



Africa HEALTH CPD Challenge
Questions

Were you paying attention? Test your retentive capacities on issues raised in this edition of *Africa Health*. You can quietly test yourself, or – and we're particularly keen on this – you could make it a part or the foundation of a Journal Club in your department or health institution. Life-long learning is a collaborative exercise and the whole health team can be positively stimulated by being involved in such discussion.

Q1. Clinical Review: Medicine

- In tuberculous meningitis (TBM), what is the benefit of using corticosteroids (eg dexamethasone or prednisolone) as well as anti-tuberculous drugs?
- What is the new WHO advice on the frequency of yellow fever immunisation?
- In adult patients with severe infections (of any source), what is the best body temperature on presentation, to predict greatest survival benefit? Is it:
 - <36°C
 - 36-38°C
 - >38°C
- What three diseases may be associated with loss of the outer third of the eyebrows?

Q2. Clinical Review: STDs

- Name three advantages of point-of-care (POC) testing for sexually transmitted infections.

- What is the gold standard test for *Chlamydia trachomatis* (CT) and *Neisseria gonorrhoeae* (NG) and what are some of the drawbacks for resource-limited areas. What do newer tests offer?

- How are mobile phones helping to diagnose STIs?

Q3. Clinical Review: Paediatrics

- What is the sodium concentration (in mmol/l) of Normal saline, Half normal saline and Ringer's lactate?
- In what proportion of sick children may antidiuretic hormone (ADH) be raised on admission?
- Why is Ringer's lactate better for maintenance fluid than normal saline?

Q5. Medicine: Respiratory symptoms and signs

- At what angle should you position the patient when examining the chest?
 - 42°
 - 45°
 - 48°

Answers

- Q1. (i) The gold standard tests for CT and NG are nucleic acid amplification tests (NAATs). While highly sensitive and specific, these tests traditionally require a laboratory infrastructure and trained personnel, necessitate one to several days to obtain results, and can be expensive. Newer NAAT tests are simpler to use, take less time to prepare, and yield results in about 90 minutes.
- (ii) New laboratory technologies – which essentially create a lab-on-a-chip – enable mobile phones to be used to read and transmit patient samples. The results are available very quickly, even in remote locations.
- Q3. (i) 155; 77; 130.
- (ii) Over one third.
- (iii) Because of lower sodium and chloride.
- Q5. (i) b) 45°. You should make sure that the patient is comfortable and fully exposed when examining their chest.

- Q1. (i) The definite benefit is of significantly reduced mortality. In those who survive, however, there is no definite evidence of benefit in terms of long-term neurological complications.
- (ii) Repeat vaccination every 10 years have been advised in the past, but WHO now advises that a single vaccination only is required with no need for boosters.
- (iii) The answer is c (>38°C). Recent research confirms that fever benefits mortality outcome in severe sepsis. The 30 day mortality rate (MR) with a presenting temperature >38°C was 11.2%, with a temperature of 36-38°C it was 18.3%, and if temperature was <36°C it was 37.5%.
- (iv) Leprosy, Syphilis and Hypothyroidism.
- Q2. (i) Point-of-care tests permit diagnosis and treatment in one visit; they provide opportunities for expedited partner therapy; they can diagnose asymptomatic infections; they reduce the number of patients lost-to-follow-up.