provided when sensitive data are included on the form.

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Safety of medical containers

SIR,—Medical containers should be stable, relatively unbreakable, and easy to use as well as proof against leakage and contamination of

the outside by the contents. Zuckermann and Taylor noted the risk of hepatitis attending removal of a wet plug from a blood container.¹ A new hazard that has recently crept into the laboratory is the bronchoscopy suction collector. The photograph shows one recently received in our laboratory. It was impossible to remove the snap-on

lid without producing an aerosol and contaminating the fingers. British Standard (BS 5213: 1975)—Specification for Medical Specimen Containers for Microbiology—has existed for two years but, though most laboratories now insist on containers with screw caps, containers complying with the British Standard have not yet become generally available, possibly because manufacturers anticipate that hospital administrators would not be willing to pay for them while cheaper but less safe alternatives are available.

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¹ Zuckermann, A. J., and Taylor, P. E., *British Medical Journal*, 1969, 2, 633.

Thalidomide and cranial nerve abnormalities

SIR,—Recent correspondence on thalidomide deformities (24-31 December, p 1672) prompts the suggestion that reference to an article on this subject¹ would help to solve the aetiological problems posed by facial and abducens nerve palsy in thalidomide children.

Both are motor nerves and would therefore suffer in some thalidomide cases when the neuromuscular junction failed to establish itself owing to the dampening effect of the drug on the initial impulses. Thalidomide causes deformity by preventing the initial and essential nerve impulses from reaching the neuromuscular junction in accordance with embryological laws. The failure of junction results in arrested development and resorption of the part or parts affected. Innervation of the limbs proceeds in a proximodistal direction in the fetus so that the proximal parts of the limbs are resorbed first, giving rise to the typical reduction deformities.

The brain is not affected as there are no nerve impulses in this structure during the organogenetic stage of development, but the

cranial motor nerves can be affected. Proximodistal spread would explain the electromyographic pattern described for the facial nerve and it can be said that the muscles round the eyes and mouth could not be affected in isolation. Postnatal improvement could occur in the remaining muscles, but it does not indicate nerve recovery. Nerve conduction would be in accord with the "all or none" principle.

Proprioception also fails to be established for the affected or resorbed parts and this is reflected in the proprioceptive nuclei. Consequently the affected child has no central proprioceptive record of the missing parts and so has no feeling of loss or inadequacy as would happen with a postnatal amputation. Within himself he is complete, his central proprioception corresponding exactly to his external or actual conformation. He has no use for artificial aids and is normal at forebrain level.

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¹ Gordon, G. C., *Developmental Medicine and Child Neurology*, 1966, 8, 761.

IUCDs—a contraindication to removal

SIR,—Histories such as that described by Dr D F E Thallon (7 January, p 51) are given by patients from time to time to the regret of the family planning practitioner, and it seems that pregnancy must result from implantation of an ovum fertilised by an intercourse before removal of the IUCD.

For this reason the teaching in family planning training clinics has always been that an IUCD should be removed either after a menstrual period or after a period of abstinence from sexual intercourse but not normally mid-cycle. This advice is contained in the Family Planning Association's Handbook of 1973.

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SIR,—I think Dr D F E Thallon (7 January, p 51) is too conservative in suggesting that an intrauterine contraceptive device (IUCD) should not be removed for seven days on each side of mid-cycle. A patient of mine conceived in a cycle in which her IUCD was taken out on day 26. Menstruation usually occurred every 30 days. Even if ovulation is estimated to occur 14 days before the expected period date this IUCD was not removed until 10 days later. Unlike Dr Thallon's patient, the outcome was a happy one, because in this instance the device was removed after two years' use to allow conception.

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Problems with IUCD tails

SIR,—Mr R A Sparks (19 November, p 1351) draws attention to some of the problems associated with the tail of the intrauterine contraceptive device (IUCD). Another difficulty is that, while most practitioners who fit an IUCD place emphasis on teaching the woman to check that it has not been expelled, a large number of patients are unable to detect

the IUCD tail. We recently published an analysis of 172 women bearing IUCDs with tails fitted for at least six months who were seen consecutively by one family planning doctor.¹ Of these, 17 were unable or unwilling to examine themselves, while a third of the remainder (57/155) were persistently unable to find the tail. Of the factors possibly concerned, there was a weak positive association between frequency of detection and increased parity and higher social class but no correlation with length of tail. A lower detection rate for the Copper-7 (59.3%) than for the Lippe's Loop (73.8%) may only reflect small-number variation. However, the Lippe's Loop has two tails of thicker nylon while the tail of the Copper-7 is a single thread. The numbers of other types of IUCD used were too small for any comparison to be attempted.

The motivation of the woman is probably the most important single factor in successful vaginal self-examination. If she is made anxious by vaginal manipulation a woman will either not examine herself or do so less thoroughly. In the past such patients have been recognised as being unsuitable for vaginal diaphragm or cervical cap contraception and perhaps such inhibitions should be appraised when considering fitting an IUCD. Without self-examination no IUCD wearer can be sure that she still carries an effective contraceptive method.

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¹ Chamberlain, G., *Fertility and Sterility*, 1977, 28, 1121.

Postoperative chest infections

SIR,—Though your recent leading article on postoperative chest infections (10 December, p 1500) rightly emphasises the usefulness of rational antibiotic therapy in established postoperative chest infection, we feel it gives too important a role overall to their possible use in prophylaxis. In calling for careful well-constructed trials to answer the "important unanswered questions" on the usefulness of antibiotics and physiotherapy in preventing postoperative chest infections it is clear that you have ignored several contributions, among them our own¹ on this subject.

Postoperative pulmonary collapse may vary in extent from the collapse of a group of alveoli or a small lobule to that of a segment, a lobe, or rarely a whole lung. It is clear that infection does not complicate all cases of minor pulmonary collapse and only the less fortunate patients progress from lobular collapse to the more serious complication of marked pulmonary collapse and consolidation.² Alveolar or lobular collapse is reversible by repeated sustained maximum inspiration (SMIs).³ We have shown that the number of postoperative chest complications is significantly reduced when patients are encouraged to take frequent SMIs in the early postoperative period compared with patients who have had nothing but routine pre- and postoperative physiotherapy. There was also a suggestion in our study that frequent SMIs were more effective in treating lobular collapse than was physiotherapy. In our study the pulmonary complication rate was 71% in the physiotherapy group, and 17% of these were serious complications. It is clear that physiotherapy as it is practised at the moment in the United Kingdom is not effective in preventing postoperative pul-