

low field strength images, the evolution of intracerebral haemorrhage is characteristic and progresses in an orderly fashion due to the conversion of the oxyhaemoglobin forming the clot through deoxyhaemoglobin to methaemoglobin and finally its sequestration as haemosiderin in macrophages.³ This results in acute haemorrhage showing a preferential shortening of the T₂ relaxation time, which produces a relative signal void in the haemorrhagic focus on T₂ weighted images. This feature easily distinguishes acute haematoma from infarction.

Subacute haematoma is accurately identified with magnetic resonance imaging as, from about day 5, the paramagnetic effect of methaemoglobin on T₁ shortening effects a high signal on T₁ weighted images. This contrasts with the lengthening of the T₁ relaxation, which produces a low signal in infarcted or ischaemic brain. Chronic haemorrhage is seen as an irregular area of signal loss on T₂ weighted images owing to the magnetic susceptibility effects of haemosiderin while chronic infarcts are usually well circumscribed areas of altered signal intensity containing fluid with a signal similar to cerebrospinal fluid on T₁ and T₂ weighted images. The adjacent brain may show signs of atrophy with both conditions.

Even on my own low field 0.15 tesla unit I have often observed these differentiating features which make magnetic resonance imaging an ideal method for imaging a patient with a suspected stroke, especially if the lesion is in the brain stem or close to dense bone. Magnetic resonance imaging can easily solve the problem of differential diagnosis highlighted in this Lesson of the Week, providing yet more support for an increase in the currently limited availability of magnetic resonance imaging in the United Kingdom.

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Acute stress erosions: can they be prevented?

SIR,—We agree with Drs Gillian C Hanson and B G Gazzard (8 August, p 348) that the use of antacids and H₂ receptor antagonists should be restricted to patients who are at serious risk of haemorrhage secondary to stress erosions. We also agree that there is increasing evidence that antacids may be more efficacious than H₂ receptor antagonists. Antacids are, however, not without their own side effects in critically ill patients, including hypermagnesaemia, hyperaluminiumaemia, metabolic alkalosis, diarrhoea, and constipation, and some impose a large sodium load. Furthermore, regular antacid treatment is more time consuming to administer than an intravenous injection of H₂ receptor antagonists. In the critically ill patient who requires the simultaneous administration of many drugs and other therapeutic procedures antacids may inadvertently be omitted.

H₂ receptor antagonists are effective in reducing gastric pH in some patients (as well as having the other benefits alluded to in the leading article). This intensive care unit has for some time routinely administered ranitidine, 50 mg every six hours intravenously, to those at risk and then regularly monitored its effect by measuring the pH of the nasogastric aspirate. If this is less than 4 then 30 ml of magnesium trisilicate mixture BP is administered and the pH of the nasogastric aspirate remeasured two hours later. If the pH remains high we do not administer more antacid but continue frequent monitoring of nasogastric pH and add in an antacid when the pH falls below 4. This approach to the problem uses the advantages of both types of treatment and minimises the risks to the patient.

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The cost of nursing

SIR,—Dr K W M Scott (8 August, p 393) has confused the Royal College of Nursing with the statutory bodies, in Wolverhampton's case the English National Board for Nursing, Midwifery and Health Visiting, whose role it is to approve nurse education courses. The Royal College of Nursing is the world's largest professional organisation and trade union for nurses and students of nursing, with over 260 000 members in the United Kingdom.

Dr Scott should realise that the general thrust and key components of the proposals in Project 2000, produced by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting, enjoy the unprecedented support of all branches of the nursing profession.¹ The United Kingdom is one of the last major English speaking countries to conduct all of its initial nursing education within hospitals on the apprenticeship model. This model no longer meets today's needs, much less those of the future. The central concern of the Project 2000 reforms is to meet the health care needs of the British population into the next century.^{2,4} Of course, there will be manpower difficulties if Project 2000 is implemented, but these will be vastly more serious if reforms to basic nurse education which have been advocated by reports stretching back decades are thwarted now by short term special pleading. If Dr Scott and his colleagues have legitimate questions about Project 2000 they should raise them with the Central Council or the Royal College of Nursing and not make unsubstantiated references to its "impact on other professional groups or patient services." The reforms will improve the service for consumers, which must surely be above the self interest of all professional groups, even doctors.

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SIR,—The Joint Consultants Committee is worried about Project 2000 (1 August, p 342); perhaps I can clarify some of the misunderstandings about it. Student status for nurses has been advocated since

the Lancet report in the 1930s¹ and means that students would not be counted as part of the workforce; it does not mean they would have no clinical experience.

The high wastage we have at present is because students are left to cope on the wards without adequate supervision or preparation. Sisters cannot give the supervision they would wish owing to the shorter working week, high patient turnover, and the change in the sister's role.² A sister may have as many as 12 consultants to a ward and consequently a variety of patients requiring very different nursing care. Student status would enable students to learn the theory followed by appropriate supervised practice, and they would continue to have early contact with patients.

Nurses who already have student status — those following degree courses — have a low wastage rate and stay in nursing longer than others.³ Trainee nurses following the general registration programme are in school for only about 28 weeks during the three years. Such little theoretical input has no academic credibility and is insufficient to provide the nurse with the knowledge and understanding required today and for the future.

Project 2000 proposes an increase in the number of qualified nurses, which should mean that standards of care will improve. Any educational improvement is costly, and the profession would not want this at the expense of patient care. It requires central funding and a major investment now if we are to have a properly educated workforce to meet the needs of patients in the future. The status quo is not an option.

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- 1 Lancet Commission on Nursing. Final report. *Lancet* 1932;i:415.
- 2 Fretwell JE. *Ward teaching and learning: sister and the learning environment*. London: Royal College of Nursing, 1982.
- 3 Montague SE, Herbert RA. Career paths of graduates of a degree linked nursing course. *Journal of Advanced Nursing* 1982; 7:359-70.

How to signpost your hospital

SIR,—I enjoyed Dr Hugh Baron's paper on how to signpost your hospital (22 August, p 482), and many hospitals could benefit from his advice. I would, however, take issue on two points.

He implies that a sans serif rather than a serif typeface was chosen for motorway signs despite the Road Research Laboratory having shown no significant differences between the two. The fact is that a sans serif face was chosen because road signs had always been in sans serif type and there seemed to be no merit in changing a good example of one for a good example of the other. What the Road Research Laboratory did show was that it was the size and spacing of letters that were important, not whether they had serifs or not, and that at speed upper and lower case on a dark background were easier to read than signs all in capital letters. They also showed that the legend should as far as possible fill all the available space on the board.¹

Secondly, I am surprised that he totally ignores market research from the world of advertising. Ogilvie showed that, while a serif typeface is easier to read on the printed page, a sans serif face is easier to read at a glance²—and a glance is all that a sign should need.

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- 2 Ogilvy D. *Confessions of an advertising man*. London: Longmans Green, 1964.