

BOOK REVIEW

# Oxford Specialist Handbooks in Paediatrics Manual of Childhood Infections The Blue Book

**Smilja Kalenic**

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## Details

Oxford Specialist Handbooks in Paediatrics  
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The Blue Book  
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The Manual of Childhood Infections is a part of the Oxford Specialist Handbooks series with numerous handbooks for many special fields in medicine. The Manual of Childhood infections belongs to a section of Oxford Specialist Handbooks in infectious diseases.

## General Characteristics

This is a fourth edition of the Manual. The first edition appeared 20 years ago (1996), the next edition was in 2001 and the third edition in 2011. The fourth edition is re-written and updated from the third edition. The

current edition is in paperback, published 07 April 2016, also available as an e-book and in Oxford Medical Online.

The Manual has 1,032 pages, and is printed in 180x100 mm format. There are 126 chapters, with 131 tables and 14 boxes, 33 figures, 11 colour plates and 7 black and white photos in the book.

There are 29 section editors from 11 European countries and Israel, and 136 authors from 20 countries all over

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## Corresponding Author

Smilja Kalenic

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the world (most section editors are also authors). Importantly, the Manual is a result of the partnership between The European Society for Paediatric Infectious Diseases (ESPID) and Royal College of Paediatrics and Child Health (RCPCH) with the general aim to decrease variation in practice of children infectious disease management (as stated in the foreword).

The Manual of Childhood Infection is primarily aimed for use in Europe and then in the rest of the world, giving mostly European epidemiological data and guidelines while at the same time providing evidence-based data from the whole international scientific community. The whole content of the Manual is evidence-based and up-to-date. The target population of users includes paediatricians (specialists and trainees), but also all those professionals who might see and care for a child with infection.

### Organization of the Manual

The Manual starts with colour photos of 11 common childhood rashes, described later in the related chapters. After the Foreword (written by Professor Neena Modi from RCPCH and Professor Adam Finn from ESPID), Contents, List of Section Editors and List of Contributors, there is an alphabetical list of symbols and abbreviations.

Following are two main sections: *Clinical Syndromes* (pages 3-384) and *Specific Infections* (pages 385-966). At the end of the Manual there are four *Appendices* rewritten and updated.

The Manual ends with a comprehensive 23-page, three column *Index*.

### Content of the Manual

#### *Clinical Syndromes*

This section *Clinical Syndromes* has 41 chapters, arranged alphabetically (from "Antibacterials" to "Zoonoses"). The first five chapters are about antimicrobial agents (classification, resistance, spectrum, specific agents and antimicrobial stewardship). There are several general topics ("Emerging infections and pandemic preparedness", "Immunization of the immunocompromised child", "Infection control in the community", "Infection control in the hospital", "Laboratory diagnosis of infection", "Gram-positive

bacteria", "Gram-negative infections", "Investigating the child with possible immunodeficiency", "Travelling abroad with children") and there is description of 26 clinical syndromes – some very common and some rare – that cover practically all conditions of childhood infections. Three additional clinical syndromes ("Conjunctivitis", "Haemolytic-uremic syndrome" and "Kawasaki disease") are put in the *Specific infections* section.

There are three new topics: "Antimicrobial stewardship", "Immunization of immunocompromised children" and "Gram-positive bacteria". The chapter "Antimicrobial stewardship" describes goals, models and strategies of antimicrobial stewardship programmes as well as the current state in paediatrics, and emphasizes the need for greater concern about antibiotic use. In "Gram-positive bacteria" most clinically important Gram-positive bacteria are very briefly presented, as in the *Specific infections* section almost all of them have their own chapter. The chapter "Immunization of immunocompromised children" is a very practical one, giving precise advice about when and how and with what preparation to immunize immunocompromised children. In the previous edition the immunization schedule of an immunocompromised child was included in Appendix 3, but the importance of this topic is reflected by the addition of an entire chapter in this edition.

Two more chapters deal with immunocompromised children, again reflecting the growing importance of these populations and of the infections that they develop. These chapters are "Immunocompromised children with infection" and "Investigating the child with possible immunodeficiency". Both chapters are up-to-date and comprehensive. The first one provides an overview of all types of immunodeficiency and a very detailed list of causative agents in particular types of immunodeficiency, as well as clinical presentations and differential diagnoses, management, and treatment of infections. The second one addresses primary immunodeficiency, providing many more details (including a precise classification of primary immunodeficiency) and methods of testing children with suspect primary immunodeficiency. These two chapters obviously complement but unfortunately do not cross-reference each other, leaving this to the reader to do.

Among other chapters, a very important one is the chapter on “Refugees and internationally adopted children” in light of the current migration crisis in Europe. In this chapter there are very detailed epidemiological data from different parts of the world from which modern refugees come, then advice for screening for infection in these children, preventive measures for future infections, and measures to prevent transmission to adoptive parents and household contacts.

Some chapters in the section *Clinical Syndromes* are presented in this edition under different titles, but the reader who knows previous editions will very easily recognize the topic of interest.

### **Specific Infections**

The section *Specific Infections* has 85 chapters, also alphabetically arranged (from “Adenovirus” to “Yersiniosis”). They cover most known causes of infections, be they bacteria (34 chapters), viruses (29 chapters), parasites (13 chapters) or fungi (five chapters). Furthermore, all microorganisms are equally covered regardless of the frequency of infections they cause in children or their geographic distributions (in Europe or anywhere in the world). This is very important especially for trainees as they can learn much about rare infectious conditions, and therefore consider alternate differential diagnoses in children they are evaluating.

