marginal effect. As for the validity of comparing percentages, the conclusions are reasonable in the context of unequal total numbers between the groups.

The main aim of our study was to raise the profile of school safety and trigger further studies by the A&E practitioners on this very important national and international issue. We are pleased with the response, even if it is critical.

ASIT MAITRA
JERRY SWEENEY
Accident and Emergency Department, RVI, Newcastle

Topical analgesia for children

EDITOR,—We read with interest the paper of Kendal *et al* [1] and wish to raise a few questions. The authors described in detail how the adrenaline-cocaine gel was applied to the wounds but, apart from stating that the lignocaine injections were "standardised using a 25 gauge needle", we know nothing about the technique used, who injected and sutured (nurse, SHO, registrar, etc), nor the time given for the lignocaine to act before starting the suturing. Standardising the needle gauge and suture size for all lacerations regardless of the site to simplify analysis and satisfy statisticians is bad surgical practice because it means using heavy thread for the face or fine thread for the trunk. Also, to alleviate fear of the "sight of the needle", a point made by the authors, is obviously desirable, but how did they alleviate fear of the sight of the stitching needle, the forceps, and the needle-holder? To find out that 40% of patients and/or parents considered suturing lacerations under lignocaine "unacceptable" may simply mean poor overall technique. How do they account for this extraordinarily high patient/parent dissatisfaction? We also want to know the authors' explanation of their high "failed" anaesthesia rate of 24% in the lignocaine group and how they managed this subgroup: did they proceed regardless or was more lignocaine given, or was the gel therefore applied?

Another unclear point is the authors' evaluation of cost. They state that the gel costs £2 for one application, while a 10 ml ampoule of lignocaine costs 25p. Although they were only dealing with lacerations less than 2 cm in length, they conclude that even after considering patient volume, the overall cost implications were tiny. How can they explain this, given that a 1.9 cm cut should only require a 5 ml ampoule priced at a mere 16p? Also why haven't they tested any of the available lignocaine gels? Although they are not licenced for open wounds, neither is the adrenaline-cocaine gel, and lignocaine gels are available in all accident departments.

B NATHAN
Conquest Hospital, Hastings
J McKEEVER
St George's Hospital, London SW17

1 Kendall JM, Charters A, McCabe SE. Topical anaesthesia for children's lacerations: an acceptable approach. J Accid Emerg Med 1996; 13:119–22.

The authors reply:

We thank Nathan and McKeever for their comments and would like to address some of the issues they have raised.

One per cent plain lignocaine was infiltrated locally around the wound using a 25 gauge needle by experienced nursing staff, who perform the majority of the suturing at Gloucester Royal Infirmary. The lignocaine was not warmed or buffered, and 10-15 minutes was allowed to elapse before beginning suturing. Nurses were already trained to try and conceal or minimise the "sight of the needle" by distraction, play, and other techniques; clearly these factors should have applied to both study groups.

Needle gauge and suture size were appropriate and the same for equivalent wounds in both groups (5/0 or 6/0 ethilon for facial wounds, and 4/0 for trunk wounds).

Thirty nine per cent of parents found the procedure using lignocaine "stressful" or "unacceptable" (not 40% "unacceptable" as misquoted); this figure is not surprising, since a many parents are quite naturally going to find watching this procedure stressful. The point is also made in our paper that it is very difficult to distinguish pain from fear, especially as the child gets younger, and we are all aware that a frightened child may cry even if the local anaesthetic is working perfectly well. This is obviously a limitation in this kind of observational study, but visual analogue scoring is the best available validated way of assessing these issues at present. There are anxiety scores which can be used to quantify this contribution, but the effectiveness of these also decreases with age.

The inclusion criterion is stated as lacerations less than 4 cm length (not 2 cm as misquoted), and patient volume refers to the number of patients with suitable lacerations (that is, requiring suture, of an appropriate length, and in an appropriate position); this quite clearly is a relatively small number (120 over an 11 month period—approximately 10% of all children presenting with a laceration—in a department seeing 40 000 new attendances per year). This, as stated, represents a tiny cost implication to an accident and emergency department.

We evaluated adrenaline-cocaine gel because, despite its widespread use around the world as an effective and safe topical anaesthetic when used appropriately, awareness of this preparation in the UK was shown to be very limited (<5% of all accident and emergency consultants), as stated in our original paper.

JASON KENDALL
Accident and Emergency Department, Frenchay Hospital, Bristol
STEPHEN McCABE
Accident and Emergency Department, Gloucestershire Royal Hospital
ALAN CHARTERS
Paediatric Trauma Liaison, Derbyshire Children's Hospital

Fasting before Bier's block

EDITOR,—We wish to respond to the article by O'Sullivan *et al* relating to the need for patient fasting before manipulation of a fracture under Bier's block.[1] Having recorded a low incidence of complications by postal questionnaire, the authors concluded that fasting was unnecessary and suggested that instead of conferring additional safety, it merely served to delay treatment. We feel this study is seriously flawed, and that to alter clinical practice as a consequence must be regarded with great caution. For this hypothesis to be adequately tested it would be necessary to conduct a prospective study; it is likely that to attain the necessary level of power, a large number of patients would need to be studied.

