

available to the authority. In addition, the advisers have the security of continuing part time in an established career path, while contributing to a challenging new area of primary care.

In Birmingham the role of medical adviser has been shared by three part-time appointments:

1. A consultant in public health with a specialist interest in primary care.
2. A recently retired general practitioner with longstanding experience of screening in general practice.
3. A practising general practitioner with prescribing experience, obtained with the help of an RCGP prescribing grant, working in conjunction with the local university department of clinical pharmacology.

In this way most of the professional experience required is covered, but is thinly spread in this large family health services authority with one million patients, cared for by 600 doctors, practising in a city with many social and medical problems. This is because the Department of Health has chosen to fund medical advice to family health services authorities in equal amounts with no regard to size of authority, deprivation or need.

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Sir,
We read with interest the letter from Dr Rous (December *Journal*, p.519) on the role of the medical adviser at the family health services authority. The department of general practice at St Mary's Hospital, London is the independent medical adviser to Barnet family health services authority. Our advisory team has five members, all employed by the department. One member works mainly in academic general practice and has a particular interest in health evaluation and planning, two members are based mainly in general practice, one member works in public health (and is based at the family health services authority) and one non-clinical member has a background in medical sociology and has research skills (also based at the family health services authority). We meet regularly both among ourselves and with the family health services authority. Issues arising are referred to the person with the most relevant skills.

We think this is a constructive model and believe it fulfils Dr Rous' re-

quirements of 'good quality advice from several sources'.

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Orchitis as a complication of chicken pox

Sir,
Dr Hunt (Letters, November *Journal*, p.480) described a two year old boy with orchitis secondary to chicken pox. Following a review of the literature, we have identified several other examples of this complication.¹⁻⁴

Sabrazés reported a 20 year old farmer who developed bilateral orchitis and epididymitis in the course of an otherwise mild attack of chicken pox.¹ The orchitis subsided in 18 days without apparent sequelae, but no long-term follow-up examination was reported.

Wesselhoef and Pearson reported a 46 year old salesman with severe chicken pox who developed viral pneumonia, right orchitis and epididymitis.² The orchitis and epididymitis subsided in one week. Physical examination six months later showed that the right testicle was a third smaller, of a softer texture, more irregular and somewhat less sensitive than the unaffected and normal left testicle.

Ormiston reported a seven year old boy with chicken pox and left orchitis and epididymitis.³ The orchitis and epididymitis resolved in five days. Follow-up examination six months later showed definite testicular atrophy on the affected side.

More recently, Turner reported a 14 year old boy with chicken pox and bilateral orchitis.⁴ Physical examination two months later revealed no testicular abnormality or evidence of testicular atrophy.

Orchitis is a known complication of a variety of viral infections, notably mumps and coxsackie virus infection.⁵ Mumps orchitis rarely occurs prior to puberty. Orchitis as a complication of chicken pox is rare. Of the four cases reported, two including the seven year old boy, had testicular atrophy.^{2,3}

We suggest that orchitis should be added to the list of complications of chicken pox which include bacterial superinfection

of the skin, pneumonia, thrombocytopenia, encephalitis and Reye's syndrome.

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Noiseless oxygen concentrator

Sir,
I read with interest the article on oxygen concentrators (October *Journal*, p.415) by Dr Dilworth and colleagues who reported that 34% of patients thought the concentrator was unacceptably noisy. The noise of oxygen concentrators is an important consideration, especially at night,¹ and long-term therapy can pose a serious problem to those who live in small houses. The best solution to this problem is the installation of a noiseless concentrator.

Most oxygen concentrators are based on a 'molecular sieve' system and emit noise of approximately 50 dB. Concentrators which use a 'semipermeable membrane' system emit only 35 dB and this type of concentrator was popular in Japan several years ago, despite the fact that oxygen output is limited to 40%.¹ Recently a new model of concentrator based on the 'molecular sieve' system but with reduced noise (38 dB) has been produced (Teijin Ltd) and is now in widespread use.

In Japan, home oxygen therapy has been covered by social (health) insurance since April 1985,² and it is estimated that about 18 000 patients with chronic respiratory failure are now receiving long-term oxygen treatment throughout the country.

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