

The formula recommended by Advanced Pediatric Life Support (APLS) has affected resuscitation training and treatment guidelines worldwide. For example  $2 \times (\text{age} + 4)$  has been used to recommend drug doses and fluid volumes for different age groups in the WHO guidelines for the integrated management of childhood illness (IMCI), guidelines used widely in the developing world.<sup>3</sup>

It should be remembered that in children with severe malnutrition, a major cause of child mortality worldwide, over-resuscitation is dangerous, potentially precipitating fluid overload, cardiac failure and death.

We feel it is essential that should a new age-based formula be adopted, especially by such an influential group as APLS, it be made clear that this formula only applies to a UK population and is not appropriate in many other settings.

Where stunting is common, the length of a child may better reflect their weight and we have evaluated a triage length tape previously.<sup>4</sup> The length tape has the advantage that doses can be marked on it, reducing calculation error. However, for any tool to be useful it needs to be readily available and a simple age-based equation meets this requirement well. WHO may wish to determine an appropriate, simple and validated equation for use in low resource settings.

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Competing interests: None declared.

## References

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- 2 **National Statistics Office**. *Malawi demographic and health survey 2004*. Zomba, Malawi: NSO, 2005.
- 3 **World Health Organization**. *Management of the child with a serious infection or severe malnutrition: guidelines for first-referral level in developing countries*. Geneva: WHO, 2000.
- 4 **Molyneux E**, Brogan R, Mitchell G, et al. Children's weights: guess or measure by tape? *Lancet* 1999;**354**:1616.

## BOOK REVIEW

### Handbook of physical measurements

Judith G Hall, Judith E Allenson, Karen W Gripp, Anne M Slavotinek. Published by Oxford University Press, Oxford, 2006, £34.99 (paperback), pp 520. ISBN 10: 0-19-530149-8



First a confession—this book has divested me of a longstanding belief that the plane achieved in the horizontal between the lower margin of each bony orbit and the upper margin of the external auditory meatus is actually the Frankfort plane and not Frankfurt. Indeed the examiner in my MRCP short cases who drolly

insisted I explain what Germany had to do with height measurement only served to perpetuate my unenlightened state. Then along came the authors of this compact book to dissemble the myth. However, it is not for this reason alone that I am grateful it now sits on my desk.

The authors are Canadian and American, and purport that this is a practical manual for geneticists/dysmorphologists or indeed anyone who is involved in the evaluation of children and adults with dysmorphic features. The book is structured by body part or area. A brief summary of embryological origins is followed by a description, well supported by diagrams of surface markings, of how the measurement should be taken. Normative data and charts are provided with references. There is a useful glossary of terms covering the obvious to the obscure.

Although this is clearly a reference text and not one to be read from beginning to end, the individual chapters are a comfortable read with additional and clinically relevant, germane points. For example, when considering weight gain in children with absent limbs as a rule of thumb both upper limbs constitute around 11% of total body weight and both lower limbs around 20%. Comparison with standard charts can then be achieved with a comparative, albeit calculated, modified weight.

The variety of dimensions and measurements is comprehensive, including all those in common use and many that are not. It is difficult to imagine why one would want to be measuring breast volume by displacement methods in a general paediatric clinic—the challenge of getting teenage girls to be examined is often difficult enough. Classification charts for microtia may be academic with the secure use of digital photography in referral letters but this facility may not be available to all. Similarly some measurements (eg, palpebral fissure incline) will probably not be specifically measured on a routine basis but commonly described. Growth charts for a variety of specific syndromes are also included that will prove invaluable in the outpatient setting.

Although there is some north European data, the majority of standards are North American (covering Caucasians and African Caribbean) and it is likely that as with weight and height there are subtle differences in other parameters between different populations that may add some inaccuracies in their application in the UK. An illustration of this is the chart of the

remarkable difference in testicular volume between Japanese and Swiss adolescents (it is of note that Prader was Swiss!). In addition, there are clearly temporal changes in normative values but these do not seem to be reflected by the references quoted, all of which are quite old.

The chapter on the craniofacies, which has hugely complex embryology, has a discussion of the use of various methods of assessment beyond simple measurement including use of x rays and standardised photographs. New methods using multiple camera technology and comparative software are likely to eventually supersede the tape measure and callipers. Developing software which will enable computer image driven syndrome diagnosis may not be able to emulate the art of the dysmorphologist in identifying the gestalt of a patient—something that belongs more to the art of medicine. However, this book supports a quantitative approach, which when combined with this qualitative assessment, promotes accurate diagnosis.

The remit of this book is sound but I fear a little overambitious in its attempt to provide a clinical approach and auxological reference. The chapters on developmental assessment and approach to the dysmorphic patient are too brief to be useful and the chapters on prenatal ultrasound measurements and embryonic and fetal pathology seem misplaced. Despite these reservations it is a useful book which should enable an evidence-based anthropomorphic assessment of any child suspected of having a syndromic abnormality or deviating from growth norms. It should support a general paediatrician in a quantitative clinical assessment and in providing a focused referral to genetic/dysmorphology services with enough detail for appropriate triage.

**Deborah J Stalker**

## CORRECTION

doi: 10.1136/adc.2005.087981

Quick identification of febrile neonates with low risk for serious bacterial infection (SBI) - An observational study.

Marom R, Sakran W, Antonelli J, et al. *Arch Dis Child* Published Online First: 16 May 2006. doi:10.1136/adc.2005.087981

This paper was published Online First as part of the main edition of *Archives of Disease in Childhood* but the final version was published in the *Fetal and Neonatal Edition*. Citations should be to the final print version as follows:

Marom R, Sakran W, Antonelli J, et al. Quick identification of febrile neonates with low risk for serious bacterial infection: an observational study. *Arch Dis Child Fetal and Neonatal Ed* 2007;**92**:F15–18; doi:10.1136/adc.2005.087981.