fetal monitoring these should be respected, though they should be fully informed about the risks should they refuse electronic fetal monitoring when its use is indicated by the obstetric circumstances. To some extent objections to electronic fetal monitoring may reflect antipathy towards the stark atmosphere of many delivery wards, and progress towards a better environment for women in labour[19] may help to make electronic fetal monitoring more acceptable.

The consensus among obstetricians is that electronic fetal monitoring is the method of choice in high risk pregnancies, but routine electronic fetal monitoring in low risk cases remains controversial. The objectives for future work must be to develop methods which improve diagnostic accuracy, avoid unnecessary obstetric intervention, and increase acceptability to patients.

PETER W HOWIE

Professor of Obstetrics and Gynaecology,
University of Dundee, Dundee DD1 9SY

1 Beard RW, Filsie GM, Knight CA, Roberts GM. The significance of the changes of the continuous fetal heart rate in the first stage of labour. *Journal of Obstetrics and Gynaecology of the British Commonwealth* 1971;**78**:865-81.
2 Edington PT, Sibanda J, Beard RW. Influence on clinical practice of routine intrapartum fetal monitoring. *Br Med J* 1975;iii:341-3.
3 Parer JT. Fetal heart-rate monitoring. *Lancet* 1979;ii:632-3.
4 Renou P, Chang A, Anderson I, Wood C. Controlled trial of fetal intensive care. *Am J Obstet Gynecol* 1976;**126**:470-6.
5 Haverkamp AD, Thompson HE, McFee JG, Cetrulo C. The evaluation of continuous fetal heart rate monitoring in high-risk pregnancy. *Am J Obstet Gynecol* 1976;**125**:310-20.
6 Kelso IM, Parsons RJ, Lawrence GF, Arora SS, Edmonds DK, Cooke ID. An assessment of continuous fetal heart rate monitoring in labor: a randomised trial. *Am J Obstet Gynecol* 1978;**131**:526-32.
7 Haverkamp AD, Orleans M, Langendoerfer S, McFee J, Murphy J, Thompson HE. A controlled trial of the differential effects of intrapartum fetal monitoring. *Am J Obstet Gynecol* 1979;**134**:399-412.
8 Wood C, Renou P, Oats J, Farrell E, Beischer N, Anderson I. A controlled trial of fetal heart rate monitoring in a low-risk obstetric population. *Am J Obstet Gynecol* 1981;**141**:527-34.
9 Chalmers I. Randomised controlled trials of intrapartum monitoring. In: Thalhammer O, Baumgarten KV, Pollak A, eds. *Perinatal medicine*. Stuttgart: Georg Thieme, 1979:260-5.
10 Dennis J, Chalmers I. Very early neonatal seizure rate: a possible epidemiological indicator of the quality of perinatal care. *Br J Obstet Gynaecol* 1982;**89**:418-26.
11 MacDonald D, Grant A, Sheridan-Pereira M, Boylan P, Chalmers I. The Dublin randomized controlled trial of intrapartum fetal heart rate monitoring. *Am J Obstet Gynecol* 1985;**152**: 524-39.
12 Sykes GS, Molloy PM, Johnson P, Stirrat GM, Turnbull AC. Fetal distress and the condition of newborn infants. *Br Med J* 1983;**287**:943-5.
13 Gillmer MDG, Combe D. Intrapartum fetal monitoring practice in the United Kingdom. *Br J Obstet Gynaecol* 1979;**86**:753-8.
14 Sawers RS. Fetal monitoring during labour. *Br Med J* 1983;**287**:1649-50.
15 Jenkins HML, Symonds EM, Kirk DL, Smith PR. Can fetal electrocardiography improve the prediction of intrapartum fetal acidosis? *Br J Obstet Gynaecol* (in press).
16 Sykes KS, Molloy PM, Wollner JC, *et al*. Continuous, noninvasive measurement of fetal oxygen and carbon dioxide levels by use of mass spectrometry. *Am J Obstet Gynecol* 1984;**150**:847-58.
17 Morgan BM, Bulpitt CJ, Clifton P, Lewis PJ. The consumers' attitude to obstetric care. *Br J Obstet Gynaecol* 1984;**91**:624-8.
18 Hansen PK, Smith SF, Nim J, Neldam S, Osler M. Maternal attitudes to fetal monitoring. *Eur J Obstet Gynecol Reprod Biol* 1985;**20**:43-51.
19 Beard RW, Capel K. A better environment for women in labour. *Lancet* 1985;ii:1059.

