

The Oxford series suggests strongly that this excess is largely concentrated in the first two years of the disease, but this is not supported by the Christie data. Effusions arising from haematogenous spread should arise equally often on either side, so that the excess of ipsilateral effusions suggests another mode of spread. This other mode of spread is presumably permeation of the chest-wall, the tumour invading inwards towards the pleura rather than outwards towards the skin. Prompt and energetic treatment of the chest-wall after mastectomy, especially in stage II, may be worth while, even at the risk of a minor degree of lung fibrosis.—I am, etc.,

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### Hospital Infection with *Pseudomonas pyocyanea*

SIR,—The leading article on hospital infection with *Pseudomonas pyocyanea* (24 October, p. 1019) prompts me to call attention to an outbreak of meningitis caused by that micro-organism which occurred in one of the hospitals in our county several years ago.

At the request of the hospital administrator, an investigation was made of four cases of meningitis due to *Ps. aeruginosa* (the American equivalent of *Ps. pyocyanea*). Two of the patients died while the search for the cause was in progress.

The patients were of various ages (3½, 6, 7, and 35 years), resided in various parts of the county, and had no direct contact with one another neither before nor after admission to the hospital. They were admitted to three different wards for diagnosis and treatment for different illnesses (suspected poliomyelitis, suspected brain tumour, and acute glomerular nephritis). Each of the four patients had a diagnostic lumbar puncture performed on or soon after admission. The punctures were made by three different medical interns in the three wards. Normal spinal fluid was obtained in all four instances. On culture, two of the fluids were found to be sterile, the other two contained contaminants, *Ps. aeruginosa* and *C. diphtheroid*, respectively. As there was no evidence of cellular reaction at that time, these micro-organisms presumably were not present in the spinal meningeal space previous to the withdrawal of the spinal fluid.

Signs of meningitis appeared from 4 to 12 days following the initial lumbar punctures. On subsequent spinal taps, definite cellular response was evident in the spinal fluid (turbidity and marked increase in the number of leucocytes with a predominance of polymorphonuclear cells), and *Ps. aeruginosa* was isolated on culture of the spinal fluid of each of the four patients. The micro-organism was also isolated from the brain of the fatal cases on post-mortem examination.

In view of the history and distribution of the cases the only common-source factor appeared to be the central supply of the hospital where the lumbar puncture kits originated and were supposedly sterilized. Investigation revealed that the man who usually carried out the autoclaving had been on vacation during the period of the time the kits used on the four patients were autoclaved. During his absence an orderly unfamiliar and inexperienced with the procedures, and apparently indifferent to careful technique, operated the autoclaves.

An analysis of the records of 271 autoclaving procedures carried out by the substitute, and a study of the "ATI Steam-Clox" used with each pack, revealed that 43, or 16% of them, indicated undertiming, and 14% overtiming, of autoclaving, thus suggesting considerable laxity in this procedure. It was also found that only 15 out of 602 packs sterilized, or 2.5%, were undertimed for a comparable period by the regular staff. When these ratios are put to the chi-square

test, an answer of 54 is obtained, indicating that their difference is definitely significant and it is most improbable that chance alone could have been responsible for it.

Study of other admissions to the hospital disclosed the presence of an infected burn case from which *Ps. aeruginosa* had been cultured, and a ruptured appendix showing the same organism. Review of the hospital procedures suggested that rubber gloves might have served to disseminate infection. Gloves were used in the dressing of the infected wounds, as well as in the performance of the spinal punctures. The soiled gloves were washed in a Westinghouse washing machine with added disinfectant and detergent, dried in a mechanical dryer, blown up, inserted into envelopes, and then subsequently, presumably, inadequately autoclaved. Bacteriologic study of limited available unused material "sterilized" during the critical period, and a search for missed cases among hospital patients who received lumbar punctures at that time, proved unrevealing.

Control measures were recommended to the hospital administrator and no additional case has occurred.

