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Paediatric emergency care in resource-limited settings

Improvement of paediatric emergency care is crucial to reduce child mortality. However, we see no need for new international guidelines when existing WHO guidelines meet many of the requirements Mark Ralston and colleagues propose (Jan 19, p 256).¹

International life-support organisations should not waste effort and resources adapting their own guidelines for resource-limited settings. They should instead provide expertise and financial support to improve and implement WHO guidelines already of proven benefit.

The Emergency Triage Assessment and Treatment (ETAT) guidelines² were developed by international consensus and specifically designed for resource-limited settings; they address important causes of mortality, including malnutrition and malaria. ETAT was specifically designed to bridge the gap between the Integrated Management of Childhood Illness and Hospital Care for Children programmes, thus including the entire continuum of care. ETAT/ETAT+ promotes a systematic approach to triage and identification of emergency signs that has been internationally validated and shown to reduce mortality.³

We agree that the evidence base for these guidelines should be improved. The excellent International Child Health Review Collaboration is already addressing this problem, but dangerous research gaps remain.⁴ Ralston and colleagues include dopamine in fluid-refractory septic shock in their list of evidence-based guidelines. But specific paediatric evidence for this within Pediatric Sepsis Initiative guidelines consists of two USA-based

observational studies (total n=18).⁵ This point highlights that guidelines in developed countries are also largely empirical.

Guidelines are only effective if implemented: more research is required to address policy and practice gaps in paediatric emergency care. WHO has the international mandate required to influence governments, which must take local ownership of guidelines, providing adequate resources and continuous training to support implementation.

We have supported the introduction of an adapted ETAT training programme in The Gambia, funded by MRC Unit: The Gambia as part of a linked training initiative with Imperial College London. LP is also an Advanced Paediatric Life Support instructor and has received travel expenses from the Scottish Government and UK Department for International Development grants to implement ETAT in Malawi and Uganda.

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We note your Review¹ calling for the development of advanced paediatric life-support management in resource-poor countries. Many additional lives can be saved by the immediate implementation of some inexpensive treatments, but the provision of a universal effective emergency care

system (as developed countries have found) is difficult.

We have developed a course from the Advanced Paediatric Life Support course (Emergency Child and Trauma Health [ECTH]) which has been taught in The Gambia from 2007. The ECTH course has been modified jointly by us and local clinicians with the full support of the government, WHO, and UNFPA to make it fit for the health-care issues and resources in country.

There are three important caveats about training in emergency care in low-resource countries. First, training is not enough! ECTH is part of a wider programme, Strengthening Emergency Care. Crucially, training has also been combined with strengthening of the emergency care system so that those trained have appropriate facilities, equipment, and essential drugs to practise what they have been taught.²

Second, one size does not fit all. Low-resource countries are not all the same. There needs to be local ownership and sustainability. Local trainers have been established by use of a modified generic instructor course originally developed and implemented for all its courses by the Advanced Life Support Group.

Finally, development of suitable training must involve clinicians who are knowledgeable and experienced in the clinical fields of emergency paediatrics and paediatric intensive care, in direct practice in low-resource countries, and in delivering high-quality clinical education.³

BMP was chairman of the Advanced Paediatric Life Support (APLS) Working Party during 1993–2006 and is a trustee of the Advanced Life Support Group. MPS has been chairman of the APLS Working Party since 2006 and is a member of the Advanced Life Support Group.

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For the Strengthening Emergency Care programme see <http://www.mcai.org.uk>

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Authors' reply

We thank Louisa Pollock and colleagues and David Southall and colleagues for their thoughtful comments, and particularly for highlighting current efforts to improve paediatric emergency and critical care in limited-resource settings.

Pollock and colleagues are in agreement with us that the evidence base for existing guidelines should be improved and that additional research is needed to address gaps in management and implementation. They also agree that these guidelines should include the entire continuum from Integrated Management of Childhood Illness to hospital care. We have proposed strengthening paediatric advanced life-support guidelines at varying levels of available resources with suggestions for appropriate resource substitutions.¹ This includes integration of guidelines into existing primary care programmes in community settings, where early recognition of critical conditions and initiation of time-sensitive treatment has improved clinical outcomes, including reduced mortality in children younger than 5 years.^{2–4}

Pollock and colleagues also agree with the importance of a systematic approach to critically ill or injured children. We have characterised this systematic approach specifically in terms of patient assessment and categorisation of illness (by type and severity), which then drives appropriate triage and further management. We take the position that training in this systematic approach should

be more widely disseminated if possible in the prehospital setting. We have acknowledged the efficacy of Emergency Triage Assessment and Treatment in reducing paediatric inpatient mortality where implementation has been feasible and are interested to learn about plans to regularly update these resources on the basis of current evidence, such as occurs in paediatric advanced life-support courses in high-income settings.⁵

Finally, we agree with Pollock and colleagues about the priority of addressing barriers to guideline implementation and the caveats expressed by Southall and colleagues with respect to the implementation of paediatric emergency care training in limited-resource settings.

To achieve desired improvements in global paediatric advanced life-support training, management, and implementation, strong international collaboration is paramount. We believe such collaboration between like-minded groups can lead to regular evidence updates which can then guide us to our common goal—a significant reduction in global under-5 mortality.

The views expressed herein are those of the authors, and do not necessarily reflect the official policy or position of the Department of Defense, or the US Government. We declare that we have no conflicts of interest.

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High-risk drug practices in men who have sex with men

Tony Kirby and Michelle Thornber-Dunwell (Jan 12, p 101)¹ highlight a “perfect storm”² for HIV and hepatitis C transmission in high-risk drug practices in men who have sex with men (MSM). As part of an ongoing investigation of the continuing shigellosis epidemic in MSM in the UK,³ we did in-depth interviews that explored the lifestyle and sexual behaviour of 12 MSM diagnosed with *Shigella flexneri* serotype 3a.

Mephedrone, ketamine, crystal metamphetamine, and γ -butyrolactone had been used by most MSM (nine of 12) during sexual encounters. “Slamming”—a term probably used to reduce the social stigma of injecting recreational drugs—occurred at sex parties and was reported by two.

Drug use seemed linked to disinhibiting behaviour and pushing boundaries to seek new sexual experiences, including fisting and scat play. Condom use was rare, and most encounters were anonymous and arranged through internet sites. Most men (nine) were HIV positive (two who were negative are retesting), reported high numbers of sexual partners in the past year (median 60), and had had gonorrhoea (nine) and chlamydia (seven). A small number of infections of syphilis, lymphogranuloma venereum, and hepatitis C were also identified.

Lymphogranuloma venereum and syphilis outbreaks have been reported