

to quantify this by weighing, less than 10% loss was observed after two hours. Even when no moist chamber is used, we have not seen any loss of reagent by evaporation during incubations of up to one hour.

We have found that the use of this simple device has resulted in both an improved quality of staining and a two to three-fold reduction in reagent costs.

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#### False positive results with heated sera in *Toxoplasma* ELISA for IgG antibody

During the development of an enzyme linked immunosorbent assay (ELISA) for *Toxoplasma* IgG antibody, it was noted that some sera which were negative with the *Toxoplasma* dye test<sup>1</sup> gave positive results with the ELISA. These particular sera had been referred from the same laboratory and had been heated at 56°C for 30 minutes. Subsequently, we were able to show that readings obtained with about 70% of 52 sera more than doubled in value after they had been heated at 56°C for 30 minutes. Further work with commercial ELISA kits for *Toxoplasma* IgG antibody is in progress and will be reported when completed, but preliminary results at the Leeds Toxoplasma Reference Laboratory suggest that false positive results occur with at least one commercial kit when heated sera are tested.

Assays of this type for the measurement of IgG specific for other agents may also be affected by heat inactivated sera. False positive results have been reported by other workers when testing heat inactivated sera by ELISA for human immunodeficiency virus (HIV).<sup>2</sup> An article by Spire *et al*<sup>3</sup> stated that as a safety measure in hospital laboratories

sera from patients with acquired immune deficiency syndrome (AIDS) or AIDS related complex could be heat inactivated before analysis. We think that this practise may cause inaccurate results with this type of assay.

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- 2 Jungkind DL, Direnzo SA, Young SJ. Effect of using heat inactivated serum with the Abbott human T-cell lymphotropic virus type III antibody test. *J Clin Microbiol* 1986; 23:381-2.
- 3 Spire B, Dormont D, Barre-Sinoussi, *et al*. Inactivation of lymphadenopathy-associated virus by heat, gamma rays and ultraviolet light. *Lancet* 1985;i:188-9.

## Book reviews

**Introduction to Sterilization and Disinfection.** Joan F Gardner, Margaret M Peel. (Pp 183; £17.50.) Churchill Livingstone. 1986. ISBN 0-443-02796-X.

This book is a successor to the *Review of Sterilization and Disinfection* published in 1965 by the senior author with the late Professor Sidney Rubbo, a book which was notable for its introduction to microbiologists of the sterilising potential of glutaraldehyde. Although the present book has fewer pages than its predecessor, they are larger and contain a remarkable amount of information. Over two thirds of the book is concerned with various methods of sterilisation, the remainder of the book being devoted to chemical disinfectants and their use. This book is not written to satisfy the needs of any one discipline within the hospital but is a useful relatively small reference text for the wide range of those associated with sterilisation and disinfection processes who will find the various sections relevant to their interests clearly presented in a very

readable fashion. It will be of value to those who teach groups concerned with sterilisation and the provision of central sterile supply services. Although written by two Australians, the views expressed are in accord with current British thinking and teaching, and frequent references are made to official British publications as well as to a wide range of sources in the scientific literature. Indeed, one of the book's very valuable features is the well chosen and comprehensive list of references (with dates as recent as 1984) to be found at the end of each chapter.

RJ FALLON

**A Handbook of Exfoliative Cytology.** Shirley A English, Donald K McClure. (Pp 76; paperback; no price given.) Igaku-Shoin Ltd. 1985. ISBN 0-89640-111-1.

This small handbook is intended to provide an introduction to cytology for residents and cytotechnologists who already have a basic knowledge of the relevant pathology. The text is limited to two short chapters on cytological concepts and the approach to cytological diagnosis and introductions to the following chapters on four common

tumour types and on repair processes. Most of the volume consists of colour photomicrographs accompanied by descriptive legends. The pictures are of acceptable quality: they illustrate the cytological appearances of the tumours as well as several differential diagnoses.

The authors have successfully presented the essential diagnostic features of some common tumours. They include some valuable comments on less well known details of cytodiagnosis. It is an excellent bench book for the newcomer to diagnostic cytology.

ELIZABETH A HUDSON

**A Manual of Hemotherapy.** HB Anstall, PM Urie. (Pp 486; soft cover £26.65.) John Wiley. 1986. ISBN 0-471-88689-0.

The authors set out to bridge the gap, often a gulf, between transfusion laboratory and clinical user, and in many ways succeed admirably. The chapters dealing with the cellular elements of blood each begin with a summary of basic physiology as it applies to the transfusate, which should help all concerned to develop a logical approach to the indications for transfusion, and what may

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reasonably be expected of it.

The overview of red cell metabolism is especially useful, in promoting an understanding of modern methods of red cell preservation, covered in the same chapter. The volume also takes a methodical approach to treatment with transfusion in specified situations, dealing with indication based on clinical and laboratory findings. Inevitably, this has resulted in some aspects being dealt with in rather drastic summary, so the lists of indications for transfusion of various components should be regarded as a useful guide rather than rigid doctrine.

