Faulty antibiotic discs

There are many well-recognised factors which can cause the incorrect determination of sensitivity using disc diffusion methods. Hall *et al.* (1979) recently reported a further potential source of error: that of the antibiotic disc itself. They showed that the Mast Laboratories metronidazole discs used in their laboratory had been contaminated with penicillin. We have encountered a similar problem involving a different antibiotic and a different company.

In this laboratory we encountered a number of strains of *Staphylococcus aureus* where the penicillin-resistant strains were also apparently resistant to clindamycin (Dalacin). This unusual finding prompted us to investigate the discs being used at the time (Oxoid Multodisks Code No. 3810E, Batch No. 42198). The results of our investigations (see Figs 1-3) seemed to indicate that the relevant disc did not contain clindamycin but an antibiotic of the penicillin group. As the batch of Multodisks concerned was produced to special order, no other laboratory experienced the same difficulty. We were fortunate in that the faulty discs made themselves very evident and no harm resulted.

Our purpose in writing this letter is to emphasise that even products from a

Fig. 1 A penicillin-resistant *Staph. aureus* showing apparent resistance to a clindamycin (Dalacin) disc cut from a faulty Multodisk, and sensitivity to a normal individual clindamycin disc. Note the heaped-up zone edge, typical of a penicillinase effect, around the faulty disc.

Fig. 2 The Oxford *staphylococcus* showing a zone of sensitivity around a faulty disc, which completely disappeared when 2000 units of penicillinase was added to a similar disc.

Fig. 3 The Oxford *staphylococcus* showing a zone of sensitivity around a normal disc, which was unaffected by the addition of 2000 units of penicillinase to a similar disc.

respectable source are not infallible, and results should always be reviewed critically. Any unexpected findings should be investigated, and a few simple measures will often clarify the situation.

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Reference

- Hall, C. J., Tharaggonnet, D., and Ingham, H. R. (1979). Contamination of metronidazole discs with penicillin (Letter). *British Medical Journal*, 1, 57.

Blood specimen collection tubes for coagulation tests

It has been brought to our attention that unsilicised glass tubes with liquid citrate are now marketed labelled 'for coagulation studies'. The Anticoagulant Control Panel wish to emphasise that the use of such tubes may cause inaccurate results of coagulation tests and therefore lead to an error in diagnosis or dangerous instability in the control of anticoagulant therapy.

Blood specimens for coagulation tests should be collected with a plastic syringe and transferred to a plastic tube containing 0.109 mol/l liquid trisodium citrate which has been freshly added in the proportion of 1 volume to 9 volumes of whole blood (Ingram and Hills, 1976) and followed by gentle mixing immediately. The appropriate tests should be carried out as soon as possible.

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Reference

- Ingram, G. I. C., and Hills, M. (1976). Reference method for the one-stage prothrombin time test on human blood. *Thrombosis and Haemostasis*, 36, 237-238.