outpatient physical examination. Even with the increasing excellence of the fiberoptic instruments and their increasing use in both inpatients and outpatients it would seem inappropriate at the moment to regard rigid sigmoidoscopy as being anything other than the first and essential investigation.

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SIR,—The traditional role of barium radiology is being increasingly challenged by endoscopists. The article by Dr D C Lindsay and colleagues (16 January, p 167) is fairly typical of most reports from endoscopists. Cooperative studies by radiologists and endoscopists usually give a more balanced view. The authors set off on the wrong foot by stating that fiberoptic gastroduodenoscopy is now accepted as the first investigation for the vast majority of patients with upper gastrointestinal symptoms. There is considerable evidence to the contrary.^{1,5}

For the large bowel the barium enema examination is capable of an accuracy not far below that of total colonoscopy.⁶ Also radiology is safer and more likely to give a complete examination. Dr Lindsay and colleagues are wrong to imply that because no major complications occurred in their 168 patients the two techniques are equally safe. The list of complications associated with colonoscopy is long and impressive. Quoted mortality rates from simple diagnostic colonoscopy range from 0.03%⁷ to 0.008%.⁸ If all the 250 000 patients having a barium enema examination this year in England and Wales were to have a colonoscopy instead up to 75 deaths could be expected. Also the authors use the word "completeness" in an unusual way and this is confusing. Barium enema is complete to the caecum in virtually all patients whereas colonoscopy is incomplete in about 25%. Having a substantial proportion of patients with an unexamined caecum and ascending colon obviously limits the value of the technique. As a general policy there is much to be said for continuing to use the double contrast barium enema examination as the initial examination (supplemented when necessary by fiberoptic sigmoidoscopy), except when biopsy or polypectomy may be indicated or in those patients in whom the advantage of the potentially greater accuracy of colonoscopy outweighs the extra risk and high incidence of incomplete examination.

Spurred on by the pharmaceutical and optical industries, and with opportunities for self referral, the endoscopy bandwagon is on the move. But the replacement of barium radiology to an extent advocated by endoscopists like Dr Lindsay and colleagues would be expensive, inappropriate, and unnecessary. Radiology is already in place and providing a good service. Therefore it makes both clinical and financial sense for endoscopy to complement and not replace barium studies. Further expansion of the endoscopy service should be concentrated on those areas where a suitable alternative is not so readily available.

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- 7 Smith LE. Fiberoptic colonoscopy: complications of colonoscopy and polypectomy. *Dis Colon Rectum* 1986;19:407-12.
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Skin reactions and fever with indapamide

SIR,—Dr B H Ch Stricker and Mr C Biriell (21 November, p 1313) seemed to write their article out of concern that there existed no published case reports of skin reactions with indapamide and because a "frequently reported" phenomenon does not appear in the British and Dutch data-sheets. It was unfortunate that they did not follow the *BMJ* guidelines established for this type of report¹ and contact the manufacturers before submitting their article; this would have allowed us to provide them with information they appear to lack, to express our reservations about their analysis and interpretation of the data presented, and to question the relevance of the article itself.

In analysing the data the authors compared the incidence of skin reactions expressed as a percentage of the total number of adverse reactions for the different diuretics considered. Such comparisons are, however, of questionable meaning as the percentage for any one effect depends entirely on the magnitude of the total number of effects. Thus to observe that in the Netherlands database 36% of all recorded reactions to indapamide were skin reactions compared with only 17% of those to chlorthalidone gives a somewhat distorted picture of the comparable absolute numbers of cases: 16 and 15 respectively.

Furthermore, the authors comment on these and the World Health Organisation data by stating that comparisons of suspected adverse reactions to indapamide, chlorthalidone, hydrochlorothiazide, and frusemide showed a high prevalence of rashes with indapamide. While they express reservations about interpreting data based on voluntary reports, it is nevertheless relevant that the absolute incidence of skin reactions reported with indapamide is less than two thirds of that for hydrochlorothiazide and less than one third of that for frusemide.

