# **RESEARCH HIGHLIGHTS**

## IN BRIEF

#### BONE

Kuchuk and colleagues observe a high prevalence of vitamin D deficiency (measured by 25-hydroxyvitamin D [25(OH)D] in serum) in postmenopausal women with osteoporosis. The researchers found serum 25(OH)D level is associated with latitude and with economic status. Data were assessed on 7,441 postmenopausal women from 29 countries worldwide. Mean serum 25(OH)D level was  $61.2 \pm 22.4$  nmol/l, and 25(OH)D levels inversely correlated with latitude. This correlation was positive in Europe, however, which the researchers attributed to affluence (use of multivitamins and good diet). High 25(OH)D levels were associated with increased BMD and decreased parathyroid function and bone turnover.

Original article Kuchuk, N. O. et al. Vitamin D status, parathyroid function, bone turnover, and BMD in postmenopausal women with osteoporosis: global perspective. J. Bone Miner. Res. 24, 693–701 (2009).

#### DIABETES

Diabetes mellitus is associated with increased risk of toxic effects of chemotherapy and all-cause mortality in patients with breast cancer. Srokowski *et al.* assessed the outcomes of 70,781 patients with breast cancer (aged ≤66 years), of whom 14,441 (20.4%) had diabetes mellitus. Despite receiving less-toxic regimens than their nondiabetic counterparts, patients with diabetes mellitus had an increased likelihood of hospitalization for any cause, and of adverse effects of chemotherapy (infection, fever, neutropenia and anemia). In patients receiving chemotherapy, breast-cancer-specific mortality was higher in patients with diabetes mellitus than in nondiabetic patients, whereas diabetic and nondiabetic patients who did not receive chemotherapy had similar breast-cancer-specific mortality.

**Original article** Srokowski, T. P. *et al.* Impact of diabetes mellitus on complications and outcomes of adjuvant chemotherapy in older patients with breast cancer. *J. Clin. Oncol.* **27**, 2170–2176 (2009).

### **THYROID FUNCTION**

Increased uptake of <sup>99m</sup>Tc-diethylenetriaminepentaacetic-acid (DTPA) in the orbits of patients with Graves ophthalmopathy is thought to be an indicator of inflammatory disease activity. Ujhelyi and colleagues investigated the effects of corticosteroid treatment in 57 patients with Graves ophthalmopathy. The researchers observed a decrease in DTPA uptake after corticosteroid treatment, and a substantial decrease in 39.5% of the patients. Those with high DTPA uptake (>12.28MBq/cm<sup>3</sup>) before treatment were more likely to have a positive response to corticosteroid administration than those with a lower initial DTPA uptake.

**Original article** Ujhelyi, B. *et al*. Retrobulbar <sup>99m</sup>Tc-diethylenetriaminepentaacetic-acid uptake may predict the effectiveness of immunosuppressive therapy in Graves' ophthalmopathy. *Thyroid* **19**, 375–380 (2009).