



CURRENT PRACTICE IN  
**Forensic  
Medicine**

EDITORS  
JOHN GALL  
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 **WILEY-BLACKWELL**

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Stephen Boos is a board-certified paediatrician and child abuse sub-specialist who read his bachelor's degree in biology at the Massachusetts Institute of Technology, focusing on immunology. He then attended Columbia University College of Physicians and Surgeons, earning a Medical Doctorate in 1983. Steve trained in paediatrics at the David Grant USAF Medical Center. Thereafter, he practiced general paediatrics in multiple international assignments with the Air Force for eight years. In 1994 he returned to the David Grant Medical Center to join the teaching staff. In 1998, he was selected for a post-doctoral fellowship in child abuse paediatrics and studied with Dr John McCann at the Child and Adolescent Abuse Resource and Education Center at the University of California Davis Medical Center in Sacramento, California. From 2000 to 2003 he was on staff at the National Naval Medical Center in Bethesda, MD, and served as the medical consultant to the Air Force Surgeon General in Child Abuse and Neglect. Dr Boos has held many child abuse paediatrics positions since his retirement from the military in 2003, and is currently the medical director of Family Advocacy Center at Baystate Children's Hospital in Springfield, MA. Dr Boos has written extensively on the subject of child abuse and is a member of the Ray Helfer Society, an honour society for experienced child abuse physicians. He is a fellow of the American Academy of Paediatrics and a member of both the Section on Child Abuse and Neglect and the Child Abuse Committee of the Massachusetts chapter of the American Academy of Paediatrics.

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Research on the healing of genital injuries, the use of the colposcope in the evaluation of the prepubertal and adolescent girl suspected of having been sexually abused or molested and the normal postmortem peri-anal findings in children and adolescents followed.

John spent the last 12 years of his medical career as the Medical Director of the Child Protection Centre at University

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examinations and attends court as an expert, working on behalf of both the defence and prosecution.

## ***Foreword by Lord Carlile of Berriew Q . C .***

This authoritative work contains contributions by no less than eighteen distinguished experts in their sub-specialist fields, under the editorship of two very experienced forensic specialists. Its focus is on current issues in a fast-developing evidential context. In Court, where I spend much of my time as an advocate, scientific and forensic medical evidence can be demanding, challenging, and confusing for judges, juries and lawyers. In times past much turned on the performance of experts in the witness box – an historic legacy that led to some major miscarriages of justice, and to confusion over the true role of the expert.

Today it is crystal-clear that the expert witness, whether forensic scientist or from some other expertise we may not have imagined 40 years ago, owes only a duty to the Court. Partisan experts are soon rooted out and scrapped by any sensible lawyer. Objectivity and accuracy are the names of the game. Experts who stray outside their core business are exposed – nowhere more so when statistical judgments are offered on an ill considered basis.

For practitioners, finding the right kind of expert can be a major challenge in an era of sub-specialisation. I commenced legal practice at a time when pathologists were basically generic. Then came the histopathologist, and the pathologist specialising in children. Recently I met a remarkable practitioner who is a histopathologist specialising in children. In one case I was able to call a scientist whose life's work was focused on the lives of blowflies in cadavers. In some fields of study there are few experts, spread thinly around the world – but experts they are, and needed they are if we are to do justice and avoid miscarriages of justice in unusual cases. This book enables us, at the very least, to discover the correct sub-specialty

and to be able to ask the right questions when appointing an expert witness.

Of course, the book goes much further, and as such will be a primary tool for all interested in forensic science. The issues challenging us in Court are everincreasing in their complexity. The public importance of cases of bio-terrorism cannot be overestimated, and it is invaluable to be able to anticipate and study the subject through the specialist chapter. The role of healthcare professionals and their duties is addressed in Chapter 1: this is another area of work which would barely have been considered a couple of decades ago, but is the stuff of public inquiries today. In Chapter 7 the photography of injuries is given an important methodological and scientific context: this is vital for practitioners who are troubled by the form or mode of photography in a case, and will teach much to the police. In Chapter 9 many conventional interpretations of injuries are questioned, and the potential range of errors and fallacies highlighted. These and other chapters provide essential reading.

I believe this to be a book of the highest standing, with an enduring shelf life. I commend the editors and all the authors.

**Alex Carlile**

**House of Lords, London, UK**

**July 2010**

# ***Preface***

Forensic medicine is a broad and evolving field in which many points of controversy and change occur between the publication of standard textbooks, often because of new research in the field, new technology or new laws or regulations. This series of volumes aim to provide a critical update and provide a focus for debate in selected topics of forensic medicine that are affected by such changes and to illustrate other topics of relevance to the field. It is intended that this text will act as a forerunner to a regular, multivolume text addressing recent advances in the practice of forensic medicine. Each chapter, written by specialists within that field, is intended to give a sometimes stimulating and sometimes controversial general overview of the area under discussion, with reference to the published literature. The chapters contain details of significant changes or significant points that the reader should be aware of. In some cases, the chapter will cover areas that have not previously been satisfactorily discussed in existing textbooks or which are currently relevant to forensic practice. The chapters will endeavour to maintain a relevance to an international audience and provide a guide to current approaches to the subject area, although examples may be drawn from specific jurisdictions to enable readers to relate to their own practice.

This first volume contains a range of current or controversial subjects including chapters on bio-terrorism, genital photography, the paediatric hymen and DNA. Updates are provided on forensic photography, bone injuries in children, bite marks and the investigation of aviation disasters. Two areas not generally covered in standard forensic medical textbooks include the psychiatric profiles of persons who self-harm and a general discussion on some of the more common errors and fallacies in clinical forensic medicine.

The opinions expressed in this volume are those of the authors and do not necessarily represent those of either the editors or the publishers. We hope that this volume will stimulate discussion and reflection on practice, even if the reader may have different opinions to some of the views expressed herein.

JAMG Melbourne

JJP- J London

November 2010

# **1**

## ***Expert evidence and healthcare professionals***

***I. Freckelton***

### **Introduction**

Expert witnesses have the special entitlement of being permitted to give evidence in the form of opinions, not just facts. This makes determination by a court of who is and is not an expert important. Broad definitions as to who is an 'expert' (as opposed to a lay witness) are given for court purposes: a person who possesses specialized knowledge by reason of skill, experience or training. It is the substance of the specialized knowledge rather than its provenance that matters (Freckelton and Selby, 2009). The knowledge can have evolved as a result of a treatment or a third-party assessment relationship with a patient.

Even those with more experience and familiarity with giving evidence in court (e.g. forensic physicians and forensic pathologists) may find it difficult. For many doctors and other healthcare professionals, it is stressful and sometimes traumatic to give evidence to courts and tribunals as expert witnesses. To embark upon the forensic role involves departing from the familiar world of doctor-patient interaction and to cede a significant degree of authority to another profession in an environment that is generally not fully understood or appreciated by medical practitioners. Questions are asked which seem arbitrary,