19. Gestational diabetes

- What groups of women are most at risk of developing gestational diabetes?
- What is the effect of gestational diabetes on the mother and the foetus?
- What is the National Institute for Health and Care Excellence (NICE) guidance on monitoring women at high risk of gestational diabetes? How do they recommend reducing these risks?
- How is gestational diabetes diagnosed?
- What are the dietetic aims of any intervention in this group of clients?
- How is this condition managed medically? Does this modify the dietary advice? If so, how?
- What are the target fasting and 1-hour postprandial blood sugar levels?
- What is the recommended rate of weight gain during pregnancy?

Case study 1
Gopi Patel

Mrs Patel is a 27-year-old Gujarati woman. She was married in India and arrived in the UK 2 years ago. She is a full time housewife and shares housework, shopping and cooking with her mother in law. Her English is limited, but her husband acts as an interpreter. She was diagnosed with gestational diabetes and is now 25 weeks’ pregnant. Mrs Patel has a family history of type 2 diabetes and hypertension. Her prepregnancy BMI was 23 kg/m².

- How would you assess Mrs Patel using the ABCDE format?
- What are the likely dietary restrictions associated with being Gujarati?
- What problems might arise from using Mr Patel as an interpreter?
- What micronutrients are of particular concern for this woman during pregnancy?
- What social/cultural factors should be considered when taking a diet history?
- What is the dietetic diagnosis?
- Describe your plan for the necessary dietetic intervention.
- What are the aims of the dietary advice? Discuss the basis for these recommendations.
- What advice would you give Mrs Patel after the birth of her child to prevent health problems in further pregnancies and in the future?
- How would you evaluate and monitor her?
Case study 2
Reena Shaunak

Mrs Sharma is a 35-year-old Hindu Punjabi woman. She is a pharmacist and works full time. She is married and lives with her husband and an 8-year-old daughter. She was born in the UK but her parents are Kenyan. She has a mixed South East Asian/western diet, likes to eat out and has regular Chinese, pizza or Indian takeaways. Mrs Sharma is pregnant for the second time and her mother in law has moved in with her to help. Mrs Sharma loves her food anyway but her mother in law is insisting she eat for two. She is in her third trimester and her current BMI is 37.9 kg/m². She is hypertensive and has been diagnosed with gestational diabetes; she had pre-eclampsia during her first pregnancy. Her diabetes is controlled with metformin (500 mg bd) and insulinard (4 units/day). Her diet is high in saturated fat and low in fruit. She does not always manage to eat five portions of fruit and vegetables every day. She is also exceeding her daily recommended salt intake (6 g/day); her diet may provide salt between 8 and 10 g/day.

- How you would assess Mrs Sharma using the ABCDE format?
- What influence does her parents’ nationality have on Mrs Sharma’s diet?
- How does being a Hindu affect her diet?
- What affect does her social situation have on her diet? How would you deal with this situation?
- What is the dietetic diagnosis?
- Plan an appropriate dietetic intervention.
- What advice would you give Mrs Sharma to ensure tight blood sugar control? How does her medication influence this advice?
- What are the problems associated with obesity in pregnancy?
- Her dietary habits are well established and she is strongly influenced by her cultural beliefs. What problems might you encounter when reviewing the changes Mrs Sharma has been able to make to her diet?
- How would you help her to make the necessary dietary and lifestyle changes during pregnancy and in the future?
- Describe how you would evaluate and monitor Mrs Sharma. What outcome measures would you use? Justify this decision.
Case study 3

Ghazala Yousuf and Asha Mughal

Mrs Khan is a 36-year-old housewife with four children. She lives with her extended family, including her in-laws. She has been in the UK since the age of 6 years and speaks fluent English. She is an observant Muslim and her diet predominantly consists of traditional Pakistani foods; however, she may also consume some fast foods with her children. She has a strong family history of type 2 diabetes and has just been diagnosed with gestational diabetes. Her first and second children required intensive neonatal care and her fourth child was delivered by emergency caesarian section 18 months ago. Her BMI is currently 30 kg/m² and prepregnancy it was 25 kg/m².

