due to inadequate adjustment for recognized GERD risk factors, such as diet. A recent study by El-Serag and colleagues investigated the influence of body weight on the incidence of GERD symptoms and esophageal erosions.

A cross-sectional survey was performed using the Gastroesophageal Reflux Questionnaire and 100-item Block Food Frequency Questionnaire. A total of 453 individuals supplied complete responses to GERD, height and weight questions: BMI was calculated from height and weight responses. Of these responders, 196 underwent upper endoscopy with mucosal biopsies. Multiple logistic regression analyses, adjusting for numerous confounding risk factors, were used to determine the associations of BMI with GERD symptoms and esophageal erosions.

The results demonstrated a dose–response relationship between higher BMI and increased GERD symptom frequency. In addition, a two-fold to fourfold increase in esophageal erosions was observed in those who were overweight (BMI 25–30) or obese (BMI >30). Overall, obese subjects were 2.5 times as likely to experience symptoms of GERD or to have esophageal erosions that those with BMI <25.

The authors concluded that a higher BMI increases the risk of both GERD symptoms and erosive esophagitis; this was independent of demographic features and dietary intake. The mechanisms by which the risk is increased, however, remain elusive and further studies are required.

Original article El-Serag HB *et al.* (2005) Obesity is an independent risk factor for GERD symptoms and erosive esophagitis. *Am J Gastroenterol* **100:** 1243–1250

TRAIL receptors as a potential target for apoptosis induction in colorectal cancer

Novel strategies to treat or prevent colorectal neoplasms are urgently required. One potential target is tumor-necrosis-factor-related apoptosis-inducing ligand (TRAIL), which causes apoptosis by binding to death receptor (DR) 4 and DR5. Both receptors are expressed in the majority of tumors, providing the potential for targeted apoptosis. A mutation in the *BAX* gene, however, commonly found in high-frequency microsatellite instability tumors, could have a role in TRAIL sensitivity and affect the potential use of TRAIL-receptor agonists.

Using immunohistochemical staining, Koornstra and co-workers explored DR4 and DR5 expression in 74 colorectal adenomas and 56 carcinomas from patients with sporadic disease, 41 colorectal adenomas and 4 carcinomas from patients with familial adenomatous polyposis, and 50 colorectal adenomas and 21 carcinomas from patients with hereditary nonpolyposis colorectal cancer. In 15 individuals with high-frequency microsatellite instability carcinomas, the association between *BAX* mutations, apoptosis and expression of DR4, DR5 and TRAIL were assessed.

DR4 and DR5 were expressed in almost all adenomas analyzed, with TRAIL expressed in approximately 75%. Similarly, DR5 was detected in all carcinomas, DR4 was identified in most, and TRAIL expression ranged between 37–81%. Notably, all carcinomas negative for DR4 were mucinous. Interestingly, in adenomas and carcinomas negative for DR4, TRAIL expression was also absent. *BAX* gene inactivation showed no correlation with DR4, DR5 or TRAIL expression, or apoptotic indices.

With widespread expression of DR4 and DR5, and no link with *BAX* mutation, TRAIL-receptor agonists could be used for targeted apoptosis as treatment for sporadic and hereditary colorectal neoplasms.

Original article Koornstra JJ *et al.* (2005) Expression of tumour necrosis factor-related apoptosis-inducing ligand death receptors in sporadic and hereditary colorectal tumours: potential targets for apoptosis induction. *Eur J Cancer* **41:** 1195–1202

Helicobacter pylori infection and gastric cancer: is there a role for eradication therapy?

Individuals infected with the bacterium *Helicobacter pylori* are at increased risk of developing gastric cancers. Take and colleagues investigated whether *H. pylori* eradication therapy can prevent the development of gastric cancer in patients with peptic ulcer disease.

This study recruited 1,342 predominantly male (n = 1,191) factory workers with gastric