**Nimenrix® (meningococcal groups A, C, W-135 and Y conjugate vaccine) eModule Series for Healthcare Professionals**

**Module 3 – Knowledge Check**

1. What is the estimated number of invasive meningococcal disease cases worldwide per year?
	1. At least 50,000
	2. At least 500,000
	3. At least 1.2 million
	4. At least 2 million

ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. True or false: Across the middle of Africa, there is a belt of countries where rates of invasive meningococcal disease can be high, especially during the wet season (June to December).

ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. True or false: Pilgrimages in Saudi Arabia are associated with a high risk of invasive meningococcal disease due to intensely crowded conditions*.*

ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. True or false: In order to issue visas for pilgrims travelling for the Hajj or Umrah, the Kingdom of Saudi Arabia requires proof of receipt of meningococcal vaccine against *N. meningitidis* serogroups A, C, W-135 and Y, such as Nimenrix®.

 ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Select the correct words to complete the statement below:

Everyone visiting Saudi Arabia for the Hajj or Umrah should receive a \_\_\_\_\_\_\_\_\_ meningococcal vaccine no more than 5 \_\_\_\_\_\_ and no less than 10 \_\_\_\_ before arrival.

Words:

* conjugate
* polysaccharide
* days
* months
* years
1. True or false: The incidence of invasive meningococcal disease is highest in the USA and in Europe during the winter months.

 ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which travellers to sub-Saharan Africa are at increased risk of invasive meningococcal disease? *Select all that apply*
	1. Long-stay travellers who have close contact with the local population
	2. Healthcare workers
	3. Those visiting friends and relatives
	4. Those who live or travel ‘rough’ such as backpackers
	5. Individuals with no spleen or poorly functioning spleen
	6. Individuals with certain immune deficiencies (e.g., certain complement deficiencies)

 ANSWER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ANSWERS**

1. What is the estimated number of invasive meningococcal disease cases worldwide per year?
	1. At least 50,000
	2. At least 500,000
	3. At least 1.2 million
	4. At least 2 million

Answer: c1

1. True or false: Across the middle of Africa, there is a belt of countries where rates of invasive meningococcal disease can be high, especially during the wet season (June to December).

Answer: false1

1. True or false: Pilgrimages in Saudi Arabia are associated with a high risk of invasive meningococcal disease due to intensely crowded conditions*.*

Answer: true2

1. True or false: In order to issue visas for pilgrims travelling for the Hajj or Umrah, the Kingdom of Saudi Arabia requires proof of receipt of meningococcal vaccine against *N. meningitidis* serogroups A, C, W-135 and Y, such as Nimenrix®.

Answer: true2

1. Select the correct words to complete the statement below:

Everyone visiting Saudi Arabia for the Hajj or Umrah should receive a \_\_\_\_\_\_\_\_\_ meningococcal vaccine no more than 5 \_\_\_\_\_\_ and no less than 10 \_\_\_\_ before arrival.

Words:

* conjugate
* polysaccharide
* days
* months
* years

Answer: Everyone visiting Saudi Arabia for Hajj or Umrah should receive a **conjugate** meningococcal vaccine no more than 5 **years** and no less than 10 **days** before arrival.2,3

1. True or false: The incidence of invasive meningococcal disease is highest in the USA and in Europe during the winter months.

Answer: true4,5

1. Which travellers to sub-Saharan Africa are at increased risk of invasive meningococcal disease? *Select all that apply*
	1. Long-stay travellers who have close contact with the local population
	2. Healthcare workers
	3. Those visiting friends and relatives
	4. Those who live or travel ‘rough’ such as backpackers
	5. Individuals with no spleen or poorly functioning spleen
	6. Individuals with certain immune deficiencies (e.g., certain complement deficiencies)

 Answer: a, b, c, d, e, f2

**References**

1. Jafri RZ, Ali A, Messennier NE, *et al.* Global epidemiology of invasive meningococcal disease. *Populat Health Metr* 2013;11:17

2. Travel Health Pro. Meningococcal disease. Available from: <http://travelhealthpro.org.uk/factsheet/42/meningococcal-disease> Accessed: June 2021.

3. Travel Health Pro. Saudi Arabia. Available from: <http://travelhealthpro.org.uk/pdfs/generate/country.php?cnt=191> Accessed: June 2021.

4. Harrison LH, Trotter CL, Ramsay ME. Global epidemiology of meningococcal disease. Vaccine 2009; 27(Suppl 2):B51–63.

5. Rosenstein NE, Perkins BA, Stephens DS, *et al*. Meningococcal disease. *N Engl J Med* 2001;344(18):1378–1388.