- How would you assess Mrs Khan using the ABCDE format. Justify this.
- What is the dietetic diagnosis?
- What particular foods would you find in a Pakistani diet? What factors in this diet contribute to the risk of obesity and hypertension?
- What are the dietary restrictions associated with Islam?
- What is the dietetic intervention?
- How should Mrs Khan be monitored during her pregnancy? This should include self monitoring, biochemistry, clinical and dietary factors.
- What are her target fasting and 1-hour postprandial blood sugar levels?
- What is the recommended rate of weight loss? What is the basis for this recommendation?
- What micronutrients should be considered when taking a diet history and when giving dietary advice? Why?
- What are the barriers to change for Mrs Khan?
- How would you monitor Mrs Khan? What outcome measures would you use? Justify your choice.

Case study 4

Susanna Johnson

Mrs Thompson is a 34-year-old woman who was born in London but moved back to Ghana with her family when she was a child. She relocated back to England 4 years ago and lives with her husband and two children (6 and 3 years old). Her husband works as a project manager for an oil
company and she works in human resources. She cooks for the whole household, although her mother has recently arrived from Ghana to help her do the cooking. She has had two normal pregnancies and gave birth with no complications. She is currently 28 weeks’ pregnant with her third child and was recently diagnosed with gestational diabetes. This is being treated with 4 units of mixtard insulin/day. Her BMI is currently 30 kg/m².

- How would you assess Mrs Thompson using the ABCDE format?
- What factors should you consider when taking a diet history? What other information might help your assessment?
- What is the dietetic diagnosis?
- What is the dietetic intervention?
- A Ghanaian diet is usually low in dairy products. How would a low calcium intake during pregnancy affect the mother and foetus? How should this be managed dietetically?
- When taking a diet history, what Ghanaian foods should you ask about?
- What traditional cooking and serving methods may Mrs Thompson use for these foods?
- What changes should you advise her to make in terms of her shopping, cooking and food serving habits?
- Does she perceive her weight to be a problem in pregnancy? What are the cultural issues that you should be aware of when advising Ghanaian women?
- What are the possible barriers to change?

Case study 5

Christiana Pavlides

Mrs Mehmet is a 27-year-old pregnant woman (28 weeks’ gestation) who lives with her husband. She moved to the UK from Turkey 2 years ago and is learning English. She is not working and her husband works long hours and is unable to attend appointments with her. Her husband is supportive but she remains very anxious. She has a family history of type 2 diabetes and was recently diagnosed with gestational diabetes. Her prepregnancy BMI was in the normal range and her weight gain during pregnancy is normal. At the last antenatal appointment her haemoglobin level was 10.8 g/dL. She reports feeling very hungry. She attends her appointment with a food diary (completed by her husband) and with 3 days of home blood glucose monitoring. She has one or two readings out of the recommended targets.

- How would you assess Mrs Mehmet using the ABCDE format?
- How would you resolve language difficulties? Would these difficulties alter the dynamics of the dietetic sessions? If so, how?
- What benefit is there to having a food diary and blood glucose readings? How can this information be used?
- What is the dietetic intervention? What are the aims and objectives?
- What are your priorities for the dietetic intervention?
- What foods would you expect in a typical Turkish diet that may not be aligned with a healthy diet? Are there any cultural issues with cooking methods?
- What would you expect the glycaemic index (GI) of a typical Turkish diet to be? What GI would you recommend? Why? How would you advise Mrs Mehmet to achieve this level?
- Why are pregnant women vulnerable to anaemia? Is Mrs Mehmet anaemic? If so, what dietary advice would you give her?
- Her fruit and vegetable intake is low. How would this affect her haemoglobin levels?
- Coffee intake is high in this patient. What is the effect of high caffeine intakes in pregnancy? How would you advise Mrs Mehmet on this issue?
- During the dietary assessment she tells you about her cravings. How would you deal with these? Which snacks would you recommend?
- How would you monitor Mrs Mehmet? Justify your choice of outcome measures.