molecules by the breast milk secretory IgA. IgA is not present in the baby's gut at birth and probably reaches adult levels only by 4-6 months. However, there is the theoretical possibility that even in the fully breast-fed baby, if a feed is delayed by several hours and then foreign protein is given the IgA coating of the gut lining may have been "washed away," so leaving an "exposed" gut lining. To prevent this and also to prevent the early onset of coeliac disease the mother should either breast-feed frequently or should breast-feed before giving any foreign protein. Best of all, however, is to delay the giving of solids (and cows' milk) until 6 months, as it is thought that the later that foreign protein is introduced into the baby's diet the less will penetrate the intestinal barrier.

The suggestion that breast milk might contain too little sodium surely cannot be taken seriously. Breast milk is the natural food for babies and the fully and successfully breast-fed baby of a healthy and well-nourished mother normally grows at the optimal rate. Fast growth rates are not the same as optimal growth rates. Nathan Pritikin's work at the Longevity Centre in Los Angeles suggests that our levels of salt intake are far too high. His studies with severely salt-reduced diets have produced stunning results, especially with hypertension. I am sure we will find (as we have with other breast-milk constituents) that the concentrations of sodium in breast milk are just right and that our ideas of normal sodium levels in babies (which are, after all, based on large numbers of cows'-milk-fed babies) will have to be reviewed.

The slightly lower haemoglobin levels commonly found in 6-month-old babies are probably not pathological. Breast milk is now known to supply the baby with more iron than was previously thought and, with the exception of some premature babies, the fully and successfully breast-fed baby certainly has enough iron at least for the first 6 months and probably longer.

A lack of milk is the commonest reason for mothers to stop breast feeding and as breast milk confers so many advantages its early loss is not in the baby's best interests. The early introduction of solids will in many cases reduce the baby's hunger so much that his sucking will decrease and the milk supply will fall. Habituation to the breast is a baby's birthright and it is an old wives' tale that there are management problems in the baby given solids after 6 months.

I have not mentioned the bottle-fed baby. As he is already receiving a diet which is inappropriate, then early solids will presumably do him no further harm.

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Contamination of sterile fluids

SIR,—I have read with great interest the communications from Dr G Ayliffe and his colleagues (8 July, p 123) and Mr I W Marshall (22 July, p 279) on this subject.

As a microbiologist I must take exception to the statement by Mr Marshall that "if it's clean enough it's also likely to be sterile." This premise is basically unsound and is further compounded by the statement: "To produce fluids acceptably free from micro-organisms is easy."

One of the major problems in the industrial production of sterile fluids intended for

parenteral use is not the presence of viable micro-organisms but the presence of those products of micro-organisms, particularly the Gram-negative bacilli, which produce in the patient pyrogenic reactions. For this reason the production environment must be maintained in a state of low microbiological content in order that the user will have a high degree of assurance that the product will be suitable for the purpose for which it is intended.

I agree whole heartedly with Dr Ayliffe's final sentence and would suggest an extension of that communication to include microbiologists and production management in the pharmaceutical industry.

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Abuse of asthma cigarettes

SIR,—It may be useful to other practitioners to record the following recent case.

A 19-year-old trainee teacher presented in surgery experiencing some vivid and alarming hallucinations. He was hyperactive, disorientated, garrulous, and very anxious. He had motorcycled to the surgery and reported that he had had difficulty negotiating a path through the white lines on the roads, which had been jumping about and lashing at his legs. On closer examination his pupils were dilated, he had a warm periphery, a tachycardia of 104/min, blood pressure 100/70 mm Hg, and hyperreflexia.

Initially he denied taking any medication but had brought a sample of vomitus in a 35-mm film container by way of supplementary medical evidence. The box contained the remains of a cigarette which was, he later admitted, an asthma cure given to him by some friends. When asked how many he had smoked, he, incredulous at his medical adviser's naivety, replied that they were to be swallowed, not smoked, and that he had taken one and a half. It transpired that he had become associated with a group of students who were experimenting with various drugs and that the ingestion of patent stramonium-containing asthma cigarettes was their latest discovery. It took 48 hours for this patient to recover completely. He received no specific treatment but simple supportive nursing care in the college sick bay. On recovery he was sufficiently scared by the experience for it to be a deterrent for the future.

