Recent Advances in Anaesthesia and Intensive Care, volume 24 is the latest book in this very successful and long-established series (originally entitled Recent Advances in Anaesthesia and Analgesia) to present a collection of cutting-edge topics for anaesthetists. It has been compiled by some of the world’s leading authorities in their subjects and builds on the successful formula of the previous volumes. As the title suggests, these latest volumes have increased input from the field of intensive care, including a particularly topical chapter on intensive care outreach. Other chapters include deaths under anaesthesia, use of simulators in anaesthesia, and transoesophageal echocardiography. Trainee and practising anaesthetists and intensivists at all levels will find this book extremely relevant in their daily clinical practice.

Jeremy N. Cashman is a Consultant Anaesthetist at St George’s Hospital, London and an Honorary Senior Lecturer in Anaesthesia at the University of London.

R. Michael Grounds is a Consultant in Anaesthesia and Intensive Care Medicine at St George’s Hospital, London and an Honorary Reader in Intensive Care Medicine at the University of London.
Recent Advances in Anaesthesia and Intensive Care

Edited by

Jeremy Cashman
Consultant Anaesthetist, St. George's Hospital, London
Honorary Senior Lecturer in Anaesthesia, University of London, UK

and

Michael Grounds
Consultant in Anaesthesia and Intensive Care Medicine, St. George’s Hospital, London
Honorary Reader in Intensive Care Medicine, University of London, UK
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Contributors

Hannah Barrett
University Department of Anaesthesia & Intensive Care Medicine
N5 Queen Elizabeth Hospital
Edgbaston
Birmingham B15 2TH
UK

Julian F. Bion
University Department of Anaesthesia & Intensive Care Medicine
N5 Queen Elizabeth Hospital
Edgbaston
Birmingham B15 2TH
UK

Martin Bircher
Department of Orthopaedics and Trauma
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK

Alison D. Bullock
School of Education
University of Birmingham
Edgbaston
Birmingham B15 2TT
UK

Michael D. Christian
Mount Sinai Hospital and University Health Network
Toronto General
List of contributors

Toronto Western, and Princess Margaret Hospital
Room 18–206
600 University Avenue
Toronto M5G 1X5
Ontario
Canada

Brian H. Cuthbertson
Health Services Research Unit
Institute of Applied Health Sciences
Polwarth Building
Medical School
University of Aberdeen
Foresterhill
Aberdeen AB25 2ZD
Scotland

Peter Dieckmann
Danish Institute for Medical Simulation
Herlev Hospital
Herlev Ringrej 75
2730 Herlev
Denmark

Christopher Dodds
Professor, Cleveland School of Anaesthesia
James Cook University Hospital
Marton Road
Middlesborough TS4 3BW
UK

Lesley Durham
City Hospitals Sunderland NHS Foundation Trust
Royal Hospital
Kayll Road
Sunderland SR4 7TP
UK

S. Nicholas Fletcher
Department of Anaesthesia
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK
List of contributors

Anthony Gray
Department of Anaesthesia
Norfolk and Norwich University Hospital
Colney Lane
Norwich NR4 7UY
UK

Adrian Hall
Peter MacCallum Cancer Centre
East Melbourne VIC 8006
Australia

Stephen E. Lapinsky
Mount Sinai Hospital and University Health Network
Toronto General
Toronto Western, and Princess Margaret Hospital
Room 18–206
600 University Avenue
Toronto M5G 1X5
Ontario
Canada

Ian Loftus
Department of Vascular Surgery
The St George’s Vascular Institute
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK

Scott Mercer
Pharmacy
St Thomas’ Hospital
Lambeth Palace Road
London SE1 7EH
UK

Paul Older
Cardiopulmonary Exercise Testing Unit
Division of Anaesthesia and Intensive Care
Western Hospital
Melbourne VIC 3011
Australia

Rona Patey
Department of Anaesthesia
Aberdeen Royal Infirmary
Foresterhill
Aberdeen AB25 2ZN
Scotland

Marcus Rall
Universitätsklinikum Tübingen
Abteilung für Anaesthesiologie und Intensivmedizin
Tübingen
Germany

Andrew Rhodes
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK

Kathleen M. Sherry
Ipswich Hospital NHS Trust
Heath Road
Ipswich
Suffolk IP4 5PD
UK

Thomas E. Stewart
Mount Sinai Hospital and University Health Network
Toronto General
Toronto Western, and Princess Margaret Hospital
Room 18–206
600 University Avenue
Toronto M5G 1X5
Ontario
Canada

Matt M. Thompson
Department of Vascular Surgery
The St George’s Vascular Institute
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK

Shamim Umarji
Department of Orthopaedics and Trauma
St George’s Hospital
Blackshaw Road
London SW17 0QT
UK
Preface

Every day you may make progress. Every step may be fruitful. Yet there will stretch out before you an ever-lengthening, ever-ascending, ever-improving path. You know you will never get to the end of the journey. But this, so far from discouraging, only adds to the joy and glory of the climb.