There are two new topics in this section (“Prion disease” and “*Kingella kingae*”). *Kingella kingae* is really a new addition to the known causes of infections in children (causing bacteraemia, septic arthritis, osteomyelitis, endocarditis), otherwise being a commensal in the oropharynx of children mostly between 6 months and 2 years of age. Although prion diseases are not diseases of childhood, the editor has included this chapter so that we have in the Manual a complete array of causes of infections.

### **Appendices**

Appendix 1 (seven pages, two tables) – “Morbidity and mortality from infection” gives detailed data from the UK, other European countries and some general world data; furthermore, detailed tables showing pathogens on death certificates in children and neonates in

England and Wales between 2003 and 2005 are presented. The Appendix contains broader data than in the previous edition.

Appendix 2 (five pages, one table) – “Guidance of infection control in school and other childcare settings” gives very useful advice in an easily comprehensible table for exclusion periods for children with infection (divided to diarrhoea and vomiting, respiratory infections, rashes/skin and other infections), based on unpublished work carried out for the European Centre for Disease Prevention and Control (ECDC); these exclusion periods vary across Europe so the table has an important role in harmonizing recommendations.

Appendix 3 (nine pages) – “Variation in immunization schedules in Europe”: included are the ECDC interactive website as well as the WHO website with individual country immunization schedules and vaccination coverage; in addition very detailed immunization schemes for pertussis in different EU countries are shown, and detailed descriptions and recommendations for about 15 vaccines are given. This expands on the UK-only recommendations in the previous edition.

Appendix 4 (45 pages, with a tabular presentation in 43 pages) – “Blue book antimicrobial dosing guide”: this is a very detailed table showing neonatal and paediatric dosing of 132 individual antibacterial, antiviral, antifungal and antiparasitic drugs, presented in alphabetical order. Paediatric dosing is further divided by body weight. Data about dosing are corroborated with the strength of the pharmacological evidence for the dose recommended. I presume that this Appendix will be the most frequently used part of the Manual.

### **Organization of the Chapters**

There is a somewhat common structure in the chapters, however this differs slightly between the two sections. Most chapters of *Clinical Syndromes* have the following structure: they start with a short introduction and definition, a description of the syndrome, causative organism(s), epidemiology, clinical presentation and differential diagnosis, investigations, treatment, prevention, follow-up and outcome, further research, and further reading (up to 5-10 references, mostly published in the last 5 years or key references). Some

chapters have slightly different organization and some additional paragraphs about pathophysiology, clinical decision rules etc., depending on the clinical syndrome. Many chapters have two very interesting and important paragraphs: "What's New" and "What's Next". These are very short paragraphs emphasizing the essential points of that chapter. For example, from Chapter 23 ("Neonatal Infections"): "What's New?" "Increasing recognition of the role and importance of antimicrobial stewardship in preventing infections and minimizing antimicrobial resistance". "What's next?" "Implementation of the group B streptococcal conjugate vaccine in pregnancy".

In the section *Specific Infections*, chapters start with the name and nature of the organism, epidemiology, transmission and incubation period, clinical features (and sequelae), diagnosis, investigation, management and treatment, prevention, further research, further reading (again up to 5-10 references, mostly published in the last 5 years, or several key references), and some chapters also have "What's New" and "What's Next" paragraphs. Some chapters have a different layout, depending on the causative agent.

Classifications of syndromes/diseases/microorganisms that are present in many chapters are very useful especially for trainees. They are usually presented in easily comprehensible tables or boxes. There are more than 25 such classification tables/boxes throughout the Manual.

Such chapter structure enables easy access to the information needed, but also in a systematic manner gives a full picture about a clinical syndrome or specific infection. This is very useful for the busy specialist but also for trainees who still have to study a topic in a systematic way.

### Text Layout

The text is not composed of classic paragraphs, but is mostly presented in short sentences with a blue bullet in front of the sentence. Such layout contributes to the ease of reading and understanding of the text.

The layout of the Manual is very convenient. Throughout the chapters there are subtitles in two levels: the first are black subtitles of particular paragraphs using larger font than the text, and second are blue subtitles within

individual paragraphs that contribute to the visibility of specific parts of the text and help to easily find the part you need.

The text is rich in tables and figures. All tables contribute to the good layout of the Manual, and represent very good educational material (especially classification tables). In some chapters there are boxes with specific important messages (unfortunately the boxes are not bordered, so are not easily visible).

The format of the Manual (180x100 mm) is very convenient for use: one can hold it in one hand and easily search for the required text, turning the pages with the other hand.

### Conclusion

The Manual of Childhood Infection (4<sup>th</sup> Edition) is a book containing the most up-to-date information in the field, corroborated with the newest references and suggestions for further research. Facts about causative agents, epidemiology, investigations, differential diagnosis, outcomes, and management and treatment of most infectious diseases of children, both common and rare, are elaborated on. Importantly, all clinical syndromes and specific infections are covered with the equal attention that is very useful not only for differential diagnosis but also for education of trainees. The organisation of the Manual is logical: i.e., the first part dealing with infectious syndromes is what actually happens in real life, when a child presents to the physician, while the second part about individual causative agents gives further in-depth information. There are four very useful appendices at the end of the Manual, and Appendix 4, the "Blue book antimicrobial dosing guide", will be certainly used very often. The very convenient layout of the Manual makes it easy to go through and find the chapter, paragraph and sub-paragraph a user needs at a particular moment. There are numerous evidence-based data to support the basis of the practical recommendations given. This makes the Manual indispensable for every practicing physician and trainee who will be caring for a child with an infectious disease.