

## **SERIOUS ABOUT** PAIN RELIEF?

## Guest editorial

## Emergency medicine

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As a registered specialist in emergency medicine, Walter Kloeck is Medical Director of the Academy of Advanced Life Support, Chairman of the Resuscitation Council of Southern Africa, and President of the College of Emergency Medicine of South Africa. He is an internationally recognised instructor trainer for basic life support (BLS), advanced cardiovascular life support (ACLS), paediatric advanced life support (PALS), advanced paediatric life support (APLS UK), advanced neonatal life support (ANLS), and advanced medical life support (AMLS), and is co-author of over 60 international publications relating to resuscitation and emergency cardiovascular care.

It is an honour and privilege to be invited as guest editor of the emergency medicine-related issue of *CME*. Emergency medicine is regarded as the fastest growing new discipline in the field of health care worldwide, and shares an interest with every other existing medical discipline.

In this issue, Pat Saffy provides a systematic approach to the difficult airway, emphasising the need to be adequately prepared, both with regard to having the necessary equipment and skills, and to always anticipate a 'worst-case scenario'. Injury and disease processes as well as anatomical factors regarding the airway must be taken into account, and back-up devices should always be available. Correct emergency airway management is both life saving and life protecting.

The management of the acutely poisoned patient can present a challenge to even the most experienced practitioner. Support and protection of the patient's airway, breathing and circulation are paramount. As Charl van Loggerenberg mentions in his article, recognition of the toxin and its physiological effects leads to the need for modifications in patient management and the use of antidotes where appropriate. Clinical clues leading to the identification of specific toxidromes allows for the prompt implementation of appropriate interventions and care. With the frighteningly rapid increase in the use of illicit drugs in the community, an approach to the recognition and management of common stimulant overdoses such as amphetamines, ecstasy and cocaine is also provided in this issue.

As the prevalence of obesity reaches epidemic proportions, awareness of the problems associated with this phenomenon is of concern. Aspects affecting both their pre-hospital and in-hospital care are addressed by Efraim Kramer in his guide to the emergency management of morbidly obese patients. Management of the patient's airway, ventilation, circulation and drug administration are significantly affected, and plans to address these must be in place if optimal emergency care is to be provided.

New international guidelines on resuscitation and emergency cardiovascular care emphasise the importance of high-quality CPR and early defibrillation, being the major two determinants of survival after cardiac arrest. Together with Anne Millum, in this issue we review the factors required for high-quality CPR, particularly the importance of minimising interruptions in chest compressions, the avoidance of hyperventilation, and the adoption of radically new CPR ratios. The new technique for basic life support and choking is explained, supported by useful algorithms to aid memory retention.

The use of mechanical ventilators in emergency departments is becoming more frequent, in line with the principle of stabilising patients optimally

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prior to transfer to specialised units. Andreas Engelbrecht and Greg Tintinger cover key aspects regarding the essential skills required in ventilating patients safely and appropriately. The indications, ventilatory modes, settings, selection of ventilation strategies, complications and weaning are discussed and supported by an algorithmic approach. Andreas and Louise Engelbrecht also provide a practical discussion on the value, contraindications and technique of non-invasive positive pressure ventilation in the emergency unit.

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By its very nature, emergency medicine requires a standard of knowledge and skill that must be applied at a moment's notice. Sadly, very few in-hospital health care professionals in South Africa are trained or proficient in emergency care. A survey conducted in 2006 by the College of Emergency Medicine of South Africa showed that most emergency department staff hold no postgraduate qualifications in emergency medicine at all, and very few even hold current certification in basic or advanced life support. Now that 1- and 2-day courses such as basic life support (BLS), advanced cardiovascular life support (ACLS), advanced trauma life support (ATLS), advanced medical life support (AMLS), advanced paediatric life support (APLS and PALS) and advanced neonatal life support (ANLS) are readily available countrywide, it is encouraging to note that an increasing number of emergency departments are now requiring certification in some or all of these programmes as a condition of employment, in an endeavour to raise the standard of practice of emergency care. As a service to the health profession, the College of Emergency Medicine compiled a table of emergency medicine-related short courses currently being held in South Africa (Table I).

