

## Book Review

### A very French textbook on pediatric pain

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**Ecoffey C, Annequin D (Eds.) (2011). *La douleur chez l'enfant* (2ème édition). Paris: Médecine Sciences Publications/Lavoisier, 162 pp. ISBN 978-2257204714. (Paperback: 43,00 €).**

*La douleur chez l'enfant* was published last year. It is the second edition of a book that was first published in 1999 by Claude Ecoffey and Isabelle Murat. The new edition has 18 chapters (162 pages) compared to 19 chapters (191 pages) in the first edition. This review emphasizes how French-speaking clinicians in North America might respond to this book from France.

The new edition comprises new chapters on topics not covered by the earlier edition but unfortunately some chapters related to acute pain, such as pain management in the Emergency Department and pain management of burn patients, were removed. These areas of pain management are often neglected and I expected them to be covered in the new edition. In general, the book covers chronic cancer and non-cancer pain management more than acute pain management. Further, the chapter on pain management of handicapped children was cut down to one page in the chapter on pain evaluation, which is disappointing considering the emergence of evidence-based knowledge on the evaluation and treatment of pain for this particular population of children.

I noticed a strong focus on pain pharmacology including the addition of a chapter on ketamine. Other interesting additions are chapters on somatization of pain, psychological approaches to

pain management, pediatric pain management at the end-of-life and procedural pain management.

#### Chapter 1: Physiology of nociception in the newborn infant

This first chapter discusses the physiology of pain in newborns and is a good summary of the topic for non-experts. The figures and diagrams are helpful and clear. I was however surprised that only the newborn physiology was covered and not the developing child physiology as in the first edition. I was expecting an update on the current knowledge on this important topic.

#### Chapter 2: Assessment of pain in children

This chapter presents a detailed overview of the pediatric pain scales currently used in clinical practice. Some of the scales presented are not yet validated in French, such as the FLACC scale, or similarly, have been validated in French but not translated or validated in English, like the Gustave Roussy Child Pain Scale (*Douleur Enfant Gustave Roussy*; DEGR). It is not obvious which scales have been translated and/or validated in which languages. I considered that the table on pain scales is not as clear as the one presented in the first edition of the book in which information presented offered a rapid, easy to use summary of scales available according to each context. I noted that an important reference on pain measurement in clinical trial was overlooked, the report from the Pediatric IMMPACT group (McGrath et al., 2008), maybe the best review of pediatric pain scales.

### Chapter 3: Non-opioid analgesics for children

This first chapter focusing on pharmaceutical approaches covers non-opioid medications. From the start of the chapter, a difference in vocabulary in France compared with North America is identified, since *opioides* tends to be used in French in North America instead of *morphiniques*. The chapter is detailed, and even includes many medications not yet studied or recommended in pediatrics. As will become evident, the difficulty for the reader comes from challenges in applying the knowledge shared to the North American context of clinical practice. The range of medications available and legal to use is quite different in Europe, and even for similar medications, the brand names, formulation, and even recommended dosages are different. All these disparities make it difficult to apply the clinical recommendations in North America.

### Chapter 4: Opioid analgesics

This chapter focuses on opioid medications and shares most of the comments about the previous chapter. Morphine is the main medication discussed, and other commonly used opioids (e.g. hydromorphone, fentanyl, oxycodone, methadone) are not mentioned. I was personally challenged with the definition of some of the acronyms used in the chapter that I was not familiar with and could not find a section where they were all defined. I was also surprised to see codeine being recommended, with the recent studies (Willmann et al., 2009; Kelly et al., 2012) showing the risks associated with high prevalence of ultra-metabolizers and non-metabolizers in the general population. The current controversy about the World Health Organization (WHO, 2012) 3 vs 2 step approach was not discussed. Overall this is a good basic chapter on how and when to use opioid medications if practicing in France, but the information is not applicable to North America.

### Chapter 5: Regional and topical analgesia

This is one of the best chapters in the book, as it is well-written and well-illustrated. With the exception of some of the topical products, all the information presented is relevant for North American clinicians. The chapter is also supported

by more than 80 references, so it provides a very useful review for clinicians in training.

