



Leaving the party – withdrawal of South African essential medicines

In August 2004 pharmacies and drug depots were advised that the sole supplier of parenteral phenobarbitone in South Africa, essential for the management of status epilepticus in children, was stopping production at the end of the same year. Alternative protocols for the management of status epilepticus resulted in more children requiring intensive care intervention ($N = 9$) at the Red Cross Children's Hospital, over a 2-month period, than had occurred in any 12-month period since 2000 (2000 $N = 3$, 2001 $N = 1$, 2002 $N = 1$, 2003 $N = 2$, 2004 $N = 7$).

Other agents that have suffered or are at risk of the same fate are sodium nitroprusside, labetalol and esmolol. Sodium nitroprusside is used extensively in the peri-operative period in cardiac patients requiring after-load reduction. There are no other nitrates with equivalent efficacy. Supply was stopped in 2005 and only reinstated after the pharmaceutical company was contacted directly. Supply of labetalol and esmolol was stopped without warning. Without access to these products it is necessary to resort to agents that are not appropriate for paediatric use. Acetylcysteine (Parvolex), used in the management of acetaminophen overdose, also became unavailable and the supply was re-established only after direct communication with the pharmaceutical company.

Withdrawal of an essential medicine may be acceptable if equivalent agents are available. An equivalent product would be one with equal efficacy, side-effects, ease of administration, access and cost.

In many centres loss of a single agent is surmountable. This is the case in so-called developed countries where lack of access to parenteral phenobarbitone is overcome by access to intensive care facilities, with adequate nursing and medical staff available. However, in the case of children from resource-poor settings, the impact of removal of a key lifesaving medicine can result in increased morbidity and potential mortality, as well as greater strain on already challenged health systems.

Health authorities regulate pharmaceutical products coming onto the market through strict policing of safety, efficacy and quality. However, there is no control over the impact of subsequent withdrawal of the product by the Department of Health. Pharmaceutical companies are under no legal obligation to continue production and marketing of an agent if it becomes unprofitable.

Given the existing problems of poor access to medication and health facilities, in resource-poor settings¹ there is clearly a need for government legislation on the sustained access to 'essential drugs'. A pharmaceutical company that has registered an essential medicine with the Medicines Control Council should be compelled to justify its removal by establishing either that there is a generic equivalent, an effective alternative or an alternative supplier.

The World Health Organization (WHO) has established an Essential Drugs List (EDL).² However, these agents are not orientated towards child health.³ It has remained the responsibility of clinicians to draw attention to these 'vulnerable' medicines nearing extinction.⁴ These medicines are evident both from those products with paediatric relevance listed in the WHO EDL,² as well as the South African EDL specifically assessing child health needs.⁵ Treatment guidelines are published and any medicine subsequently withdrawn should be managed as an emergency as impact on child health will be unavoidable. In the WHO and Integrated Management of Childhood Illness (IMCI) guidelines parenteral phenobarbitone is first line in the management of neonatal seizures and second line for infantile and childhood seizures.

The authors motivate that the Department of Health puts in place legislation to control the unethical practice of withdrawal of essential medicines from paediatric practice.

Jo M Wilmshurst, Marc Blockman, Andrew Argent, Eugenie Gordon-Graham, Jenny Thomas, Andrew Whitelaw, Mignon McCulloch, Malitha Ramiah, H Dyeshana, Joe Ireland

*Members of the Drugs and Therapeutics Committee
Red Cross Children's Hospital and
University of Cape Town*

Corresponding author: J M Wilmshurst (wilmshurst@ich.uct.ac.za)

1. Quick JD, Boohene N-A, Rankin J, Mbwaswi RJ. Medicines supply in Africa. *BMJ* 2005; 331: 709-710.
2. World Health Organization. *Essential Medicines: WHO Model List*. 13th ed. Geneva: WHO, 2003.
3. Beggs SA, Cranswick NE, Reed MD. Improving drug use for children in the developing world. *Arch Dis Child Health* 2005; 90: 1091-1093.
4. Wilmshurst JM, Newton CRJC. Withdrawal of older anticonvulsants for management of status epilepticus: implications for resource-poor countries. *Dev Med Child Neurol* 2005; 47: 219.
5. *National Essential Drug List Committee*. Standard Treatment Guidelines and Essential Drugs List (Hospital level). Pretoria: National Department of Health, 1998.