To conduct a Bier's block safely it is necessary to produce strict written guidelines defining technique, equipment, level of monitoring, assistance, and necessary level of clinical experience of the practitioner. Complications are far more likely when these conditions are not met. The questionnaire in collecting information failed to ascertain adequately how the responding departments audited these data or whether each department had issued guidelines. Several points arising from the data inferred that current practice was neither entirely safe nor effective: (1) three units still used lignocaine; (2) the large number of responders reporting the use of additional sedation/analgesia; (3) the significant number of reports of equipment failure.

The article tends to trivialise the potential risks of the Bier's block, as well as using incomplete data to propose a serious change in clinical practice. To omit a fasting period merely as an exercise in reducing patient waiting time would be foolhardy. In the context of risk management, any litigation arising from this questionable change in practice could be financially damaging to any Trust. It would be interesting whether in the light of adequate explanation of potential risk, the patient would view the fasting period as nothing more than minor inconvenience.

N NANDWANI
M TIDMARSH
D N QUINTON
H JAMES
Departments of Anaesthesia and Accident and Emergency Medicine, Leicester Royal Infirmary NHS Trust

1 O'Sullivan I, Brooks S, Maryosh J. Is fasting necessary before prilocaine Bier's block? J Accid Emerg Med 1996:13:105–7.

EDITOR,—We read with interest the article by O'Sullivan *et al* [1] questioning the need for starvation before prilocaine Bier's block. While we agree that the retrospective audit appears to show no morbidity directly attributable to a full stomach, we would question the conclusion that fasting is unnecessary.

Traditional teaching for anaesthetists is to prepare patients for Bier's block with the same attention to detail given to those undergoing general anaesthesia. This includes fasting to reduce the risk of aspiration, as the airways' protective reflexes may still be compromised in the awake patient if, for example, hypotension or fitting occur. Both of these complications can be precipitated by local anaesthetic toxicity. As 23 (of 122) centres reported equipment failures—of which 18 mentioned cuff leak—we can see that this scenario is far from implausible.

Of greater concern is the concurrent use of sedation in 21 centres. This practice, which on its own can compromise airway reflexes, is in our opinion an absolute contraindication to a non-fasting policy. Furthermore, in the paper's concluding comments, this potential danger was not addressed at all.

The apparently low incidence of morbidity in this report, and the fact that there have never been any deaths related to the use of prilocaine Bier's blocks, does not preclude the need to fast patients. The potential for aspiration of stomach contents remains a real threat which can have catastrophic consequences;

withholding food and drink for six hours is a small price to pay for an increased safety margin.

J M STOKES
P N FOSTER
Department of Anaesthesia, Central Manchester Health Care Trust

1 O'Sullivan I, Brooks S, Maryosh J. Is fasting necessary before prilocaine Bier's block? J Accid Emerg Med 1996;13:105–7.

The authors reply:

Thank you for the opportunity to respond to the letters from Nandwani *et al* and Stokes and Foster produced in response to our article "Is fasting necessary before prilocaine Bier's block". We believe prilocaine Bier's block to be safe when conducted by experienced operators with appropriate monitoring. The data we collected supported this view. We are aware of the theoretical benefit for the practice of fasting to reduce the risk of airway contamination in the event of fits or faints but our data did not show this to be a significant risk. The reported episodes of equipment failure still without toxicity to the patient provides further support for the safety of the procedure and therefore the redundancy of a fasting period.

We do not support or condone the use of lignocaine, which has a higher toxicity, nor the use of additional sedation, which we agree increases the risk of aspiration and should not be necessary with a properly conducted Bier's block.

Far from "a minor inconvenience", an extended wait for a fasting period causes the patient considerable discomfort and personal inconvenience. Since this is of no proven value, is not officially recommended by the College of Anaesthetists, and is already not practised in many departments without adverse effects, it could be seen at best as an outdated practice and at worst as uncaring defensive medicine.

ÍOMHAR O'SULLIVAN
SUE BROOKS
Kent and Canterbury Hospital, Canterbury

GPs in A&E

EDITOR,—Recent research[1 2] has suggested that general practitioners in A&E departments are cost-effective because they use fewer investigations than senior house officers when treating primary care patients. In a six month retrospective review of our computerised records we looked at the number of *x* rays ordered per doctor in our A&E department. There was no significant difference between the number of *x* rays ordered by the SHOs (6765/17 708 = 38%) compared with GPs (720/1963 = 37%) by χ^2 testing, P = 0.2. (SHOs and GPs see the same spectrum of patients in our department.) The greatest number of *x* rays was ordered by a general practitioner (175/407 = 43%) and the least by an SHO (862/2768 = 31%), P <0.001.

While these findings do not measure cost-effectiveness or quality, they are a surprise given the recent research.[1 2] It is possible that the GP/SHO comparison which favours GPs may not be reproducible in all units. Our findings suggest it would be prudent to audit any substitution of SHOs by GPs to confirm that it is appropriate.

