Girolamo Mattioli Paolo Petralia *Editors* 

# Pediatric Robotic Surgery

Technical and Management Aspects



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#### **Foreword**

Pediatric robotic surgery is developed over the years especially in pediatric urology, but recently this technology is applied for other pediatric diseases. For the first time a book on pediatric robotic surgery is presented, covering all the fields of pediatric surgical pathology (thoracic, abdominal, oncology, gynecological, and urinary). All the principal international pioneers of pediatric robotic surgery are involved, providing current indications to robotic surgery; technical notes are illustrated to show patient position, robotic assessment, and the optimal use of robotic instruments. Managerial aspects are provided to give suggestions to start robotic surgical approach in each pediatric department. This book is addressed to the hospital general managers, medical directors, pediatric surgeons, and pediatric urologist.

Genoa, Italy Luca Pio

#### **Preface**

The field of pediatric minimally invasive surgery has undergone remarkable changes in the last few years.

The growing technology offered more and more miniaturized and precise instruments up to the creation of a robotic system able to support the surgeon in more and more complex surgical procedures.

Despite this the current robotic systems are still not able to replace the surgeon who maintains a key role in the performance of surgical procedure and that above all has to decide the surgical indications, the operative setting, and know how to manage surgical complications.

This book is intended to provide all the instruments to start a pediatric robotic surgical program in a pediatric surgical unit. Managerial insights were provided in order to face up to the high purchase and maintenance cost of a robotic system.

All the fields of pediatric general surgery and urology are covered including the most recently reported techniques.

The authors were selected from Europe and the United States and each chapter was written by an authority in that field.

The overall objective of this book is to improve the offer of the minimally invasive approach to those children that actually received open surgical procedures due to the limitations of the traditional laparoscopy/thoracoscopy.

Genoa, Italy

Girolamo Mattioli and Paolo Petralia

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### Part 1

# Strategy Planning, Training and Preoperative Setup