—I am, etc.,

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### Diagnosis of Xanthelasma

SIR,—In their interesting paper describing the effects of the administration of Atromid to a small group of patients with high blood-cholesterol levels, xanthoma tuberosum, and xanthelasma palpebrarum, Dr. B. Mason and Professor C. Bruce Perry (9 January, p. 102) remark the absence of any effect on the lesions of two patients with xanthelasma palpebrarum in contrast with the disappearance of the lesions in four patients with xanthoma tuberosum.

Their findings might be illuminated and perhaps explained by surgical biopsy of the lid lesions that they accept as xanthelasma on presumably clinical grounds. I suspect they will discover, as I have done on several occasions, that these lesions are in fact simple miniature epidermoid cysts composed of keratin squames and not essentially lipid deposits at all.

Lentil-like yellowish nodules in the skin of the eyelids are often seen in adults of both sexes, but especially in the middle-aged and elderly—that is, the same patients in whom vascular disease and elevated blood cholesterol are not uncommon—but I think it is uncritical to call all such lesions xanthelasma palpebrarum without producing histological or chemical proof of the assumption.—I am, etc.,

London S.E.10. PETER J. E. WILSON.

### Drugs for Algeria

SIR,—I have been interested in Algeria for many years now and am helping them all I can in their work of reconstruction. About a year ago I appealed for drugs to be supplied by way of doctors' samples. I have now heard again that they require vitamins and antihistamines. Dr. Marie-Jose Renard, of Tiza Rached (Grande Kabylie), and of the European Committee for Non-Governmental Aid has written me to make the appeal.

I would be very glad if you could appeal through your columns for such drugs. If

they are left with me I will arrange for them to be sent on.—I am, etc.,

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London N.W.3.

### Estimation of Haemoglobin

SIR,—In the article on haemoglobinometry in the series "To-day's Drugs" (2 January, p. 40) the comment is made that the M.R.C. grey-wedge is the "best available instrument for the enthusiastic practitioner." As one who has used this instrument for many years in general practice I am in complete agreement.

The price of the M.R.C. grey-wedge is, nevertheless, high. Without influencing its accuracy an attempt has been made—in collaboration with the manufacturers of the standard apparatus—to produce a simplified instrument at about half the price. This has been done by reducing the range. The M.R.C. photometer estimates haemoglobin from 4 g./100 ml. to 22 g./100 ml. In general practice a patient with a severe degree of anaemia or polycythaemia is best investigated by a competent haematologist. The modified grey-wedge photometer is only calibrated from 6 g./100 ml. to 16 g./100 ml. Thus by using a smaller grey-wedge a considerable reduction in costs has been achieved and accurate haemoglobinometry has been brought into the scope of even a single-handed general practitioner.

To make the instrument even more versatile it has been calibrated for use with either oxyhaemoglobin or cyanmethaemoglobin. There are two scales, one of which can be covered at a time. (A simple adjustment with two screws makes the selection easy.)

Field trials so far undertaken have shown the instrument to be satisfactory in use and accurate. The trials are not yet complete. Production should commence within a year. It will be manufactured by Messrs. Keeler, of Wigmore Street, London, who also make the M.R.C. grey-wedge photometer. They are calling the simplified photometer the "Haemoscope."—I am, etc.,

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### "Neo-Listerism"

SIR,—In the article on antiseptics (12 December, p. 1513) we are reminded that Lister was successful in reducing the number of wound infections by prophylactic application of an antiseptic (carbolic acid) to wounds and that antiseptics are still valuable in surgery for skin disinfection and to assist in the control of cross-infection. Implied in this statement is the idea that antiseptics are no longer suitable for application to wounds.

For ten years we have had at our disposal a non-toxic antiseptic suitable for direct application to tissues and not significantly inhibited by blood, serum, or pus. I refer, of course, to chlorhexidine (Hibitane). Yet this new antiseptic has received no universal recognition of its efficacy in sterilizing open wounds.

In 1965 we will celebrate the centenary of the first successful case treated antiseptically by Lister. Yet, ironically enough, a hundred years later in spite of having vastly superior antiseptics we have almost totally rejected Listerian principles. Lister's attitude can be