reference when abnormal results are 'phoned through from the laboratory.

N RUTTER
Reader in child health and honorary consultant paediatrician

Fetal and Neonatal Pathology. 2nd Ed. Edited by Jean Keeling. (Pp 609; DM318 hardback.) Springer-Verlag, 1993. ISBN 0-387-19711-7.

The Royal College of Obstetricians and Gynaecologists and that of Pathologists have set a target rate for necropsy after perinatal death of 75%. Most regions fail to achieve this target: in Wales, for example, the rate is 57%. This is a shame because the perinatal necropsy has an important audit function: some of the best perinatal mortality meetings are those at which there is active input by a pathologist who has insight into the *faux pas* of both obstetrician and paediatrician. The perinatal necropsy also provides a most useful basis for parental counselling about future pregnancies, even when the clinicopathological classification is only changed in 12·5% of cases. It is, of course, on the histopathologist that the burden for providing a good perinatal necropsy falls and Jean Keeling's book will provide that histopathologist with first class support.

In the era of ovulation induction and in vitro fertilisation, higher order multiple pregnancies are becoming more common. The perinatal mortality among twins is five or six times that of singletons and a chapter by Geoffrey Machin has been dedicated to this topic. It is the monochorionic multiple pregnancies that carry particularly high perinatal risks. This is largely because of the presence of interfetal vascular anastomoses (IFVA) in most monochorionic placentas; IFVA can result in the development of twin transfusion syndrome and twin reversed arterial perfusion (TRAP). This last condition is associated with the congenital anomaly, holoacardius acephalus. It is in this chapter of the book, ostensibly for pathologists but really remarkably clinical, that we learn that in TRAP prenatal Doppler studies have shown that the intact 'pump' twin perfuses the acardiac twin retrogradely via the umbilical artery of the latter. Arterial flow is reversed in the major part of the aorta. A proportion of the arterial blood of the pump twin, destined for the placenta, crosses instead in large placental arterioarterial anastomoses to reach the common iliac arteries of the acardiac twin. This paradoxically results in structures in the lower half of the body usually surviving better than the brain which generally does not survive the abnormal haemodynamics.

The histopathologist is a close relative of the forensic pathologist and, through him or her, the detective. Jean Keeling, in her own excellent chapter on intrapartum asphyxia and birth trauma, teaches that 'the pathologist should examine skin creases and ears for residual [meconium] staining as even a stillborn fetus may have been washed before being shown to the parents and despatched to the mortuary'. She also points out that, when there are facilities for ventilation, the often under-rated factor that limits survival is the presence and extent of ischaemic damage to the myocardium. Ischaemic injury is generally restricted to the inner third of the myocardium and papillary muscle. The theme is taken up in the chapter on the cardiovascular system by Jerry Cox and Jackob Briner. They stress that myocardial necrosis, which was once thought to be uncommon in the perinatal period, has been shown to be a relatively frequent event among those coming to necropsy after severe perinatal asphyxia. Recent necrosis is seldom identifiable macroscopically, but focal whitish scarring may identify older injury. When myocardial ischaemic damage is suspected, systematic sampling of all areas of the heart is essential and special stains are often required to identify fresh necrosis.

For the practising clinician, a chapter on iatrogenic disorders (by Jean Keeling) is particularly cautionary. Here complications arising during neonatal intensive care are described: ulcerations due to endotracheal tubes, necrotising tracheobronchitis associated with high frequency jet ventilation, perforation of the lung by chest drains, oxygen toxicity and undesirable sequelae of peripheral artery sampling (for example, the slow development of a contralateral hemiplegia after temporal artery puncture, and carpal tunnel syndrome after haematomas due to radial artery sampling) are just a few that are mentioned.

