both groups of injuries resulted in a fracture. It is only fractures that were analysed further, and there are two reasons for this. First, especially with children, most accidents causing fractures do result in attendance at an A&E department. Second, case definition is usually straightforward and reproducible. Maitra and Sweeney could thus measure injury rates again after the introduction of a local injury prevention programme and have confidence in their evaluation method. The All Wales Injury Surveillance System (AWISS) is a prime example of this method in action.

The difficulty of accurate rates of injury per child per hour at school or in public places has not been addressed by this study. First, the study was based at one hospital, and neighbouring community A&E department records were not accessed. Complete case ascertainment was therefore not possible—the Northern Region has no equivalent to AWISS. It would also be necessary to quantify the relative amounts of time spent by the study population in the various locations. This is useful for certain specific activities, for example, number of miles cycled per cyclist fatality, but is not required in this setting.

The message from this study is that accidents at school generate a significant number of injuries (567 attendances at the Royal Victoria Infirmary in six months), and that these are significant injuries (127 fractures). Therefore, in Newcastle at least, schools are a suitable target for injury prevention initiatives.

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British poison centres' advice concerning dothiepin overdosage in young children

EDITOR,—Two young children aged 1 year 11 months and 2 years 10 months presented with a history of being found with their mother's 75 mg dothiepin tablets 45 minutes earlier and 24 tablets were missing. Both children were well. The National Poisons Information Service at Guy's and St Thomas' were consulted and advised that the children's stomachs should be washed out under general anaesthetic and repeated doses of activated charcoal be given. This was done and large quantities of chewed tablets were recovered.

In March 1996, a telephone call was made to each of the six British Poisons Centres and up to date advice requested for such cases. The results are shown in table 1. There is agreement that at least one dose of charcoal appropriate to the child's age should be given, but advice concerning gastric lavage and multiple doses of charcoal varied. Activated charcoal has a proven role in reducing absorption of tricyclics. Multiple doses of charcoal can slightly reduce the half life of tricyclics, but there is little evidence that they are effective in toxic ingestions of tricyclics. The effectiveness of gastric decontamination in general is questionable and dangerous rhythm disturbances can be precipitated by lavage.

Adult series have shown that only 22% of ingested tricyclics were recovered by gastric lavage.3 No published data are available on the effectiveness of gastric lavage of tricyclics in children. Therefore it is not surprising that the Poison Centres interpret the limited data on multiple doses of charcoal and lavage in different ways and do not give uniform advice. However, the clinician working in accident and emergency must wonder whether it would be preferable for the Poison Centres to have a consensus of opinion on the management of such cases.

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<table>
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<th>No</th>
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<td></td>
<td>Single dose</td>
</tr>
<tr>
<td>2</td>
<td>Yes (within 4 h)</td>
<td></td>
<td>Single dose</td>
</tr>
<tr>
<td>3</td>
<td>Yes (within 6 h)</td>
<td></td>
<td>Multiple doses</td>
</tr>
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<td>4</td>
<td>(7 if problems with charcoal)</td>
<td></td>
<td>Single and 7 Multiple doses</td>
</tr>
<tr>
<td>5</td>
<td>No</td>
<td></td>
<td>Single dose</td>
</tr>
<tr>
<td>6</td>
<td>Only within 1 h</td>
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TropT in patients with cardiac chest pain

EDITOR,—The use of dry chemistry systems for the rapid measurement of cardiac markers in the diagnosis of myocardial infarction has been advocated.1 As part of a larger trial we looked at the practicality of using the TropT rapid assay system (Boehringer Mannheim UK, Sussex) in a busy accident and emergency department to assess levels of troponin T in patients where a TropT assay is a sensitive and specific marker of myocardial damage.

The TropT system is designed to be used both in laboratories and in near patient testing situations. It consists of a plastic slide onto which 150 µl of blood are pipetted into an application well and the slide left for 20 minutes. After this time the reading zone is evaluated. A single line indicates a negative result, two lines indicate a positive value and the quoted sensitivity of the slide was <0.2 ng/ml. Forty one patients attending accident and emergency with cardiac chest pain suspected of having had a myocardial infarct were assessed using the TropT assay, the manufacturer's instructions being followed in the laboratory. Measurements were made at admission (0 hours), and at 4 and 12 hours after admission.