Getting the balance right

Not infrequently the *BMJ* is asked to print a letter to the editor commenting on an article that has appeared in a journal that has no correspondence column, a request that we usually decline because it is none of our business. A recent complaint about the *Drug and Therapeutics Bulletin* raises such important issues, however, that we believe we are justified in extending the debate to our readers.

Last October the *Drug and Therapeutics Bulletin* devoted an entire issue to the interval recommended between routine dental check ups.[1] Concluding that six monthly checks were no longer needed for either caries or periodontal disease, the article stated that "The good news is that an annual visit to the dentist should suffice for both."

Such a statement reads as if it were the final truth. Yet the fact is that the topic is still highly controversial and far from settled, as the subsequent expert comments in the *British Dental Journal* have shown.[2-4] No such comments have appeared, however, in the *Drug and Therapeutics Bulletin*, which does not print letters and publishes only the occasional correction of fact. It might be argued that the failure to have a space for comment is the editor's prerogative, yet in this case there are grounds for asserting that questioning should be possible. Firstly, the article's conclusion has highly important implications and attracted a lot of media attention. Secondly, the bulletin is sent free of charge to every general practitioner in Britain, paid for by the Department of Health.

On the issue of dental check ups the debate goes back at least nine years, when in the *Lancet* under the heading of "Questionable routines" A Sheiham, now professor of community dental health and dental practice at The London Hospital and University College London, reviewed the value of screening for dental caries, periodontal disease, malocclusion, and oral malignancies.[5] He concluded that there was no evidence that six monthly dental checks were needed, yet it was clear from the subsequent correspondence in the *Lancet* that the issue was still controversial: some writers agreed with Sheiham's arguments, but they pointed to too many generalisations and assumptions in his article and to conclusions not following from the data.

Eight years later, however, the controversy was obscured in the *Drug and Therapeutics Bulletin* by the way the article was edited. I have seen the various stages of this, and the sequence illustrates the need for giving both the pros and cons of any contentious case. Take the changes made in one crucial passage in the *Drug and Therapeutics Bulletin* article:

> *Author's submitted version*—"As there is no scientific case for altering [the six monthly dental check for adults] specifically with respect to caries, it would seem correct to recommend its maintenance. . . ."
>
> *Provisional draft*—"These findings suggest longer intervals between check ups and a policy of minimal intervention."
>
> *Author's correction*—"These findings *do not* suggest longer intervals between check ups *as part of* a policy of minimal intervention. . . . *It would seem appropriate to maintain the status quo at six months* . . ." (italics added).
>
> *Published version*—"Routine six monthly screening is not needed either for caries or periodontal disease."

In a detailed critique of this article in the *British Dental Journal* R J Elderton, professor of conservative dentistry at Bristol, concluded that it was backward looking and left little scope for the inevitable move towards a preventive future for the dental service.[2] His crucial argument, however, was that it was a one sided thesis which few dentists were likely to find logical; moreover, it had drawn heavily and irrelevantly on a study carried out over 15 years ago in the Indian Health Service in Arizona, New Mexico, and South Dakota—whose

data did not support the conclusion drawn. Finally, and most important, the conclusion in the *Drug and Therapeutics Bulletin* about the interval between dental check ups was unfounded.

All this debate is exactly what science is about: truth is arrived at through data, analysis, and argument. The sad thing here is that the debate cannot be thrashed out in the forum where it started last October; hence many readers of the *Drug and Therapeutics Bulletin*, including the media, will be unaware of the cogency of the opposing case. The bulletin recognises the need for its articles to give a consensus of critical and supportable opinions on treatment and related subjects. "We try hard to come off the fence," its notes for authors state, "but where there really is no consensus each school of thought should be discussed with enough evidence to enable the reader to evaluate it for himself"—and "in general, trials should be included only if they are scientifically unacceptable. . . ."

Usually in Britain opponents have some right of reply, and most newspapers have correspondence columns in which issues can be thrashed out. Nowhere is such debate more important than in journals—both those reporting only original work and those carrying a mixture of original and review articles—where data can be challenged and conclusions re-examined. A wise editorial policy will balance the maximum amount and range of comment against the space needed for other debates and the tolerance of the readers. Where public policy is concerned, moreover, the need for a wide expression of views is paramount. Semi-official publications which aim at summarising the current scientific consensus must surely recognise an obligation to admit the possibility of error.

