

Research highlights

In the news

UEG Week 2025

In October 2025, *Nature Reviews Gastroenterology & Hepatology* attended United European Gastroenterology (UEG) Week 2025 in Berlin, Germany. The meeting, which was also held online, attracted >12,000 participants from 115 countries and 4,168 abstracts, according to the organizers. Over 5,200 individuals registered for the Postgraduate Teaching Programme.

A wide range of sessions focused on basic, translational and clinical science spanning the range of gastroenterology and hepatology. Sessions included those on novel developments in advanced therapies for inflammatory bowel disease and how to predict therapy response; diagnosis and treatment of inflammatory bowel disease with irritable bowel syndrome-like symptoms; fistulizing Crohn's disease; an update on therapeutics for metabolic dysfunction-associated steatohepatitis; and sessions on timely topics such as the gut microbiome and artificial intelligence.

This year, UEG Week also hosted the Digestive Disease Mechanism (DDM) Summit, a 3-day programme of basic science focused on the pathogenesis of gastrointestinal tract diseases.

UEG Week 2026 will take place in Barcelona, Spain, on 17–20 October 2026.

Jordan Hindson

Liver

Predicting mortality in cirrhosis

Portopulmonary hypertension is a complication of cirrhosis. In a multicentre study, researchers evaluated the use of pulmonary hypertension diagnosis criteria to predict mortality in patients with cirrhosis and portal hypertension.

In the study, 428 patients with portal hypertension and cirrhosis who underwent right heart catheterization were classified into several groups based on diagnostic criteria for pulmonary arterial hypertension. After a median follow-up of 20 months, patients with normal mean pulmonary arterial pressure, early-stage portopulmonary hypertension and classic portopulmonary hypertension had 3-year survival rates of 76.7%, 49.5% and 42.0%, respectively. Compared with those with normal mean pulmonary arterial pressure, after adjusting for clinically relevant variables, early-stage portopulmonary hypertension (HR 3.5 (1.9–6.3); $P < 0.01$) and classic portopulmonary hypertension (HR 4.5 (2.6–7.6); $P < 0.01$) were independent predictors of mortality.

The researchers concluded that applying the 2022 criteria identified a group of patients with cirrhosis and early portopulmonary hypertension with an increased risk of mortality, highlighting the prognostic value of early-stage portopulmonary hypertension.

Jordan Hindson

Original article: Téllez, L. et al. Early portopulmonary hypertension predicts mortality in patients with cirrhosis: insights from the PORTO-DETECT cohort. *J. Hepatol.* <https://doi.org/10.1016/j.jhep.2025.09.011> (2025)

Oesophageal cancer

Metastasis and pericytes in oesophageal cancer

A new study published in *Nature Genetics* describes the cellular landscape of the prometastatic tumour microenvironment (TME) in oesophageal squamous cell carcinoma (ESCC) via single-cell multiomics and spatial transcriptomics. The researchers collected samples from patients with metastatic and nonmetastatic tumours (six each) and paired normal tissues.

Cellular analysis in metastatic tumours suggested that epithelial cells received interaction signals from GPR116⁺ pericytes. In the prometastatic TME, GPR116⁺ pericytes demonstrated substantially closer spatial proximity and interactions with tumour cells versus other types. Further analysis revealed an increased abundance of GPR116⁺ pericytes, and a higher ratio was associated with shorter survival in patients with ESCC metastasis.

The investigators showed that the transcription factor PRRX1 drove GPR116⁺ pericyte differentiation and that GPR116⁺ pericytes contributed to tumour invasion and ESCC metastasis. EGFL6 was identified as the most upregulated gene in GPR116⁺ pericytes, and serum EGFL6 was suggested as a diagnostic and prognostic biomarker for ESCC.

In vivo, GPR116⁺ pericytes, which exhibited immunosuppressive effects, induced metastasis via the EGFL6–integrin β 1–NF- κ B axis. Therapeutic targeting of integrin β 1 reduced lymph node metastasis in an ESCC mouse model and enhanced the antitumour effect of an anti-PD1 antibody.

Eleni Kotsiliti

Original article: Pei, X. et al. Single-cell multi-omic and spatial profiling of esophageal squamous cell carcinoma reveals the immunosuppressive role of GPR116⁺ pericytes in cancer metastasis. *Nat. Genet.* **57**, 2494–2508 (2025)

Obesity

Pharmacological management of obesity

A systematic review and meta-analysis published in *Nature Medicine* evaluated the efficacy and safety of obesity pharmacological treatments tested in randomized controlled trials (RCTs). The primary endpoint was the percentage of total body weight loss at the end of an RCT. Secondary endpoints included the percentage of total body weight loss at 1, 2 and 3 years or more than 3 years, lipid profile, blood pressure, haemoglobin A1c and fasting plasma glucose, among others.

Of the 56 RCTs that were analysed, 22 tested the administration of orlistat as a therapeutic strategy, 14 semaglutide, 11 liraglutide, 6 tirzepatide, 5 naltrexone and bupropion, and 2 phentermine and topiramate. The total number of patients was 60,307, of whom 27,709 were in the placebo group.

All treatments showed significantly greater total body weight loss than placebo ($P < 0.0001$); for semaglutide and tirzepatide, the weight loss was more than 10%. Regarding the secondary endpoints, tirzepatide and semaglutide showed restoration of normoglycaemia, remission of type 2 diabetes mellitus and reduced hospitalizations for heart failure. Semaglutide reduced major adverse cardiovascular events, and tirzepatide reduced obstructive sleep apnoea syndrome and metabolic dysfunction-associated steatohepatitis.

Eleni Kotsiliti

Original article: McGowan, B. et al. A systematic review and meta-analysis of the efficacy and safety of pharmacological treatments for obesity in adults. *Nat. Med.* **31**, 3317–3329 (2025)