

# Child Healthcare

**A learning  
programme for  
professionals**



David Woods

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programme for  
professionals

Prof. David Woods

**EBW** *Healthcare*

[www.ebwhhealthcare.com](http://www.ebwhhealthcare.com)

## **VERY IMPORTANT**

We have taken every care to ensure that drug dosages and related medical advice in this book are accurate. However, drug dosages can change and are updated often, so always double-check dosages and procedures against a reliable, up-to-date formulary and the given drug's documentation before administering it.

Child Healthcare: A learning programme  
for professionals

Version 1.0.1 Updated 23 August 2007

First published by Electric Book Works in 2007  
Text © Eduhealthcare 2007  
Getup © Electric Book Works 2007

ISBN (paperback): 978-1-920218-01-0  
ISBN (international paperback): 978-1-920218-15-7  
ISBN (PDF ebook): 978-1-920218-55-3

Editor: Diane Awerbuck  
Designer: Arthur Attwell

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# Acknowledgements

I wish to gratefully acknowledge the contribution of Prof Andrew Argent, Dr Gerry Boon, Prof Mark Cotton, Ms Fawzia Desai, Prof Peter Donald, Dr Teresa Edwards, Prof Brian Eley, Dr Mary Hann, Prof John Ireland, Prof Prakash Jeena, Dr Pieter Jooste, Prof Maurice Kibel, Dr Patricia Lawrence, Prof Walter Loening, Dr Elmarie Malek, Dr Neil McKerrow, Dr Mark Painter, Dr Mark Patrick, Prof David Power, Prof John Rohde, Prof Haroon Saloojee, Prof Simon Schaaf, Dr Christopher Sutton, Prof Gail Todd, Prof Gideon Tindimwebwa, Dr Hester van der Walt, Prof Eugene Weinberg, and Prof Dankwart Wittenberg.

My particular thanks to Dr Gerry Boon, Ms Fawzia Desai, Prof John Ireland and Prof David Power for their support and guidance, and to Dr Mary Hann for meticulously reviewing the draft. When opinions differed between contributing colleagues, the simplest most

practical choice was adopted. While every effort has been made to correct any errors in the text, the final decision and responsibility were mine alone. Thanks to the Department of Dermatology at the University of Cape Town for the colour photographs of skin conditions.

My sincere thanks go to the publishers for their willingness to support this project and for their innovative vision of presenting the text in both book and web-based format. The latter will be made available at no cost together with an invitation to contribute in the form of comments which, after review, will be added as extensions of the text.

Royalties from the sale of this book will go to Eduhealthcare, a not-for-profit organisation which has the goal of improving the healthcare of children, especially in poor countries, through the education of nurses and doctors.

**Prof David Woods**



# Introduction

## ABOUT THE EBW HEALTHCARE SERIES

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EBW Healthcare publishes an innovative series of distance-learning books for healthcare professionals, developed by the Perinatal Education Trust, Eduhealthcare, the Desmond Tutu HIV Foundation and the Desmond Tutu TB Centre, with contributions from numerous experts.

Our aim is to provide appropriate, affordable and up-to-date learning material for healthcare workers in under-resourced areas, so that they can manage their own continuing education courses which will enable them to learn, practise and deliver skillful, efficient patient care.

The EBW Healthcare series is built on the experience of the Perinatal Education Programme (PEP), which has provided learning opportunities to over 60 000 nurses and doctors in South Africa since 1992. Many of the educational methods developed by PEP are now being adopted by the World Health Organisation (WHO).

## WHY DECENTRALISED LEARNING?

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Continuing education for healthcare workers traditionally consists of courses and workshops run by formal trainers at large central hospitals. These teaching courses are expensive to attend,

often far away from the healthcare workers' families and places of work, and the content frequently fails to address the real healthcare requirements of the poor, rural communities who face the biggest healthcare challenges.

To help solve these many problems, a self-help decentralised learning method has been developed which addresses the needs of professional healthcare workers, especially those in poor, rural communities.

## BOOKS IN THE EBW HEALTHCARE SERIES

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*Maternal Care* addresses all the common and important problems that occur during pregnancy, labour, delivery and the puerperium. It covers the antenatal and postnatal care of healthy women with normal pregnancies, monitoring and managing the progress of labour, specific medical problems during pregnancy, labour and the puerperium, family planning and regionalised perinatal care. Skills workshops teach clinical examination in pregnancy and labour, routine screening tests, the use of an antenatal card and partogram, measuring blood pressure, detecting proteinuria and performing and repairing an episiotomy.

