LETTERS TO THE EDITOR

How many inpatient paediatric units do we need?

EDITOR,—In his article on paediatric inpatient units, Professor Taylor claims that many present paediatric units are too small to provide safe and cost effective care, do not meet required standards, and should combine into larger units providing specialist children's services.¹ We would disagree with him, at least with regard to rural communities.

In many small district general hospitals a very high standard of care is offered, frequently directly by the consultant and often at great personal cost. The service shares many of the better aspects of primary care delivered by staff who know the families and their backgrounds. Professor Taylor stresses the value of a good relationship with the tertiary centres; where this exists children can be referred to superspecialists when indicated. He does, however, make a good case for continuing update and education for all staff and the need for clinical commitments to be such that study and development of appropriate skills are possible.

In a country area almost all acute admissions are at the request of a general practitioner. The request to admit is not undertaken without thought, although the reason is rarely that the disease is life threatening; parental anxiety, inexperience, exhaustion, lack of transport or telephone, or even inability to carry out instructions may all be factors. Is it feasible that a visiting service could overcome these difficulties?

If rural units were to be amalgamated for financial reasons, children in Cumbria, for example, could have to travel 40 miles for inpatient care even if lucky enough to be left with a day centre. As most acute admissions occur in the evening and at weekends, few could be observed locally, even for a few hours. A massive increase in funding of the ambulance service, roads, and public transport would be needed. Sick children would need to travel for an hour before assessment by a paediatrician and family disruption would be extreme.

It would be a brave obstetrician who considered offering a service where unforeseen complications in even 'low risk' deliveries were the responsibility of obstetric staff or even nurse practitioners, if the nearest paediatric support was 40 miles away.

Professor Taylor's sad experience of district general hospital care for children is not universal. Even in today's climate of rising expectations and workload, some units are proud to provide a local and appropriate service. The equation should be restated; it is not 'quality versus access' but 'quality AND access versus financial expediency'.

P E CARTER
S H PRECIOUS
A H SACKLEY
West Cumberland Hospital,
Whitehaven,
Cumbria CA28 8JG

A H PAYNTER
Flatt Walks,
Whitehaven

S BAGSHAW
28 Church Street,
Whitehaven

M STEVENSON
Health Centre,
Seascale

M GOURLAY
20 Oxford Street,
Workington

J DEN BAK
Beech House,
Egremont

1 Taylor B. How many inpatient paediatric units do we need? *Arch Dis Child* 1994; 71: 360–4.

Using the words of Professor Taylor's article,¹ I am a *street corner Jack of all trades paediatrician*. Our district general hospital is too small, with just 112 schools in our catchment area, just 2400 deliveries on one site; just one community paediatrician (with no on-call or acute duties); and just one paediatric psychiatrist. This size does, however, allow me to know most of the GPs; most of the areas where children live; and most residents know where to find us. I also know all my senior house officers and while I don't write many papers, I do train plenty of GP trainees who, after parents, provide most of the medical health care needs of children. I work with my consultant colleagues to provide a consultant based service which sounds a bit like Calman to me.

Children don't seem to mind being seen by a street corner consultant rather than a training grade, and their parents seem happy too. It doesn't worry me too much that I haven't forgotten how to put a drip up, intubate, or that I can still remember what it is like to be a senior house officer. It can even seem holistic at times.

The view that you can somehow retain these local services and yet remove inpatient facilities is not something to be taken for granted. Nor is it necessarily true that bigger centres are better.

There are some data that show that big units do some intensive care services better – and it is rare for us not to use those services; but that doesn't mean that all inpatient services are better centralised. I would venture to suggest that in submitting work for publication all centres tend to report only that which is favourable to themselves. If a small centre does better, for some reason it is always ascribed to a healthier population than in the urban areas. In general, big centres seem emotionally cold, the staff look miserable, they tend not to stay, and are hard to recruit. It might even be said that such centres appeal mainly to microbes and professors.

