
M.R. Pinsky · L. Brochard · J. Mancebo · M. Antonelli (Eds.)
Applied Physiology in Intensive Care Medicine 2

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Physiological Reviews and Editorials

Third Edition

 Springer

Editors

MICHAEL R. PINSKY, MD
Dept. of Critical Care Medicine
University of Pittsburgh Medical Center
Scaife Hall 606
3550 Terrace Street
Pittsburgh, PA 15261
USA

LAURENT BROCHARD, MD
Dept. Intensive Care Medicine
Hôpital Henri Mondor
51 av. Maréchal Lattre de Tassigny
94010 Créteil CX
France

JORDI MANCEBO, MD
Dept. Intensive Care Medicine
Hospital de Sant Pau
Avda. S. Antonio M. Claret 167
08025 Barcelona
Spain

MASSIMO ANTONELLI
General Intensive Care Unit
Università Cattolica des Sacro Cuore
Largo A. Gemelli 8
00168 Rome
Italy

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Preface

Perhaps no field of medicine witnesses such dynamic change in practice over similar time intervals as the practice of intensive care medicine. Thus, the practice of intensive care medicine is at the very forefront of treatment and monitoring response innovation and discovery. The challenge for the healthcare practitioner facing the critically ill is daunting because the critically ill patient is by definition at the limits of his or her physiologic reserve. Such patients need immediate, aggressive but balanced life-altering interventions to minimize the detrimental aspects of acute illness and hasten recovery. Treatment decisions and response to therapy are usually assessed by measures of physiologic function but also require an understanding of a myriad of new information. However, how one uses such information is often unclear and rarely supported by prospective clinical trials and if clinical trials are available, rarely do they address the specific needs of the specific patient being treated. Thus, the bedside clinician is forced to rely primarily on physiologic principals in determining the best treatments and response to therapy. However, the physiologic foundation present in practicing physicians is uneven and occasionally supported more by habit or prior training than science. Furthermore, although excellent textbooks are available as background information, they are by necessity unable to present the latest changes or place specific novel aspects of applied physiology into perspectives based on new information.

To address this issue we have collected in this volume a series of review articles published in Intensive Care Medicine from 2002 until July 2011. This present volume combines these selected review articles, specifically included for their ability to address central critical care issues and published in the same time interval. This collection of review articles, written by some of the most respected experts in the field, represent an up-to-date and invaluable compendium of practical bedside knowledge essential to the effective delivery of acute care medicine. Although this text could be read from cover to cover, the reader is encouraged to use this text as a reference source, referring to individual review articles that pertain to specific clinical issues. In that way the relevant information will have immediate practical meaning and hopefully become incorporated into routine practice.

We hope that the reader finds these reviews useful in their practice and enjoys reading them as much as we enjoyed editing the original articles.

Michael R. Pinsky, MD, Dr hc
Laurent Brochard, MD, PhD
Jordi Mancebo, MD, PhD
Massimo Antonelli, MD, PhD

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Contributors

H. Ait-Oufella

Inserm U970,
Paris Research Cardiovascular Center (PARCC),
Paris, France
and
Service de Réanimation Médicale,
Hôpital Saint-Antoine,
AP-HP, Paris, France
and
Service de Réanimation Médicale,
Hôpital Saint-Antoine,
rue du Faubourg Saint-Antoine,
Paris Cedex, France

Lars Algotsson

Department of Anaesthesiology–
Heart-Lung Division,
University Hospital of Lund,
Lund, Sweden

Peter J. D. Andrews

Department of Anaesthetics, Intensive
Care and Pain Medicine
University of Edinburgh, Western General Hospital
Edinburgh, Scotland, UK

P. Asfar

Laboratoire HIFIH UPRES EA 3859,
Université d'Angers,
Angers, France
and
Laboratoire HIFIH, IFR 132,
Université d'Angers et service
de réanimation médicale
et médecine hyperbare,
CHU Angers,
rue Larrey,
Angers Cedex, France

J.-F. Augusto

Laboratoire HIFIH,
IFR 132,
Université d'Angers et service de réanimation médicale
et médecine hyperbare,
CHU Angers,
rue Larrey,
Angers Cedex, France

