calculated from the osmolar gap. Calculated serum osmolality was 290 mmol/kg. Therefore there was a 60 mmol/kg gap, which was compatible with 187 mg/dl of ethyl alcohol (over two times the upper limit of adults for driving). She was initially treated with acetylcysteine and intravenous fluids, including potassium in view of her hypokalaemia. Acetylcysteine was stopped after four hours and the child gradually recovered through the day.

The following day she was running around the ward. The urea, electrolytes, liver function tests and clotting profile were normal and she was discharged.

Accidental overdose of medications in toddlers is not uncommon and we think it is important for A&E staff to be aware that some paediatric formulations do contain alcohol. If it were known that alcohol was present in an accidentally ingested medicine, the reason for a baby being drowsy after apparently swallowing only an elixir would be much more obvious.

We consider it to be bad practice to supply paracetamol as an alcoholic elixir, as it is possible to formulate paracetamol as a suspension; 100 ml of paracetamol elixir has the equivalent alcohol content to 234 ml lager (4.1% vol/vol alcohol), which is rather a lot for a 12 kg baby.

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- 1 Bhagat CI, Beilby JP, Garcia-Webb P, Dusci LJ.
Clin Chem 1985;31:647.

More alcohol

EDITOR,—A previously well two year old girl attended the accident and emergency department having collapsed at home. It was believed that she had ingested 10–30 ml of mouthwash, after which she had staggered and collapsed.

On examination the Glasgow coma scale was 7. Blood glucose was 0.4 mmol/l. Following intravenous dextrose, her GCS rose to 15.

The mouthwash was found to contain 22% alcohol. The child's blood alcohol level was 94 mg/dl which, following overnight fast, was considered to account for the hypoglycaemia.

Mouthwash is available over the counter and usually placed on the bathroom shelf, often within reach of children. Parents are aware of the dangers of alcohol but lack knowledge of the alcohol content of mouthwashes. In 1985 a four year old previously healthy boy, whose admission was delayed, died as a result of hypoglycaemia from accidental alcohol poisoning after consuming half a bottle of mouthwash.^{1–3}

The Proprietary Association of Great Britain ensures that all licensed medicinal mouthwashes contain less than 5% alcohol content. Mouthwashes generally contain 10–25% alcohol, more than spirits or wine, and can be sold unlicensed as they are classified as cosmetics.

I recommend that these products be sold under a licence restricting the alcohol concentration to less than 5%. The bottle should have child resistant caps and warning labels to prevent further childhood catastrophes.

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- 1 Selbst SM, DeMaio JG, Boenning D. Mouthwash poisoning. Report of a fatal case. *Clin Pediatr* 1988;24:162–3.
- 2 Cummins LH. Hypoglycaemia and convulsions in children following alcohol ingestion. *J Pediatr* 1961;58:23–6.
- 3 Hornfeldt CS. A report of acute ethanol poisoning in a child: mouthwash versus cologne, perfume and aftershave. *Clin Toxicol* 1992;30:115–21.

Intrasound for ankle injuries

EDITOR,—Dancocks *et al*¹ advocate the use of intrasound in the diagnosis of ankle fractures with a view to reducing the number of x rays taken. They quite rightly conclude that on the basis of their data the technique cannot be relied upon on its own. The predictive value of the test (not mentioned in the paper) is 19.8%.

The authors state that by identifying those patients with a negative response, the algo-

rithm would have reduced the number of ankles x rayed. In the sample group mentioned, there were only 20 ankle fractures identified. The authors mention that only one clinically significant fracture would have been missed. It is stated that the initial management of the patient in question would have been unchanged. However, if such an error is occurring in this small sample size then there is the potential for many more errors. We are an average sized district general A&E department seeing 55 000 patients a year. We diagnose fractures in approximately 250 “undeformed” ankles every year. If we were to miss one in 20, we would be missing in excess of 12 fractures a year using the proposed algorithm.

The question posed is a valid one but we would be reluctant to change our practice based upon the findings of this paper.

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- 1 Dancocks A, Rouse A, Hiscox J. A pilot study to assess the sensitivity and specificity of an intrasound device in the diagnosis of ankle fractures. *J Accid Emerg Med* 1997;14:230–2.

The author replies

I agree with Doctors Lockey and Barnes that our study sample was small and that further larger studies are required to support the use of intrasound as an adjunct to clinical examination in determining the need for x ray examination.

The fracture in our study that would not have been picked up by use of intrasound alone was an undisplaced Weber A fracture of the lateral malleolus which was in fact missed by the SHO who reviewed the x ray. The patient was recalled after the x ray had been reported on and was found to be progressing satisfactorily.

The results of this study have prompted us to perform a larger study, and to look at clinical outcomes of any patients who have “an intrasound negative” ankle fracture.

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