



ERS | handbook

Paediatric Respiratory Medicine

2nd Edition

Editors

Ernst Eber

Fabio Midulla



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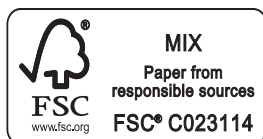


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Preface

“Education is not the filling of a pail, but the lighting of a fire.”
(Uncertain source)

Dissemination of knowledge and medical and public education constitute fundamental objectives of the ERS mission, and the ERS aims to provide excellence in respiratory medicine education. In 2005, the ERS School started the very ambitious HERMES (Harmonised Education in Respiratory Medicine for European Specialists) project. Since then, HERMES Task Forces have formed to standardise training and education within different specialties of respiratory medicine. To support the implementation of various educational activities, the ERS has produced a series of *Handbooks* as educational tools, with the first edition of the *ERS Handbook of Respiratory Medicine* launched in 2010.

Starting in 2007, the paediatric respiratory medicine task force, using a formal consensus process and working with numerous experts throughout Europe, developed a HERMES syllabus (description of the competencies required) and a HERMES curriculum (description of how competencies should be taught, learned and assessed), as well as a voluntary European examination in paediatric respiratory medicine. With the content reflecting the HERMES syllabus and curriculum (published in 2009 and 2010, respectively), the first edition of the *ERS Handbook of Paediatric Respiratory Medicine* was published in 2013 and, as a compact state-of-the-art textbook, provided a comprehensive update for specialists within this field of respiratory medicine.

This second edition of the *ERS Handbook of Paediatric Respiratory Medicine* reflects the updated European paediatric respiratory medicine syllabus (published in 2019), which has been streamlined and made more relevant to current practice. The *Handbook* again consists of concise, peer-reviewed chapters written by experts in the field. We hope that this second edition will not only inform our trainees and be a valuable resource for those preparing for the paediatric HERMES examination but also provide an easily accessible and comprehensive update for colleagues at all levels of seniority, across paediatric respiratory medicine. Thus, this updated *Handbook* is intended to make a significant contribution to increasing the standards of training in paediatric respiratory medicine throughout and outside of Europe and, ultimately, to improving the care of children with respiratory disease.

We are grateful to the ERS Education Council and to the ERS publications staff who so thoroughly and thoughtfully curated the second edition of this *Handbook*, and last, but not least, to all the contributors who have shared their knowledge and experience with you.

Ernst Eber and Fabio Midulla
Chief editors

List of abbreviations

AHI	Apnoea-hypopnoea index
AIDS	Acquired immunodeficiency syndrome
BAL	Bronchoalveolar lavage
BMI	Body mass index
BPD	Bronchopulmonary dysplasia
CF	Cystic fibrosis
CFTR	Cystic fibrosis transmembrane conductance regulator
COPD	Chronic obstructive pulmonary disease
CPAP	Continuous positive airway pressure
CT	Computed tomography
ECG	Electrocardiogram
ENT	Ear, nose and throat
FEV ₁	Forced expiratory volume in 1 s
FRC	Functional residual capacity
FVC	Forced vital capacity
GOR	Gastro-oesophageal reflux
HIV	Human immunodeficiency virus
HRCT	High-resolution computed tomography
ILD	Interstitial lung disease
K_{CO}	Transfer coefficient of the lung for carbon monoxide
LCI	Lung clearance index
MRI	Magnetic resonance imaging
NIV	Noninvasive ventilation
OSA(S)	Obstructive sleep apnoea (syndrome)
P_{aCO_2}	Arterial carbon dioxide tension
P_{aO_2}	Arterial oxygen tension
PCD	Primary ciliary dyskinesia
PCR	Polymerase chain reaction
PEEP	Positive end-expiratory pressure
PFT	Pulmonary function test
PSG	Polysomnography
P_{tCO_2}	Transcutaneous carbon dioxide tension
RV	Residual volume
S_{aO_2}	Arterial oxygen saturation
S_{pO_2}	Oxygen saturation measured by pulse oximetry
TB	Tuberculosis
TLC	Total lung capacity
T_{LCO}	Transfer factor of the lung for carbon monoxide
V_E	Minute ventilation

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