- Jamal G, Hansen S. Electrophysiological studies in the postviral fatigue syndrome. J Neurol Neurosurg Psychiatry 1986; 48: 501 504
- Stokes M, Cooper R, Edwards R. Normal strength and fatigability in patients with effort syndrome. Br Med J 1988; 297: 1014-1018.
- Lloyd A, Hales J, Gandevia S. Muscle strength, endurance and recovery in the post-infection fatigue syndrome. J Neurol Neurosurg Psychiatry 1988; 51: 1316-1322.
 Straus S. The chronic mononucleosis
- syndrome. J Infect Dis 1988; 157: 405-412.

 10. Behan P, Behan W. The postviral fatigue syndrome. CRC Crit Rev Neurobiol 1989; (in
- press).

 11. Mayou R. Effectiveness of cardiac rehabilitation. *J Psychosom Res* 1981; 25: 423.427
- David A, Wessely S, Pelosi A. Post-viral fatigue: time for a new approach. Br Med J 1988; 296: 696-699.

General practitioners' workload in nursing homes

Sir.

Dr Andrews' results (December Journal, p.546) of a general practitioner's workload in a nursing home, are echoed by findings in our practice for 1988. We have a list size of 7220 patients and of these 31.2% are over 65 years of age. Two hundred and forty seven patients are in 45 nursing or rest homes; this represents 3.4% of the practice population. In 1988 these patients generated a mean of 25.2% of visits each month (range 18.0–32.6%).

Will this disproportionate workload be reflected in practice budgets?

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Immunization records

Sir,

I read with interest the paper on immunization recording by Drs Pennington and Wilcox (November Journal, p.515). A similar audit was performed in our practice in 1985 comparing general practice, health visitor and district health authority records for uptake of diphtheria/ tetanus and polio, and measles vaccinations among all registered three-year-olds. Parent-held records were not reviewed. The practice holds baby clinics once a week and has attached health visitors. It is an inner city practice with an annual turnover of patients that is nearly three times the national average. In 1985 the district health authority had a manual recording system.

Of 61 children eligible for vaccination, 83% had received three diphtheria/tetanus and polio vaccines, and 77%

measles vaccine. More interestingly, a similar level of recording inaccuracy to that reported by Drs Pennington and Wilcox was found. In only 27% of cases was there complete agreement in the records held by general practitioners, health visitors and the district health authority. The health visitor record was found to be the most accurate, and the district health authority record the least accurate. The latter was correct in less than 50% of cases, either through inaccurate recording or because children registered with the practice were not known to the health authority.

A similar audit was performed in December 1988. The district health authority had installed a central computer in 1987 and this was fully operational in 1988. Of 76 eligible children 96% had received diphtheria/tetanus and polio, and 84% measles vaccine. Again the district health authority record was less than 50% accurate.

District health authority computers now play a central role in the uptake of childhood immunizations, generating letters to parents inviting them to attend. Missing information about children or their immunization status will mean that they are not invited to attend.

As a result of the findings of these audits the practice has recommended that general practitioners inform health visitors, who in turn inform the district health authority, of all new registrations of under five-year-olds and that a print-out of children eligible for immunization is obtained from the district health authority regularly, compared with the health visitor and general practice records, and updated accordingly. In this way not only will more children be immunized but the health authority figures for childhood immunization will be more accurate, reflecting what is actually being done.

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Treatment of warts with liquid nitrogen

Sir.

Having used all the traditional, and some less traditional, methods of treatment for viral warts of all kinds since I qualified in 1943, with the usual limited success, I was not surprised to see the results of Drs Keefe and Dick's survey (January Journal, p.21). Their decision to set up a pilot project to provide liquid nitrogen to a number of local health centres can only be applauded as an excellent example

which should be followed by other dermatologists throughout the UK. But I am concerned that no mention is made of the mode of applying liquid nitrogen.

After reading Lloyd Williams' account of cryodestruction of haemorrhoids with a nitrous oxide cryoprobe, I first treated a viral wart on my hand by this means 16 years ago. After repeating this painful treatment four times over the course of eight weeks and only when I was satisfied that I was cured, I started using this method for my patients.

After three months of unpredictable and mostly disappointing results I was on the verge of giving up 'cryosurgery', just as I had given up using carbon dioxide snow and later cotton wool buds dipped in liquid nitrogen, when I discovered by chance reading that liquid nitrogen could also be used in a closed system either by employing a cryoprobe or as a cryospray. I was fortunate to receive an Upjohn travelling fellowship which allowed me to visit the small number of hospital based specialists who were using this relatively new equipment (unpublished report).

Over the past 16 years, I have improved and developed my technique of treating not only warts, but also a huge variety of other accessible lesions on the skin, and of the mucous membrane in the nose, mouth, vagina cervix and anus in over 5000 patients. To date, I have treated nearly 30 000 warts of all kinds in over 3000 patients, and in the last 12 years I have come to expect a cure rate of nearly 100%.

Most warts require only one treatment lasting eight to 20 seconds. A number of patients, including children between four and 16 years of age, with multiple warts on the hands and/or feet (verrucae) have attended for more than two or three sessions; 14 patients have attended on over 10 occasions for treatment of upwards of 50 or 60 warts each.

It has been my experience that patients do not find this form of treatment all that painful if the right technique is used and this, together with the other advantages which I have described elsewhere, makes the liquid nitrogen cryoprobe or cryospray the treatment of first choice not only for warts, but for a huge range of other lesions.² Only seven patients, including one four-year-old girl with an ingrowing toenail, have been unable to complete the treatment with liquid nitrogen cryosurgery, because they could not tolerate the sensation of intense cold. But these patients also did not tolerate well injections for local anaesthesia for other types of treatment.

I must add that I agree with the reservation which Drs Keefe and Dick appear to have about the delegation of this treatment to practice nurses. It might look simple, as do many procedures when they are