*Maternal Care* is aimed at healthcare workers in level 1 hospitals or clinics.

**Primary Maternal Care** addresses the needs of healthcare workers who provide antenatal and postnatal care, but do not conduct deliveries. It is adapted from theory chapters and skills workshops from *Maternal Care*. This book is ideal for midwives and doctors providing primary maternal care in level 1 district hospitals and clinics, and complements the national protocol of antenatal care in South Africa.

**Intrapartum Care** was developed for doctors and advanced midwives who care for women who deliver in district hospitals. It contains theory chapters and skills workshops adapted from the labour chapters of *Maternal Care*. Particular attention is given to the care of the mother, the management of labour and monitoring the wellbeing of the fetus. *Intrapartum Care* was written to support and complement the national protocol of intrapartum care in South Africa.

**Newborn Care** was written for healthcare workers providing special care for newborn infants in regional hospitals. It covers resuscitation at birth, assessing infant size and gestational age, routine care and feeding of both normal and high-risk infants, the prevention, diagnosis and management of hypothermia, hypoglycaemia, jaundice, respiratory distress, infection, trauma, bleeding and congenital abnormalities, as well as communication with parents. Skills workshops address resuscitation, size measurement, history, examination and clinical notes, nasogastric feeds, intravenous infusions, use of incubators, measuring blood glucose concentration, insertion of an umbilical vein catheter, phototherapy, apnoea monitors and oxygen therapy.

**Primary Newborn Care** was written specifically for nurses and doctors who provide primary care for newborn infants in level 1 clinics and hospitals. *Primary Newborn Care* addresses the care of infants at birth, care of normal infants, care of low-birth-weight infants, neonatal emergencies, and common minor problems in newborn infants.

**Mother and Baby Friendly Care** describes gentler, kinder, evidence-based ways of caring for women during pregnancy, labour and delivery. It also presents improved methods of providing infant care with an emphasis on kangaroo mother care and exclusive breastfeeding.

**Saving Mothers and Babies** was developed in response to the high maternal and perinatal mortality rates found in most developing countries. Learning material used in this book is based on the results of the annual confidential enquiries into maternal deaths and the Saving Mothers and Saving Babies reports published in South Africa. It addresses the basic principles of mortality audit, maternal mortality, perinatal mortality, managing mortality meetings and ways of reducing maternal and perinatal mortality rates. This book should be used together with the Perinatal Problem Identification Programme (PPIP).

**Birth Defects** was written for healthcare workers who look after individuals with birth defects, their families, and women who are at increased risk of giving birth to an infant with a birth defect. Special attention is given to modes of inheritance, medical genetic counselling, and birth defects due to chromosomal abnormalities, single gene defects, teratogens and multifactorial inheritance. This book is being used in the Genetics Education Programme which trains healthcare workers in genetic counselling in South Africa.

**Perinatal HIV** enables midwives, nurses and doctors to care for pregnant women and their infants in communities where HIV infection is common. Special emphasis has been placed on the prevention of mother-to-infant transmission of HIV. It covers the basics of HIV infection and screening, antenatal and intrapartum care of women with HIV infection, care of HIV-exposed newborn infants, and parent counselling.

**Childhood HIV** enables nurses and doctors to care for children with HIV infection. It addresses an introduction to HIV in children,

the clinical and immunological diagnosis of HIV infection, management of children with and without antiretroviral treatment, antiretroviral drugs, opportunistic infections and end-of-life care.

**Childhood TB** was written to enable healthcare workers to learn about the primary care of children with tuberculosis. The book covers an introduction to TB infection, and the clinical presentation, diagnosis, management and prevention of tuberculosis in children and HIV/TB co-infection. *Childhood TB* was developed by paediatricians with wide experience in the care of children with tuberculosis, under the auspices of the Desmond Tutu Tuberculosis Centre at the University of Stellenbosch.

**Child Healthcare** addresses all the common and important clinical problems in children, including immunisation, history and examination, growth and nutrition, acute and chronic infections, parasites, skin conditions, and difficulties in the home and society. *Child Healthcare* was developed for use in primary care settings.

**Adult HIV** covers an introduction to HIV infection, management of HIV-infected adults at primary-care clinics, preparing patients for antiretroviral (ARV) treatment, ARV drugs, starting and maintaining patients on ARV treatment and an approach to opportunistic infections. *Adult HIV* was developed by doctors and nurses with wide experience in the care of adults with HIV, under the auspices of the Desmond Tutu HIV Foundation at the University of Cape Town.

