irreconcilable with the earlier estimates in the case of trauma. An important aspect of our methods was the fact that only those patients who did not survive a traumatic or medical emergency under the present system of prehospital emergency care were subject to detailed appraisal. By contrast, studies which are carried out on ambulance services with extended training must overcome the difficulty that the successful use of an advanced technique does not necessarily imply that the benefit in terms of survival is attributable to the extended training. Many of the patients successfully treated with an advanced technique might have survived had only standard techniques been available, a problem to which Wright drew attention when constructing his estimates.⁸ The earlier estimates may have taken insufficient account of this factor.

The results of this study indicate that benefits resulting from the introduction of extended training will be more modest than has been suggested. The nature of local operational constraints, such as transportation times, and factors such as the possibility of cardiopulmonary resuscitation by another citizen may determine whether the introduction of extended training would be worth while. Our

results show that the proposition that extended training will always be justified irrespective of local circumstances is unfounded.

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Portraits from Memory

4—Sir Hector Hetherington, GBE (1888-1965)

JAMES HOWIE

In October 1951 I took up my duties as professor of bacteriology in the University of Glasgow. Sir Hector Hetherington, a renowned university administrator, was the principal and vice chancellor, and I reckoned that my first duty would be to pay a courtesy call on this great man. I asked for an appointment from his secretary, Rosemary Noyce, sister of a famous Himalayan mountaineer.

Sir Hector Hetherington.

"What's the problem?" she asked. When I explained that there was no problem but that it was simply a matter of arranging to pay a courtesy call she expressed pleased surprise. "That'll tickle him," she said.

At 08 30 next day I greeted Sir Hector in his office.

"Sit down laddie," he said. "This old world courtesy is

very pleasing. How do you see your job? I know that your accommodation is inadequate. That is true for all new professors."

I outlined the thoughts I had about my commitments, emphasising particularly the institution of the new honours course in

This is the fourth of a series of short articles by Sir James Howie. The complete collection will be published as a book.

microbiology as a science subject and—of course—the programme of research I had in mind.

"That is very interesting indeed," he said, "but let me tell you that none of this will be your first priority. I hope that people in your department will help you to carry out much of what you have described to me; but none of it will be your first priority. That will be to support the regional hospital board of this new National Health Service. The board has the laudable policy of upgrading the periphery and your subject is one of those in greatest need in the periphery. What you must do is to support the board in every way you can without letting their right policy of upgrading the periphery be accomplished by downgrading the centre. It is a tradition of Scottish university professors that they combine citizenship with their scholarship. That is vital to this National Health Service in Scotland because, outside the teaching hospitals, there is not only far too little but next to nothing of adequate standard. And we are not seeking to shelter under separate boards of governors for the teaching hospitals."

Exhausting and rewarding

These words were well justified by my experiences during the next 12 busy and happy years that I spent in Glasgow. New recruits were found and trained, academics were pressed into

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becoming reference experts to support all hospitals in the region, new laboratories were built and equipped, and the university laboratories and clinical departments at the Western and Royal Infirmarys gave all that they could to transform the scene for the better. It was an exhausting and rewarding period, its success owing much to Hetherington's understanding of how good administration should work, and work without delay. He knew the importance of free and adequate discussion of any important issue by all and sundry, but such discussion was essentially general discussion. This meant that those responsible for taking decisions really had ample opportunity to know what their constituents thought. All possible and impossible ways of proceeding were fully aired. But large bodies, essential for general discussion, were quite unsuited for deliberative discussion—discussion designed to lead to decisions and action. Such bodies, Hetherington decided, should not exceed 12 in number. That number, he said when pressed, had good biblical precedent; and it made for the kind of meeting at which people were really disposed not to make set speeches but to listen to and understand closely reasoned arguments and to be willing to be persuaded by others. His success as an administrator rested on his extraordinary gift of persuading large gatherings that, having aired their thoughts, they must let final decisions either come from or be referred to smaller groups. He was a fair minded man with a real understanding of what was both practicable and right. If a group under his chairmanship was hopelessly divided he did not call a vote but deferred decision making for further study and discussion.

Refreshing the principal

His recreation was golf. His secretary kept a list of the golfing professors and, if Hector could see a minimum of two and a half hours free, she telephoned them in turn until one was found who would "undertake an important duty for the university by getting the principal into the fresh air and clearing his mind of all issues except the task in hand of getting the ball into the hole." It took 30 minutes to get to and from the university to the Glasgow Golf Club's course at Killermont and that allowed 120 minutes for golf—12

holes with the best partners but at least eight with the worst—worth going for in any case.

