

Book reviews

BLOOD TRANSFUSION IN CLINICAL MEDICINE 4th ed.
By P. L. Mollison. (Pp. xxiii + 863; illustrated. 84s.)

Oxford: Blackwell Scientific Publications Ltd. 1967.
The three preceding editions of 'Blood Transfusion in Clinical Medicine' established this book as the most authoritative and informative in this field. The publication of a new edition has therefore been awaited eagerly by haemato-serologists and haematologists, and all will find that, not only has the high standard of the previous editions been maintained, but Professor Mollison has encompassed the subject even more comprehensively than before.

During the past five years developments in protein chemistry and new techniques of identification and fractionation have added considerably to the study of immunoglobulins. This rapidly expanding aspect of blood transfusion is of importance to clinicians as well as laboratory workers and is particularly well reviewed in a chapter devoted to the immunological aspects of the blood groups. The complexities of the red cell antigens are neatly untangled and presented in a form acceptable to the non-specialist reader. These occupy three chapters, the last of which includes an up-to-date and expanded account of leucocyte, platelet, and serum groups.

More than 100 pages are devoted to the laboratory techniques of immuno-haematology, but in addition 14 special procedures, such as the radioactive labelling of red cells and platelets, estimation of plasma volume, and the acid-elution technique for the detection of foetal red cells, have been brought together in an appendix. This arrangement is of considerable advantage to those who will wish to refer regularly to these techniques.

Less space than in previous editions has been given to red cell survival curves, but all other clinical aspects of the transfusion of blood, blood products, and blood substitutes, including two chapters on adverse reactions to transfusion, are the subject of an admirably comprehensive and highly personal review. The final chapter covers haemolytic disease of the newborn and includes current opinion on the value of amniotic fluid analysis for the antenatal assessment of severity, and the indications for and technique of intrauterine transfusion. Injection of anti-D immunoglobulin to prevent Rh haemolytic disease is reviewed in an earlier chapter. The bibliography must surely be one of the most complete to be included in a work of this size and occupies over 100 pages.

This book is essential for all pathologists engaged in haematology, who should, where necessary, persuade their clinical colleagues to pay close attention to the sound advice given in the chapters devoted to the clinical practice of transfusion.

GEOFFREY H. TOVEY

THE USE OF ANTIBODIES IN THE STUDY OF BLOOD COAGULATION By K. W. E. Denson. (Pp. ix + 244; illustrated.

52s. 6d.) Oxford: Blackwell Scientific Publications Ltd. 1967.

In producing this book Dr. Benson joins a distinguished group of workers in Professor R. G. Macfarlane's department whose theses have been published as monographs by Blackwell Scientific Publications.

In successive chapters he clearly describes the purification of clotting factors to use as antigens and the antibodies which were prepared with them. These antibodies were then employed to study various aspects of blood coagulation. For instance, they were used to precipitate and remove clotting factor contaminants where traces of unwanted factors could be neutralized by an excess of antibody.

Experiments suggested that tissue factor activated factor X and that this reaction was accelerated by factor VII. Again activated factor X appeared to convert prothrombin to thrombin, and this reaction was greatly accelerated by factor V. The results were compatible with the hypothesis that factors Xa and V are adsorbed on to phospholipid.

The antisera themselves were further purified by the removal of minor antibody components by absorption with appropriate clotting factor concentrates. The antibodies were then studied by immunochemical methods and classified into precipitating and non-precipitating antibodies. It was also possible to demonstrate a close parallel between the destruction of factor VIII by these artificially produced antibodies and by the inactivators which may arise in the plasma of haemophilic patients. The study has thus produced further evidence that the haemophilic 'inhibitors' are in fact antibodies to factor VIII.

Two appendices give the technical details of the reagents and materials which Denson used and of his assay systems. This part of the book alone is most useful.

Dr Denson has made it clear that the use of antisera in purifying clotting factors complements the ordinary biochemical and biophysical methods of purification, especially because it makes it possible to remove those low concentrations of contaminants which would be undetected by physico-chemical methods but which would be present in sufficient concentration to affect coagulation reactions. There is also a stimulating discussion of the cascade hypothesis which suggests various new possibilities for the mode of interaction of the different components based on observations of the acceleration of certain reactions by particular factors.

Haematologists interested in blood coagulation will find Dr Benson's monograph stimulating and intriguing and will be glad to have it available for quick reference in the technical field.

G. I. C. INGRAM

PRECLINICAL CARCINOMA OF THE CERVIX UTERI Its Nature, Origin, and Management. By Malcolm