

from screening would be hard to handle without additional resources. Our work in Peterborough has, however, shown clearly the benefits.<sup>1</sup> Of 304 residents of homes for the elderly, five confused people improved remarkably in their mental state with the use of personal amplifiers after being screened by a specialist teacher of the deaf. Our project was funded by Marks and Spencer. The size of the project was commensurate with the capacity of the audiology clinic that received referrals for new hearing aids or new moulds.

I agree with Mr R W R Farrell and his colleagues<sup>2</sup> that audiological screening for every senior citizen is a utopian dream. But the Peterborough model—using the skills of a specialist teacher of the deaf to screen, retube blocked tubes, change batteries, and counsel lay workers—is worth considering. The skills of the specialist social services officer for the hard of hearing are a valuable adjunct. On our recommendation, seven old people's homes were fitted with a loop system.

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- Hughes JR. Hearing problems of elderly people. *Br Med J* 1990;300:122. (13 January.)
- Hickish G. Hearing problems of elderly people. *Br Med J* 1989;299:1415-6. (9 December.)
- Anand JK, Court I. Hearing loss leading to impaired ability to communicate in residents of homes for the elderly. *Br Med J* 1989;298:1429-30.
- Farrell RWR, Parker A, Buffin JT. Hearing problems of elderly people. *Br Med J* 1990;300:122. (13 January.)

## Treatment with co-trimoxazole for urinary tract infections in women

SIR,—The results of the study by Dr T A M Trienekens and colleagues<sup>1</sup> on the use of co-trimoxazole in patients with urinary tract infections are of no interest. It is now clear that this drug combination has no place in the management of these infections. The finding has been summarised in the *Drug and Therapeutics Bulletin*,<sup>2</sup> which states that there is no synergy between sulphamethoxazole and trimethoprim; the antimicrobial activity in urine is almost always due to the trimethoprim component. Most of the side effects, particularly the serious ones, are attributable to the sulphonamide component. This danger increases with age and co-trimoxazole should certainly not be used in those aged over 65; complications are still significantly higher in those aged 40-64 than in younger patients. Finally, if a drug reaction occurs both drugs instead of one have to be avoided.

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- Trienekens TAM, Stobberingh EE, Winkens RAG, Houben AW. Different lengths of treatment with co-trimoxazole for acute uncomplicated urinary tract infections in women. *Br Med J* 1989;299:1319-22. (25 November.)
- Anonymous. Co-trimoxazole, or just trimethoprim? *Drug Ther Bull* 1986;24:(No 5).

SIR,—Dr T A M Trienekens and colleagues described compliance with three days' or seven days' treatment with co-trimoxazole to have been verified by the presence of growth inhibiting factors in follow up urine samples.<sup>1</sup> Yet their reference to our studies of compliance with anti-epileptic drug use<sup>2</sup> is probably inappropriate. Our report showed the unreliability of indirect measures of compliance, as exemplified by pill counts, patient interviews or physicians' estimates, or clinical response. In the study by Dr Trienekens and colleagues we are unsure how the finding of growth inhibiting factors in 74% of one week urine samples relates to the actual dosage consumed by patients, other than to suggest that some drug has

been taken recently. Monitoring of dosage in this study would have shown how many patients in each group took co-trimoxazole as instructed.

Patients who experience relief of symptoms commonly stop taking drugs,<sup>3</sup> thereby creating variable treatment groups instead of straightforward three day and seven day sets. Did Dr Trienekens and colleagues collect such information in their questionnaire? Compliance is better than average just before and after a follow up visit but declines significantly a month later.<sup>4</sup> The importance of taking drugs is probably enhanced in anticipation of the visit and reinforced by medical staff but is quickly forgotten. These factors can wreak havoc with study design, particularly if they are unknown to the investigators. A better definition of side effects might have been made if reports had been correlated with actual dosing.

We believe that investigators should plan compliance measurements for clinical trials and integrate the data into outcome analyses.

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- Trienekens TAM, Stobberingh EE, Winkens RAG, Houben AW. Different lengths of treatment with co-trimoxazole for acute uncomplicated urinary tract infections in women. *Br Med J* 1989;299:1319-22. (25 November.)
- Cramer JA, Mattson RH, Prevey ML, Scheyer RD, Ouellette VL. How often is medication taken as prescribed? A novel assessment technique. *JAMA* 1989;261:3273-7.
- Cheung R, Sullens CM, Seal D, et al. The paradox of using a 7 day antibacterial course to treat urinary tract infections in the community. *Br J Clin Pharmacol* 1988;26:391-8.
- Cramer JA, Scheyer RD, Mattson RH. Compliance declines between visits. *Arch Intern Med* (in press).

AUTHOR'S REPLY,—Although I agree with Dr M C Taylor that the side effects of co-trimoxazole are mostly due to the sulphonamide component, I do not agree with his statement that there is no place for this drug combination in the treatment of urinary tract infections.

