

# ABCDS of Emergency Medicine

Ninth Edition : 2021

## Dedication

**This book is dedicated to all health professionals working in acute care**

Though our work is challenging, we can aspire to bring  
our compassion, knowledge and experience to care  
for those who seek our assistance in a time of crisis

**And to our families for their love and support**

Elizabeth, Rebekah, Natasha, Matthew, Lucy, Luca, Viola and Aiyana  
Michelle, Summer and Zane

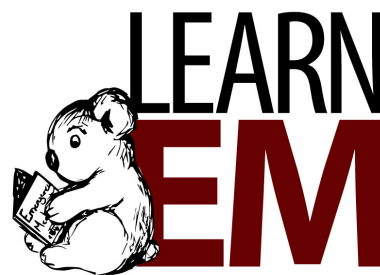
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**ABCDs of Emergency Medicine, Ninth Edition**  
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Medical knowledge is continually changing in response to research and clinical experience. The authors and peer reviewers have made every effort to ensure the information and drug doses meet with the current standards of medical practice. However, in view of the possibility of human error or changes in practice or local protocols, readers are advised to check the most current information contained provided on procedures or drugs with the manufacturer of each product and their local clinical guidelines to verify the recommended dose or formula, the method and duration of administration and contraindications.

It is the responsibility of the individual clinician, based on their clinical experience and knowledge of each patient to make diagnoses, to determine drug doses and decide on the best treatment for an individual patient and to take all appropriate safety precautions. Neither the authors nor the publisher assume any liability for any injury and/or damage to persons or property arising out of or related to any use of the material contained in this book.

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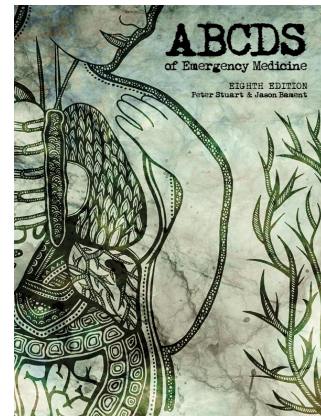
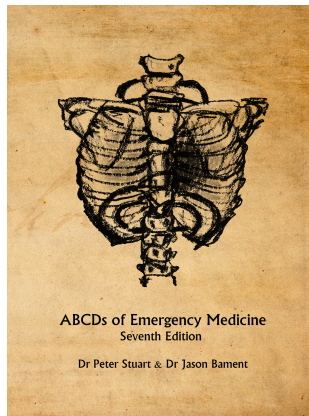
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# Cover Design

## About the Artist

Rebekah Rocca is an Adelaide based graphic artist, illustrator and children's author. She works as freelance graphic designer. Her work can be found on [www.ohsewbekyy.com](http://www.ohsewbekyy.com)

Her association with the “ABCDS of Emergency Medicine” began in 2007 when she was commissioned to design several different covers of the 5<sup>th</sup> edition of the book. Rebekah has since designed the cover for 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and the current 9<sup>th</sup> edition of the book.



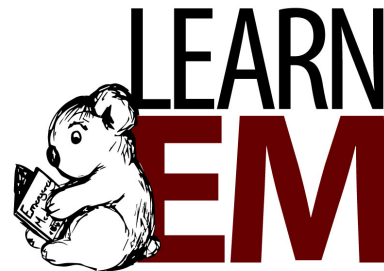
Rebekah's first book was published in 2019 “A Place to Belong” and was dedicated to her son Luca. The book has been featured on the shelves of Dymocks and is available in many boutique children's and book stores around Australia. The third reprint of the book was dedicated to raising money for those affected by the 2020 bushfires in Australia.

Rebekah is currently working on two more children's books dedicated to her daughters Viola and Aiyana. She can be found on Instagram @ohsewbekyy where she shares her busy life as a mum to three as well as her latest creative endeavours.



## Preface

The first edition of ABCDs was written in 1997/98 in response to requests from medical and nursing staff for an easily readable, concise and practically based textbook on emergency medical practice. Many of the standard texts at the time were perceived as either too long and detailed or written in a format ideal as a reference but difficult to read. The aim was to produce a text that sifts through the extensive body of medical knowledge to provide clinicians with the core concepts and foundations for managing a wide range of emergency presentations in a variety of clinical settings.