Since the speciality of emergency medicine was officially Government Gazetted on 13 December 2004, several universities (Cape Town, Stellenbosch, Witwatersrand and Pretoria) now offer a formal emergency medicine registrar training programme, rotating through 12 different clinical disciplines over a 4-year period, leading to registration as a specialist in emergency medicine.

Although emergency medicine as a formal speciality is fairly new in South Africa, postgraduate training in emergency care has been available for the last 21 years. Ever since the Colleges of Medicine of South Africa first offered the Diploma in Primary Emergency Care (Dip PEC) in September 1986, over 400 diplomates have successfully achieved this postgraduate qualification. Further training such as the M Phil (Emergency Medicine) offered by the University of Cape Town and the M Sc (Emergency Medicine) offered by the University of the Witwatersrand are also becoming increasingly popular. This expanding interest in emergency medicine is a healthy and very necessary trend, and will result in a significant improvement in the quality of care provided to our community. Congratulations to all who have played a role in this very worthy process.

Table I lists emergency-related courses in South Africa.



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Table I. Emergency-related short courses in South Africa   TITLE COURSE NAME LENGTH	ses in South	Af	rica ORGANIZATION	CONTACT ADDRESS	VENUE	ACCREDITATION
Basic Life Support for 1 day Resuscitat Healthcare Providers		Resuscitat	Resuscitation Council of SA	rescosa@iafrica.com	Countrywide	American Heart Association
Advanced Cardiovascu- 2 days Resuscitati lar Life Support		Resuscitati	Resuscitation Council of SA	rescosa@iafrica.com	Countrywide	American Heart Association
ACLS for Experienced 2 days Resuscita Providers		Resuscita	Resuscitation Council of SA	rescosa@iafrica.com	Countrywide	American Heart Association
Pediatric Advanced Life 2 days Resuscita Support		Resuscita	Resuscitation Council of SA	rescosa@iafrica.com	Countrywide	American Heart Association
Advanced Neonatal 1 day Resuscitation Life Support		Resuscita	ttion Council of SA	rescosa@iafrica.com	Johannesburg & Cape Town	American Academy of Pediatrics
edical 2 days		Academy	Academy of Advanced Life Support	kloeck@resus.co.za	Johannesburg & Polokwane	United Kingdom
Advanced Paediatric 3 days ALSG (UK) Life Support		ALSG (UI	$\odot$	blackwel@iafrica.com	Countrywide	United Kingdom
auma 3 days		Trauma So	Trauma Society of SA	atls@saol.com	Countrywide	American College of Surgeons
Emergency Manage- 1 day SA Burn Society ment of Severe Burns		SA Burn So	ociety	bbates@ich.uct.ac.za	Cape Town & Johannesburg	Australian & New Zealand Burn Association
Basic Surgical Skills 3 days College of Sur		College of	Surgeons of SA	bfine@uctgsh1.uct.ac.za or	Countrywide	College of Surgeons of England
nental Critical 2 days pport		Critical Ca	Critical Care Society of SA	drhannes@specphysician.co.za	Johannesburg & Durban	US Society of Critical Care Medicine
anagement 2 days		Academy o	Academy of Accident &	academy.aem@telkomsa.net	Durban	Local
days	Academy Emergence	Academy e Emergenc	Academy of Accident & Emergency Medicine	academy.aem@telkomsa.net	Durban	Local
l Emerg- 3 days		Academy o	Academy of Accident & Emergency Medicine	academy.aem@telkomsa.net	Durban	Local
Emergency Regional 1 day University of Anaesthesia Stellenbosch		University Stellenbos	University of Cape Town/ Stellenbosch	basil.bonner@mediclinic.co.za	Cape Town	Local
Wound Management 1 day University of Stellenbosch		University Stellenboso	University of Cape Town/ Stellenbosch	tch@sun.ac.za	Cape Town	Local
Disaster Medicine 5 days University of Stellenbosch	University Stellenbos	University Stellenbos	University of Cape Town/ Stellenbosch	wpsmith@pgwc.gov.za	Cape Town	Local
Aviation Medicine/ 5 days University of Cape Health Care Provider Stellenbosch or Un the Witwatersrand		University Stellenbosc the Witwat	University of Cape Town/ Stellenbosch or University of the Witwatersrand	wpsmith@pgwc.gov.za or trauma@mweb.co.za	Cape Town & Johannesburg	Local



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