In The Netherlands the combination is widely used for treating urinary tract infections in inpatient and outpatient departments. In addition, Fihn *et al*<sup>1</sup> suggested in their recent study that a three day course of co-trimoxazole should be optimal in the treatment of such infections. With a 10 day course too many side effects were recorded, whereas with a one day course the cure rate was not as high as that after 10 days' treatment.

In addition, since the introduction of trimethoprim alone in 1979 several studies have mentioned a rising incidence of resistance to this drug in the United Kingdom of up to 44%.<sup>2,3</sup> In contrast, resistance to the combination has remained at the same level as in 1979—that is, around 12%.<sup>4</sup> In that study distinct differences in susceptibility of uropathogens, except *Escherichia coli*, and klebsiella and citrobacter species were reported between trimethoprim alone and the combination, with the combination being more effective. In our study we found that eight out of 656 (1.3%) strains were resistant to trimethoprim but sensitive to the combination.

We agree with Drs Cramer and Scheyer that daily dosage monitoring is a better way of measuring the compliance of the patient than only one measure at day 7. However, daily monitoring was not feasible. Therefore we used two other methods: measure of growth inhibiting factors at day 7 and a patient questionnaire, showing 74% and 97% compliance respectively.

It is true that we could not differentiate between actual and recent dosage. However, the interval between the first and the follow up visit was only one week and the patient had to take the medication for no more than seven days, whereas a decrease in compliance was observed only after one month.<sup>5</sup> Nevertheless, 74% is probably a more

reliable figure for compliance than 97% and in that respect we agree that patient interviews give relatively inaccurate information and that more attention needs to be paid to reliable compliance measurements in clinical trials.

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- Fihn SD, Johnson C, Roberts PL, Running K, Stamm WE. Trimethoprim-sulfamethoxazole for acute dysuria in women: a single dose or 10 day course. *Ann Intern Med* 1988;108:350-7.
- Lacey RW, Loker RG, Cooke J, Calvert RT. Trimethoprim resistance in Gram-negative urinary pathogens. *Br Med J* 1985;290:469-70.
- Hamilton-Miller JMT, Purves D. Trimethoprim resistance and trimethoprim usage in and around the Royal Free Hospital in 1985. *J Antimicrob Chemother* 1986;18:643-4.
- Maskell R, Pead L. Trimethoprim resistance and single-agent use. *Lancet* 1989;ii:557-8.
- Cramer JA, Scheyer RD, Mattson RH. Compliance declines between visits. *Arch Intern Med* (in press).

## Fish oil, aspirin, and bleeding

SIR,—There is some evidence that taking both fish oil and aspirin<sup>1</sup> results in little, if any, increase in the bleeding time above that produced by aspirin alone.<sup>2</sup> Although fish oil prolongs bleeding time, there have been no reports of bleeding during clinical trials of fish oil supplements.

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- Beeley L. Any questions. *Br Med J* 1989;299:1445. (9 December.)
- Van den Berg EK, Dehmer GJ, Prewitt JP, Schmitz JM. Hemostatic function in patients receiving n-3 fatty acids in addition to anti-platelet agents [Abstract]. *Clin Res* 1987;35:7A.

## Arctic Willy

SIR,—With the skiing season upon us again, the report by Drs Simon Travis and Digby Roberts<sup>1</sup> is timely. I am surprised, however, that the article was accepted for publication without reference to the most celebrated case of "arctic willy." The late actor David Niven clearly described his own case of Travis-Roberts syndrome, sustained while skiing in the Italian Alps during the shooting of *The Pink Panther*.<sup>2</sup> Instead of the rather prosaic and anatomical description of the lesion used by the authors, Mr Niven describes finding a "pale blue acorn." Whether this represents a more advanced state of the condition, hyperbole understandable in one of artistic temperament, or merely a lack of poetry in the souls of Drs Travis and Roberts must be open to debate.

Were the authors justified in withholding the accepted treatment? Mr Niven states that his Italian guides administered what seemed to be the standard local therapy: forcible immersion of his frostnipped organ into a large glass of neat whisky. The pain was said to be excruciating, and true Scots may consider this an abuse of a dram almost on a par with the addition of ginger ale, but the treatment was a complete success. Given the paucity of reports of successful treatment, this technique should clearly not be discarded lightly, and a prospective trial is now surely justified. I must say, however, that my respect for the fortitude of the men of the Royal Marines is increased the more to learn that they can face even this dread tribulation without having to resort to alcohol.

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- Travis S, Roberts D. Arctic Willy. *Br Med J* 1989;299:1573-4. (23-30 December.)
- Niven D. *The moon's a balloon*. London: Hodder and Stoughton, 1971:304-5.