Mandate for NHS reforms

SIR,—Where now for the BMA's policies on the NHS reforms?

Concern that a market in health care would result not so much in managerial efficiency and a sensitivity to local needs but in winners and losers with widening gaps in the provision of health care led me to vote Labour.^{1,2} Although the general election was not a referendum on the reforms, the high profile of health as a pre-election campaign issue was as near as we are likely to get to one. The return of a Conservative government with a clear working majority means that a public mandate for the NHS reforms has been obtained, and I believe that the BMA should now put its full weight behind them. The purchaser-provider split will become a model not only for the NHS but for a wide range of centrally funded public services. Success in the United Kingdom will ensure that this model is exported to other countries, particularly in the expanding Europe.

Recommending an enthusiastic and cooperative approach to the new political situation does not mean that we must cast aside our faculty for criticism. But criticisms must be more sharply focused. If individual patients are disadvantaged the reasons for that disadvantage must be examined rather than assumed and the finger pointed accurately at those responsible, be they the provider or the purchasing authority. Cooperation with management must not mean that the political pressure for better funding for the NHS should be abandoned. The exclusion of practising doctors from the management structure must regularly be brought to the attention of the public.

How teaching in the NHS can be protected and how the close association between teaching hospitals and the universities can be preserved remain unresolved. We have heard many statistics quoted about the numbers of doctors and nurses employed in the NHS and how they have increased over the past 10 years, but we have heard little or nothing about why the numbers of trainees in general practice have fallen during the past two years.

High on the political agenda has been concern about surgical waiting lists. Initiatives funded by extra injections of cash have been used to increase activity and reduce waiting lists. But have the knock on effects of this increased activity within relatively restricted resources been properly identified? What has been the effect on services for emergencies or the mentally ill and those with learning disabilities? Indeed, is it credible that new responsibilities for community care can be easily absorbed without additional resources?

Undoubtedly there will be a greater sense of competition at all levels of provision. How this competitive spirit can be channelled into co-operative ventures for the good of all patients is a challenge that the BMA will have to meet. A new era has dawned. Alternative visions of the future must be exchanged for the pragmatism of the present. Let us hope that confrontational politics will be consigned to the past.

SIMON JENKINS

Minden Medical Centre,
Bury,
Lancashire BL9 0QP

1 Jenkins S. Faith in a change to Labour. *BMA News Review* 1991 Jan:16.
2 "Winning" GP to switch parties over changes. *Independent* 1992 April 2:12.

SIR,—The BMA's policy on the future of the NHS coincided almost exactly with that of the Labour party. The future of the NHS was the principal issue on which the Labour party campaigned; the party even declared the election to be a referendum on the NHS. The Labour party lost by such a margin as to give the Conservatives an overall majority even in the depths of an economic recession.

The BMA's policy is clearly out of line with the wishes of the general population. Will the BMA now cooperate with the NHS reforms proposed by the elected government?

ROBERT LEFEVER

London SW7 3HU

Day case surgery and workload

SIR,—Nigel C H Stott¹ criticises both the Audit Commission² and the Royal College of Surgeons³ for "deliberately ignoring the evidence" on whether or not day surgery generates increased workload for community services and for "perpetrating a serious injustice."

The evidence is tenuous, as Stott acknowledges. Most of the studies were carried out in the 1970s; since then many improvements in surgical and anaesthetic techniques—for example, the use of absorbable subcuticular sutures—have reduced the need for community follow up. Moreover, in at least one of the studies cited patients were encouraged to call their general practitioners at the slightest provocation.⁴

Of course there is some increase in community workload associated with day surgery. The question is, just how much, and on this point there is no robust recent evidence. Presumably Stott agrees with this, which is why he is "now carrying out the largest ever survey in Britain" to "look at how family doctors are already being affected by increased numbers of day cases."

As to the alleged "serious injustice," the Audit Commission's most optimistic target for day surgery would result in an extra eight patients per year per general practitioner across the country being treated as day cases rather than inpatients. According to preliminary survey results, on average only two of these will consult their general practitioner within four weeks after surgery.⁵ It is also a matter of definition that a quarter of all districts already have the levels of day surgery that the commission is advocating; yet we have not heard a massive outcry from community staff in those districts.

