

diagnosis of mumps unlikely, though not impossible. Measles is not uncommonly associated with cervical adenitis, presumably due to secondary infection, and swellings due to this may have occurred in this case and led to difficulty in diagnosis. Mumps can be a disease very difficult to diagnose clinically, and a retrospective diagnosis, without serological aid, is impossible.

Cleaning Syringes

Q.—How is it possible to prevent a deposit from forming gradually inside the barrel of syringes, to the extent of preventing insertion of the piston, and to clean it off after it forms? We rinse and clean our syringes after use and before sterilizing in an electric sterilizer. The water is hard in this district.

A.—Does the reference to hard water mean that the "electric sterilizer" is an electrically heated boiler in which tap water is used? If so, the remedy is to use distilled water: this is cheap enough in bulk and consumption should be small. If dry sterilization in an electric oven is meant, then again final thorough rinsing in distilled water before sterilization is important. Other precautions are immediate rinsing after use, especially such a use as the withdrawal of blood, and treatment with a suitable detergent before final rinsing and resterilization.

NOTES AND COMMENTS

Phenothiazine Derivatives.—Dr. S. G. BAYLISS (Welwyn, Herts.) writes: The question about the meaning of words used in current psychiatric jargon ("Any Questions?" February 25, p. 605) raises more important issues than that of terminology. The exact mode of action of many of the drugs in use to-day is still obscure, but certain pharmacological actions have been demonstrated and should be more widely known. During recent months I have been alarmed to meet several psychiatrists who have had little knowledge of the pharmacology of the drugs they used and were unaware of the possible dangers. It is hardly surprising that unexpected and sometimes dangerous side-effects occur when two or more potent psychotropic drugs are used in combination without regard to possible interaction. For example, monoamine-oxidase inhibitors block the action of the enzyme responsible for the breakdown of 5-hydroxytryptamine (serotonin) and related amines. Reserpine can be shown to release stored 5-hydroxytryptamine from its binding sites. If reserpine is given during or immediately following a course of treatment with a monoamine-oxidase inhibitor, large quantities of 5-hydroxytryptamine are released but not destroyed in the normal way because the enzyme is inhibited.^{1,2} This produces additional stimulation and will precipitate excitement or even mania. Reserpine should not be used as a "tranquillizer" in combination with this type of anti-depressant drug.³ Such occurrences are fortunately rare but are due to a lack of detailed knowledge of the drugs in use. As your answer rightly points out, some terms used to-day are of little value but will inevitably remain with us for some time yet. Meanwhile some knowledge of pharmacological and biochemical actions of these drugs will minimize confusion.

REFERENCES

- ¹ Besendorf, H., and Pletscher, A., *Helv. physiol. pharmacol. Acta*, 1956, **14**, 383.
- ² Shore, P. A., and Brodie, B. B., *Proc. Soc. exp. Biol. (N.Y.)*, 1957, **94**, 433.
- ³ Brune, G. G., and Himwich, H. E., *Science*, 1961, **133**, 190.

OUR EXPERT replies: I would agree entirely with Dr. Bayliss that the issues raised by the introduction of numerous new drugs into psychiatric and general medical practice within recent years extend well beyond the question of terminology and that some knowledge of the pharmacological actions of the drugs and of the biochemical effects which they are known to bring about in the nervous system is essential before one starts to use any of these potent substances. Questions of pharmacology and the use of these drugs either singly or in combination were, however, outside the scope of the original question, which was concerned only with the classification of the numerous terms which have been adopted to describe these new preparations.

Oestrogens in the Climacteric.—Mr. E. SCHLEYER-SAUNDERS (London W.1) writes: In reply to this question ("Any Questions?" February 18, p. 521) the expert expresses the still commonly held view that continuous oestrogen therapy is inadvisable for two reasons: (1) it may lead to prolonged uterine bleed-

ing; and (2) it carries a "theoretical" (my italics) possibility of carcinogenesis. I must admit that I held the same view until 16 years ago, when I started treating menopausal women with implants of oestradiol and testosterone according to the condition of the uterus and the vaginal cytological test (Papanicolaou or P.A.P. test). This test shows the degree of oestrogen deficiency and the presence of abnormal epithelial cells indicating the possibility of a malignant condition. In a recent paper¹ I published the results of 500 menopausal women treated with implants. Before using the cytological test and implanting oestrogens heavy uterine bleeding occurred in some cases, but among the last 400 patients treated with the combination of oestradiol and testosterone no bleeding occurred. Occasional spotting is of no importance if the P.A.P. test is negative. As to the possibility of the carcinogenic effect of oestrogens, this is one of many other cancer theories, and is based on experiments in the lower animals, but, so far, clinical observations have failed to substantiate this theory. On the basis of a large amount of clinical evidence in the literature, quoted in my paper, and my own experience, I am led to the conclusion that there is no convincing evidence that oestrogen has ever produced cancer in human beings. Oestrogen is, however, a growth-promoting hormone, and if a symptomless cancer is stimulated by oestrogen the symptoms will be shown earlier; this promoting action can be a blessing in disguise, as women will be induced to seek medical advice at an early stage of the illness. The advantage of implants is that resorption is very slow and withdrawal is also gradual, and the patient is not continuously being reminded of her condition by having to take tablets or receive injections at regular intervals. Implants are given not only to relieve climacteric symptoms but also to slow down the progressive process of ageing. Pre-operative implants in senile women who have to undergo operation for genital prolapse restore the vaginal mucosa to such a favourable condition as to make dissection easier and recovery speedier.

REFERENCE

- ¹ Schleyer-Saunders, E., *Med. Press*, 1960, **244**, 337.

OUR EXPERT replies: Mr. Schleyer-Saunders may well be right in regarding the case against oestrogens, no matter how administered, being carcinogenic agents in the human as unproven. However, in the light of experimental evidence of a difference between continuous and discontinuous administration in their tumour-inducing effects in animals, most authorities agree that continuous administration of oestrogen is, in general, best avoided. The slow resorption of implants, though advantageous from one point of view, is a distinct drawback from another—namely, the loss of control of therapy, other than by the inconvenient expedient of removal of the implant, should oestrogen therapy no longer be desired. The fact is, of course, that the climacteric syndrome is usually a fluctuating condition, and for this reason oral administration has the obvious advantage of flexibility permitting more nicely adjusted control than is possible with implants.

Corrections.—We regret there were two mistakes in the obituary of Dr. James Reid (March 4, p. 678). Dr. Reid was survived by a widow and three sons and a daughter; and the second appreciation should have been introduced with the initials R. A. J. "Naseptin" cream (I.C.I.) contains neomycin and "hibitane" hydrochloride and not neomycin and hexachlorophane, as stated in the answer to a question on chronic furunculosis ("Any Questions?" March 18, p. 842).

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