antirheumatic drugs and the development of hematologic malignancies.

During 158,067 person-years of follow-up, 619 patients developed hematologic malignancies, yielding an incidence rate of 391.6 cases per 100,000 person-years. The most frequently recorded types of hematologic malignancy were lymphoma ($n = 346$), leukemia ($n = 178$) and multiple myeloma ($n = 95$). Each case patient was matched for age and sex with 10 control subjects. Unadjusted univariate analyses suggested that there was an increased risk of hematologic malignancy after exposure to azathioprine (relative risk [RR] 1.44, 95% CI 1.01–2.03) or cyclophosphamide (RR 2.21, 95% CI 1.52–3.20). Following adjustment for concomitant drug exposures, number of physician visits, and extra-articular disease, the risk of hematologic malignancy remained significantly elevated only for cyclophosphamide exposure (RR 1.84, 95% CI 1.24–2.73). The RR point estimates for hematologic malignancies after exposure to anti-tumor necrosis factor agents (etanercept and infliximab) were elevated, but the CIs were wide and included the null value (unadjusted RR 1.92, 95% CI 0.49–7.50, and adjusted RR 2.46, 95% CI 0.66–9.15); these agents appeared in Quebec's formulary only from 2002, so these data are based on a low exposure rate.

The finding of increased risk of hematologic malignancy after exposure to cyclophosphamide emphasizes the importance of less toxic strategies for severe autoimmune rheumatic disease.

Original article Bernatsky S *et al.* (2008) Hematologic malignant neoplasms after drug exposure in rheumatoid arthritis. *Arch Intern Med* **168:** 378–381

A prognostic scoring system for pancreatic neuroendocrine tumors

Pancreatic neuroendocrine tumors (PNETs) are a rare form of pancreatic neoplasm. The relatively low incidence of this disease has limited the determination of prognostic factors, and a staging system has been lacking. Now, Bilimoria *et al.* report a postresection prognostic scoring index for PNETs.

By searching the National Cancer Data Base records from 1985 to 2004, the researchers identified 3,851 patients who had undergone resection of PNETs (median follow-up 51 months). On multivariate analysis, older age was significantly associated with an increased risk of death—compared with patients aged <55 years, the hazard ratio for death for patients aged 55–75 years was 1.57 (95% CI 1.28–1.91). Patients with high-grade as opposed to low-grade tumors and those who underwent pancreaticoduodenectomy rather than distal pancreatectomy also had higher risks of death, as did patients with distant metastases ($P < 0.0001$, $P = 0.04$ and $P = 0.004$, respectively). A prognostic scoring index was then developed on the basis of the three most powerful prognostic factors—patient age, tumor grade and distant metastasis. Patients with complete information for all three variables were assigned prognostic scores for each factor (0 points = most favorable) and were then divided into three groups on the basis of their scores. The observed overall survival rate at 5 years in patients in prognostic group 1 (total score 0 points) was 76.7%, compared with 50.9% for those in group 2 (1–2 points) and 35.7% for those in group 3 (≥3 points). Cox proportional hazards modeling showed that in comparison with patients in group 1, patients in groups 2 or 3 had significantly greater risks of death ($P < 0.0001$ for both).

The authors conclude that the postresection prognostic score can successfully predict outcome in patients with PNETs.

Original article Bilimoria KY *et al.* (2008) Prognostic score predicting survival after resection of pancreatic neuroendocrine tumors: analysis of 3851 patients. *Ann Surg* **247:** 490–500

S-1 plus cisplatin increases overall survival in patients with advanced gastric cancer

Patients with advanced gastric cancer have a poor prognosis, with a median survival from diagnosis of <1 year. S-1 is an oral anticancer drug that increases fluorouracil concentrations in serum and tumors; 44–54% of patients with advanced gastric cancer responded to S-1 monotherapy in phase II trials. Phase I–II clinical trials of S-1 combined with cisplatin have achieved promising results with good response rates and tolerable toxicity. Koizumi and colleagues carried out a phase III clinical trial to determine