George Bernard Shaw wrote in *Back to Methuselah*, 'Life is a disease; and the only difference between one man and another is the stage of the disease at which he lives'. The theme is taken up in the final section of the final chapter of this book. That section is called 'The special senses' and is by Brendan McDonald. It reminds us that at birth the taste buds are present as specialised chemoreceptors formed by modification of the oral cavity surface epithelium, with the highest density of taste receptors present on the anterior two thirds of the tongue. Unlike the olfactory chemoreceptors, the specialised taste receptor cells are continually being desquamated and replaced. The density of taste sensing cells is greatest in infancy and diminishes with advancing age.

A M WEINDLING
Consultant neonatologist

Liver Disorders in Childhood. 3rd Ed. By Alex P Mowat. (P 491; £75 hardback.) Butterworth Heinemann, 1994. ISBN 0-7506-1039-5.

The overall prognosis of paediatric liver disease has improved dramatically in the last decade owing to improved diagnostic techniques and better medical and nursing care. This has been driven to some degree by the availability of liver transplantation which has rescued many infants from certain death. However, transplantation is hazardous and there is a limited pool of donor organs so it remains a last resort. Early referral and accurate diagnoses are important in detecting children who might benefit from medical treatment or conventional surgery and thereby delay or avoid transplantation. Thus the objective of *Liver Disorders in Childhood* is to assist clinicians in identifying such children by emphasising presenting clinical features and describing associations with other diseases, for example, cystic fibrosis. The book retains the compactness and consistency of style present in previous editions. The combination of text, tables, and illustrations is easy on the eye. It is possible to dip into a section as well as indulge in a good solid read. Compared with previous editions, there are new chapters on autoimmune chronic active hepatitis, sclerosing cholangitis, chronic hepatitis, and α_1-antitypsin deficiency as well as greatly expanded chapters on viral hepatitis and inborn errors of metabolism, which reflects the great advances in these area. For example, hepatitis C was an unknown entity until five years ago and now details of the genome, propensity to genetic heterogeneity, epidemiology, progression to cirrhosis in infected patients, possible role in autoimmunity and treatment with interferon alfa, are available. The chapter on inborn errors of metabolism has been restructured to emphasise clinical features which alert and direct clinicians towards considering a disorder of metabolism, for example, urea cycle defects, glycogen storage diseases. This is useful as it applies some logic to the investigation and management of inborn errors of metabolism. Various disorders are discussed in more detail, of particular note are defects in bile acid synthesis and tyrosinaemia. The application of new techniques and refinements in mass spectrometry has led to the definition of at least two inborn errors of bile acid metabolism. Furthermore, new treatments for both the bile acid disorders and tyrosinaemia have been developed which may transform the management and prognosis of these disorders.

Malnutrition is common and often underestimated in chronic liver disease and is the only area not well covered in this book. As growth is one of the unique characteristics of childhood, it would have been helpful to have some discussion on detection of malnutrition and principles of nutritional support in children with liver disease.

Although liver disease in childhood is uncommon, the challenge of caring for such children is great and may involve many people in community and hospital practice. Paediatric liver disease is often chronic and requires specialist interventions from enteral nutrition to post liver transplantation monitoring. Therefore, almost all health care workers are likely to encounter children with hepatic problems at some stage and will need to refer to an authoritative and comprehensive textbook. *Liver Disorders in Childhood* fulfils that need admirably.

S V BEATH
Lecturer in paediatrics

Diseases of Infection. Edited by Norman Grist *et al.* (Pp 453; £22.50 paperback.) Oxford University Press, 1993. ISBN 0-19-262307-9.

There is a place in the market for another short text on diseases of infection. Such a book is not only for the specialist in infectious diseases but should be relevant to all branches of medicine. The difficulty faced by authors presenting a 'handbook' but attempting to cover a huge subject is one of finding the correct balance and maintaining the reader's interest, as such a format dictates that many areas of interesting controversy will be dealt with very briefly. This book succeeds in some areas, for example, very good chapters on erythematous rashes with excellent photographs, on septicaemia, and on the necessity to understand how the laboratory works, and the need to supply it with the correct specimens. However, it fails on others, for example, a condensation of HIV infection to 11 pages, no definitive educational section on the present ideas on continued feeding for children with gastroenteritis and the need for an absolute