The following diagnosis were reached in the 41 patients tested: myocardial infarction by WHO criteria (19); angina (10); atrial fibrillation (2); transient ischaemic attacks (1); and non-cardiac chest pain (9).

Thirty nine patients tested negative with the TropT assay on admission and two tested positive...
Management of major trauma

EDITOR.—With major trauma comprising 1 per 1000 emergency cases in Britain there is limited opportunity to develop expertise in the management of this condition. Many of these patients arrive at hospital during unsocial hours when accident and emergency (A&E) departments are often staffed by inexperienced doctors. We reviewed the initial resuscitation and found that there were important errors. There is no evidence that the patients seen during these hours suffer more injury than those arriving outside these hours.

We conclude that trauma teams are not being used optimally and that it is important that: (i) there is a central trauma pathway to help in the management of these patients, (ii) this pathway is used by all trauma teams, and (iii) the development of local trauma pathways is supported by the trauma team leader.

We would like to hear from all emergency departments who use their trauma team to provide an audit of their team's performance and to compare their results with those of the other trauma teams.

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References

3 Wu AH, Valdes R, Apple FS, et al. Cardiac Tro-


Decision support for telephone advice

EDITOR.—We read with interest the paper by Smirnov et al.1 Since we began researching telephone advice in A&E and general practice and have developed approaches to standardising patient assessment and advice. This includes piloting a telephone consultation skills training package within a computer based decision support system.2 Our findings, based on an analysis of 340 calls to an A&E department, concur with those of Smirnov et al.3 We found that patients were satisfied with the advice given by the computer system, A&E, 21% to attend their GP, and 31% given home care advice. We found similar support from the nursing staff using the system. We also found that 53% of patients were aware that the nurse was using a computer, and the majority (75%) believed it to be a good idea to use computers to provide clinical

References
3 Morris HH. Lidocaine: a neglected anticonvul-

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Letter to the Editor

Letters, Correction

the 19 patients diagnosed as myocardial infarction, a positive troponin T was only present in one patient on admission, and in 13 patients at 4 hours postadmission. All patients with myo-

cardial infarction had a positive troponin T test at 12 hours postadmission.

The TropT slides may be useful at 12 hours to exclude myocardial injury but do not offer improved diagnosis in the diagnosis of myocardial infarction in the first hours after presentation at an accident and emergency department.

Through the trial we made some observations which should be carefully considered when using TropT slides, especially on the ward. (1) A good light source is required to read the slide, as the positive line can often be faint and the stick needs to be carefully assessed. (2) It is essential to ensure that 20 minutes elapse before reading the slide, as samples with levels of troponin T close to the sensitivity of the assay only develop within this time. The negative control line often develops within 10 minutes and this could lead to the stick result being misinterpreted in the absence of careful timing. These factors are likely to lead to problems in busy clinical areas, where necessary care with the timing and interpretation of the result may not always occur. (3) Sample handling is also important, and well mixed blood free from haemolysis is required. Since whole blood is used, haemolysis is only present on causing a red/brown colouration of the reading area.

We believe that when designing slide tests for use outside the laboratory, manufacturers should ensure that the strength of signal line for a positive result is clear, especially at low levels of the measured analyte. The strength of the negative control line should be equivalent to the signal line obtained by a weakly positive test and should appear after the assay reaction time has been reached to ensure that slides are not read inappropriately early.

In summary, the use of TropT slide tests appears to be very simple but valid results are only obtained with careful and consistent use. The crucial role of the laboratory in the reliable use of glucose meters outside of the laboratory is widely acknowledged but clinicians are very quick to point out that slide based tests for use at the patient's bedside they should seek the advice of their laboratory in the choice, evaluation, and training of staff in the use of these systems. Only with such collaboration will such assay systems lead to improvements in patient care.

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3 Wu AH, Valdes R, Apple FS, et al. Cardiac Tro-