
Pablo Bertrand • Ignacio Sánchez
Editors

Pediatric Respiratory Diseases

A Comprehensive Textbook



EDICIONES UC



Springer

Editors

Pablo Bertrand
Pontificia Universidad Católica de Chile
Santiago
Chile

Ignacio Sánchez
Pontificia Universidad Católica de Chile
Santiago
Chile

Translation from the Spanish language edition: “Enfermedades Respiratorias del Niño - Segunda edición” by Pablo Bertrand and Ignacio Sánchez. © Ediciones Universidad Católica de Chile (Ediciones UC) Pontificia Universidad Católica de Chile, 2016. Original Publication ISBN 978-956-14-1945-2. All rights reserved.

ISBN 978-3-030-26960-9 ISBN 978-3-030-26961-6 (eBook)

<https://doi.org/10.1007/978-3-030-26961-6>

© Springer Nature Switzerland AG 2020

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland



Complicated Pneumonia

33

Francisco Prado Atlagic,
Rodrigo Vásquez-De Kartzow,
Pamela Salinas Flores,
and Pamela Navarrete Contreras

Contents

Definition	323
Epidemiology	324
Etiology	325
Empyema Physiopathology	325
Pleural Effusion, Classification, and Progression Phases	326
Clinical Manifestations	326
Diagnosis	326
Basic Laboratory Tests	327
Microbiological Study	328
Thoracentesis	328
Treatment	329
Antibiotics	329
Repeated Thoracentesis	329
Pleural Chest Tube	330
Pleural Drainage Tube with Associated Fibrinolytics	331
Surgery	331
Follow-Up	332
Prognosis	332
Summary	332
Sources	333

F. Prado Atlagic (✉)
Department of Pediatrics, Hospital Clínico San Borja
Arriarán, Santiago, Chile

R. Vásquez-De Kartzow
Department of Pediatrics, Faculty of Medicine,
Universidad de Chile, Santiago, Chile

P. Salinas Flores
Pediatric Service, Clínica Las Lilas,
Providencia, Chile

P. Navarrete Contreras
Department of Pediatrics, Hospital de Los Ángeles,
Los Ángeles, Chile

Definition

Complicated pneumonia includes all clinical situations in which the deterioration caused by the disease jeopardizes complete recovery. These are classified as suppurated or nonsuppurated complications (Table 33.1). Suppurated complications are related to the extension of the inflammatory component, mainly considering the pleura, with an increase of pleural fluid, which in