Sir Winston Churchill British politician (1874–1965)

As well as being the 24th edition of Recent Advances in Anaesthesia this will also be the 75th Anniversary edition. The series was first published as Recent Advances in Anaesthesia and Analgesia (Including Oxygen Therapy) in 1932. Since then there have been 23 editions. The title has been slightly changed over the years to reflect the changes in our practice, culminating in this the 24th edition of Recent Advances in Anaesthesia and Intensive Care. As in the past we have tried to ensure a range of topics encompassing basic science, clinical practice, new drugs and devices used in anaesthesia and intensive care, and in this edition the evaluation of training of the future generation of anaesthetists. We have chosen topics that we hope will be of interest to general anaesthetists as well as topics that may appeal more to the specialist anaesthetist and to the intensivist.

The first chapter by Drs Paul Older and Adrian Hall addresses a problem that many anaesthetists face: how to assess a patient with limited cardio-pulmonary physiological reserve who needs a major operation. Is it possible to determine in advance which patients are likely to present a major perioperative problem as a consequence of this limited reserve and how then to utilise our limited critical care resources for these patients. Surgery becomes annually more complex and many advances are driven by the fact that anaesthetists and intensivists are able to support the patients through this complex set of events. The next three chapters delve into different aspects of specialist surgery. In the second chapter, Dr Kathleen Sherry
describes surgery and anaesthesia for oesophagectomy and considers the potential pitfalls. Professor Matt Thompson and Mr Ian Loftus, in Chapter 3, illustrate the advances in vascular surgery, an understanding of which will allow us to provide appropriate anaesthesia for the procedure being undertaken. In the last of this trio of chapters, Professor Christopher Dodds presents the difficulties that abound when faced with anaesthetising elderly patients with limited physiological reserve. Deaths solely caused by anaesthesia are very rare, but deaths where anaesthetic factors in combination with factors related to the patient’s condition and to the surgery contribute to a patient’s demise are more common. In Chapter 5, Dr Anthony Gray presents the lessons learnt from the UK National Confidential Enquiry into Perioperative Deaths (NCEPOD) regarding death caused by or following anaesthesia.

In the last few editions we have commissioned chapters on the care of patients under the broad heading of trauma, immediate care and resuscitation. Since 1998 there have been chapters on the Golden Hour, the Human Albumin Controversy, Resuscitation and Blunt Chest Trauma. In this edition we continue this trend with Chapter 6 by Shamim Umarji and Martin Bircher on the management of pelvic and acetabular fractures. Anaesthetists are inevitably involved in the care of these patients, either at the initial resuscitation stage or at the later reconstruction stage. The chapter gives good advice on our role in the care of these patients.

The next four chapters reflect advances in the world of intensive care medicine. Transoesophageal echocardiography (TOE) traditionally has been a tool used by cardiologists. However, recently many intensivists have begun to use TOE for intensive care patients. Chapter 7 by Dr Nicholas Fletcher describes the use of TOE by an intensivist rather than a cardiologist. Calcium sensitisers are a new class of positive inotropic drugs that are potentially useful in the treatment of acute decompensated heart failure. Levosimendan is the first intravenous calcium sensitizer to be approved in Europe for the treatment of acute decompensated heart failure. The drug is described in detail in Chapter 8 by Scott Mercer and Andrew Rhodes. There has been a significant drive over the past few years to provide ‘intensive care without walls’ and to extend some of the practices of intensive care to the general wards. Outreach has become ‘de rigueur’ throughout many healthcare services and is seen by many as the cheap alternative to intensive care units. Lesley Durham and Brian Cuthbertson review the case for and against outreach in Chapter 9. Critical care is often involved in the management of patients at times of biological disasters. The SARS (severe acute respiratory syndrome) outbreak was a good illustration of the need for critical care support. Michael Christian, Thomas Stewart
and Stephen Lipinski review the role of critical care during such biological disasters in Chapter 10. Importantly they describe the lessons learned from SARS and the planning that is ongoing regarding any possible future pandemic.

Medical training is changing and this is particularly apparent in anaesthesia. The old system of apprentice-based training is gradually evolving into a more formalised (and very much shortened) training, with emphasis on ensuring that trainees are exposed to all aspects of anaesthesia. This being the case it is absolutely vital to ensure two things. Firstly, that all trainees are thoroughly assessed to ensure that they have reached an acceptable level of competency and knowledge before they finish their training. Secondly, that training programmes encompass all the aspects the trainees will need to be able to perform their tasks without supervision once they have completed their training. Hannah Barrett, Alison Bullock and Julian Bion describe in Chapter 11 how to assess a trainee’s competence to leave the training grade. In Chapter 12, Dr Rona Patey focuses on how to develop processes that allow for lessons learned from previous events, to be incorporated into the training programme. It is the development of these behaviours to enhance safety and efficiency, which Dr Patey terms non-technical skills, that is an essential part of the new training process. The final chapter (Chapter 13) by Peter Dieckmann and Marcus Rall describes how the use of simulators can help with both assessments of training and of competency.

We are greatly indebted to all the authors who took time out from their already busy schedules to contribute to this latest edition of *Recent Advances in Anaesthesia and Critical Care*. We thank them for their enthusiasm and hard work. As with previous editions, *Recent Advances in Anaesthesia and Critical Care* 24 aims to provide an up-to-date resumé on a wide variety of topics. We hope that the material presented herein has achieved that aim.

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J. N. C.

R. M. G.