The use of *Datura stramonium* (thorn apple or Jimson weed) for the anticholinergic properties of its principal alkaloids (hyoscyamine, hyoscyne, and atropine) is centuries old. The medicinal effects are obtained by smoking, inhaling, ingesting, or drinking an infusion of the plant. Its chief uses have been in treating bronchospasm and for its psychotropic effects.

Reports of intoxication (including some fatal cases¹) have been published more often in the USA than here.²⁻⁴ However, seven cases have been reported in Britain⁵⁻⁷ in which abuse of stramonium-containing cigarettes has occurred. Unpleasant hallucinations were characteristic.

It would be complacent to assume that the horror of the hallucinations is sufficient to dissuade further abuse of the cigarettes. Presumably those who experience enjoyable hallucinations never seek medical advice and continue with the habit.

Whereas restricting the free sale of traditional and well-tried remedies imposes further on our personal freedom, I believe there is a case for making cigarettes containing stramonium less easily available, perhaps by

requiring a register of the purchases, as is now the practice for other patent medicines.

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- ¹ Mikolich, J R, *et al*, *Annals of Internal Medicine*, 1975, **83**, 321.
- ² Dean, E S, *Journal of the American Medical Association*, 1963, **185**, 882.
- ³ Goldsmith, S R, *et al*, *Journal of the American Medical Association*, 1968, **204**, 169.
- ⁴ Gowdy, J M, *Journal of the American Medical Association*, 1972, **221**, 585.
- ⁵ Harrison, E A, and Morgan, D H, *British Medical Journal*, 1976, **2**, 1195.
- ⁶ Ballantyne, A, *et al*, *British Medical Journal*, 1976, **2**, 1539.
- ⁷ Barnett, A H, *et al*, *British Medical Journal*, 1977, **2**, 1635.

Closed shop in the USA

SIR,—I read with interest Mr Brian J Rowland's assessment (2 September, p 687) of the near impossibility of entering the United States to practise, study, or research medicine. Having looked into the matter closely over the past few months I congratulate him on his concise presentation.

As with all politico-legal rulings, there are ways and means around the problem and indeed both the United States Embassy and the Educational Commission for Foreign Medical Graduates point this out, quoting various Federal Register Citations. Nevertheless, medical school and departmental authorities are still hampered and prevented by inhibiting policies from arranging exchange visits. Both undergraduate and postgraduate students come from abroad, especially America, to visit numerous institutions such as this in Britain, and there can be no doubt that they gain much experience at our expense. We obviously benefit from their fresh ideas. However, the apparent impossibility of visiting America on a similar basis is both ridiculous and unjust. One can sympathise with their desire to ensure that alien doctors entering their country have genuine medical qualifications of a comparably high standard to their own, but one unfortunately has to assume that there are other motives behind their stand.

Surely free exchange of ideas and personnel at whatever level must be encouraged between two of the supposedly leading medical nations in the world.

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Inhibition of fibrinolysis and abruptio placentae

SIR,—We note with interest the report and letter by Dr B Åstedt and Professor I M Nilsson (25 March, p 756 and 13 May, p 1277) concerning a patient with abruptio placentae treated successfully with a fibrinolytic inhibitor. They state that they are now using this treatment routinely in these cases. This is in line with the report by Sher,¹ who used aprotinin in such patients with no apparent ill effects.

It is not clear why fibrinolytic inhibitors are helpful in this disease syndrome and seemingly contraindicated in other defibrinating states^{2,3} but it is conceivable, if not likely, that not all patients with disseminated intravascular coagulation have the same pathogenesis.⁴ Recent data from our laboratories,⁵ however, indicate that fibrin-related antigen isolated by immuno-