Elie Azoulay

Department of Clinical Immunology,
and Hôpital Saint-Louis, Medical ICU, AP-HP,
University Paris-7 Diderot, UFR de Médecine,
Paris, France

Jan Bakker

Department of Intensive Care, Erasmus MC,
University Medical Center Rotterdam,
Rotterdam, The Netherlands

Karim Bendjelid

Surgical Intensive Care Division,
Geneva University Hospitals,
Geneva, Switzerland

Willem Boer

Intensive Care Unit, Nephrology Unit
and Internal Medicine Department,
Atrium Medical Center,
Heerlen, The Netherlands

E. Christiaan Boerma

Department of Translational Physiology,
Academic Medical Center Amsterdam,
Amsterdam, The Netherlands
and
Department of Intensive Care,
Medical Center Leeuwarden,
BR Leeuwarden,
The Netherlands

Chiara Bonetto

Dipartimento di Anestesia e Rianimazione,
Ospedale S. Giovanni Battista-Molinette,
Università di Torino,
Corso Dogliotti,
Turin, Italy

Sophie Buyse

Department of Clinical Immunology,
and Hôpital Saint-Louis, Medical ICU,
AP-HP, University Paris-7 Diderot,
UFR de Médecine,
Paris, France

Enrico Calzia

Sektion Anästhesiologische Pathophysiologie
und Verfahrensentwicklung Universitätsklinik
für Anästhesiologie, Universität Ulm,
Ulm, Germany

René Chiolero

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

S. Collin

Groupe Choc,
Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye, BP,
Vandoeuvre-lès-Nancy Cedex, France

Caroline Créput

Department of Clinical Immunology,
and Hôpital Saint-Louis,
Medical ICU,
AP-HP,
University Paris-7 Diderot,
UFR de Médecine,
Paris, France

Jacques Creteur

Department of Intensive Care,
Erasme University Hospital,
Free University of Brussels,
Brussels, Belgium

Daniel De Backer

Department of Intensive Care,
Erasme University Hospital,
Free University of Brussels,
Brussels, Belgium

B. L. De Keulenaer

Intensive Care Unit,
Fremantle Hospital,
Alma Street,
Fremantle,
WA, Australia

J. J. De Waele

Intensive Care Unit,
Ghent University Hospital,
Ghent, Belgium

Ioanna Dimopoulou

Second Department of Critical Care Medicine,
Attikon Hospital, Medical School National
and Kapodistrian University of Athens,
Athens, Greece

N. Ducrocq

Groupe Choc,
Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye,
BP 184,
Vandoeuvre-lès-Nancy Cedex, France
and
Service de Réanimation Médicale,
Institut du Coeur et des Vaisseaux,
Hôpitaux de Brabois,
CHU de Nancy,
Rue du Morvan,
Vandoeuvre-lès-Nancy, France

Andrew Durward

Evelina Children's Hospital, Guy's and
Saint Thomas' NHS Trust,
Paediatric Intensive Care Unit,
London, UK

M.W. Elliott

St James's University Hospital,
Leeds, UK

Raphaël Favory

Department of Intensive Care,
Erasme University Hospital,
Université Libre de Bruxelles,
Route de Lennik,
Brussels, Belgium

Oliver Flower

National Hospital for Neurology and Neurosurgery,
University College London
Hospitals' NHS Foundation Trust,
Queen Square,
London, UK

Lionel Galicier

Department of Clinical Immunology,
and Hôpital Saint-Louis, Medical ICU, AP-HP,
University Paris-7 Diderot, UFR de Médecine,
Paris, France

Robb W. Glenny

Division of Pulmonary and Critical Care Medicine,
Departments of Medicine
and of Physiology and Biophysics,
University of Washington,
Seattle, USA

Ian S. Grant

Department of Anaesthesia,
University of Edinburgh,
Western General Hospital, Edinburgh,
Scotland, UK

Richard Griffiths

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

B. Guidet

Service de Réanimation Médicale,
Hôpital Saint-Antoine,
AP-HP,
Paris, France
and
Université Pierre et Marie Curie-Paris 6,
UMR S707,
Paris, France
and
Inserm U707,
Paris, France

Göran Hedenstierna

Clinical Physiology, Department of
Medical Sciences, University Hospital,
Uppsala, Sweden