We do have a duty to face quality issues and I would never support a unit that did not subscribe to an audit of their outcomes. My own view is that health care, like cow muck, works best if you spread it about.

K N WILKINSON
Airedale General Hospital,
Skipton Road,
Steeton, Keighley,
West Yorkshire BD20 6TD

1 Taylor B. How many inpatient paediatric units do we need? *Arch Dis Child* 1994; 71: 360–4.

Professor Taylor comments:

Dr Carter and colleagues stress the benefits of local provision for children's hospital services. Children should not be subjected unnecessarily to inpatient care. In general, hospitalisation should only be for high dependency or intensive care. The most telling phrase in their letter is: *care is offered, frequently directly by the consultant and often at great personal cost.*

Such dedication can only be admired. The current problems with recruitment to paediatrics suggest that many young doctors see the need for a wider as well as a professional life.

Paediatrics is an evolving specialty. Change and the need to accept change is essential. Developments in child health care by general practice and secondary community services together with a change in disease patterns and current difficulties in obtaining paediatric medical and nursing staff all suggest that current inpatient arrangements for children need review. Consultant paediatricians should not be expected to work without a proper middle grade safety net, nor to work unsocial evening sessions, in an attempt to preserve the present pattern of hospital care, without looking at alternatives such as fewer, larger inpatient units, supplemented by local day care centres.

Dr Wilkinson tries heavy humour to justify his service. I agree that health care must be locally available – on a primary and community/day care basis. However, if a child is sick enough to be in hospital overnight he or she should be cared for in a properly structured, properly staffed unit.

Units must have sufficient throughput of serious problems to maintain experience. Competence of care is a quality issue for purchasers. Units must also meet required standards and follow guidelines including those for junior doctor's hours as well as provide adequate training and research experience.

Reviewing earlier diagnoses of chromosome

EDITOR,—We describe a 15 year old Asian girl who was originally diagnosed as having trisomy 13 at birth. This diagnosis was reviewed because of her prolonged survival.

She was the youngest child of unrelated parents. She had been born at term after a threatened miscarriage at 3 months and her birth weight was 3370 g. She had multiple congenital abnormalities consistent with trisomy 13 which was confirmed by chromosome studies. Karyotype studies at that time were normal in her siblings and parents. Her mother had 11 pregnancies with five miscarriages. All three pregnancies in a maternal aunt resulted in miscarriages.

At the age of 15 years she was functioning at a 6–9 month level. She had the following abnormal physical features: short stature, small head, low anterior hair line, disorganised hair growth, hypertelorism, broad nose, antverted nares, small jaw, short philtrum, prominent eyes, full lips, prominent teeth, small hands with short fingers, proximally inserted thumbs, clinodactyly, interrupted single crease on the left hand, umbilical hernia, rocker bottom feet, upper limb hypertonias, and truncal hypotonia.

Chromosomal analysis was repeated and this showed the presence in all cells of an additional marker chromosome, which was shown by fluorescent in situ hybridisation (FISH) studies to be a derivative chromosome 14 from a 4;14 translocation. The proband's mother and maternal aunt were subsequently shown to carry an apparently balanced translocation between chromosomes 4 and 14: 46,XX,t(4;14)(q13;q21-2). Her father's karyotype was normal.

Our case shows the importance of reviewing patients when the clinical diagnosis does not match the survival pattern associated with the reported chromosomal abnormality.

Eighty six per cent of cases of trisomy 13 died by 1 year, but translocation and mosaic cases may survive longer.¹ Rare reports of prolonged survival in trisomy 13^{2,3} and misdiagnosis of proximal trisomy 14 as trisomy 13⁴ exist. The increasing sophistication of cytogenetic analysis with improved techniques including FISH may detect anomalies which could earlier have gone undetected. In this case, the history of multiple miscarriages in the mother and aunt was also suggestive of a chromosomal rearrangement. Therefore, chromosome investigations should be repeated on children where the clinical picture does not fit the chromosomal diagnosis.

