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## IN BRIEF

### LIVER

#### PPIs associated with mortality in patients with cirrhosis

Many patients with liver disease are prescribed PPIs; however, there is a paucity of data regarding how these drugs affect prognosis in this group of patients. A new study prospectively enrolled 272 patients with cirrhosis, 213 of whom were receiving PPIs. Analyses revealed that the use of PPIs was associated with increased MELD scores and ascites, and was an independent predictor of mortality. Although the cause of this association is not known, the authors of the study suggest that prescribing PPIs to patients with cirrhosis now needs to be more carefully considered.

**Original article** Dultz, G. *et al.* Proton pump inhibitor treatment is associated with the severity of liver disease and increased mortality in patients with cirrhosis. *Aliment. Pharmacol. Ther.* doi:10.1111/apt.13061

### HELICOBACTER PYLORI

#### New model for *Helicobacter pylori* infection developed

Current models for *Helicobacter pylori* infection (the main risk factor for gastric adenocarcinoma) have several flaws, such as faults in crucial signalling pathways. A team of researchers has now developed a robust and quasi-immortal 3D organoid model, which they postulate will be useful for future research into the mechanisms underlying *H. pylori* infection, and hence stomach cancer. The model was developed from gastric glands isolated from healthy human stomach tissue and grown in a media that enabled the generation of long-lasting normal epithelial cell cultures.

**Original article** Schlaermann, P. *et al.* A novel human gastric primary cell culture system for modelling *Helicobacter pylori* infection *in vitro*. *Gut* doi:10.1136/gutjnl-2014-307949

### THERAPY

#### Obeticholic acid safe and effective in primary biliary cirrhosis

A randomized controlled trial involving 165 patients with primary biliary cirrhosis who had not responded to therapy with ursodeoxycholic acid has shown that adding obeticholic acid to the treatment regime, at a range of doses, is more effective than placebo. At the end of the study, patients who received obeticholic acid had reduced levels of alkaline phosphatase,  $\gamma$ -glutamyl transpeptidase and alanine aminotransferase compared with those given placebo. The incidence and severity of adverse events was lowest in patients given the lowest dose.

**Original article** Hirschfield, G. M. *et al.* Efficacy of obeticholic acid in patients with primary biliary cirrhosis and inadequate response to ursodeoxycholic acid. *Gastroenterology* doi:10.1053/j.gastro.2014.12.005

### TRANSPLANTATION

#### Variable outcomes for liver transplantation

Although surgical techniques for liver transplantation and patient management have improved in the past 30 years, changes in outcomes after surgery have varied in the USA, according to an analysis of the Scientific Registry of Transplant Recipients. Rates of in-patient mortality, graft loss and infection after surgery have all improved. However, mortality after discharge has remained stable during this time period, which the authors suggest is due to an increase in comorbidities not related to the liver.

**Original article** Stepanova, M. *et al.* The outcomes of adult liver transplants in the United States from 1987 to 2013. *Liver Int.* doi:10.1111/liv.12779