routine clinical assessment of milk intake in newborn infants. This conclusion is contrary to the findings of a series of well controlled studies on test weighing in term and premature infants. Our concerns regarding the conclusions of the study by Savenije and Brand are outlined below.

The investigators' use of the term ''precision'' is incorrect. The precision of a measure (also known as its reliability) is the ability of the measurement to be reproduced consistently—that is, its repeatability.[2–4] To evaluate precision, the object of interest must be measured more than once under the same circumstances; for instance, repeated measurements of the infants' weights and/or the milk volume before and after feedings, as has been performed in previous, similar studies.[2] However, these investigators did not repeat their measurements of infant or milk weights, so they did not measure precision. Thus, their claim that test weights are imprecise is incorrect.

Similarly, the investigators' conclusion that their data demonstrate the accuracy of test weighing is incorrect. Instead, in many cases, their data reveal large and clinically important differences between the actual volume consumed and the volume estimated by test weighing. Thus, the test weighing procedure, as reported in their investigation, did not yield accurate results.

The large measurement error reported in this study is inconsistent with the results of previously published research and probably reflects the lack of methodological control in this study. For example, the administration of infant feedings, the infant weighing procedures, the evaluation of the volume of milk consumed and the choice of an infant scale all lacked control. In previous studies, infants' clothing and equipment have been standardised and controlled, and the clinicians have been well prepared for their role in the procedures. Previously published research has also demonstrated that the reliability of infant weighing procedures is affected substantially by the presence of equipment such as intravenous lines and nasal cannulas for oxygen,[3] so the management of such equipment during the test weighing procedure requires careful control. In previous studies, infants were removed from the analysis when regurgitation or spitting up resulted in milk being spilled outside the clothing that was weighed with the infant before and after feeding. Obviously, when spilled milk is not measured as a part of the test weight, the estimate will be inaccurate. Additionally, the scale used to obtain the test weights was not adequately described. Although the investigators tested the repeatability of measurements obtained on the scales using 1.5 kg and 4.0 kg weights, they did not report whether the scale had the capability to accurately measure small weights, such as oral intakes of 1–2 g. The scales used in previous studies were specifically designed to detect such small differences in weight.[2 3 5 6] Furthermore, the use of syringes rather than scales to measure milk volume before and after feeding is puzzling. All these factors may have contributed to the error in the test weight estimates in this study.

Finally, there are incorrect statements in Savenije and Brand's report. The authors suggest that previous investigators have not adequately quantified the precision and accuracy of test weighing, and that only correlation coefficients have been reported in descriptions of the accuracy of test weights. These suggestions are incorrect; our studies of test weighing include numerous statistics appropriate for quantifying the magnitude of error in physical measures such as weight.[4] The statistics reported included the mean differences, standard deviation of the net differences, mean absolute differences, maximal differences, percentage of differences exceeding 5 g, and the overall percentage of error in the measurement, calculated as (((|actual-estimated values|)/actual value)*100).[5–6] The investigators also incorrectly assert that ''differences of up to 30 ml'' between the actual and estimated values have been reported by all previous studies. In our 1990 publication on the accuracy of test weights for premature infants,[5] the maximum difference for the electronic scale was 10 ml, and only 6.25% of the differences exceeded 5 ml.

In summary, test weighing, when performed with standard research controls and electronic scales that weigh to the nearest 1–2 g, has been demonstrated to be accurate in well controlled clinical trials and has been endorsed by the World Health Organization as a method for accurately estimating intake. The lower accuracy in measures reported by these investigators underscores the need to carefully select a scale and to control the procedures used for test weighing in the clinical setting to whatever extent is possible, but does not indicate that test weighing is too inaccurate for clinical use.

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BOOK REVIEW

Infectious diseases of the fetus and newborn infant, 6th edn

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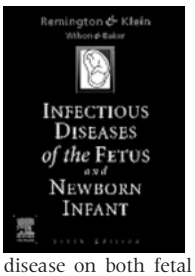

Reducing perinatal and neonatal mortality and later morbidity is one of the main aims of both obstetricians and neonatologists. In the developed world, public health initiatives such as childhood vaccination have helped to reduce the effect of infectious disease on both fetal and neonatal death and long-term morbidity. However, worldwide infectious disease still takes a major toll on pregnant women, their fetuses and children. Indeed, it has been estimated that 30–40% of neonatal deaths worldwide (totalling 4 035 000 in 2001 according to WHO) are associated with infectious disease. Even in the developed world, there remain considerable challenges for the obstetrician and neonatologist in the management of infectious disease during pregnancy and in the newborn. Increased mobility between countries, the plight of refugees and asylum-seekers, HIV and drug-resistant pathogens may pose particular challenges for healthcare professionals.

It is against such a backdrop that the latest edition of this reference text is published. The book is divided into four sections. The opening section contains chapters on: key concepts in the pathogenesis of infectious disease in the fetus and newborn; the global burden of infectious disease in pregnancy and the newborn; obstetric factors associated with fetal and neonatal infection; fetal and neonatal immunology; and a chapter on human milk.

The second section deals with bacterial diseases. Chapters on the bacterial causes of systemic and multisystem disease follow, together with detailed specific chapters on the role of specific bacteria (such as chlamydia, gonococcus, mycoplasma, tuberculosis and group B streptococcus) in fetal and neonatal infection in body systems. These specific chapters will be of particular interest to obstetricians and neonatalogists, but also provide excellent reference sources for the family doctor and the microbiologist.

A third section on viral diseases includes chapters on HIV, hepatitis, parvovirus and cytomegalovirus among others. Smallpox and vaccinia also receive coverage (albeit briefer). The fourth section covers protozoal, helminth and fungal infections, with specific chapters on toxoplasmosis, candidiasis and less common infections, such as *Pneumocystis pneumonia*, that may become of increasing importance in the light of HIV and AIDS. These pathogen-specific chapters provide an excellent and fully referenced resource for obstetricians and neonatalogists faced with an unfamiliar problem.

The fifth and final section of the book deals with the epidemiology of hospital acquired infections in the neonatal unit, their prevention and control; a chapter on laboratory testing in suspected neonatal sepsis and one related to the clinical pharmacology of antimicrobials—both in pregnancy and in the neonate—conclude the book.

Although clinicians will also want to refer to their own hospital, college or professional body's guidelines on the investigation and management of infection in the fetus or neonate, this extensively referenced textbook will be of great help to those charged with updating their own unit's guidelines. It will also serve as a valuable day-to-day source of information for obstetricians, midwives and neonatologists, whether working in the community, maternity hospital or neonatal unit.

A C Breeze

CORRECTION

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Anand K J S and Hall R W. Pharmacological therapy for analgesia and sedation in the newborn. *Arch Dis Child Fetal Neonatal Ed* 2006;**91**:448–53. In table 2 of this article both fentanyl and morphine doses were erroneously changed to mg/kg instead of μg/kg. Also, Ametop was spelled incorrectly. We apologise for these errors.