Multiple choice questions

1. The daily non-protein energy requirement of a 75 kg male patient (175 cm) with no signs of muscle wasting suffering from alcoholic liver cirrhosis Child-Pugh A amounts to

   (a) 150 kcal.
   (b) 1.3 × REE.
   (c) 1750 kcal.
   (d) 1.8 × REE.
   (e) 3000 kcal.

2. The daily protein requirement of the same man (75 kg; 175 cm) amounts to

   (a) 40 g.
   (b) 50 g.
   (c) 70 g.
   (d) 90 g.
   (e) 110 g.
3. This patient has a haemorrhage from oesophageal varices, which is treated successfully by endoscopic injection sclerotherapy at 16:00 hours. The endoscopist requests that the patient be kept on nil by mouth until a repeat endoscopy the next morning. Which nutrition regimen would you consider most appropriate?

(a) Start total parenteral nutrition immediately using a three-chamber bag with an olive oil lipid emulsion.
(b) Fast the patient until the endoscopy the next morning.
(c) Start total parenteral nutrition without lipid emulsion immediately.
(d) Start glucose infusion at a rate of 2 g/kg/24 hours immediately.
(e) Start peripheral venous hypocaloric nutrition immediately.

4. At midnight the patient suffers from a recurrent variceal haemorrhage and develops encephalopathy grade III. His airways are unprotected. Which nutritional support strategy would you now choose?

(a) No change.
(b) Switch to tube feeding using a liquid standard feed.
(c) Switch to tube feeding using a BCAA-enriched liquid feed.
(d) Switch to peripheral venous hypocaloric nutrition using a three-chamber bag.
(e) Switch to total parenteral nutrition using a BCAA-enriched amino acid solution.

5. A patient on the waiting list for liver transplantation presents in the casualty department with decompensated cirrhosis, ascites, profound muscle wasting, and HE I°. Diagnostic paracentesis reveals spontaneous bacterial peritonitis and you prescribe an antibiotic. What is your prescription regarding nutrition?

(a) Normal hospital diet.
(b) Nil by mouth until next morning’s ward round.
(c) Sodium-restricted diet.
(d) Normal hospital diet plus a liquid oral supplement rich in protein (20 g protein, 300 kcal, 200 ml).
(e) Immediate peripheral venous hypocaloric parenteral nutrition.

6. This patient has a rapid recovery and the next morning is fully alert and has no signs of encephalopathy. Which nutrition regimen do you now prescribe?
(a) Oral nutrition *ad lib.*
(b) Standard hospital diet plus a liquid oral supplement rich in protein (20 g protein, 300 kcal, 200 ml).
(c) A standard tube feed through nasogastric tube at 1500 kcal/24 hours supplemental to oral nutrition *ad lib.*
(d) A standard tube feed through nasogastric tube at 2500 kcal/24 hours while the patient is instructed to be on nil by mouth.
(e) Protein-restricted diet (40 g protein per day).

7. A woman with severe alcoholic hepatitis (MELD 30) has a BMI of 27 kg/m² and is lethargic but without signs of overt encephalopathy. She asks for treatment options. Which of the following is without proven efficacy?
(a) Prednisolone.
(b) Oxandrolone.
(c) Enteral tube feeding.
(d) Thiamine.
(e) Pentoxifyllin.

8. On physical examination, this woman has profound muscle wasting, abnormal gait, and ascites. You diagnose severe malnutrition and make a plan for nutrition therapy. Which deficiency state is the most unlikely?
(a) Phosphate depletion.
(b) Sodium depletion.
(c) Thiamine deficiency.
(d) Zinc deficiency.
(e) Folic acid deficiency.

9. A 56-year-old woman with primary biliary cirrhosis is on the waiting list for transplantation. She has lost 5 kg within the last year and her BMI is now 19 kg/m². Which of the following recommendations for optimal preoperative conditioning are correct?

(a) Individual nutritional counselling.
(b) Nocturnal liquid oral supplement rich in protein (20 g protein, 300 kcal, 200 ml).
(c) Physical exercise under supervision of a physiotherapist.
(d) Low-fat diet, because of the steatorrhoea of cholestatic liver disease.
(e) 3 capsules of omega-3 fatty acid per day.

10. Which statement is correct? Patients with acute liver failure

(a) Must always be fed parenterally.
(b) Must not be given amino acids IV.
(c) Should always be given a disease-specific liquid enteral diet (‘Hepa’ diet).
(d) Should have enteral tube feeding as first-line nutritional therapy.
(e) Must not be given parenteral lipid emulsions because only the liver can utilise lipid.