Patrick M. Honore

Intensive Care Unit,
St-Pierre Para-University Hospital,
Ottignies-Louvain-La-Neuve, Belgium

Yumiko Imai

St. Michael's Hospital,
Toronto,
Ontario, Canada

Can Ince

Department of Translational Physiology,
Academic Medical Center Amsterdam,
Amsterdam, The Netherlands

S.M. Jakob

Department of Intensive Care Medicine,
University Hospital Bern,
Bern, Switzerland

François Jardin

Hôpital Ambroise Paré,
Service de Réanimation Médicale,
Boulogne, France

Olivier Joannes-Boyau

Anaesthesia and Intensive Care Department II,
University Hospital of Bordeaux,
University of Bordeaux II,
Pessac, France

Peter Karpati

Department of Anaesthesiology
and Critical Care Medicine,
Hopital Lariboisière,
Paris Cedex, France

Brian P. Kavanagh

Department of Critical Care Medicine,
Hospital for Sick Children,
Toronto,
ON, Canada

A. Kimmoun

Groupe Choc, Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye, BP,
Vandoeuvre-lès-Nancy Cedex, France
and
Service de Réanimation Médicale,
Institut du Coeur et des Vaisseaux,
Hôpitaux de Brabois,
CHU de Nancy,
Rue du Morvan,
Vandoeuvre-lès-Nancy, France

Ioanna Korovesi

Department of Critical Care & Pulmonary
Medicine and "M. Simou" Laboratory
Medical School, University of
Athens, Evangelismos Hospital,
Athens, Greece

John G. Laffey

Department of Anaesthesia,
University College Hospital,
Galway and Clinical Sciences Institute,
National University of Ireland, Galway, Ireland

S. Lehoux

Lady Davis Institute for Medical Research,
McGill University,
Montreal, Canada

Xavier Leverve

Laboratoire de Bioenergetique Fondamentale
et Appliquee,
Universite Joseph Fourier,
rue de la piscine,
Grenoble Cedex, France
and
Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

B. Levy

Groupe Choc, Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye, BP,
Vandoeuvre-lès-Nancy Cedex, France
and
Service de Réanimation Médicale,
Institut du Coeur et des Vaisseaux,
Hôpitaux de Brabois,
CHU de Nancy,
Rue du Morvan,
Vandoeuvre-lès-Nancy, France

Alexandre Lima

Department of Intensive Care, Erasmus MC
University Medical Center Rotterdam,
Rotterdam, The Netherlands

Alexandre Toledo Maciel

Department of Intensive Care,
Erasme University Hospital, Free
University of Brussels,
Brussels, Belgium

Carol S.A. Macmillan

University of Dundee, Department of Anaesthesia,
Ninewells Hospital, Dundee, UK

Manu L. N. G. Malbrain

Medical Intensive Care Unit,
ACZA Campus Stuivenberg,
Antwerpen, Belgium
and
Department of Intensive Care Medicine,
Ziekenhuis Netwerk Antwerpen (ZNA),
Stuivenberg,
Antwerp, Belgium

Paul E. Marik

Department of Critical Care Medicine,
University of Pittsburgh Medical Center,
Pittsburgh, PA, USA

John J. Marini

University of Minnesota,
Department of Medicine,
Regions Hospital,
Pulmonary and Critical Care Medicine,
Jackson St,
Rm 3571, St Paul 55101-2595,
MN, USA
and
University of Minnesota,
Minneapolis/St. Paul, USA

George M. Matuschak

Division of Pulmonary, Critical Care
and Occupational Medicine,
Departments of Internal Medicine and
Pharmacological and Physiological Science
School of Medicine,
Saint Louis University,
Saint Louis, MO, USA

E. Maury

Service de Réanimation Médicale,
Hôpital Saint-Antoine,
AP-HP, Paris, France
and
Université Pierre et Marie Curie-Paris 6,
UMR S707,
Paris, France
and
Inserm U707,
Paris, France

Irene Mavrommati

Department of Critical Care & Pulmonary
Medicine and “M. Simou” Laboratory
Medical School, University of
Athens, Evangelismos Hospital,
Athens, Greece