On the subject of student discipline Hetherington sometimes got into arguments with professors who thought him too easy going. His line was that if a student was not prosecuted by the police for any civil misdemeanour the university had better not inflict any severe penalty even if the charge was proved, lest its decision should be challenged at law. "Our domestic disciplinary procedures," he insisted, "are well suited to academic life but would not stand up to expert legal attack." This wise attitude was regrettably confirmed shortly after Hetherington's retirement, when a severe penalty was overturned after a legal challenge.

Hetherington had a good and tolerant sense of humour which served him well on many occasions. Two come readily to mind. An angry professor who disliked a decision which Hetherington persuaded the senate to accept wrote him a furiously worded letter, which—too late—he sought to intercept, because he knew he had gone too far. He apologised to Hetherington and concluded, "I suppose you couldn't understand how anyone could write a letter like that." "Not at all," replied Hetherington, "I could myself easily have written such a letter. What I can't understand is your posting it."

On another occasion, by way of a light hearted envoi to a meeting, Hetherington reported to the senate the slightly unusual and unexpected way in which a medical professor had gained for the university a substantial sum of money. One of his habitual challengers was at once on his feet asking an assurance that the money thus acquired would be divided equally among the departments of the faculty of medicine. Hetherington, recovering from the pain and shock of such an unexpected intervention, equably and slowly replied, "I can give a categorical assurance that no such error will be made."

He did not live for long after his retirement. In those years he derived great pleasure from recalling happy and unusual events from his life and from within his family—as when a grandson, concerned about grandfather's problem of so often relighting his pipe, sent him, as a birthday present, a large box of matches through the post.

Why does bran—or cereals containing bran—cause flatus? Do men tend to produce more flatus than women and what treatment is advised, other than stopping or reducing bran in the diet?

Bran increases flatus by providing a substrate for colonic bacteria in the form of indigestible carbohydrate (chiefly dietary fibre or non-starch polysaccharide, but possibly some starch too). This carbohydrate is fermented to the short chain fatty acids, acetic, propionic, and butyric and to gases. The main gases are hydrogen and CO₂ but some people's bacteria make methane too. I know of no evidence that men produce more flatus than women but, not surprisingly, there are few data published on flatus production rates. If flatus seems excessive when bran is first used it is worth persevering as flatus often decreases over a few weeks. If it does not there is no remedy except to reduce the intake of bran. In this case other bulking agents may be better tolerated.—K W HEATON, reader in medicine, Bristol.

A retired radiotherapist has developed bilateral lens opacities and chronic glaucoma. He has been advised to have laser beam therapy. What does this treatment involve and what are the hazards?

Laser beam therapy may be given as part of the treatment for chronic glaucoma. "Continuous wave" Argon laser light has been used with success to treat primary chronic open angle glaucoma. It is especially useful in the middle aged and elderly patient for whom medical treatment alone is unable to achieve desired lowering of intraocular pressure and for whom glaucoma surgery may not be advisable. This may be seen, for example, in a patient with coincidental lens opacities, for in such patients conventional glaucoma surgery may be followed by progression of these opacities. Treatment is quick, simple, painless, and conducted on an outpatient basis. It takes place at the standard slit lamp modified by the addition of a laser light generating unit, with 180° of the ring of trabecular meshwork being treated at one sitting, the other 180° being treated at a later date if required. Both eyes may be treated at the same sitting for the eyes are not padded after treatment.

After treatment the eye may be a little sore and there may be transient blurring of vision, but it is not usual for any lasting change in vision to occur. The maximum hypotensive effect is seen about one month after treatment. Often it is possible to reduce the number of antiglaucoma treatments that are required. Even if the treatment does not help the results of subsequent glaucoma surgery have not been prejudiced.—ROGER A HITCHINGS, consultant ophthalmic surgeon, London.

What advice regarding malarial prophylaxis (especially its duration) should be given to an African who after a prolonged stay in Britain is returning to his malarious native country for good? What advice should be given about his daughter who will be about 2 weeks old at the time of departure?

The advice to the returning African (and his wife) would be to take no malarial prophylaxis but to make sure that they would have access to treatment which they can take promptly if they develop a fever. In this way they will soon regain their lost immunity. It would be impractical to be on a life long malarial prophylaxis in their own country. The 2 week old daughter, however, should be protected by chemoprophylaxis for at least 18 months. Babies in the first months of life have some non-specific protection from malaria due to (a) temporary diminution of red cell protection and consequent aging of red cells,¹ (b) some fetal haemoglobin, and (c) a deficiency of para-aminobenzoic acid as a result of exclusive breast feeding.² Malaria in the non-immune infant presents not with the classic symptoms as in adults but in an insidious manner, often with severe consequences of anaemia, failure to thrive, and hepatosplenomegaly. Chemoprophylaxis would protect the infant from severe malaria for 18 months by which time she should have gained some immunity.³—R L BROADHEAD, senior lecturer and honorary consultant, tropical paediatrics, Liverpool.

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