While mild rashes are known to occur with indapamide,^{2,6} which is not entirely surprising for a compound chemically related to the sulphonamides, their importance must be placed in proper context. Servier has over 10 years of worldwide experience with indapamide: over 100 million one month packs have been sold, and 1.5 million patients are treated with indapamide every day. Adverse effects have always been rare and mild and this is particularly true for skin reactions, which usually do not require specific treatment and resolve rapidly when the drug is discontinued.

Indeed, with only 188 reports of skin reactions associated with indapamide since it was released on to the market in 1975, the World Health Organisation data corroborate our own experience. And if these cases account for a higher than average proportion of the total number of adverse reactions this is less suggestive of a "high prevalence" of skin reactions than a testimony to the low overall incidence of adverse effects and to the excellent acceptability of the product.

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Severe open fractures of the tibia

SIR,—Surgeons like to be courageous and we are concerned lest Mr F W Heatley's leading article (23 January, p 229) calling for "the courage to amputate" unnecessarily increases the population of one legged ex-motorcyclists.

There will always be compound tibial fractures for which primary amputation is appropriate. Equally there will continue to be cases where the decision is less clear cut (no pun intended). It is overly pessimistic, though, simply to suggest that Caudle and Stern's report¹ of the outcome of type III fractures "should stimulate us to redefine the place of primary amputation." More attention should be paid to ways of improving the outcome, and important clues are present in the subdivision by Caudle and Stern of patients with type IIIB fractures into those with early restoration of soft tissue cover and those without. The former had lower rates of non-union (23% v 77%), infection (8% v 59%), and secondary amputation (8% v 24%) than the latter. It is disappointing that this should have been ignored by Mr Heatley, who bemoans the lack of relevant subgroups in "most published reports."

There is good evidence that the incidence of infection and non-union (the factors most frequently responsible for a poor outcome in compound fractures) is reduced by thorough wound debridement and early cover of the bone with healthy soft tissues.^{2,3} Though external fixation improves access to the wound a surgeon unfamiliar with modern plastic surgical techniques may still be insufficiently radical in his debridement and leave the wound to heal by secondary intention. (He may also unwittingly sabotage potential reconstructive procedures by injudicious placement of the fixator or additional incisions.) Bone or periosteum which is left exposed desiccates and dies despite attempts to prevent this. The presence of dubiously viable tissue and inevitably infected granulation completes the recipe for osteomyelitis. In contrast, early flap cover prevents desiccation and improves local blood supply, providing a more favourable environment for bone healing and allowing the preservation of devascularised but otherwise healthy bone fragments as free grafts.

We believe that wider adoption of the philosophy of early combined management proposed by the late Marko Godina (and others) would improve the outlook for patients with these difficult injuries. In his series of 532 patients with complex trauma of the extremities those undergoing reconstruction within 72 hours had a lower infection rate (1.5% v 17.5%), fewer anaesthetics (1.3 v 4.1), and shorter average bone healing time (6.8 v 12.3 months) and spent less time in hospital (27 v 130 days) than those undergoing delayed reconstruction.³

Immediate assessment by both an orthopaedic and a plastic surgeon allows decisions for or against primary amputation to be made in full light of

reconstructive possibilities, debridement to be carried out with greater confidence, and bone fixation to be designed with soft tissue repair in mind. What is required is the courage to cooperate.

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- 3 Godina M. Early microsurgical reconstruction of complex trauma of the extremities. *Plast Reconstr Surg* 1986;78:285-92.

Fraud in medicine

SIR,—Dr Stephen Lock gives an accurate and impressive review of the problems of fraud in scientific research (6 February, p 376). He makes, however, the invariable mistake of all who earn their living in the field of original publication, in that he fails to observe that research is not always the highest calling to which a man of science can aspire. One of the reasons why normally honest people resort to fraud of various types is that original research is now used to judge applicants for posts in which there is no real research commitment.