Paul McLoughlin

Department of Physiology,
University College Dublin,
Dublin, Ireland

Alexandre Mebazaa

Department of Anaesthesiology
and Critical Care Medicine,
Hopital Lariboisière,
Paris Cedex, France

Sangeeta Mehta

Medical-Surgical ICU,
Mount Sinai Hospital,
Toronto,
Ont., Canada

L. Joanne Meyer

Department of Medicine,
St. Joseph's Hospital,
Toronto, Canada

F. Meziani

Laboratoire de Biophotonique et Pharmacologie,
UMR 7213 CNRS,
Faculté de Pharmacie,
Université de Strasbourg,
Illkirch,
Strasbourg, France

Xavier Monnet

Hôpital de Bicêtre, AP-HP,
Service de réanimation médicale,
Le Kremlin-Bicêtre, France
and
Université Paris-Sud, Equipe d'accueil EA 4046,
Faculté de Médecine Paris-Sud,
Le Kremlin-Bicêtre, France

Christian Mueller

University Hospital,
Department of Internal Medicine,
Petersgraben,
Basel, Switzerland

Stefano Nava

Respiratory Intensive Care Unit,
Fondazione S. Maugeri,
IRCCS,
Istituto Scientifico di Pavia,
Via Ferrata,
Pavia, Italia

A. Nitenberg

Service de Physiologie et d'Explorations
Fonctionnelles,
CHU Jean Verdier,
Bondy, France

Gérard Nitenberg

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium
and
Service de Physiologie
et d'Explorations Fonctionnelles,
CHU Jean Verdier,
Avenue du 14 Juillet,
Bondy, France

Luis J. Noronha

Division of Pulmonary, Critical Care
and Occupational Medicine,
Departments of Internal Medicine and
Pharmacological and Physiological Science
School of Medicine,
Saint Louis University,
Saint Louis, MO, USA

Donall O'Croinin

Department of Physiology,
University College Dublin
Dublin, Ireland

G. Offenstadt

Service de Réanimation Médicale,
Hôpital Saint-Antoine,
AP-HP, Paris, France
and
Université Pierre et Marie Curie-Paris 6,
UMR S707,
Paris, France
and
Inserm U707,
Paris, France

Stylios E. Orfanos

2nd Department of Critical Care,
University of Athens Medical
School, Attikon Hospital,
Haidari (Athens), Greece

Gustavo Ospina-Tascon

Department of Intensive Care,
Erasmus University Hospital,
Université Libre de Bruxelles,
Route de Lennik 808,
Brussels, Belgium

Sairam Parthasarathy

Division of Pulmonary and Critical
Care, Medicine Edward Hines Jr.
Veterans Administrative Hospital, Loyola
University of Chicago Stritch School of Medicine,
Hines, IL, USA

P. Perez

Groupe Choc, Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye, BP,
Vandoeuvre-lès-Nancy
Cedex, France

Marek Pertkiewicz

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Michael Piagnerelli

Department of intensive care,
Erasmus University Hospital,
Free University of Brussels,
Brussels, Belgium

Claude Pichard

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Michael R. Pinsky

Department of Critical Care Medicine,
University of Pittsburgh Medical Center,
Pittsburgh, PA, USA

B. Powell

Intensive Care Unit,
Fremantle Hospital,
Alma Street,
Fremantle,
WA, Australia

Jean-Charles Preiser

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Peter Radermacher

Sektion Anästhesiologische Pathophysiologie
und Verfahrensentwicklung Universitätsklinik
für Anästhesiologie, Universität Ulm,
Ulm, Germany
and
Laboratoire de Bioenergetique
Fondamentale et Appliquee,
Universite Joseph Fourier,
rue de la piscine,
Grenoble Cedex, France

Murugan Raghavan

Conemaugh Memorial Medical Center,
Johnstown, PA, USA

V. Marco Ranieri

Dipartimento di Anestesia e Rianimazione,
Ospedale S. Giovanni Battista-Molinette,
Universita di Torino,
Corso Dogliotti,
Turin, Italy

Estelle Renaud

Department of Anaesthesiology
and Critical Care Medicine,
Hopital Lariboisière,
Paris Cedex 10, France

Christian Richard

Reanimation medicale,
Hopital de Bicetre,
AP-HP, Université Paris XI,
Paris, France