### Chapter 6: Ketamine for painful procedures

The very brief chapter (4 pages) reviews the use of ketamine for three indications: general anesthesia, procedural pain, and the opioid sparing effect in postoperative or chronic pain situations. The use of ketamine as a primary or co-analgesic for neuropathic pain (short- or long-term) is not discussed in detail. Only the side effects experienced in the acute usage of ketamine are presented. The author discusses the legal aspects around the use of ketamine (and other medications) in various countries, but the recommendations are based on the current French guidelines.

### Chapter 7: Psychological and physical techniques in management of children's pain

Overall, this chapter represents an excellent review of techniques including hypnosis, music therapy, and relaxation. The information is divided into clinical contexts (e.g. procedures, chronic pain) for which the recommended techniques are presented, with a particular emphasis on hypnosis. The information is well-supported by references including multiple research studies that will certainly bring new knowledge to pain medicine clinicians.

### Chapter 8: Postoperative pain

This chapter is mainly focused on pharmacological pain management. Physical and psychological interventions (cognitive-behavioral techniques) adapted to the postoperative context could have been added to present a more complete, holistic approach to postoperative pain management. Among the analgesics presented, I was quite surprised to still find the promotion of codeine (as in chapter 4) as part of the analgesics to be administered to children after surgery when major pediatric centres around the world are moving towards the withdrawal of codeine from their pharmacopeia. As stated by the authors, and supported by many references, codeine as a pro-drug is not an optimal analgesic to be administered to children. Again, differences between European

and North American practices were noted and newer approaches to prevent postoperative pain, such as the use of gabapentin pre-surgery, were not discussed.

### **Chapter 9: Procedural pain**

Discussing procedural pain is fundamental and this chapter is one of the best written in the book. The idea of integrating pain management to care is well-developed. The treatment suggestions are well-detailed, but with a main focus on MEOPA (equimolecular mixture of oxygen and nitrous oxide), which is not as widely used in North America as it is in France. The section on non-pharmacological methods is a useful addition. I particularly appreciated the case-based examples at the end of the chapter, presenting concrete situations and how to approach them.

### **Chapter 10: Pain in the neonate**

Despite some redundancy with chapter 1, this chapter is well-written, detailed and is well-supported with more than 100 references. Similar to chapter 9, non-pharmacological approaches are presented as an important part of the prevention and treatment of pain in neonates. Pharmacological treatments are well-detailed for more complex and severe types of pain. Overall this is an excellent concise summary of the topic presented in a manner than will be useful to students and clinicians wherever they are in the world.

### **Chapter 11: Migraine and primary headaches in children**

This chapter starts with a review of the classification of headaches and then focuses primarily on the physiopathology and diagnostic approaches of migraines; although it is sometimes confusing if the author is referring to headaches in general or specifically migraines. Comorbidities associated with migraines are also discussed. The treatment recommendations are from a French agency, but mostly applicable to North America as well. The website recommended at the end of the chapter is managed by the author, but it is not clearly mentioned in the text.

### **Chapter 12: Pain in children with cancer**

The initial section of this well-written chapter presents a good review of the epidemiology and physiopathology of pain in pediatric cancer. The two assessment scales included are well-detailed, but have never been validated in English, limiting their use to French-speaking patients and teams. The list of therapeutic options presented is much more complete than the one presented in chapters 3 and 4, covering all the main classes of medication for cancer-related pain, and the most popular non-pharmacological approaches, including radiation therapy, particularly in a palliative context..

### **Chapter 13: Neuropathic pain**

The semiology and etiology sections of this chapter on neuropathic pain are well-presented, but the questionnaire (diagnostic tool) presented has only been validated in French. One formatting detail of this chapter is the use of bold text for the medication names, a very useful detail that could benefit all the other chapters. Although based on the French guidelines, the pharmacological and non-pharmacological treatments suggested are mostly the same as in North America, making this chapter useful for students outside France

### **Chapter 14: Pain in vasoocclusive crises in children with sickle cell anemia**

After reading this chapter a few times, and despite a good physiopathology review and excellent references, there is a sense of subjectivity in the author's tone that is hard to ignore. The verbatim examples are informative and help understand the patients' point of view. As in other chapters, two of the assessment scales presented are only available in French (EVENDOL, HEDEN). The severe pain treatment algorithm would need significant modifications to be applicable in North America and the use of generic names instead of brand names would improve its utility outside France.

