

FUNDAMENTALS OF EMERGENCY CARE



Updated Course Manual



+ Emergency Care Institute

INTRODUCTION

Emergency Medicine is a young speciality in South Africa, but excellent emergency care has always been, and continues to be, mostly provided by non-specialist staff: EMS, nursing and medical. However, specific focussed training in emergency care (beyond initial training and Advanced Life Support courses) has largely been lacking across the country. There are several recent initiatives to address this: this manual is one of those initiatives.

The Fundamentals of Emergency Care (FEC) course is intended to be a general update for emergency care personnel at all levels. The manual is not intended as a stand-alone text book, but rather as background reading to a 2 day practical course. However, like all good course manuals it will also serve as a useful ready reference to be used to guide care of emergency patients. In the Western Cape (if not elsewhere) more specific guidelines can be found in the Emergency Medicine Guidelines for the Western Cape text, or on the excellent free e-version of this – the Emergency Medicine Guidance App (available for download for both Android and iPhone smartphones, tablets and computers) which makes this information instantly available and we would highly recommend that you make yourself familiar with these and other resources.

While every care has been taken to ensure that all information within this manual is correct, inevitably errors will creep in. Drug information in particular should be cross referenced with the SAMF. If you note any errors, please bring them to our attention. This latest update brings the manual in line with 2015 International Liaison Committee on Resuscitation (ILCOR) recommendations based on the best available evidence.

I hope you enjoy the course, learn from it, and continue in your efforts to provide excellent care for your emergency patients in difficult circumstances.

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Jan 2016

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ACKNOWLEDGEMENTS & DISCLAIMER

Information in this manual is intended as an educational aid - course material to accompany the two day FEC course run under the auspices of the Emergency Care Institute. The material presented is learning material for the practical course, not for reproduction.

While every effort has been made to make this manual comprehensive, accurate and up-to-date, we cannot be held responsible for the information contained or the consequences of readers reliance on the information provided. We would specifically add that advice within this manual was originally written for the Western Cape and may not all be directly transferable to other settings although we believe most information is universal.

We acknowledge all the various sources of information which have been unashamedly borrowed from all over, without specific citation or acknowledgement. These include the following, although the list is not comprehensive or inclusive:

- Western Cape Emergency Medicine Guidelines
- Advanced Cardiac Life Support
- Advanced Paediatric Life Support
- South African Medicines Formulary
- Resuscitation Council of South Africa

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Chapter 1 :

ASSESSMENT OF CRITICALLY ILL OR INJURED PATIENTS

Patients presenting to Emergency Centres with acute life-threatening problems require a slightly different approach to other patients. In the unstable patient, there isn't the time to take a full history and then to do a systemic examination. Instead, you need to treat the problems as you find them.

Since 2010, various international guidelines have emphasized the importance of a C-A-B approach to the patient in cardiac arrest, which gives priority to early and effective chest compressions without delay. We endorse this approach completely in adults (see cardiac arrest chapter), but remember in the non-cardiac arrest patient, the A-B-C approach is still a useful one that underlies our assessment and management.

The approach that is followed is A-B-C (Airway, Breathing, Circulation). This means assessing the airway first. If there is a problem with the airway, deal with it and only then move onto Breathing. If there is a Breathing problem, fix it and only then move onto Circulation. The reason this is done in this order is that an Airway problem will kill before a Breathing problem, which will kill before a Circulation problem. Note, if there is more than one health-care provider, these may happen simultaneously.

A. GENERAL APPROACH

- 1. HAZARDS**
- 2. HELLO**
- 3. HELP**

HAZARDS

Assess the environment for hazards to you and/or the patient. This includes personal protective equipment (PPE) – usually putting on gloves and protective glasses. If you are on the scene of an accident, ensure that traffic poses no danger to you or your colleagues and that it is safe to approach and/or enter the vehicle involved in the collision. If you are in hospital, besides taking precautions against contagious infections, ensure that there are no environmental hazards (e.g. organophosphate or other poisoning, or radiation contamination) which may put you or your staff at risk.