RUTH SPEDDING
BRIAN McNICHOLL
Belfast City Hospital, Lisburn Road, Belfast

1 Dale J, Lang H, Roberts JA, Green J, Glucksman E. Cost effectiveness of treating primary care patients in accident and emergency; a comparison between general practitioners, senior house officers and registrars. BMJ 1996;312:1240–4.
2 Murphy AW, Bury G, Plunkett P, Gibney D, Smith M, Mullan E, Johnson Z. Randomized controlled trial of general practitioners versus usual medical care in an urban Accident and Emergency department; process outcome and comparative cost. BMJ 1996;312:1135–42.

Paramedic care: the case for minimum intervention

EDITOR,–I believe that when it comes to the management of victims of major trauma, we as paramedics may have lost sight of our true role.

Unless there are specific indications to the contrary, our first choice of action should be to "scoop and run" and not to "stay and play". We should not forget that our basic principle is to deliver patients to hospital in no worse a condition than that in which they were found at the scene.

Nancy Caroline, one of the founders of the paramedic services in the USA, stated "a critically injured patient CANNOT be stabilised in the field". This is as true today as it was before the advent of paramedics, yet we seem to have developed a deep seated belief that we must not move our patients until we have performed at least one of the extended skills that we have been taught. I suggest that the time has come for us to reappraise our role. It is not our job to make critically injured patients "better"'. That is for hospitals to do. Early intervention may well prevent death, but unless it is both appropriate and adequate, the delay so caused is more likely to increase mortality.

There are of course clear instances where paramedic interventions are appropriate: prolonged entrapment; long distances to hospital; any situation in which the patient is likely to die before reaching definitive care.

Nancy Caroline defined the following "critical interventions":

- Airway management
- External haemorrhage control
- Sealing of open wounds to (a) the neck, (b) the chest
- Temporary stabilisation of flail chest

Let us not forget about immediate and continuing cervical spine immobilisation from the moment of the patient contact, and, when needed, assistance to inadequate ventilation.

If we remember that everything that we do takes time, it makes sense that intubation should only be necessary if basic airway management is ineffective. A drip can be set up on the move. Our first choice for cannulation is always the best available vein and it is therefore clear that second or third attempts can only be second or third best. We should ask ourselves "is it in the patient's best interest that I waste precious time hunting for a vein when I could (and should) be heading towards the hospital?" It is irrefutable that internal bleeding from a major vessel may be much more rapid than can be replaced through two peripheral cannulae, even if they are both working perfectly, and any delay at scene in order to gain double venous access may well be to the patient's detriment.

I can almost hear the outcry from my rural colleagues and I freely concede that distance may be a relative contraindication to a "scoop and run" policy, but a patient with severe injuries is already disadvantaged by long journey times and so there is more reason to reduce the time on scene and minimise prehospital time. There is also a case for selecting, when available, the most appropriate hospital, that is, a trauma centre.

I also believe that "consultant phobia" may be partly to blame. This refers to the fear of criticism by the receiving A&E consultant if a patient is delivered to hospital without every possible paratechnical intervention having been taken. This fear is totally unfounded. A&E consultants' only real concern is that they see an increasing tendency to delay at the scene with struggles to cannulate etc, when there is clearly no hope of "stabilising" the patient without major surgical intervention, which is impossible outside the theatre environment.

In summary, it is my firm belief that we are, on the whole, doing a good job, but when it comes to serious trauma, particularly penetrating trauma of the torso, the best treatment that we have to offer is a heavy right foot on the accelerator pedal and that this should be our treatment of choice, not of last resort.

Let us show that we have the maturity NOT to undertake procedures simply because we have the skills, and to ensure that we act in the patient's best interests at all times.

I am a serving Leading Ambulance Paramedic with 25 years in the ambulance service, most of the time on emergency work. I have been a paramedic for seven years and last year attained advanced life support provider. These are my own thoughts and have nothing to do with my employers, Mersey Regional Ambulance Service NHS Trust.

STEVE EVANS
Runcorn, Cheshire

VIDEO REVIEW

Advanced Life Support video. *British Heart Foundation, 14 Fitzhardinge Street, London W1H 4DH. A Two Four Production, 1995. (Running time 20 min; £10.)*

This British Heart Foundation video has a running time of some 20 minutes and provides up to date information for all medical, nursing, and paramedical professionals involved in learning or teaching Advanced Life Support techniques according to the current European Resuscitation Council guidelines.

The presenter is Dr Peter Baskett, a well respected founding father of the Life Support programmes in the UK. His style is, as always, clear, concise, and methodical.

The video opens with a simulated cardiac arrest scenario in a physiotherapy gymnasium and there then follows the cascade of recognition of cardiac arrest, call for help, basic life support through to advanced life support, with a welcome final successful outcome.

This video is essentially a "trailer" for Advanced Life Support courses, together with the principles of working together as a well coordinated team whose every member must keep their clinical skills up to scratch through regular training and practice.

The British Heart Foundation has made a sound investment in recruiting the expertise