But whatever the true number of postdischarge problems it is certainly important to monitor them. That is why the commission's latest report states quite unequivocally, "General practitioners should be consulted about planned increases in activity. If they express concern about increased demand on their practices and practice staff including nurses, monitoring arrangements should be made."⁶ It is also important to try to minimise the likelihood of such problems, and the Royal College of Surgeons' latest guidelines on day surgery emphasise the importance of systematic selection of appropriate patients.⁸

The main problem with Stott's views are that they do not consider the policy implications. On the one hand you can hold up the progress towards more day surgery (even though the evidence is that most patients prefer it⁷) and keep all patients in

hospital overnight so that a minority of them will not chance to trouble their general practitioners. On the other hand, you can develop day surgery, gather evidence on the extent of community follow up, and then decide how to reflect any cost shifts in resource allocation. We hope that Stott does not support the first of these options but would support the second.

JONATHAN BOYCE

Audit Commission for England and Wales,
London SW1P 2PN

DAVID RALPHS
BRENDAN DEVLIN

Royal College of Surgeons,
London WC2A 3PN

- 1 Stott NCH. Day case surgery generates no increased workload for community based staff. True or false? *BMJ* 1992;304:825-6. (28 March.)
- 2 Audit Commission. *A short cut to better services. Day surgery in England and Wales*. London: HMSO, 1990.
- 3 Royal College of Surgeons of England. *Guidelines for day case surgery*. London: RCS, 1985.
- 4 Russel IT, Devlin HD, Fell M, Newall DJ. Day case surgery for hernias and haemorrhoids. A clinical, social and economic evaluation. *Lancet* 1977;i:844.
- 5 Payton R. Professor warns over "Day-case effect on GPs." *Western Mail* 1922 March 31:2.
- 6 Audit Commission. *Measuring quality: the patient's view of day surgery*. London: HMSO, 1991. (NHS occasional paper No 3.)
- 7 Audit Commission. *All in a day's work: an audit of day surgery in England and Wales*. London: HMSO, 1992:para 66. (NHS occasional paper No 4.)
- 8 Royal College of Surgeons of England. *Guidelines for day case surgery*. Rev ed. London: RCS, 1992.

Postoperative pain control in children

SIR,—The use of rectal morphine in an infant reported by G K Gourlay and R A Boas¹ highlights the importance of establishing effective acute pain control services which can coordinate pain relief² in children's hospitals.

An infant can be "unsettled" after an operation for many reasons, and pain is not always the cause. For example, it is our experience that the small non-muscle splitting approach used for nephrectomy in infants is considerably less painful than the incision in adults. A fifth of infant nephrectomies managed by the acute pain service in this hospital require no analgesia other than intraoperative narcotic and infiltration of the wound with local anaesthetic, and the others are well managed by intravenous morphine infusions (5-20 µg/kg/h) for the first 24 hours after operation.

An acute pain service can establish protocols for postoperative observation that are relevant to the technique of pain relief employed. Our experience over two years with 200 extradural diamorphine infusions and 220 nurse controlled and 60 patient controlled intravenous morphine infusions has shown that standard postoperative observations are required, supplemented hourly by a simple sedation score, a pain score, and respiratory rate (table). Pain management is directed by the observations made on the score: for example, if a patient is becoming unduly sedated (level 4) the infusion is stopped, as excessive sedation in patients receiving narcotic drugs commonly precedes respiratory depression and the patient should then be observed closely. Our experience using these simple scales has been that no patient has developed life threatening respiratory depression, yet 87% have had excellent pain relief. Each patient's protocol will also list a minimum

