tions clinicians have adopted a more selective EEG requesting policy. Doctors may have a lower risk of making, and patients may have lower risk of receiving, a misdiagnosis of epilepsy. The reduction in the number of unnecessary procedures releases technical capacity which can be used in the conduct of other investigations. Systematic replication of this work, possibly on a regional basis, would yield savings which would permit development of accessible local neurophysiology services.

Julie Jones and Clare Jowett in the audit departments of Wrexham Maelor and Royal Shrewsbury Hospitals facilitated the meetings and distribution of guidelines. We specially thank the users of the service for listening and changing their practice.

Contributors: DS had the original idea for the audit, helped with data collection and analysis, and is guarantor for the study. RB did most of the data collection; RP reported on all the EEGs. The paper was jointly written by DS, RB, RP, and BT.

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Competing interests: DS presented the data at an educational meeting sponsored by GlaxoWellcome, for which he received payment.

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National survey of use of hospital beds by adolescents aged 12 to 19 in the United Kingdom

R M Viner

In contrast to North America and Australia, little attention has been paid to the use of health services by adolescents in the United Kingdom. The incidence of survival from chronic illness in young people is increasing. The care of adolescents is becoming a quality issue for the NHS. Health data are rarely available in the United Kingdom on adolescents as a separate group, with standard data dividing young people into those aged under 14 years or those aged 15-44 years. A study of the use of psychiatric beds by adolescents in England and Wales is presently being undertaken by the Royal College of Psychiatrists (A O’Herlihy, personal communication). Previous regional studies have been undertaken, but reliable national data to guide the provision of other hospital services to adolescents are not available.

Participants, methods, and results

I requested information on the numbers of hospital bed days of inpatients and day case patients aged 12 to 19 years from April 1997 to March 1998 from all health authorities and boards in Wales and Scotland and 27 randomly selected ones from England. I excluded admissions for obstetrics, mental health, and learning disabilities. Information was provided by 37 health authorities and boards (response rate 79%), including three of the five in Wales, all 15 health boards in Scotland, and 19 English health authorities and boards, including at least one from each of the eight English regions. Information from three health authorities and boards was unusable. Average bed days was calculated by summing data from all 34 included health authorities and boards (population 15.8 million) and dividing by the product of the number of hospital beds and the number of days per bed.


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![Bar chart showing bed days per 10 000 people by age and sex](http://www.bmj.com/)

**P<0.05**
**P<0.01**

Male day case patients
Female day case patients
Male inpatients
Female inpatients

Bed days of adolescent inpatients and day case patients per 10 000 population by age and sex

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Anaemia in Chinese, South Asian, and European populations in Newcastle upon Tyne: cross sectional study

Colin Fischbacher, Raj Bhopal, Sheila Patel, Martin White, Nigel Unwin, K G M M Alberti

Britt drew attention to anaemia in Punjabi women in Southall nearly 20 years ago.1 Representative population data on anaemia in adults from ethnic minorities in the United Kingdom have not been published since then. We used data from the Newcastle heart project2 to assess the prevalence of anaemia in South Asian (Indian, Pakistani, and Bangladeshi) and Chinese ethnic groups.

Methods and results

The Newcastle heart project was a stratified random sample of 1889 Newcastle residents of European (n = 825), Indian (259), Pakistani (305), Bangladeshi (120), and Chinese (880) ethnic origin, studied during 1991-7. Chinese respondents were aged 25-64 years; the others were aged 25-74 years. Full details have been published elsewhere.2 3 Haemoglobin and red cell indices were determined with a Coulter STKS analyser. We defined anaemia as a haemoglobin < 130 g/l in men and < 120 g/l in women. We compared respondents who ate beef, pork, lamb, chicken, or fish with those who rarely or never did. Women were asked about their menstrual history, though this information was not available for Chinese respondents. Odds ratios were estimated from logistic regression using Stata 6.0 (Stata Corporation, College Station, TX).

Haemoglobin was lowest in men of European origin and highest in those of Chinese origin, whereas haemoglobin was lower in South Asian and Chinese women than in European women (table). The prevalence of anaemia was similar among men of all ethnic groups. However, anaemia was 3.0 (95% confidence interval 2.0 to 4.4) times more prevalent in South Asian women than in European women and 2.1 (1.3 to 3.3) times more prevalent in Chinese women than in European women. The findings were similar when the analysis was confined to non-smokers. One per cent (0.3% to 2.6%) of European women and 4.0% (2.2% to 6.6%) of South Asian women had haemoglobin < 100 g/l. Anaemia was less prevalent after the menopause among Indian and South Asian women than in European women (table). The prevalence of anaemia among men and women was similar after the menopause in European women and in South Asian women; however, the prevalence of anaemia was about 20% higher in Chinese women than in European women.

Comment

Adolescents aged 12 to 19 years occupy an average of 18 inpatient beds and 2.2 day case beds in a district general hospital nominally serving 250 000 people. The use of hospital beds increases rather than decreases through adolescence. This contradicts the assumption that adolescents use hospitals rarely and do not merit separate facilities. An average district general hospital has the activity to support a ward for adolescents of 12 to 15 beds. Overall, 12.8 inpatient beds are required for each 10 000 adolescents aged 12 to 19 years in the hospital catchment area (based on standard assumptions of an 80% bed occupancy). Although dedicated wards for adolescents may not be possible in many hospitals, the provision of other facilities should be considered.

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Competition of interests: None declared.

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