Chapter 3: Pharmacological management of diabetes

Test your knowledge

1. According to the WHO, when should metformin be initiated in an individual with type 2 diabetes?
2. Immediately at diagnosis
3. **Fasting plasma glucose of >7 mmol/l (126 mg/dl) but <18 mmol/l (324 mg/dl) after 1 month of lifestyle interventions (correct)**
4. Fasting plasma glucose of >6 mmol/l (108 mg/dl) but <13 mmol/l (234 mg/dl) after 1 month of lifestyle interventions
5. Fasting plasma glucose of >7 mmol/l (126 mg/dl) but <18 mmol/l (324 mg/dl) after 3 months of lifestyle interventions
6. Fasting plasma glucose of >6 mmol/l (108 mg/dl) but <13 mmol/l (234 mg/dl) after 3 months of lifestyle interventions
7. According to the WHO, which of the following is the most appropriate glycaemic target for an otherwise healthy older adult (aged 76) with no major comorbidities treated with metformin and gliclazide?
8. Fasting plasma glucose of <6.5 mmol/l (117 mg/dl)
9. Fasting plasma glucose of <7.0 mmol/l (126 mg/dl)
10. **Fasting plasma glucose between 6.5–7.5 mmol/l (117–135 mg/dl) (correct)**
11. Fasting plasma glucose between 7.6–9.0 mmol/l (137–162 mg/dl)
12. Fasting plasma glucose of >9.0 mmol/l (162 mg/dl)
13. Which of the following is a symptom of hyperglycaemia?
14. Hunger
15. Sweating
16. Shaking
17. Slurred speech
18. **Increased thirst and urination (correct)**
19. In which of the following circumstances would you advise against fasting?
20. Type 1 diabetes
21. Type 2 diabetes treated with insulin
22. **Individuals with poor hypoglycaemia awareness (correct)**
23. People aged >70 years
24. Type 2 diabetes treated with metformin
25. Intercurrent illness can seriously impact glycaemic management. Which of the following medications should still be continued when an individual is sick and cannot maintain food and fluid intake by mouth?
26. Metformin
27. Empagliflozin
28. **Insulin (correct)**
29. Gliclazide
30. Dapagliflozin

SUMMARY RESULTS

Score: X/5

In this module we covered the pharmacological management of diabetes, when to refer patients to higher levels of care and how to manage acute complications such as hypoglycaemia and hyperglycaemia.

1. CORRECT/INCORRECT

WHO guidelines suggest metformin should be initiated in individuals with type 2 diabetes and a fasting plasma glucose of >7 mmol/l (126 mg/dl) but <18 mmol/l (324 mg/dl) after 1 month of lifestyle interventions.

1. CORRECT/INCORRECT

Based on WHO guidelines, a glycaemic target of HbA1c of 7.0–7.5% or fasting plasma glucose between 6.5–7.5 mmol/l (117–135 mg/dl) would be most appropriate for an otherwise healthy older adult (aged 76) with no major comorbidities treated with metformin and gliclazide.

1. CORRECT/INCORRECT

Increased thirst and urination are symptoms of hyperglycaemia. Hunger, sweating, shaking and slurred speech are associated with hypoglycaemia

1. CORRECT/INCORRECT

Individuals with poor hypoglycaemia awareness should be advised against fasting due to the increased risk of hypoglycaemia associated with prolonged fasting that could go undetected. Most other people with diabetes can fast safely, with certain adjustments.

1. CORRECT/INCORRECT

Insulin should never be stopped completely during illness, even if food intake has been reduced.