more frequently in men with mosaic Klinefelter's syndrome,
whereas mediastinal GCTs exclusively have been reported
in men with a 47,XXY karyotype. The Klinefelter's syndrome
data thus strongly argue against the hypothesis of a gonadal
origin of all mediastinal GCTs.

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Zinc and duration of treatment of severe
malnutrition

Sr—In their report of the treatment of severe malnutrition,
Khanum and colleagues (Dec 24/31, p 1728) considered
providing "additional micronutrients in the future" and in
their response, Brewster and Manary (Feb 18, p 453)
are convinced of the importance of zinc supplements in
malnutrition but say that they found it "very arduous to
actually obtain any zinc for human use". We have used zinc
supplementation in severely malnourished children at the
Maternino-Infantil German Urquidi Hospital (Cochabamba,
Bolivia) and at the Centro de Rehabilitación
Nutricional (CRN).

Parents consented to a 2 month's inpatient follow-up
study. Most children were between 6 and 24 months of age
(mean 16). All were weaned early. They lived in Cochabamba
suburban areas, and were from low income families with
crowded living conditions and little sanitation. The diagnoses of kwashiorkor, marasmus, and combined
protein-energy malnutrition (PEM) were based on
anthropometrical (weight-for-height) and clinical
findings and the presence of oedema, loss of subcutaneous tissue, and reduced muscle mass. A previous study provided
direct evidence of a nutritional thymic involution and of a high
number of immature lymphocytes (CDlla) on admission. Anthropometrical (weight-for-height >50th) and clinical
findings were noted in all children. The children were still
improved after another month was needed for complete immunological
recovery.

This gap between anthropometrical and
immunological recoveries could explain the failure of
treatment of severe malnutrition and high mortality rates in children.

We have also shown that severely malnourished children receiving a daily zinc supplement from admission reached
immunological recovery in 1 month. This supplement did not hasten the anthropometrical recovery but significantly reduced the time for immunological recovery. Zinc supplementation acted as an immunostimulating factor so that immune and anthropometrical recoveries coincided and
the time in hospital was shortened. Bolivia, like Malawi and other developing countries, does not produce pharmaceutical zinc salts, and we obtained these from
foreign countries. The supply of zinc for daily
supplementation represented an additional cost of USS1 per
month and per child. This cost could be reduced if larger
quantities of zinc were bought by the national health
authorities. This zinc supplement allowed the discharge of
anthropometricaly and immunologically healthy children
after only 1 month of treatment and the cost of hospital
treatment could be reduced by half. Zinc supplements could
be given in each of the three approaches described by
Khanum et al and in any place where maize is the staple
food, as Brewster and Manary say.

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Posture, blood flow, and prophylaxis of venous thromboembolism

SIR—Ashby and colleagues (Feb 18, p 419) report adverse
effects of posture on femoral venous blood flow. They noted a moderate reduction velocity when a patient was sitting
propped up at 35° in a hospital bed posture and a further pronounced reduction when the patient was sitting with legs
dependent. Patients recovering from operations are often
asked to sit in a chair with their feet elevated on a footrest.

The footrests used in most hospitals, while raising the feet,
compress the posterior aspect of the calf. Such compression
may be important in the etiology of venous thromboembolism. We investigated the effect of a footrest on blood
flow in the deep veins of the calf by dynamic radionuclide
venography.

Calf venous blood flow was measured in fifteen young
(18–31 years) healthy male volunteers. 89 MBq technetium-99m-labelled pertechnetate in 1 mL saline was injected into
the lateral dorsal vein of each foot, with ankle tourniquets
inflated to 40 mm Hg, and the time the bolus took to travel
from foot to knee was measured (Sofry DSX
Rectangular Gamma Camera). Each subject had one foot

Figure: Time for **Tc bolus to travel from foot to knee