https://www.cdc.gov/meningococcal/php/surveillance/index.html [Retrieved 21 Jul 2025].

[5] World Health Organization. Disease Outbreak News: Invasive meningococcal disease - Kingdom of Saudi Arabia [Internet]. Geneva: World Health Organization; 2025 Apr 11. Available from: https://www.who.int/emergencies/disease-outbreak-news/item/2025-DON563 [Retrieved 17 Jul 2025].

showed that quadrivalent MenACWY[6] and MenB[7] vaccines are about 90% effective in preventing meningococcal diseases among children. Common side effects of quadrivalent MenACWY and MenB vaccines include injection site erythema or pain, dizziness, malaise and fever[8,9].

Recommendations

8. Having reviewed the local epidemiology of IMD, latest recommendations of the WHO and overseas practices, and balancing risks and benefits of meningococcal vaccination, the Scientific Committee on Vaccine Preventable Diseases updated the recommendations on the use of meningococcal vaccines in Hong Kong.

9. In light of Hong Kong's very low IMD incidence, introducing universal meningococcal vaccination into the Hong Kong Childhood Immunisation Programme is not recommended currently.

10. The following individuals who have increased risk of IMD are recommended to receive meningococcal vaccines for personal protection:

(i) Travellers at higher risk of exposure, including:

- Travellers to sub-Saharan regions of Africa during the dry season (i.e. December to June) should consult their doctors to receive quadrivalent MenACWY vaccine;
- Travellers to Mecca in Saudi Arabia for Hajj and Umrah should receive quadrivalent MenACWY vaccine;
- Travellers to other areas with reported meningococcal disease epidemics or outbreaks should receive vaccine that aligns with the destination's prevalent serogroups;
- Long-term travellers, such as those studying abroad, should receive meningococcal vaccination per the recommendations by

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[6] Ohm M, Hahné SJM, van der Ende A, et al. Vaccine Impact and Effectiveness of Meningococcal Serogroup ACWY Conjugate Vaccine Implementation in the Netherlands: A Nationwide Surveillance Study. Clin Infect Dis. 2022 Jul 6;74(12):2173-2180.

[7] Wang B, Giles L, Andraweera P, et al. 4CMenB sustained vaccine effectiveness against invasive meningococcal B disease and gonorrhoea at three years post programme implementation. J Infect. 2023 Aug;87(2):95-102.

[8] Myers TR, McNeil MM. Current safety issues with quadrivalent meningococcal conjugate vaccines. Hum Vaccin Immunother. 2018 May 4;14(5):1175-1178. doi: 10.1080/21645515.2017.1366393. Epub 2017 Nov 8.

[9] Stefanizzi P, Di Lorenzo A, Martinelli A, Moscara L, Stella P, Ancona D, Tafuri S. Adverse events following immunization (AEFIs) with anti-meningococcus type B vaccine (4CMenB): Data of post-marketing active surveillance program. Apulia Region (Italy), 2019-2023. Vaccine. 2023 Nov 22;41(48):7096-7102. doi: 10.1016/j.vaccine.2023.09.061. Epub 2023 Oct 26.

the health authorities in the destination country.

(ii) Individuals with immunodeficiency (advanced HIV infection, terminal complement component deficiencies and asplenia); and

(iii) Laboratory workers who are routinely exposed to isolates of *N. meningitidis.*

11. This recommendation supersedes the previous recommendations for use and advice for travellers on use of meningococcal vaccines dated June 2005.

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