### **Chapter 15: Somatization, complex and chronic pain?**

I was quite confused by this very short (3 pages) chapter. The title, with its question mark, initiated the confusion about the meaning of each

concept listed. Although some references were listed, a lot of professional opinions were presented, without support. It was surprising not to see any physical approaches being discussed (e.g. physiotherapy, massage therapy), and only one medication included (Laroxyl® - amitriptyline).

### **Chapter 16: Practical use of analgesics in children**

As mentioned for chapters 4 and 8, I was disappointed to see the 3-step ladder presented with a long paragraph on the use of codeine in this chapter on the practical aspect of using pain medications in children. Genetic polymorphism in the metabolism of this drug was mentioned, but not its danger. The use of brand names instead of generic names for medications makes it difficult for the North American reader, as the names of molecules differ greatly. The practical examples cover an interesting mix of acute and chronic pain situations, but for the reasons mentioned above, this chapter, useful to the French reader, will not be as practical for students and clinicians outside France.

### **Chapter 17: Pain at the end-of-life in children and adolescents**

This chapter on pain at the end-of-life is very well-written, detailed without being too heavy, and offers an excellent review of the topic. The palliative care philosophy of care is included to help comprehend the pain management approach suggested. Both the assessment and treatment sections, including the subsections on refractory pain and sedation, are general enough to be useful outside France, with the exception of a few pain assessment scales. One of the most helpful sections is definitely the one on prevention of pain related to medical interventions, an excellent reflection on many routine care acts.

### **Chapter 18: Nursing practices for children in pain**

I consider this chapter as essential for a book on pain management in children since nurses play an important role in the assessment and treatment of pain. Even though this chapter is very relevant, I think that monitoring related to the administration of analgesics should be discussed in all chapters on

medications, as surveillance is a shared responsibility between all healthcare professionals. This chapter would have benefited from a review of the protocols available on surveillance related to opioids administration. The text boxes summarizing the important points are helpful to the reader and would have been a great feature to include in all chapters.

### **Summary**

Overall, this book represents a good overview on pediatric pain in France, but a lot of its content is not applicable to the clinical context of care in North America. Significant differences in terms of assessment scales (not translated and/or validated in English), medications available, route of administration, and rules and regulations make it difficult for students and clinicians outside France to use the information in the book. A more consistent way of formatting chapters would also greatly improve this book, by generalizing the use of key message boxes, bolded medication names and case-based clinical examples.

Although there is a need for more textbooks in French, the translation of a North American textbook may be more practical for Canadian students and clinicians than a European textbook. I hope that next time this book is edited, the authors will keep the current chapters and revise the important ones from the first edition that were not included in the second edition. Finally, I hope that the knowledge presented in the next edition will reflect a more recent review of the literature, as the content of many chapters in this edition was based on references published in 2006 and earlier. By the time of the next edition, an electronic version will mostly be available too, making the book a useful portable tool for clinicians.

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## References

Kelly LE, Rieder M, van den Anker J, Malkin B, Ross C, Neely MN, et al. More codeine fatalities after tonsillectomy in North American children. *Pediatrics* 2012;129:e1343-e1347. [www.pubmed.gov/22492761](http://www.pubmed.gov/22492761)

McGrath PJ, Walco GA, Turk DC, Dworkin RH, Brown MT, Davidson K, et al. Core outcome domains and measures for pediatric acute and chronic/recurrent pain clinical trials: PedIMMPACT recommendations. *J Pain* 2008;9:771-783. [www.pubmed.gov/18562251](http://www.pubmed.gov/18562251)

Willmann S, Edginton AN, Coboeken K, Ahr G, Lippert J. Risk to the breast-fed neonate from codeine treatment to the mother: a quantitative mechanistic modeling study. *Clin Pharmacol Ther* 2009;86:634-643. [www.pubmed.gov/19710640](http://www.pubmed.gov/19710640)

World Health Organization. WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses. Geneva, Switzerland: World Health Organization, 2012. [www.who.int/medicines/areas/quality\\_safety/guide\\_perspainchild/en/index.html](http://www.who.int/medicines/areas/quality_safety/guide_perspainchild/en/index.html)