Sedation and pain score—record hourly		
Level	Sedation	Pain
1	Awake	Pain free
2	Drowsy	Comfortable except on moving
3	Asleep but moves spontaneously	Uncomfortable
4	Asleep responds to stimulation	Distressed but can be comforted
5	Hard to rouse	Distressed
Action:		Action:
Level 4: Stop infusion until return to level 3		Level 2: NCA—give bolus PCA—encourage bolus (10 minutes before activity) Epidural—increase rate
Level 5: Stop infusion. Call pain service		Level 3: Contact pain service NCA—give bolus PCA—encourage bolus Epidural—increase rate
Naloxone 4 µg/kg to be available at all times		Level 4: Contact pain service NCA—give bolus or increase background infusion PCA—encourage bolus or increase background infusion Epidural—give bolus or increase rate
		Level 5: Contact pain service

NCA=Nurse controlled analgesia. PCA=Patient controlled analgesia.

acceptable respiratory rate below which the infusion should be stopped and a respiratory rate at which naloxone 4 µg/kg will be given intravenously. The pain service can ensure that this is prescribed, and a nurse able to give it should be readily available on the ward.

Children find intramuscular injections unpleasant, but Gourlay and Boas provide good advice when they suggest that it is inappropriate to substitute them with a route for which absorption is entirely unpredictable, such as the rectal route. In our experience, it is quite possible to provide safe and satisfactory analgesia with intravenous or subcutaneous infusions of morphine or extradural blocks.

These techniques are effective and safe providing they are practised within the context of well defined protocols which have the approval of anaesthetic staff and that the patients are closely supervised by an acute pain service available for advice 24 hours a day.

ADRIAN R LLOYD-THOMAS
RICHARD HOWARD

Acute Pain Service,
Hospital for Sick Children,
Great Ormond Street,
London WC1N 3JR

1 Gourlay GK, Boas RA. Fatal outcome with use of rectal morphine for postoperative pain control in an infant. *BMJ* 1992;304:766-7. (21 March.)
2 Commission on the Provision of Surgical Services. *Pain after surgery*. London: Royal College of Surgeons of England, College of Anaesthetists, September 1990.

SIR,—In their report of the fatal outcome of an overzealous approach to postoperative analgesia G K Gourlay and R A Boas fail to provide details of perioperative fluid management of the patient.¹ Blood loss of only 10 ml in a 9 kg child undergoing nephrectomy may be an underestimate, and the clinical findings described at 22 hours may well be due to hypovolaemia.

In addition to their suggestion that analgesic techniques require protocols for monitoring, I would add that they must be accompanied by good basic standards of care and education of all nursing and medical staff. Otherwise further unnecessary deaths will occur in the pursuit of postoperative analgesia.

JANE LOCKIE

Royal Liverpool Children's Hospital,
Liverpool L7 7DG

1 Gourlay GK, Boas RA. Fatal outcome with use of rectal morphine for postoperative pain control in an infant. *BMJ* 1992;304:766-7. (21 March.)

SIR,—G K Gourlay and R A Boas report that giving rectal morphine every four hours to a 9 kg boy resulted in fatal respiratory depression.¹ The child had suffered neonatal renal vein thrombosis

and had had a nephrectomy. The authors do not allude to the influence of renal dysfunction on clearance of morphine.

The dose of morphine normally recommended for intravenous infusion in children over 3 months old is 20 µg/kg/h.² The dose given to this child was about 110 µg/kg/h, which is high even allowing for reduced bioavailability from the rectal route.

The lesson from this tragic case was that, to use opioids safely, regular assessment of their analgesic efficacy and adverse effects is important.³ The report gives no practical advice on how assessment should be performed. There is an implication that monitoring for respiratory depression by counting the respiratory rate is adequate. It is well recognised that this is not the case and that results of continuous pulse oximetry while the patient breathes ambient air are a sensitive indicator of important ventilatory dysfunction.^{4,5} Changes in arterial oxygen tension (which are in turn affected, through the alveolar gas equation, by changes in arterial and alveolar carbon dioxide tension) are rapidly reflected in changes in arterial oxygen saturation. This is because when the patient is breathing ambient air the changes occur along the steep linear portion of the sigmoid shaped curve of arterial oxygen saturation against arterial oxygen tension.

