

CPD questionnaire • May/June

Lemborexant: mechanism, efficacy, and clinical implications

1. What is the primary mechanism of action of Lemborexant?

- a Enhancing GABAergic transmission
- b Blocking histamine receptors to promote sleep
- c Antagonising orexin receptors OX1R and OX2R
- d Increasing serotonin levels to induce drowsiness
- c Stimulating melatonin production

2. What is an advantage of Lemborexant over traditional benzodiazepine receptor agonists?

- a It has a longer half-life, allowing for multiple daily doses
- b It reduces wakefulness without causing next-day drowsiness
- c It increases REM sleep while suppressing deep sleep phases
- d It acts by stimulating melatonin receptors for natural sleep regulation
- e It has a stronger sedative effect than Z-drugs like zolpidem

3. Which of the following clinical trials provided long-term efficacy and safety data for Lemborexant?

- a SUNRISE-1
- b SUNRISE-2
- c ZOLPIDEM Study
- d SLEEP-2023 Trial
- e REM-Cycle Evaluation

4. In which patient population is Lemborexant particularly beneficial due to its safety profile?

- a Pregnant women with insomnia
- b Paediatric patients with sleep disorders
- c Elderly individuals at risk of falls and cognitive impairment
- d Patients with epilepsy-related sleep disturbances
- e Athletes needing post-workout sleep recovery

Haemoglobin A1c (HbA1c): clinical relevance, history, and role in diabetes mellitus management – a South African perspective

5. Which of the following statements best describes the advantage of HbA1c over fasting blood glucose (FBG) in diagnosing and monitoring diabetes mellitus?

- a HbA1c is more affordable and widely available than FBG
- b HbA1c reflects short-term fluctuations in blood glucose
- c HbA1c provides an average glucose level over 2–3 months and does not require fasting
- d HbA1c is significantly influenced by daily dietary intake
- e HbA1c is only used for screening, not for diagnosis

6. In the context of rural South African healthcare, why is Point-of-Care Testing (POCT) for HbA1c particularly valuable?

- a It is more accurate than laboratory-based tests
- b It eliminates the need for professional interpretation
- c It facilitates immediate decision-making where lab access is limited
- d It is more cost-effective than oral glucose tolerance testing (OGTT)
- e It automatically adjusts for patient-specific risk factors

7. Which of the following non-glycaemic factors may lead to falsely elevated HbA1c results and should be considered when interpreting results in the South African population?

- a Pregnancy and hydroxyurea use
- b Iron deficiency anaemia and hypothyroidism
- c Smoking and hyperthyroidism
- d Acute stress and alcohol consumption
- e Recent fasting and exercise

Hypertension in South Africa: a growing epidemic and evolving treatment paradigms

8. Which of the following statements best reflects the current epidemiological situation of hypertension in South Africa?

- a Hypertension affects less than 25% of South African adults and is mostly confined to urban areas
- b The prevalence of hypertension has decreased due to national salt reduction policies
- c Hypertension affects 40–50% of adults, with control rates remaining below 50%
- d Most South Africans with hypertension are aware of their condition and adhere well to treatment
- e Hypertension is only a concern in patients over 60 years old in rural provinces

9. What is a key advantage of using fixed-dose combinations (FDCs) over monotherapy in the treatment of hypertension?

- a FDCs are cheaper than single agents in all healthcare sectors
- b FDCs provide higher doses of each medication for faster results
- c FDCs eliminate the need for follow-up blood pressure monitoring
- d FDCs improve patient adherence by simplifying regimens
- e FDCs are only recommended in patients over 65 years

10. Which of the following lifestyle interventions should pharmacists prioritise when counselling patients with hypertension?

- a Promoting reduced salt intake, regular aerobic exercise, and weight management
- b Recommending caffeine-rich energy drinks for improved focus
- c Encouraging use of traditional herbal tonics as primary therapy
- d Advising all patients to stop antihypertensives once they feel better
- e Suggesting unmonitored intermittent fasting to rapidly reduce blood pressure

11. Which of the following is a documented limitation in hypertension control within South Africa's public health system?

- a Over-prescription of antihypertensives to normotensive patients
- b Universal availability of FDCs at primary healthcare level
- c Mandatory community-based screening for all adults over 18
- d Poor referral systems and inconsistent medicine availability in rural clinics
- e Implementation of free gym memberships

Oral nutritional supplementation in paediatric feeding difficulties: a South African pharmacist's evidence-based review

12. Which of the following statements about picky eating in children is TRUE, according to the article?

- a Picky eating always leads to malnutrition regardless of context
- b It affects fewer than 10% of preschool-aged children
- c In low- to middle-income countries (LMICs) like South Africa, picky eating may contribute to significant micronutrient deficiencies
- d It usually resolves on its own without any health consequences in all settings

13. According to recent data, what is one of the most commonly observed micronutrient deficiencies in South African children with picky eating habits?

- a Iron
- b Vitamin K
- c Vitamin B12
- d Selenium

14. What role can pharmacists play in addressing feeding difficulties in children, based on the findings in the article?

- a Prescribing long-term tube feeding for picky eaters
- b Diagnosing genetic causes of malnutrition
- c Replacing dietitians in all aspects of paediatric nutrition
- d Help identify the clinical need, match supplement choice to risk profile, promote safe supplement use and encourage ongoing monitoring

15. What is the significance of early intervention in children with feeding difficulties?

- a It is unnecessary unless the child is underweight
- b It helps prevent growth faltering and long-term developmental issues
- c It guarantees that picky eating will resolve immediately
- d It should only be done after age five

Musculoskeletal pain

16. Which of the following statements best describes the mechanisms involved in musculoskeletal pain?

- a Musculoskeletal pain arises solely from tissue injury and resolves once healing occurs
- b Musculoskeletal pain involves only peripheral nervous system activity and does not include brain processing
- c Musculoskeletal pain is driven by both peripheral and central nervous system mechanisms, including sensitisation and altered pain modulation
- d Pain perception in musculoskeletal conditions is unaffected by chemical mediators or neurotransmitters

17. Which of the following statements is TRUE regarding the use of NSAIDs in the treatment of musculoskeletal pain?

- a NSAIDs treat pain by promoting the production of prostaglandins, which reduce inflammation
- b Topical NSAIDs like diclofenac are useful alternatives for patients who cannot tolerate oral NSAIDs
- c Traditional NSAIDs selectively inhibit COX-2 and have no gastrointestinal side effects
- d NSAIDs are safe for long-term use in all patients, including those with asthma

18. Which of the following statements accurately reflects the use and risks of opioids in managing musculoskeletal pain?

- a Opioids are considered first-line therapy for musculoskeletal pain due to their minimal side effects
- b Opioids act as antagonists at mu, delta, and kappa receptors to relieve pain
- c Opioid use is associated with serious risks, including respiratory depression, dependence, and overdose
- d The incidence of opioid-related disorders is decreasing in private healthcare sectors worldwide

19. What is the primary reason antibiotics should not be used to treat colds and flu?

- a They are ineffective against viral infections
- b They can cause allergic reactions
- c They are too expensive
- d They are only available by prescription

The answers for these CPD questions will be in the upcoming issue of the SAPJ. This activity can contribute towards your CPD compliance.

CPD answers • March/April 2025

1. c 2. b 3. c 4. c 5. c 6. e 7. b 8. a 9. b 10. c 11. c 12. c
13. c 14. d 15. b 16. c 17. c 18. b 19. a