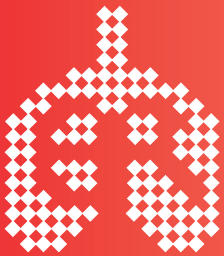


EUROPEAN RESPIRATORY MONOGRAPH

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Imaging

Edited by
A. Bankier, P.A. Gevenois



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RESPIRATORY
SOCIETY

European Respiratory Monograph

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Edited by

A. Bankier

P.A. Gevenois

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Pierre Alain Gevenois is Professor of Radiology at his home University of Brussels, Belgium, where he trained during his whole residency. After completing his residency, he started a research project on the quantification of pulmonary emphysema by computed tomography that had been the subject of his PhD thesis. He was invited Professor of Radiology at the McGill University, Montreal, Canada. He has authored and co-authored more than 100 scientific articles in peer-reviewed journals. He has also written 30 book chapters and educational articles. He is reviewer for renowned journals such as *Radiology* and the *American Journal of Critical Care and Respiratory Medicine*. He had diverse functions in international scientific societies such as the European Respiratory Society and the European Society of Thoracic Imaging. His research covers the quantification of pulmonary disorders by computed tomography and the imaging of occupational diseases of the chest. He has recently been focused on radiation dose reduction.

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EUROPEAN RESPIRATORY MONOGRAPH

Instructions to Authors

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Experimental paper format is not required, and should not include sections on methods, results and discussion. Headings and subheadings should be used to facilitate the readers. The Monograph aims to be educational. Clear distinction should be made between strong information (*i.e.* based on random, controlled clinical trials) and soft information (*i.e.* suggestive but inconclusive data). The text should start with an introduction and finish with a 10–15 line conclusion. A brief summary (no more than 300 words) is required with the typescript which should recapitulate the key points, rather than introducing the subjects to be discussed.

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Preface

Chest physicians use a wide variety of imaging techniques in their pursuit of accurate diagnosis and in the evaluation of treatment. Technical advances in computer science, continuous refinements in computed tomography, positron emission tomography as well as magnetic resonance imaging have profoundly transformed our way of visualising chest diseases.

This issue of the *European Respiratory Monograph*, edited by Alexander Bankier and Pierre Alain Gevenois, aims to give an overview of developments in imaging and to describe direct clinical applications. Furthermore, diagnostic imaging strategies for a variety of highly prevalent respiratory pathologies as pulmonary embolism, idiopathic interstitial pneumonias as well as collagen-vascular disorders are discussed. Imaging facilities for screening and staging lung carcinoma are carefully reviewed in different papers. The final goal of this issue of the Monograph is a more comprehensible use of currently available imaging technologies.

I like to thank all the authors for their excellent contributions in making this an up-to-date Monograph on chest radiographic imaging. I would also like to extend special thanks to Alexander Bankier and Pierre Alain Gevenois, guest editors of this issue of the Monograph.

Finally, technological innovations continue to be made at an extra-ordinarily rapid pace so that newer developments will continue to expand our understanding of how best to visualise thoracic disease in the direct future.

E.F.M. Wouters
Editor in Chief

INTRODUCTION

A. Bankier, P.A. Gevenois

This Monograph was compiled to give to the clinician, active in pulmonary medicine, a comprehensive review of recent developments in thoracic imaging. The Monograph follows two major paths. On the one hand, the Monograph aims to present to the clinician new trends and controversies in thoracic imaging. Consequently, one part of the Monograph is dedicated to digital radiography, to issues related to radiation dose, to new quantitative and analytical procedures used in thoracic imaging, and to issues related to lung cancer screening. On the other hand, the Monograph aims to present to the clinician state-of-the-art information related to the diagnostic work-up in a clinical context. Therefore, reviews on lung cancer staging, on idiopathic interstitial pneumonias, on collagen vascular disorders, and on the imaging of infectious lung disorders were included. This dual approach should warrant that the Monograph offers helpful information to both pulmonary physicians, rather interested in recent research, and to pulmonary physicians based in daily clinical work.

Although the articles of this Monograph were written by radiologists, they are clearly dedicated to pulmonary physicians. Care was taken not to overemphasise technical aspects of thoracic radiology, and a clear focus was put on clinically relevant topics. A high number of high quality radiographical figures are designed to illustrate the aims of respective articles, and contributions dealing with diagnostic algorithms were complemented by comprehensive tables. Finally, each contribution is followed by an extensive list of references that should serve as a guide to further reading.

Throughout our clinical and scientific activities, we have had the privilege to work with outstanding colleagues from pulmonary medicine. This collaboration has greatly inspired our own work and has deepened our understanding for the issues of respiratory medicine. In this light, this Monograph also is an acknowledgement of the tremendous input that the respiratory community had on our work. We hope that this Monograph will give some of it back to where it came from.