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Benefits of vitamin A in deficient populations

Several studies have indicated that vitamin A supplementation reduces childhood mortality in less developed countries, but there is little experience of the benefits and the costs of such supplementation outside tightly structured and resource intensive research projects. On p 207 Daulaire *et al* describe an opportunistic controlled trial assessing the effect of a single high dose of vitamin A given as part of an ongoing community based primary health care programme in western Nepal. Childhood mortality in the supplemented communities was 26% lower than in the unsupplemented communities, and the effect of supplementation was most striking in children older than 6 months. Supplementation was readily incorporated into the community health programme at little extra cost. Giving vitamin A to young children is a simple, cost effective means of decreasing childhood mortality even in the most underserved communities. The authors suggest that if an extended programme cannot be implemented a high dose before the season when diarrhoeal diseases are commonest would be beneficial.

Are drugs stable during shipment to the tropics?

Although large quantities of drugs are shipped to tropical countries each year, little is known about the influence of tropical climates on the stability of medicines. On p 210 Hogerzeil *et al* report a longitudinal study on three shipments of essential drugs sent to Lagos, to Mombasa and overland to Kampala, and to Bangkok. The temperature and relative humidity in the drug packs were automatically recorded for the full length of the journey, and the amount of active ingredient in the drug preparations was measured before and after shipment. The drugs were exposed to much higher temperatures and humidity than are recommended by the manufacturer and ergometrine injection and retinol were unstable under these circumstances. The instability of ergometrine is worrying as there is no obvious alternative for this lifesaving drug. Unexpectedly, none of the antibiotics showed any signs of instability.

Mortality and occupational exposure to radiation

Little evidence exists on the risks of ionising radiation at low doses and low dose rates. On p 220 Kendall *et al* present the results of the first analysis of the National Registry for Radiation Workers, in which they investigated such effects in over 95 000 men and women. They found evidence for an association between radiation exposure and mortality from cancer, particularly leukaemia and multiple myeloma. The central estimates of lifetime risk for all cancers and for leukaemia (excluding chronic lymphatic leukaemia) were, respectively, 2.5 and 1.9 times the risk estimates recommended by the International Commission on Radiological Protection, but as the commission's risk factors fall well within the confidence intervals of this

analysis, these results do not justify a revision of the commission's estimates. The positive trend with dose for all cancers was not significant, and no association between radiation exposure and prostatic cancer was found.

CD4 counts and progression to AIDS

A rapid fall in CD4 count is considered to be one of the best predictors of progression to AIDS in people infected with HIV, and antiretroviral treatment is often initiated on this basis. Aledort *et al* (p 212) evaluated progression to AIDS in relation to CD4 counts in 555 haemophilic patients who were infected with HIV and initially free of AIDS. Patients with outset CD4 counts of $0.30-0.49 \times 10^9/l$ had an age adjusted risk of AIDS within 30 months of only 9% that of patients with counts $\leq 0.2 \times 10^9/l$. Individual variability over the 30 months and the low rate of progression to AIDS made declines in CD4 count a poor index for identifying people who will rapidly progress to AIDS. The authors question the use of antiviral treatment in asymptomatic people with CD4 counts $\geq 0.3 \times 10^9/l$.

Low protein diets and renal failure

Does treatment slow down the natural progression of renal insufficiency? If so, can such an improvement be measured in patients? These two questions are controversial, and for patients (and physicians and health costs) the issue is to delay the start of dialysis for as long as possible consistent with a restful lifestyle. On p 216 Fouque *et al* performed a meta-analysis on randomised trials to assess the effects of low protein diets on chronic renal failure. Data from six selected trials on nearly 900 patients showed that low protein diets can delay the onset of end stage renal disease. The second question is yet to be answered by further trials aimed at determining the appropriate degree of protein restriction and the advantages of oral supplementation during mild chronic renal failure.

Quality management in the NHS

The recent reforms in the NHS create an environment in which doctors and managers who improve their performance will benefit from increased resources with which to handle their expanded share of the medical market place. To improve performance Berwick *et al* (p 235) propose that NHS doctors adopt the principles and techniques of total quality management (TQM), which were developed and are now widely used in industry and currently being introduced into patient care by some medical groups in America. TQM is designed to raise quality at every level, not simply to identify and educate or discipline the incompetent. As applied to medicine, it requires the collaboration of doctors, managers, and other health professionals in a continually updated review of the processes by which care is provided.