effect is enhanced by ensuring that the patient lies supine for at least 30 minutes before the study. If this is not done complete mixing of the material is possible, with resulting bilateral isodense collections, which may occasionally be elusive.

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1 Davenport RJ, Statham PFX, Warlow CP. Detection of bilateral isodense subdural haematomas. *BMJ* 1994;309:792-4. (24 September.)

Appearances in scan were obvious

EDITOR,—R J Davenport and colleagues remind us that the detection of subacute subdural haematomas on computed tomography is not invariably straightforward.¹ The figure in their paper, however, shows a rather more obvious example than I usually use for teaching junior clinicians; it should not have been misinterpreted. The computed tomographic signs of isodense subdural collections are given in textbooks, even if the publication of "lessons" such as that reported by Davenport and colleagues suggests that a number of radiologists do not detect them. (The questions of unsupervised reporting of clinically important imaging studies by trainee registrars and of computed tomography being performed by general radiologists are too big to pursue here.)

In both cases reported by the authors the computed tomograms were interpreted as showing diffuse swelling of the brain, presumably without change in radiographic density. This picture, however frequently described, is rarely seen other than in a few children with acute head injury. For reasons that are not clear, "cortical venous thrombosis," which was suggested in the second case, is currently a popular neurological diagnosis; it virtually never causes the computed tomographic picture described. Bilateral subdural haematomas are not only a much commoner cause of the picture described but have undisputed therapeutic consequences: were radiologists to stop seeking subtle signs of intracranial venous thrombosis they would probably harm few of their patients.

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1 Davenport RJ, Statham PFX, Warlow CP. Detection of bilateral isodense subdural haematomas. *BMJ* 1994;309:792-4. (24 September.)

Authors' reply

EDITOR,—We broadly agree with the diagnostic points made by Ivan Moseley and T Powell. Both correspondents believe that the illustrated case was straightforward and are surprised that there was any delay in the diagnosis. To our mind, however, the purpose of the Lesson of the Week is to show how cases are actually managed rather than how they might ideally be managed, in the hope that readers from a wide range of disciplines may benefit from the mistakes made.

Many patients presenting with headache are managed in non-neurological units, where staff may be less familiar with appearances on computed tomography, be they subtle or unsubtle. Such was the case with our first patient. The initial incorrect interpretation of the computed tomogram, by a registrar in radiology with four months' neuro-radiological experience, was not challenged until a neurological opinion was requested. Although the computed tomogram in this case was more obvious than that in the second case (not published in our paper because of lack of space), we chose to use it

because the difference between the two images is dramatic (in particular, highlighting the obliteration of the sulcal spaces); we thought that even those who do not review computed tomograms of the brain regularly (that is, the bulk of the *BMJ*'s readers) would appreciate this.

Lest the neurological community believe that such a mistake could never occur in a neuroscience unit we included the second patient; this time the diagnosis was initially missed by a consultant neurologist and neuroradiologist, both with many years' experience. It was this episode that prompted us to write the paper.

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New resource allocation formula

Agism by stealth

EDITOR,—In estimating the resource consequences of use of inpatient services by age bands Peter Smith and colleagues classify geriatrics as a non-acute specialty and assign reduced weight to expenditure on the care of elderly people.¹ This ignores the usual practice in Britain, where most geriatric departments provide acute care. Such care is more expensive than acute care for younger people because the length of stay is longer (14 days in my department); this is due to the patients having multiple diseases, the aging body recovering from illness more slowly, and discharge planning processes.

The adoption of Smith and colleagues' formula, reported by John Warden,² will greatly disadvantage those areas with high proportions of elderly people and may effectively reduce acute care for this group. Such a policy runs contrary to the document from the Royal College of Physicians³ commended by the NHS Executive as part of its priorities and planning guidance for the NHS.⁴ There was a public outcry when individual hospitals were thought to be rationing treatment on the grounds of age—practising overt agism. The application of this formula will lead to funds being moved away from areas with a high proportion of elderly people—agism by stealth.

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1 Smith P, Sheldon TA, Carr-Hill RA, Martin S, Peacock S, Hardman G. Allocating resources to health authorities: results and policy implications of small area analysis of use of inpatient services. *BMJ* 1994;309:1050-4. (20 October.)

2 Warden J. New funding formula for NHS. *BMJ* 1994;309:1109. (29 October.)

3 Royal College of Physicians. *Ensuring equity and quality of care for elderly people*. London: RCP, 1994.

4 NHS Executive. *Priorities and planning guidance for the NHS: 1995/6*. Leeds: NHSE, 1994.

Author's reply

EDITOR,—Kalman Kafetz makes two important points in relation to our study of resource allocation, noting, firstly, that we classified geriatrics as non-acute. We did this simply so that we could explore the determinants of need specific to that specialty. By doing this we got round the problem of needing to identify costs of patients in geriatrics relative to those in other specialties. In the event,

we were unable to develop a satisfactory model of needs in geriatrics, and Kafetz may be interested to know that we understand that the NHS Executive plans to allocate funds for geriatrics using the formula we developed for the acute sector.

The second point is that our recommendations will result in a shift of resources away from areas with high proportions of elderly people. This is also true. To understand why it should be so it is important to emphasise that our results are based on the actual use of resources by NHS patients during 1990-2. The report of the study explains in some detail that, while our work offers what we think is the best representation of national average use of NHS services in those years, it cannot capture need that was not reflected in use of NHS inpatient services.¹ We have emphatically pointed out that if a strategic shift of resources towards particular care groups is desired the NHS Executive has the freedom to increase the weighting given to those groups in the application of the formula.

We refute the claim that use of such research results in agism by stealth. Indeed, we believe that when resource allocation is based on explicit empirical research it becomes much easier to identify and quantify changes in policy. If Kafetz believes that elderly people are systematically being denied their fair share of resources he should direct his attention at NHS policymakers.

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1 Carr-Hill R, Hardman G, Martin S, Peacock S, Sheldon T, Smith P. *A formula for distributing NHS revenues based on small area use of hospital beds*. York: University of York, 1994. (Centre for Health Economics occasional paper.)

Socioeconomic status does not always reflect health

EDITOR,—The first briefing document from the BMA's Health Policy and Economic Research Unit "flags up" some issues for a revised resource allocation formula, recommending that it should include "a component for the impact of deprivation on health" and that "a deprivation measure must be added to ensure that inner city areas . . . do not lose out against more affluent retirement areas" (unpublished paper). I had not expected to read such old fashioned socialist dogma, presented without evidence or justification, in a publication of the BMA.

Resource allocation formulas were originally based on standardised mortality ratios with adjustments. If social deprivation causes (or is associated with) morbidity the excess mortality will be picked up by the standardised mortality ratio. Many deprivation indices have been developed. Sheldon *et al* commented, "There is an evolving industry where indices are developed" and "those health authorities which express most interest in refining formulas by varying the factors included tend to be those which have lost out with the current formula."¹

Williams *et al* criticised the Department of Health's review of weighted capitation in 1993, saying that it favoured retirement districts, most of which were coastal, at the expense of inner cities and large business development areas.² The *Health of the Nation*, however, comments that coronary heart disease is the single largest cause of both death and premature death. A survey of heart disease in England and Wales by the Faculty of Public Health Medicine in 1986 listed three north west coastal locations—Liverpool, Southport, and Blackpool—in its 10 worst areas. By contrast the 10 areas with the lowest incidence of coronary heart disease included four inner city areas in London—Tower Hamlets, Lewisham, Greenwich, and Waltham Forest. Clearly one cannot