This nonrandomized, open-label trial enrolled 199 children (median age 12 years) with chronic pain, who had received opioids continuously for at least 7 days before enrollment. Increasing doses of transdermal fentanyl were administered until steady-state analgesic effectiveness was obtained. Questionnaires were used to record safety and efficacy variables. Respiratory rates were recorded for the first 72 h, and adverse events recorded between first and last fentanyl doses.

Average daily pain intensity decreased throughout the initial 15-day treatment period. Quality-of-life improvements from baseline to month 1 or 3 were shown in 11 of the 12 domains assessed, with bodily pain showing the greatest improvement. The most frequent fentanyl-related adverse events were emesis and nausea. Three of 61 respiratory system adverse events were considered possibly or probably related to fentanyl. Of 53 deaths, 52 were unrelated to study treatment; the other death was considered doubtfully related.

The authors conclude that transdermal fentanyl is safe and well tolerated in children with chronic pain who have had previous exposure to opioid therapy, and is particularly appropriate for patients for whom oral therapy would cause further suffering. Further studies are needed to confirm these results in a wider patient population.

Rebecca Ireland

Original article Finkel JC *et al.* (2005) Transdermal fentanyl in the management of children with chronic severe pain: results from an international study. *Cancer* **104**: 2847–2857

Downstaging of hepatocellular carcinoma before transplantation

The rising incidence of hepatocellular carcinoma (HCC), largely caused by the increasing prevalence of hepatitis C, has fed demand for orthotopic liver transplantation (OLT). Under the Model for End-Stage Liver Disease scheme in the US, only patients with stage T2 HCC are eligible for priority listing for OLT. Yao *et al.* have conducted a prospective study to assess the feasibility of downstaging HCC of stage >T2 to bring patients within accepted criteria for OLT.

Patients recruited to the study had one lesion >5 cm in diameter, two or three lesions of which one had to be >3 cm, or four or

five nodules all ≤3 cm. In all cases the total tumor diameter was ≤8 cm. Depending on tumor size and location, the treatments employed were radiofrequency ablation, transarterial chemoembolization, percutaneous alcohol injection, or resection. Downstaging was successful in 21 of 30 patients. Seven patients dropped out because of tumor progression, and two others died of multiorgan failure shortly after treatment. OLT was later performed in 16 of 21 patients; another 4 were awaiting OLT and 1 was excluded for psychosocial reasons. By a median follow-up of 16 months after transplant, 15 patients were alive and 1 had died after 14 months because of poor graft function. The survival rates were 89.3% after 1 year and 81.8% after 2 years.

The authors conclude that, while the results are encouraging, expanded studies with extended follow-up are required for full feasibility assessment of downstaging as a means of qualifying patients for OLT.

Jim Casey

Original article Yao FY *et al.* (2005) A prospective study on downstaging of hepatocellular carcinoma prior to liver transplantation. *Liver Transpl* **11**: 1505–1514

Long-term steroids might not increase lymphoma risk for some patients

Some studies have suggested that long-term steroid use doubles a patient's risk of lymphoma; however, many of the inflammatory conditions currently treated with steroids or other potentially lymphoma-inducing drugs themselves carry an increased lymphoma risk. A new, large, population-based case-control study, using prospectively recorded data from the Swedish Cancer Register, aimed to avoid these confounding factors by examining lymphoma risk in patients with polymyalgia rheumatica (PMR) and giant cell arteritis (GCA), conditions that are uniformly and successfully treated with 1–2 years of steroids as single immunosuppressive therapy.

In all, 42,676 lymphoma cases and 78,487 matched controls were identified. Of these, 153 cases and 345 controls had been hospitalized with PMR or GCA at least 1 year before diagnosis of the index lymphoma case, corresponding to an unexpected and statistically significant reduction in lymphoma risk of 19% (odds ratio