To our great pleasure the book has grown over the past 20 years to become a learning resource for many of our colleagues working in acute care and a clinical tool to assist with the delivery of bedside care in the acutely ill or injured adult or child. The ninth edition explores many of the exciting developments in acute care over the past 4 years including our growing experience with bedside ultrasound, the wider use of humidified high flow nasal prong (cannula) therapy (HFNP) and the increasing awareness of the role of human factors in resuscitation. New chapters have been added on topics as diverse as clinical simulation, zero point survey, urogenital and neonatal emergencies, approaches to ED overcrowding and access block and of course an entire new section on the topic of COVID-19. Many of the chapters have been extensively revised, with several completely rewritten, the aim being to provide greater clarity for the reader in approaching a topic as well as ensuring inclusion of all of the exciting developments in emergency medicine. Single page “Clinical Management Summaries” continue to feature throughout the book with the aim of providing a useful bedside tool for the management the acutely ill or injured patient. The Clinical Management Summaries and a range of other clinical resources useful for bedside care have been collated in the “*EDcare Handbook of Emergency Practice*”<sup>1</sup>.

As with previous editions the book is designed to assist learning and continuing professional development in emergency medicine. Each chapter provides a succinct, easily readable overview that aims to provide all the critical information required to understand a topic and can be read in the time it takes to drink a cup of coffee. We imagine readers pausing for a moment now and again to read a chapter or two related to a recent clinical case they have encountered. This reflective approach to learning is in our experience extremely effective and provides an almost effortless way of learning by linking clinical knowledge with personal experience.

As medicine is best appreciated (and in truth best learned) through clinical cases that challenge us to think and problem solve, the book provides this opportunity through the LearnEM Website. The website is designed to bridge the gap between the written text and clinical practice. The eLearning modules allow readers to explore an emergency topic through interactive clinical cases, eTutorials, procedural videos, discussion of recent research, interpretation of laboratory tests, imaging and ECGs and to self-test their understanding of a topic through graded quizzes. There are now over 30 courses on the LearnEM website covering everything from resuscitation through to emergency obstetrics through to eye emergencies through to ECG interpretation. The book is divided into 11 major areas of emergency medicine and for each area we have identified the courses on the website that may be most useful to the reader. It is our hope that readers will find these courses provide a useful learning tool for their continued medical education.

Many areas of emergency medicine lack a single approach to care and often depend on the (local) resources available to the clinician. The ABCDs of Emergency Medicine began as an attempt to provide a practical approach to clinical care that considers this variation in resources and skills. It is our hope that this new edition continues to fulfil this role, fosters a deeper understanding of emergency care among health professionals and assists them with their work with the acutely ill or injured.

**Peter Stuart, Jason Bament**

**November 2021**

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<sup>1</sup> Details on the Print or Electronic versions of the “*EDcare Handbook*” are available on the LearnEM Website [www.learnem.com.au](http://www.learnem.com.au)

# Acknowledgements

This book would not have been completed without the assistance of our colleagues in Emergency Medicine, Specialist Medical Practice, Emergency Nursing and Midwifery, Rural General Practice and Clinical Education.

We gratefully thank our colleagues who spent many hours reviewing chapters and clinical management summaries in this edition and previous versions of the book and provided many helpful comments, feedback and suggestions. Thank you especially Ms Alisa Bates, Ms Katie Boon, Dr Trevor Burchall, Ms Derani Burns, Dr Tim Burrough, Dr Maureen Busuttil, Dr Simon Chu, Dr Herman Chua, Dr Danielle Crosby, Ms Jo Douglas, Dr Daniel Edge, Mr Stuart Harper, Mr Shannon Hill, Dr Chanh Huynh, Dr Sue Johanson, Ms Ali Jones, Ms Anne Lentakis, Dr Steve Napoli, Dr Ramanathan Narendranathan, Ms Michelle McLay, Dr Maggie Measeday, Dr David Morris, Dr Balaji Motamarri, Dr Geoff Oddie, Dr Mohines Pala, Dr David Pope, Ms Janine Pullin, Dr Tom Quigley, Dr Russell Richardson, Dr Jane Rowland, Mr Stuart Smith, Mr Anthony Sparnon, Dr Mark Stevens, Ms Natasha Stuart, Dr David Thompson, Mr David Tingey, Dr Angela Travis, Dr Joy Treasure, Mr Jason Walters and Associate Professor Julian White.

We thank our colleagues who have contributed material to previous editions including Dr Russell Boyd (Seriously Ill child, Cervical Spine), Dr Simon Chu (Febrile Child, Asthma, Croup, Gastroenteritis), Dr Sue Johanson (Ketamine Sedation), Ms Anne Lentakis (Burns), Dr Ramanathan Narendranathan (Epistaxis, Early Pregnancy Complications), Dr Balaji Motamarri (Suicide, History and Mental State Examination), Dr David Pope (Heart Failure, Fractures), Dr Jane Rowland (Spider Bite, Snake Bite), Dr David Thompson (Chest pain, Headache) and Dr Joy Treasure (Seriously ill child).

We would especially thank our partners, Elizabeth Stuart and Michelle Bament. Your support and patience provided us with the motivation, time, energy and opportunity to complete this book.