## FORMAT OF THE COURSES

### 1. Objectives

The learning objectives are clearly stated at the start of each chapter. They help the participant to identify and understand the important lessons to be learned.

### 2. Pre- and post-tests

There is a multiple-choice test of 20 questions for each chapter at the end of the book. Participants are encouraged to take a pre-test before starting each chapter, to benchmark their current knowledge, and a post-test after each chapter, to assess what they have learned.

Self-assessment allows participants to monitor their own progress through the course.

### 3. Question-and-answer format

Theoretical knowledge is presented in a question-and-answer format, which encourages the learner to actively participate in the learning process. In this way, the participant is led step by step through the definitions, causes, diagnosis, prevention, dangers and management of a particular problem.

Participants should cover the answer for a few minutes with a piece of paper while thinking about the correct reply to each question. This method helps learning.

Simplified flow diagrams are also used, where necessary, to indicate the correct approach to diagnosing or managing a particular problem.

**Each question is written in bold, like this, and is identified with the number of the chapter, followed by the number of the question, e.g. 5-23.**

### 4. Important lessons

**Important practical lessons are emphasised by placing them in a box like this.**

### 5. Notes

**NOTE** Additional, non-essential information is provided for interest and given in notes like this. These facts are not used in the case studies or included in the multiple-choice questions.

### 6. Case studies

Each chapter closes with a few case studies which encourage the participant

to consolidate and apply what was learned earlier in the chapter. These studies give the participant an opportunity to see the problem as it usually presents itself in the clinic or hospital. The participant should attempt to answer each question in the case study before reading the correct answer.

### 7. Practical training

Certain chapters contain skills workshops, which need to be practised by the participants (preferably in groups). The skills workshops, which are often illustrated with line drawings, list essential equipment and present step-by-step instructions on how to perform each task. If participants aren't familiar with a practical skill, they are encouraged to ask an appropriate medical or nursing colleague to demonstrate the clinical skill to them. In this way, senior personnel are encouraged to share their skills with their colleagues.

### 8. Final examination

On completion of each course, participants can take a 75-question multiple-choice examination on the EBW Healthcare website, when they are ready to.

All the exam questions will be taken from the multiple-choice tests from the book. The content of the skills workshops will not be included in the examination.

Participants need to achieve at least 80% in the examination in order to successfully complete the course. Successful candidates will be emailed a certificate which states that they have successfully completed that course. EBW Healthcare courses are not yet accredited for nurses, but South African doctors can earn CPD points on the successful completion of an examination.

Please contact [info@ebwhealthcare.com](mailto:info@ebwhealthcare.com) or +27 021 44 88 336 when you are ready to take the exam.

## CONTRIBUTORS

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The developers of our learning materials are a multi-disciplinary team of nurses, midwives, obstetricians, neonatologists, and general paediatricians. The development and review of all course material is overseen by the Editor-in-Chief, emeritus Professor Dave Woods, a previous head of neonatal medicine at the University of Cape Town who now consults to UNICEF and the WHO.

### Perinatal Education Trust

Books developed by the Perinatal Education Programme are provided as cheaply as possible. Writing and updating the programme is both funded and managed on a non-profit basis by the Perinatal Education Trust.

### Eduhealthcare

Eduhealthcare is a non-profit organisation based in South Africa. It aims to improve health and wellbeing, especially in poor communities, through affordable education for healthcare workers. To this end it provides financial support for the development and publishing of the EBW Healthcare series.

### The Desmond Tutu HIV Foundation

The Desmond Tutu HIV Foundation at the University of Cape Town, South Africa, is a centre of excellence in HIV medicine, building capacity through training and enhancing knowledge through research.

### The Desmond Tutu Tuberculosis Centre

The Desmond Tutu Tuberculosis Centre at Stellenbosch University, South Africa, strives to improve the health of vulnerable groups through the education of healthcare workers and community members, and by influencing policy based on research into the epidemiology of childhood tuberculosis, multi-drug-resistant tuberculosis, HIV/TB co-infection and preventing the spread of TB and HIV in southern Africa.

## **UPDATING THE COURSE MATERIAL**

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EBW Healthcare learning materials are regularly updated to keep up with developments and changes in healthcare protocols. Course participants can make important contributions to the continual improvement of EBW Healthcare books by reporting factual or language errors, by identifying sections that are difficult to understand, and by suggesting additions or improvements to the contents. Details of alternative or better forms of management would be particularly appreciated. Please send any comments or suggestions to the Editor-in-Chief, Professor Dave Woods.

## **CONTACT INFORMATION**

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