

Syrup of ipecacuanha: is it really useful?

Syrup of ipecacuanha is used in managing patients, particularly children, who have taken potential poisons. It is used both as a first aid measure in the home^{1, 2} and as immediate treatment in accident and emergency departments. Such is the belief in its value that health education campaigns have been organised, notably in the United States, to ensure that ipecacuanha is available in the home³ and that parents know how to use it safely.⁴ But is ipecacuanha so valuable?

Despite changes in prescribing habits in the past decade toxic agents remain readily available to children and adults alike. Although attempts should still therefore be made to reduce the risk of systemic toxicity by reducing absorption, important morbidity from acute poisoning in children is uncommon. British studies have shown that fewer than 4% of children admitted to hospital after the alleged ingestion of household products developed severe symptoms.⁵ Similarly, only 12% of patients admitted to paediatric units in Britain after taking toxic agents suffered serious complications⁶ and only 4.5% of those admitted in West Germany.⁷ Furthermore, the mortality from accidental poisoning in children in a large Australian study was less than 0.1%.⁸

The low morbidity and mortality from acute poisoning, even in children admitted to hospital, suggest that many incidents are scares rather than true poisonings; the use of syrup of ipecacuanha in almost every case of suspected poisoning is therefore inappropriate.

Ipecacuanha is derived from the dried root of *Cephaelis ipecacuanha* and *Cephaelis acuminata*, and its active alkaloids are emetine and cephaeline. Cephaeline is twice as potent an emetic as emetine, and both alkaloids induce vomiting by a central action. In addition, emetine has a direct irritant action on the gastric mucosa, which usually causes vomiting within 30 minutes of a patient being given ipecacuanha; later vomiting results from the central action of both alkaloids. Syrup of ipecacuanha effectively induces emesis in children of any age⁹⁻¹⁵ and in adults.¹⁶ Provided that the dose is appropriate to the age of the patient, and liberal oral fluids are administered, almost all patients vomit.

But does ipecacuanha prevent absorption of toxins? Corby *et al*¹⁷ gave children 1 g of magnesium hydroxide as a marker in 200 ml of fluid immediately before giving 20-40 ml of syrup of ipecacuanha. The mean recovery of marker was only 28 (SEM 7)%. In a further study in children with salicylate poisoning the mean recovery of aspirin after ipecacuanha was 143 (SD 78) mg.¹⁸ More recently, Neuvonen *et al* gave adult volunteers 20 ml of syrup of ipecacuanha with 300 ml

water 30 minutes after therapeutic doses of paracetamol, aminophylline, and tetracycline.¹⁹ Although every volunteer vomited, there was no significant effect on the absorption of paracetamol and aminophylline, though absorption of tetracycline was reduced. In contrast, activated charcoal had a significantly greater effect when given 30 minutes after dosing. Curtis *et al* simulated overdose conditions more realistically by giving adult volunteers 1944 mg of aspirin in 24 tablets.²⁰ Ten subjects were given ipecacuanha one hour later, and the mean recovery of salicylate in the urine was reduced from 96.3 (SD 7.5)% in controls to 70.3 (11.8)% ($p < 0.01$). Again, however, activated charcoal was more effective than ipecacuanha ($p < 0.05$). Recently, Kulig *et al* found that syrup of ipecacuanha did not alter the clinical course of poisoned patients who were alert on presentation to hospital.²¹

An important objection to ipecacuanha is that its effects may mimic those of poisoning and thus introduce uncertainty as to their cause. For example, if the dose of ipecacuanha is large enough vomiting may be persistent.^{19, 22} Very rarely, vomiting induced by ipecacuanha has led to serious complications^{23, 24} and even death²⁵; in addition, diarrhoea, lethargy, and drowsiness occur in up to 13% of cases.^{22, 26} Finally, giving ipecacuanha may prevent the use of specific treatment such as oral methionine and activated charcoal.

In summary, syrup of ipecacuanha is an efficient and rapidly acting emetic that only rarely produces serious sequelae. Although its use may satisfy the innate desire of parents, doctors, and nursing staff to "do something," there is no evidence that it prevents drug absorption or systemic toxicity. The use of syrup of ipecacuanha in managing poisoning should therefore be reconsidered.

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The health of travellers

A recent report from Kent suggests that travellers (nomadic people who are not necessarily of Romany origin) have serious health problems.¹ In particular, their perinatal mortality rate is a fifth higher than the average national rate and their infant mortality rate 40% higher. The conditions in which they live are often very poor, and the question arises whether health authorities should take some specific action.

Counting travellers is difficult, but the Department of the Environment found 9600 traveller caravans with an estimated total population of between 30 000 and 50 000 in July 1984.² Travellers are concentrated in Kent and East Anglia, where temporary seasonal agricultural employment is most available.

Evidence on the health of travellers was thin until the recent study from the University of Kent's Health Services Research Unit,¹ although a study by the Save the Children Fund in 1983 described a large population of travellers in East Anglia as "disadvantaged in health and health care."³ In the Kent study health visitors questioned mothers with children aged under 15 on all traveller sites in Kent, and the degree of cooperation was high. Many families lacked running water, lavatories, and electricity. A third of families did not have access to a lavatory on site, whereas in the 1981 national census 4% of all British households lacked or shared an inside lavatory. In 1982 7% of social class V households lacked a bath and shower, but 14% of traveller families in the study not only did not have a bath or shower but also lacked access to running water on site. Conditions on private

caravan sites were least primitive, and those on illegal sites were the worst. Conditions on some local authority sites were as bad as on illegal sites.

The most important health findings of the study relate to mother and child health. The average number of children was 3.1 in each family compared with the national average of under two. Some 16% of mothers interviewed had had five or more children compared with less than 2% in the population as a whole.⁴ The women did, however, have access to reliable contraceptive methods. As well as perinatal and infant mortality rates being higher than the national average, the prevalence of low birthweight babies (less than 2500 g) was about double the national rate.⁵ Prolonged breast feeding was uncommon. Child surveillance was substandard, and rates of child immunisation were only about a third of the national average. Sadly the study did not include a settled control group matched for social class. The effects of social class thus cannot be disentangled from the effects of a "nomadic habit of life."

What should be done in response to these findings? There is clearly a need for local authorities to provide more and better appointed sites for traveller families and for district health authorities to take action to improve standards of child surveillance and childhood immunisation. The poor reproductive performance of traveller women also needs attention, but as we do not understand the reasons for this poor performance health authorities can do little except perhaps promote research. To improve standards of child surveillance and immunisation rates traveller families in each district should first be identified. Services might then be taken to sites. Travellers may not use traditional clinic or general practitioner based services. Responsibility for improving the health care of traveller families must be allocated to a named individual—a health visitor might be the best person. Some health authorities have already done this.

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Urinary incontinence after stroke

Urinary incontinence after stroke is common, uncomfortable, and undignified and often constrains rehabilitation and discharge. It carries a bad prognosis for rehabilitation^{1 2} and may be of more specific prognostic importance than a history of depression of consciousness.³ Although detrusor instability, with consequent urge incontinence, is associated with certain cerebral lesions,⁴ other more peripheral or, indeed, external factors may be important. A mobile alert patient fumbling left handed with his fly buttons after 60 years of dexterity and continence may wet himself. A more dependent patient who needs help to urinate into a bedpan or bottle