

## section 2.6.1: End stage hepatic failure

### General description of the disease and progression

The liver is the largest gland in the body. It lies immediately under the diaphragm and occupies most of the right hypochondrium. The liver cells detoxify a number of substances, secrete about 500mls of bile each day, assist in the metabolism of proteins, fats and carbohydrates and store substances such as iron, Vitamin A, B12 and D.

Hepatic failure may originate from a number of different specific pathologies. Hepatitis may be viral (Hep A, B or C), bacterial or toxic in origin and may progress to post-necrotic cirrhosis. Cirrhosis (alcoholic, biliary, cardiac or post-necrotic) results from liver cell death with scar tissue formation and regeneration of cell masses that causes distortion of the structure with a resultant change in circulation. Tumours of the liver may be malignant (primary or secondary) or benign.

Hepatic failure occurs when the liver is so severely damaged that ammonia is unable to be converted into urea and the ammonia concentration in the circulating blood increases. This can result in hepatic coma and, if untreated, death from renal failure.

### Potential problems

- fluid and electrolyte imbalances
- bleeding tendencies
- portal hypertension
- oesophageal varices
- hepatic encephalopathy
- jaundice
- pruritis
- ascites

### Identification of potential problems

- observe for changes in level of consciousness, confusion, twitching, insomnia and restlessness
- assess for asterixis or liver flap, when the patient is asked to dorsiflex their hand when arms are extended
- observe for jaundice, examine for increased abdominal girth indicating ascites and peripheral oedema
- enquire about any episodes of bleeding, ie PR, haematemesis, epistaxis
- ask about the presence of skin irritation, itching

### Specific considerations for end stage disease

- poor prognosis if there is progressive malnutrition or muscle wasting with reduced strength and endurance or presence of hepato cellular carcinoma or HbsAg positivity <sup>1</sup>
- ensure patient preferences for end of life care and advance directives have been discussed for managing acute events such as a major haemorrhage

### references

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<sup>1</sup> Hospice and Palliative Care Nurses Association. Treatment of End Stage Non-Cancer Diagnoses. Pittsburg, PA, 2001.