Pulse oximetry has been used widely in acute pain relief in adults and, more recently, in paediatric practice.^{6,7} We have developed a monitoring protocol for children receiving opioids. A simple four point behavioural pain score is used to assess analgesic efficacy. Adverse effects are assessed by pulse oximetry, the respiratory rate, and the sedation and nausea scores and by logging the residual syringe volume. Recordings are charted hourly and interpreted regularly by a trained anaesthetist, and the opioid delivery regimen is adjusted regularly. The monitoring protocol has developed from a research tool into a practical ward nursing procedure with excellent compliance among nurses and acceptability to patients.

Many analgesic techniques used in adults are being tried in paediatric practice. Appropriate training and monitoring are essential, especially outside intensive care areas. We are not prepared to use these techniques, or to recommend their use, without this level of monitoring.

N S MORTON
L R MCNICOL

Royal Hospital for Sick Children,
Glasgow G3 8SJ

1 Gourlay GK, Boas RA. Fatal outcome with use of rectal morphine for postoperative pain control in an infant. *BMJ* 1992;304:766-7. (21 March.)
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3 Royal College of Surgeons of England and College of Anaesthetists. *Report of the working party on pain after surgery*. London: RCS and College of Anaesthetists, 1990.
4 Wheatley RG, Sommerville ID, Sapsford DJ, Jones JG.

Post-operative hypoxaemia: comparison of extradural, IM and patient-controlled opioid analgesia. *Br J Anaesth* 1990;64:267-75.
5 Kluger MT, Owen H, Watson D, Ilsley AH, Baldwin AM, Fronsco RRL, et al. Oxyhaemoglobin saturation following elective abdominal surgery in patients receiving continuous intravenous infusion or intra-muscular morphine analgesia. *Anaesthesia* 1992;47:256-60.
6 Lawrie SC, Forbes DW, Akhtar TA, Morton NS. Patient-controlled analgesia in children. *Anaesthesia* 1990;45:1074-6.
7 Morton NS, Gillespie JA. Safety of PCA in children: the role of pulse oximetry. *Journal of Pain and Symptom Management* 1991;6:142.

Deaths from haemolytic disease of the newborn

SIR,—In 1985 we expressed our concern that the figures published for deaths from haemolytic disease due to red cell alloimmunisation were underestimating the true incidence.¹ We have the same anxieties about the report by Ruth Hussey and Cyril Clarke.² We presume that the figures they report are derived from analyses of death certificates completed for stillbirths, neonatal deaths, and infant deaths. If this is so, the great majority of pregnancy losses due to alloimmunisation will have been missed.

During the three years in question we managed 61 pregnancies complicated by very high maternal red cell antibody concentrations; intrauterine procedures have been used, and six pregnancies have been lost: two as neonatal deaths and three from spontaneous abortion, and one pregnancy was therapeutically aborted. Over the 10 years 1982-91, 142 pregnancies have been similarly managed, of which 26 did not result in a surviving child, four (15%) because of neonatal death and 10 (77%) because of spontaneous abortion; two (8%) were terminated. Thus 85% of these losses were not registered and are therefore excluded from perinatal mortality statistics. We believe our results are equivalent to those in other centres in the United Kingdom dealing with this pregnancy complication since we know that of 10 pregnancies of women resident in the Oxford region similarly managed by other units six did not survive, five ending as spontaneous abortions. Our thesis is further supported by legal abortion statistics for 1988, 1989, and 1990,^{3,5} when there were 23 therapeutic abortions performed because of rhesus disease; we anticipate these cases did not feature in the 52 deaths due to haemolytic disease recorded for those years by Hussey and Clarke.² If our experience is translated to the national figures, the losses from haemolytic disease due to red cell alloimmunisation would be 160, 85, and 100 for 1988, 1989, and 1990 respectively.

We concur with the view of Hussey and Clarke that alloimmunisation due to other antigens, such as Kell, C, and E antigens, continues to be important and requires vigilance on the part of clinicians and laboratory staff. Losses due to these antibodies, however, rarely occur before 28 weeks' gestation.^{6,7}

Finally, data from the Oxford region, illustrated in the figure, are different from those of Tovey (given as Dovey in Hussey and Clarke's letter).

Incidence of rhesus D sensitisation 1971-91 in the Oxford region since introduction of immunoprophylaxis