



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. Magnetic filter offers the potential of treating malaria without drugs

- i) Which African countries are worst affected by malaria?
- ii) How does the MediSieve Filter work?
- iii) What percentage of infected cells did the MediSieve remove in the initial trials?
 - a) 70%
 - b) 90%
 - c) 97%

Q2. Manufacturing mosquito nets in Africa: can we do more?

- i) How many insecticide-treated nets (ITNs) did Rwanda need in 2015-16?
 - a) Less than three million
 - b) Between three million and six million
 - c) Above six million
- ii) How many long-lasting insecticide-treated net (LLIN) manufacturers are listed on the World Health Organization website?
 - a) 12
 - b) 16
 - c) 19

- iii) NetMark Nigeria enables who can receive a discount voucher worth US\$2 on the purchase of an ITN?

Q3. Medicine: Drugs of abuse

- i) The 2012/13 crime survey for England and Wales reported that the adult population used illicit drugs last year, but what was the percentage?
 - a) 13.9%
 - b) 3.2%
 - c) 8.2%

- ii) What are the major health risks from using depressants?

- iii) What type of drugs are these: MDMA, ecstasy and crystal meth?

- iv) What is a common clinical effect of cannabinoid receptor agonists?

- v) What are the early features of toxicity?

Q4. Clinical Review: Pharmacy

- i) What does the term polypharmacy mean?
- ii) Name four of the seven stages for assessing polypharmacy
- iii) When was the pain relief ladder originally published?

Q5. Clinical Review: Public Health

- i) What is the single most important intervention in preventing yellow fever?
- ii) How many doses of the yellow fever vaccine have been sent to Angola since February this year?
 - a) More than 10 million
 - b) More than 11 million
 - c) More than 15 million
- iii) How do large epidemics like yellow fever occur?

Answers

- Q1. i) Nigeria, Ghana, Uganda, Democratic Republic of Congo, and Tanzania.
- ii) The Medisieve filter is a magnetic sieve that physically removes malaria-infected blood cells directly from a patient's bloodstream.
- iii) Ninety per cent (90%) of infected cells were removed from the patient's bloodstream in under four hours.
- Q2. i) Above six million. In fact, 7 412 937 nets were needed for 2015–16, with at least a million more for replacement and provision to pregnant women in 2017.
- ii) b) Sixteen (16) LLIN manufacturers are listed on the WHO's website.
- iii) NetMark Nigeria enables pregnant women attending antenatal clinics in Primary Health Care facilities in six local Government areas clusters in Lagos State to receive these discount vouchers. Over 74 000 vouchers were issued and 50 000 redeemed.
- Q3. i) c) 8.2% of the adult population (16–59 years) reported use of a class A drug.
- ii) The major risks from use of drugs with depressant effects are respiratory depression and airway compromise, progressing to aspiration pneumonia and respiratory arrest. Pressure damage to skin and muscles may result in blistering, pressure sores or rhabdomyolysis.
- iii) MDMA, ecstasy and crystal meth are amphetamines and related compounds. They are 3,4-methylene-dioxy-methamphetamine (MDMA, ecstasy), and methamphetamine ('crystal meth').
- iv) Hallucinations are a common clinical effect of cannabinoid receptor agonists. Although early stimulant and later depressant effects are also observed with synthetic cannabinoid receptor agonists, making classification difficult.
- v) Early features of toxicity include headache, agitation, ataxia, hypersalivation and gastrointestinal disturbances, progressing to confusion and agitation with drowsiness, urinary incontinence, tremor and myoclonus. Coma with reduced tendon reflexes and respiratory depression may develop, especially if alcohol or other sedatives are involved.
- Q4. i) Polyparmacy is the term given to include patients taking more than four or five medications (or medications taken without an obvious diagnosis).
- ii) Polyparmacy may be assessed using these seven stages: Assess the patient; Define the goals of the medication review; Identify the medicines with potential risks; Assess the risks and benefits for the individual patient; Agree actions to stop, reduce the dose, continue, or start; and Communicate with all relevant parties.
- iii) The pain relief ladder was originally published in 1985 as a guide to control cancer pain. The pain ladder has been so successful that it is being used internationally for all types of pain.
- Q5. i) WHO advocates that, 'Vaccination is the single most important measure for preventing yellow fever. Yellow fever vaccine is safe and effective and provides immunity within one week in 95% of those vaccinated. Yellow fever control is based on the prevention of outbreaks'.
- ii) b) More than 1 million doses of the yellow fever vaccine have been sent to Angola since February this year and more than two million to the Democratic Republic of the Congo.
- iii) WHO explains that, 'Large epidemics occur when infected people introduce the virus into heavily populated areas with high mosquito density and where most people have little or no immunity, due to lack of vaccination. In these conditions, infected mosquitoes transmit the virus from person to person'.