The *Drug and Therapeutics Bulletin* performs a valuable service in informing its readers about the uses, side effects, and contraindications of drugs old and new. It submits the drafts of its articles to a number of experts in the subject under discussion. No amount of care and peer review of draft articles, however, can take the place of open debate and in not having a correspondence column I believe the bulletin does its readers a disservice. So I have two major reservations about the present policy of the *Drug and Therapeutics Bulletin*: as an editor, I believe that the balance on any subject is difficult if not impossible to achieve without a forum for discussion; as a taxpayer, I am concerned that the government pays to send a free copy of the bulletin in its present form to every general practitioner in the apparent belief that its opinions are non-controversial.

STEPHEN LOCK

Editor, *BMJ*

1 Anonymous. Routine six-monthly checks for dental disease? *Drug Ther Bull* 1985;**23**:69-72.
2 Elderton RJ. Routine six-monthly checks for dental disease? *Br Dent J* 1985;**159**:277-8.
3 Manson JD. Routine six-monthly checks for dental disease? *Br Dent J* 1985;**159**:357.
4 Newman HN. Routine six-monthly checks for dental disease? *Br Dent J* 1985;**159**:392.
5 Sheiham A. Is there a scientific basis for six-monthly dental examinations? *Lancet* 1977;ii:442-4.

Malignant otitis externa

Otitis externa may cause severe pain and irritation, but it never threatens the patient's life or general health. Nevertheless, a rare form of necrotising infection of the external auditory meatus spreads into the surrounding tissues and carries a high mortality. This malignant, or invasive, otitis externa is generally a disease of elderly diabetics,[1 2] though it may occur in younger diabetics[1] and elderly people who do not have diabetes.[1-3] A similar, but not identical, condition has been described in children.[4 5] *Pseudomonas aeruginosa* has been isolated from virtually all the reported cases.[6] The response to metronidazole in some cases has suggested that anaerobic organisms may also play some part.[6]

Once established the infection may spread, destroying the bone of the external auditory meatus and subsequently other parts of the base of the skull. This extension of the infection is facilitated by fissures in the floor of the cartilaginous portion of the external auditory meatus (the incisura of Santorini). The infection may spread to the soft tissues, including the parotid gland. Facial palsy is frequent and paralysis may also develop of the 9th, 10th, 11th, and 12th cranial nerves.[7 8] Other complications include mastoiditis,[9] meningitis,[3 10] thrombosis of the sigmoid sinus,[8] and septic arthritis of the temporomandibular joint.[11]

The diagnosis should be considered in any elderly patient with external otitis which does not respond to local treatment or is associated with unusual features such as parotid swelling or facial palsy. Men are more commonly affected than women.[2 12] Examination of the external auditory meatus shows oedema of its wall, profuse discharge, and granulations on its floor. Probing the wall of the canal deep to the granulations shows local erosion of bone. The chief differential diagnosis is neoplasia of the temporal bone.

The erythrocyte sedimentation rate is usually raised.[6] Destruction of bone can be shown by polytomography or computed tomography,[12 13] and the latter will also show abnormalities in the soft tissues.[12] Isotope scanning using gallium or technetium will show areas of active infection and may be used to monitor the response to treatment.[12-14]

Prolonged local and systemic treatment is required, for if it is too brief the disease tends to flare up again even when the ear has clinically healed.[15] Regular aural toilet is needed together with wicks impregnated with gentamicin and systemic antibiotics given intravenously. In the past the standard treatment has been a combination of gentamicin and carbenicillin.[6 8] Tobramycin[8 15] and colistin[7] have also been used, and more recently newer penicillins have been tried—such as ticarcillin,[8] pirbenicillin,[8] pipricillin, and azlocillin,[14] as has a new cephalosporin, ceftazidime.[16] These newer agents have the advantage that they are less toxic than the earlier antibiotics such as gentamicin.

In some cases surgical treatment may be restricted to removal of granulations, but when the disease is more advanced wide excision of the affected tissue (including mastoidectomy) may be required.[6 17 18] When the bony lesions are extensive partial resection of the temporal bone has been performed.[19]

The overall mortality has been reported as one third,[2] but when cranial nerves are affected it may be as high as 80%.[7] Death may be due to concomitant arterial disease, exacerbated by the severity of the illness, leading to myocardial infarction or cerebrovascular accidents,[1 12] or to direct complications of the disease such as meningitis. Early diagnosis is essential: the prognosis seems to be related directly to the stage that the disease has reached at the onset