

A Level Biology B

H422/02 Scientific literacy in biology

Question Set 5

1. (a) (i) The MenB vaccine was developed to protect against disease caused by the bacterium *Neisseria meningitidis*. Infection with this bacterium (meningococcal infection) is a major cause of meningitis and blood poisoning, particularly in babies and young children.

The MenB vaccine was introduced into the routine UK vaccination schedule on 1st September 2015. It is available to all new babies born on or after 1st July 2015.

The MenB vaccine is a subunit vaccine.

Explain what is meant by a subunit vaccine.

[1]

- (ii) Parents have been reassured that the MenB vaccine cannot cause meningitis in their children.

Explain why the MenB vaccine cannot cause the disease

[1]

- (iii) The MenB vaccine has also been shown to be effective against other types of meningococcal infection.

Suggest why

[2]

- (b)* Evaluate the importance of herd immunity in the prevention of epidemics.

[6]

Total Marks for Question Set 5: 10

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