Jacques-André Romand

Surgical Intensive Care Division,
Geneva University Hospitals,
Geneva, Switzerland

Erich Roth

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Charis Roussos

Department of Critical Care & Pulmonary
Medicine and “M. Simou” Laboratory
Medical School, University of
Athens, Evangelismos Hospital,
Ipsilandou St., Athens, Greece

Diamantino Salgado

Department of Intensive Care,
Erasme University Hospital,
Université Libre de Bruxelles,
Route de Lennik,
Brussels, Belgium

N. Sennoun

Groupe Choc, Contrat Avenir INSERM 2006,
Faculté de Médecine,
Nancy Université,
Avenue de la Forêt de Haye, BP,
Vandoeuvre-lès-Nancy Cedex, France

Pratik Sinha

Magill Department of Anaesthesia,
Intensive Care Medicine and Pain Management,
Chelsea and Westminster NHS Foundation Trust,
Imperial College London,
London, UK

Arthur S. Slutsky

Queen Wing, St. Michael's Hospital,
Toronto, ON, Canada

Neil Soni

Magill Department of Anaesthesia,
Intensive Care Medicine and Pain Management,
Chelsea and Westminster NHS Foundation Trust,
Imperial College London,
London, UK

Pierre Squara

CERIC Clinique Ambroise Pare,
Neuilly-sur-Seine, France

Jukka Takala

Department of Intensive Care Medicine,
University Hospital Bern (Inselspital),
University of Bern, Bern, Switzerland

Jean-Louis Teboul

Hôpital de Bicêtre, AP-HP,
Service de réanimation médicale,
Kremlin-Bicêtre, France
and
Université Paris-Sud, Equipe d'accueil EA 4046,
Faculté de Médecine Paris-Sud,
Le Kremlin-Bicêtre, France
and
Réanimation médicale,
Hôpital de Bicêtre,
AP-HP, Université Paris XI,
Paris, France
and
Service de réanimation médicale,
CHU de Bicêtre,
Le Kremlin-Bicêtre
Cedex, France

Pierpaolo Terragni

Dipartimento di Anestesia e Rianimazione,
Ospedale S. Giovanni Battista-Molinette,
Università di Torino,
Corso Dogliotti,
Turin, Italy

Shane M. Tibby

Paediatric Intensive Care Unit,
Evelina Children's Hospital,
Guy's and Saint Thomas' NHS Trust,
London, UK

Martin J. Tobin

Division of Pulmonary and Critical Care Medicine,
Edward Hines Jr. VA Hospital,
Hines, IL, USA

Karl Träger

Sektion Anesthesiologische Pathophysiologie
und Verfahrensentwicklung,
Universitätsklinik für Anesthesiologie,
Universität Ulm,
Parkstrasse,
Ulm, Germany

Stylianos Tsagarakis

Department of Endocrinology,
Athens Polyclinic,
Athens, Greece

Michel Vanhaeverbeek

Experimental Medicine Laboratory,
André Vésale Hospital,
Montigny-le-Tilleul, Belgium

Peter Varga

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Theodoros Vassilakopoulos

Department of Critical Care and Pulmonary Services,
University of Athens Medical School,
Evangelismos Hospital,
Athens, Greece

Antoine Vieillard-Baron

Intensive Care Unit,
Assistance Publique des Hôpitaux de Paris,
University Hospital Ambroise Paré,
Avenue Charles-de-Gaulle,
Boulogne, France
and
Faculté de Paris Ile-de-France Ouest,
Université de Versailles Saint Quentin en Yvelines,
Versailles, France

Philippe Vignon

Medical-surgical Intensive Care Unit,
Dupuytren Teaching Hospital,
Avenue Martin Luther King,
Limoges, France

Jean-Louis Vincent

Department of Intensive Care,
Erasme University Hospital,
Université Libre de Bruxelles,
Route de Lennik,
Brussels, Belgium

Jan Wernerman

Department of Intensive Care,
Centre Hospitalo-universitaire de Liege,
Domaine du Sart Tilman B35,
Liege, Belgium

Karim Zouaoui-Boudjeltia

Experimental Medicine Laboratory,
André Vésale Hospital,
Montigny-le-Tilleul, Belgium