L C Y CHUNG
G DEBELLE

Springfields Children's Services Unit,
Raddlebarn Road,
Selly Oak,
Birmingham B29 6JB

E ROBERTS
C McKEOWN

West Midlands Regional Genetic Laboratory and
Consultancy Services,
Birmingham Maternity Hospital,
Edgbaston,
Birmingham B15 2TG

(Correspondence to: Dr Chung, Drs Anderson and
Partners, No 109, Repulse Bay, Shopping Arcade
G116, Repulse Bay, Hong Kong)

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Child pedestrian traffic safety – do health beliefs influence behaviour?

EDITOR,—I was delighted to read the authoritative study by Sissons Joshi *et al*¹ not simply because it lends support to the applicability of the Australian² and American³ findings with respect to cycle helmet use but also, and in particular, its promotion of the idea that presenting young people simply with the facts may not be enough. We need to ensure that

our young audience see accident prevention as applying to them in particular, and not just to the next child.

We have similarly seen this here at Tadworth as a problem for young people with respect to pedestrian safety. The majority of the referrals to our children's head injury unit come from injuries incurred as a product of pedestrian accidents. In this country we have the worst record for child pedestrian fatality in Europe for the 10-14 year age group.⁴ In an attempt to counter this a number of successful graduates from our rehabilitation programme have gone into schools to recount first hand their experiences, as a way of driving home the point that accidents happen to anyone. We have found, in our initial follow up of 134 students, that the impact in bringing home the message in this way in influencing beliefs has been very great.

The conclusion we have drawn from this programme is that young people speaking from direct experience to other young people carry far more credibility in influencing beliefs than can be accomplished simply with the presentation of a road traffic expert, doctor, or teacher. We would agree, therefore, wholeheartedly with the observation of Dr Sissons Joshi *et al* that effective health education in this area should look, not just to provide information, but rather that the presentation of that information should be done in a way that a young audience can identify directly with what is being discussed.

STEPHANE DUCKETT

The Children's Trust,
Rehabilitation Services,
Tadworth Court,
Tadworth,
Surrey KT20 5RU

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'Toddler's fracture'? A recognised entity

EDITOR,—The term 'toddler's fracture' was first used in 1964 to describe an undisplaced oblique fracture of the distal tibia in children

aged 9 months-3 years.¹ Although this entity is well known to radiologists it may have escaped the attention of paediatricians.

The clinical features typically follow mild trauma, such as tripping while walking or running, or falling from a modest height. Abnormality in gait is the most common presenting feature and localised increase in temperature and tenderness over the tibia is the most consistent physical findings. Because of the mild nature of the symptoms and trivial injury, there could be unusual delay in seeking medical advice. The characteristic radiological finding is a faint oblique radiolucent line crossing the lower third of the tibial shaft. Lateral and frontal views may not detect the fractures, but internal oblique view is the most sensitive.

In the review of spiral fractures of tibia in children and their relevance in child abuse, Mellick and Reesor concluded they were more likely to be accidental than non-accidental and used the term childhood accidental spiral tibial fracture.² Tenenbein *et al* came to the conclusion that a spiral fracture of the tibia in non-accidental injury would usually occur in the upper two thirds of the tibial shaft, rather than the lower third of the tibial shaft.³

Bone in young children is highly elastic because of its high cartilaginous content. This may be an important factor in this condition. The affected leg of a child who suddenly trips while running is subject to sudden deceleration of the leg while the upper part of the body and the other leg is still in motion. This in conjunction with the compression force caused by the weight of the child, generates the shearing force to cause the fracture. The periosteum acts as a splint and prevents displacement.

Failure to diagnose toddler's fracture may lead to unnecessary child protection investigations. Occasionally the condition may be confused with osteomyelitis.

A SARMAH
Ravensbourne NHS Trust,
Phoenix Children's Resource Centre,
40 Mason's Hill,
Bromley,
Kent BR2 9JG

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