QUESTION 50
A 50-year-old man with alcohol-induced cirrhosis and portal hypertension presents with haematemesis. He is found to have grade IV oesophageal varices. Bleeding is controlled by an infusion of octreotide and endoscopic band ligation.
On discharge, which one of the following is least likely to be of benefit with respect to recurrent variceal bleeding?
A. Interval endoscopic band ligation.
B. Interval endoscopic sclerotherapy.
C. Oral beta-blocker therapy.
D. Oral nitrate therapy.
E. Oral proton pump inhibitor therapy.

UK guidelines on the management of variceal haemorrhage in cirrhotic patients
R Jalan and P C Hayes
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Propranolol. The mainstay of the pharmacological approach to the primary prophylaxis of variceal haemorrhage has been propranolol, which has been shown to reduce the portal pressure gradient, reduce azygos blood flow, and also variceal pressure.

Isosorbide mononitrate. Interest in the use of vasodilators such as isosorbide mononitrate has grown since the demonstration that it reduces portal pressure as effectively as propranolol.

Box 2—Recommendations: primary prophylaxis of variceal bleeding in cirrhosis
WHAT IS THE BEST METHOD FOR PRIMARY PROPHYLAXIS?
- Pharmacological therapy with propranolol is the best available modality at present. (Recommendation grade AI.)
- Aim of therapy with propranolol: Reduction in hepatic venous pressure gradient to less than 12mmHg. (Recommendation grade AI.)
- Dose: Starting dose 40 mg twice daily, increasing to 80 mg twice daily if necessary. Long acting propranolol at either 80 or 160 mg can be used to improve compliance. (Recommendation grade AI.)
- In case of contraindications or intolerance to propranolol, variceal band ligation is the treatment of choice. (Recommendation grade AI.)
- In difficult situations where neither propranolol nor variceal band ligation can be used, isosorbide mononitrate is the treatment of first choice (20 mg twice daily). (Recommendation grade BI.)

WHO SHOULD HAVE SURVEILLANCE FOR VARICEAL BLEEDING
- All patients with cirrhosis should be endoscoped at the time of diagnosis. (Recommendation grade CI.)

HOW OFTEN SHOULD CIRRHOTIC PATIENTS BE ENDOSCOPED?
- If at the time of first endoscopy no varices are observed, patients with cirrhosis should be endoscoped at three year intervals. (Recommendation grade AII.)
- If small varices are diagnosed, patients should be endoscoped at yearly intervals. (Recommendation grade AII.)

WHICH PATIENTS WITH CIRRHOSIS SHOULD HAVE PRIMARY PROPHYLAXIS
- If grade 3 varices are diagnosed, patients should have primary prophylaxis irrespective of the severity of the liver disease. (Recommendation grade AI.)
- If patients have grade 2 varices and Child class B or C disease, they should have primary prophylaxis. (Recommendation grade BI.)
Box 4—Recommendations: secondary prophylaxis of variceal bleeding in cirrhosis

(1) VARICEAL BAND LIGATION
- Following control of active variceal bleeding the varices should be eradicated using endoscopic methods. The method of first choice is variceal band ligation. (Recommendation grade AI.)
- It is recommended that each varix is banded with a single band at weekly intervals until variceal eradication. (Recommendation grade BII.)
- The use of the over tube should be avoided because this is associated with increased complications. (Recommendation grade BII.)
- Following successful eradication of the varices, patients should be endoscoped at three months and six monthly thereafter. In case of recurrence of varices they should be treated with variceal eradication. (Recommendation grade AII.)

(2) ENDOSCOPIC VARICEAL SCLEROTHERAPY
- If banding is not available, sclerotherapy should be used. (Recommendation grade BI.)
- The sclerosant used may vary between institutions.
- The interval between treatments should be the same as those outlined above for banding. (Recommendation grade AII.)

(3) NON-SELECTIVE beta BLOCKER WITH OR WITHOUT ENDOSCOPIC THERAPY
- Either combination treatment of sclerotherapy and non-selective beta blocker or non-selective beta blocker alone may be used. If the latter strategy is used then it is recommended that patients should have the hepatic venous pressure gradient measured to confirm that this has been successfully reduced to less than 12 mm Hg. (Recommendation grade AII.)

(4) TIPSS
- TIPSS is more effective than endoscopic treatment in reducing variceal rebleeding but does not improve survival and is associated with more encephalopathy. It is a treatment option that may be used in certain centres with particular expertise. (Recommendation grade AI.)

A. Interval endoscopic band ligation.
B. Interval endoscopic sclerotherapy.
C. Oral beta-blocker therapy.
D. Oral nitrate therapy.
E. Oral proton pump inhibitor therapy. – not discussed

Answer E