It is this totally unreasonable means of selecting clinicians that induces people to undertake projects to which their only commitment is to obtain preferment. Similarly it is impossible to teach undergraduates unless in possession of an impressive research curriculum vitae.

My personal experience suggests that achievement in research correlates only poorly with both clinical skills and teaching ability. One way of reducing fraud in science is to stop blackmailing people into undertaking research to which they are not intellectually committed and to give to those who are considerably improved facilities.

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Points

Narrowing the health gap

Dr NEIL S COLEMAN (Wentworth Medical Centre, Slough SL2 2DQ) writes: Drs G N Marsh and D M Channing have obviously put in much effort to increase the uptake of preventive care among the deprived patients in their practice (16 January, p 173). However, to send a list of outstanding preventive items for each member of the household to the senior female member would appear to be entering the minefield of risking a breach of confidentiality. Great care and sensitivity would need to be shown by the doctor, particularly in connection with details of requirements for cervical smears and family planning advice. For instance, even an omission of an offer of family planning advice for their younger daughter may indicate to unknowing parents that she is already receiving such advice. Although it would be more expensive, and may not produce such good results, it may be more appropriate to write to each adult patient individually and not just to one member of each household.

Photographs: a tool of discrimination?

Dr JOHN HAWORTH (Carlisle CA1 1DU) writes: Dr T Cundy (16 January, p 213) was perturbed because a house physician who recently applied for a general

practice vocational training scheme was asked to provide a photograph of herself with the application form. Dr Cundy felt that this request was open to abuse, most obviously racial. The vocational training scheme that he mentioned is not the only one that asks for photographs with application forms, for the East Cumbria vocational training scheme initiated this procedure while I was scheme organiser some years ago. The reason is not to see from their facial appearance whether the candidates are suitable for their appointments but simply because at the end of a day when perhaps 20 candidates or more have been interviewed it is easier to recall the people one saw earlier in the morning if a photograph is available. It is for this reason, and for no other, that we asked for the photographs. I hope Dr Cundy is reassured by the explanation from this part of the world, even though the explanations put out by the scheme that he mentioned were, to say the least, evasive.

Lumbar puncture in acute meningitis: a lesson to unlearn?

Dr A STANTON (Selly Oak Hospital, Birmingham B29 6JD) writes: In their Lesson of the Week Dr I K Hart and others (2 January, p 51) describe, among other cases, a 15 year old girl who suffered tonsillar herniation consequent to lumbar puncture for pneumococcal meningitis. They dogmatically assert that lumbar puncture is "mandatory in cases of suspected bacterial meningitis." In support of this they cite Clough and Pearce,¹ who in fact said no such thing but merely included bacterial meningitis in a list of indications for lumbar puncture. Coning after lumbar puncture in meningitis is well recognised,^{2,3} and recent years have seen the emergence of policies in which lumbar puncture is deferred or avoided in children with a greatly decreased level of consciousness or other signs suggesting acutely raised intracranial pressure.^{4,5} Dr Hart and his colleagues give no evidence to support their assertion. The outcome of this case, in which coning occurred in the absence of any perceived clinical evidence of raised intracranial pressure, might indeed be used to argue for greater, not less, restraint in the use of lumbar puncture to diagnose bacterial meningitis.

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- 4 Addy DP. When not to do a lumbar puncture. *Arch Dis Child* 1987;62:873-5.
- 5 Dezateux C, Dinwiddie R, Matthew DJ. Dangers of lumbar puncture. *Br Med J* 1986;292:827-8.