The chapter on adverse reactions to transfusion will also be found useful, particularly at ward level, summarising mechanisms, clinical and laboratory findings, and management.

The final two chapters, dealing with the logistics of blood ordering, the handling of local blood shortages, and the functions of a hospital transfusion committee, were obviously written with the American scene in mind, but are of particular interest in as much as the topics are rarely considered in clinical practice in the United Kingdom: the advice offered has much to recommend its translation to a United Kingdom context, particularly the suggested criteria for conducting medical audits on the use of blood and its components, given the arrival here of clinical budgeting. Not surprisingly, in view of the rapidity of development, little is said of the problem of AIDS in transfusion. Indeed, high risk groups and testing for anti-HIV receive no mention in the chapter on the donor and testing of donor blood, though that on transfusion-transmissible diseases does include a very short summary.

Not overly expensive by today's standards, the book should find a useful place in any hospital library.

W WAGSTAFF

**Papillomaviruses.** Ciba Foundation Symposium 120. (Pp 258; £27.50.) John Wiley & Sons. 1986. ISBN 0-471-99837-0.

This book comprises the proceedings of a symposium held in July 1985, the main theme being virus and host cell interaction. Many aspects of the papillomaviruses and their infections are discussed, ranging from the most recent molecular biology of the virus, through methods of diagnosis, to the possibilities of prevention and treatment of infection.

Anomalies which may be perceived by the reader are often clarified in the discussion which follows each section. This discussion also yields much anecdotal information

usually gleaned at such a symposium but often omitted from publication.

Overall, this book gives a comprehensive up to date review of papillomaviruses, and should appeal to a wide range of readership, reflecting the differing specialities of the contributors.

PCA GRINT

**Chorionic Villus Sampling. Fetal Diagnosis of Genetic Diseases in the First Trimester. Clinical and Biochemical Analysis. Vol 2.** Ed B Brambati, G Simoni, S Fabro. (Pp 310; \$71.50.) Marcel Dekker. 1986. ISBN 0-8247-7360-8.

This excellent monograph provides an authoritative account of the clinical and technical aspects of villus sampling and tackles the social and ethical problems associated with the introduction of this new technique. The contributors are experts in their field, and this is evident from the amount of information conveyed in each chapter, and from the clarity and elegance with which the ideas are expressed.

The opening chapter includes an historical account of the development of the technique; and the concept of villus sampling as a means of obtaining fetal cells for prenatal diagnosis was first suggested over 20 years ago, but the technique was not applied in clinical practice as the initial samples were found to be heavily contaminated with maternal cells.

These clinical and technical aspects of villus sampling are discussed systematically in the first part of the book. Consideration is also given in subsequent chapters to problems of karyotyping, DNA analysis, and biochemical investigation of the samples. This new technique has raised many novel social and ethical issues, and these are particularly well presented in this book. A strong case is made for a randomised controlled trial of the technique to accurately assess its safety before the technique is offered to low risk groups. The importance of getting accurate information about the risks of the procedure is stressed in a chapter by Professor Laird Jackson, who has initiated a chorionic villus sampling registry, which now contains information about 10 000 pregnancies investigated in this way world wide.

A minor criticism is that the book tends to minimise some of the technical problems associated with sampling—for example, the quality of metaphases prepared directly

from villus samples is not always optimal, and direct karyotyping should always be backed by villus culture. Moreover, difficulties have been encountered in developing colorimetric methods of detecting single gene sequences that will delay the introduction of the DNA techniques to routine laboratory practice. Nevertheless, this is a very useful book for those seeking information in this new technique, and it will be of value to all concerned with prenatal diagnosis.

DULCIE COLMAN

**Human T Cell Clones.** Ed M Feldmann, JR Lamb, JN Woody. (Pp 455; \$75.) The Humana Press Inc. 1985. ISBN 0-89603-084-9.

The potential applications of cloning techniques for T cells are immense. It is possible to grow lines reactive with most antigens functioning as helper cells, suppressor cells, or cytotoxic cells. This enables investigators to obtain relatively pure sources of material for analytical purposes and also to select cells and their products for potential therapeutic applications. This book goes to the heart of the excitement in this area, recording the proceedings of a conference on the subject held in September 1984. It is therefore not a comprehensive work on the subject and certainly not a text for beginners, rather, it is a frenetic market place for cognoscenti with a gloriously higgledy piggedly pot-pourri of wares, some polished, others intriguing, and some unlikely to meet the approval of any formal refereeing. Nevertheless, intellectually adventurous clinical immunologists should browse in this volume—the contribution on nickel sensitivity shows how this experimental technique can turn the speculation of a decade into a precise analytical system; there really are T lymphocytes which recognise nickel. As always, publishing the proceedings of a conference for experts can only be justified if the book appears very soon after the event. Fourteen months is long, particularly given its standard of rapid printing; the statutory picture of immunoregulatory pathways (page 205) is such that sceptics will certainly declare that its total illegibility admirably reflects the obscurity of the subject.

Clinical pathologists will find a lively discussion of the experimental applications in this field which are nearest to clinical fruition.

AM DENMAN