### **RESEARCH HIGHLIGHTS**

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doi:10.1038/nrgastro.2015.18; doi:10.1038/nrgastro.2015.16

# **IN BRIEF**

#### **COELIAC DISEASE**

## Age at gluten introduction is not an independent risk factor for coeliac disease

The environmental determinants of disease have been studied in a prospective birth cohort study, TEDDY, of children (n = 6,436) with high-risk HLA genotypes for coeliac disease. During a follow-up of 5 years, 12% of children tested positive for the coeliac disease marker tissue transglutaminase autoantibodies. Coeliac disease developed in 5% of the children. However, the timing of gluten introduction was not found to be an independent risk factor for coeliac disease.

Original article Aronsson, C. A. et al. Age at gluten introduction and risk of coeliac disease. *Pediatrics* doi:10.1542/peds.2014-1787

#### **HEPATITIS**

#### High HCV cure-rate on a 6 week course of DAAs

A small proof-of-concept phase IIa study published in *The Lancet* has demonstrated successful treatment in patients on a 6-week course of direct-acting antivirals (DAAs). Patients with hepatitis C (n=60) were assigned to one of three groups: a 12-week course of sofosbuvir and ledipasvir; a 6 week-course of sofosbuvir, ledipasvir and GS-9669; or a 6-week course of sofosbuvir, ledipasvir and GS-9451. Dual DAA therapy resulted in a 100% SVR12. The addition of GS-9669 or GS-9451 gave a 95% SVR12. All patients completed the treatment and the majority of adverse events were mild.

**Original article** Kohli, A. *et al.* Virological response after 6 week triple-drug regimens for hepatitis C: a proof-of-concept phase 2A cohort study. *Lancet* doi:10.1016/S0140-6736(14)61228-9

#### HELICOBACTER PYLORI

#### Optimizing treatment of Helicobacter pylori infection

A prospective multicentre study investigated the efficacy of optimized triple therapy (OPT-TRI; esomeprazole, amoxicillin, clarithromycin) versus nonbismuth quadruple concomitant therapy (OPT-CON; OPT-TRI regimen plus metronidazole) for *Helicobacter pylori* infection. The OPT-CON regimen achieved substantially higher (>90%) *H. pylori* eradication rates than OPT-TRI. Mild-to-moderate adverse events, which did not affect compliance, were more common in the OPT-CON than the OPT-TRI treatment group.

Original article Molina-Infante, J. et al. Optimised empiric triple and concomitant therapy for *Helicobacter pylori* eradication in clinical practice: the OPTRICON study. *Aliment. Pharmacol. Ther.* doi:10.1111/apt.13069

#### LIVER

#### Regulation of the ductular reaction by pleiotrophin

Pleiotrophin signalling via the protein tyrosine phosphatase receptor zeta-1 (PTPRZ1) has been found to regulate the ductular reaction, which occurs during liver injury. Cell–cell adhesion, cell–matrix interactions and cell migration—all of which are involved in the ductular reaction—were shown to be negatively regulated by pleiotrophin–PTPRZ1 signalling. PTPRZ1 protein levels were shown to be increased in the ductular reaction of patients with polycystic liver disease, primary biliary cirrhosis and primary sclerosing cholangitis.

**Original article** Michelotti, G. A. *et al.* Pleiotrophin regulates the ductular reaction by controlling the migration of cells in the liver progenitor niches. *Gut* doi:10.1136/gutjnl-2014-308176