Medical research

Mr COLIN P TAYLOR (Longman Group UK, Harlow, Essex CM20 1NE) writes: One published source which does provide details of pharmaceutical laboratories carrying out research and development, charities supporting medical and biochemical research, and research interests and specialties in teaching hospitals and universities is *Medical Research Centres: a World Directory of Organisations and Programmes* (19 January, p 116). This emanates from Longman's research centres database (Reference on Research), which is regularly updated every two years. Entries will indicate, where available, research and development expenditure, numbers of graduate research staff, and a fairly full account of that unit or laboratory's research programme. We believe this compilation goes quite a long way to fill the gap between the *Annual Review of Government Funded R & D* and the currently outdated *Medical Research Directory*.

After the infarct

Dr LORNA D NAISMITH (Southern General Hospital, Glasgow) writes: While summarising the good advice that doctors should give to patients, Dr Peter Blomfield (5 December, p 1431) concentrates mainly on physical management for the more complicated sequelae of an infarction. Most patients need far better

psychological follow up than they generally receive, and the more anxious or neurotic the patient the more necessary is psychological rehabilitation.¹ As few doctors or nurses have the time to counsel adequately (repeated counselling is needed in the first five to six weeks) audiocassette tapes have been prepared for patients to listen to with their families in the quiet of their homes.² These tapes have been distributed to all general practitioners in Scotland and are available from the Scottish Health Education Group. Patients absorb more information and develop a more positive attitude to their illness by this means than by sporadic verbal advice or booklets.²

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- 2 Naismith LD. Audio-cassette tapes for patient use after myocardial infarction. *Cardiology in Practice* 1986;March 4:28.

Time to stop putting the clocks back?

Dr MAYER HILLMAN (Policy Studies Institute, London NW1 3SR) writes: The similarity between the figure cited by Dr J G Avery for the projected reduction in fatal and serious injuries that would follow the maintenance of British Summer Time throughout the year (19-26 December, p 1586) and that cited by Dr Jean Wilson (23 January, p 294) should not have led her to assume that both figures came from the same source. Dr Avery quoted a figure from a 1986 study by the Transport and Road Research Laboratory, which took account of such tissues as legislation on seat belts. Indeed, because of the changes in patterns of travel and in legislation since 1970 the study calculated that the estimated reduction would be about 40% of that recorded in 1968-71. It concluded that pedestrians in particular would benefit and that there would be proportionately greater reductions in casualties in northern England and Scotland than in the south of England.

A cure for London's weighting allowance?

Dr C G B SIMPSON (Bronglais General Hospital, Aberystwyth SY23 1ER) writes: Dr Nicholas Davies writes from the Brompton Hospital about the need for higher London weighting allowances as a remedy for the chronic shortage of nursing staff (16 January, p 213). Surely the long term solution is to move out of London those hospitals, such as the Brompton, the National Heart Hospital, the Hospital for Sick Children, that are not local district general hospitals but serve a wider role in the United Kingdom. This would reduce the demand for all grades of staff to live in such expensive areas and would also reduce the pressure on accommodation and house prices in London. The ideal site would be easily accessible from all over Britain and would be reasonably cheap—somewhere near the National Exhibition Centre in Birmingham for example. The new hospital buildings would be a great improvement on their often antiquated predecessors, the money realised by selling the original sites would offset the capital cost, and the running costs would be reduced by not having to pay all those London weighting allowances.

Pickles's practice

Dr H V WYATT (Department of Community Medicine, University of Leeds, Leeds LS2 9LN) writes: Pickles's practice in Wensleydale was indeed a place of pilgrimage (19-26 December, p 1614). Sir Macfarlane Burnet visited Britain in 1946, and "One of the things I had most in mind . . . was to talk epidemiology with Dr W N Pickles."¹ In his autobiography Burnet devotes four pages to his meeting with Pickles and the technique of mapping infections. Burnet took back to Australia the data on influenza, and the paper on epidemic respiratory infection in a rural population by Pickles, Burnet, and McArthur was published in 1947. Burnet visited Pickles again in 1950.

- 1 Burnet FM. *Changing patterns: an atypical autobiography*. Melbourne: Heinemann, 1968.