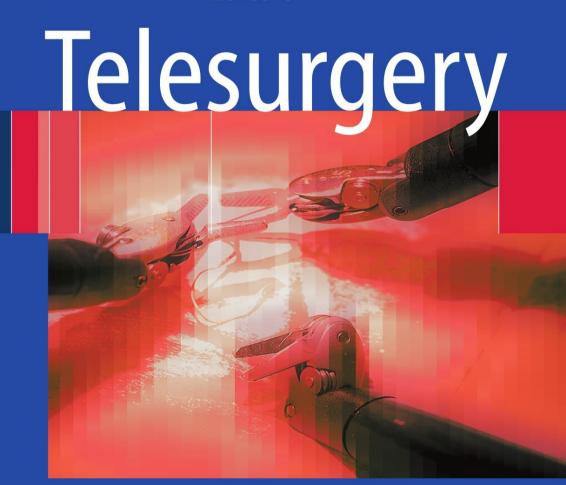
Sajeesh Kumar Jacques Marescaux *Editors* 





Sajeesh Kumar Jacques Marescaux (Eds.) **Telesurgery** 

# Telesurgery



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# **Preface**

Developments in telesurgery are progressing at great speed. As a consequence, there is need for a broad overview of the field. This first-ever book on telesurgery is presented in such a way that should make it accessible to anyone, independent of his or her knowledge of technology. The text is designed to be used by *all* professionals, including surgeons, nurses, allied health professionals, and computer scientists, and not just medical practitioners.

In a very short time, driven by technical developments, the field of telesurgery has become too extensive to be covered by only a small number of experts. Therefore, *Telesurgery* has been written with chapter contributions from a host of renowned international authorities in telesurgery (see the Table of Contents and the List of Contributors). This ensures that subject matter focusing on recent advances in telesurgery is truly up to date. Our guiding hope during this task was that as editors of multiple chapters and authors, we could still write with a single voice and keep the content coherent and simple. We hope that the clarity of this book makes up for any limitations in its comprehensiveness.

The editors took great care that *Telesurgery* would not be merely a collection of separate chapters but would offer a consistent and structured overview of the field. We are aware that there is still considerable room for improvement and that certain elements of telesurgery are not fully covered, such as various surgical specialities, legal matters and reimbursement policies. A surgeon holds an array of sensors that is missing in the surgical robotics tools-sensors that can sense texture, temperature, force, pressure, blood pulse and smell! The new generation of tools for surgical robotics may include more sensing capabilities (such as the one explained in Chapter 11) for conveying to the surgeon information regarding the state of the tissue. The editors invite readers to forward their valuable comments and feedback to further improve and expand future editions of *Telesurgery*.

Books on theoretical and technical aspects inevitably use technical jargon, and this book is no exception. Although jargon is minimized, it cannot be eliminated without retreating to a more superficial level of coverage. The readers' understanding of the jargon will vary based on their respective backgrounds, but anyone with some background in computers, health, and/or biomedicine should be able to understand most of the terms used. In any case, an attempt to define jargon terms is made in the Glossary.

This *Telesurgery book* has been organized systematically. The format and length of each chapter is standardized, thus ensuring that the content is concise and easy to read. Every chapter provides a comprehensive list of citations and references for further reading. There are numerous figure drawings and clinical photographs throughout, which illustrate and illuminate the text well, providing high-quality visual reference material. Particularly useful features of this text are that each chapter ends with a summary of salient points for the reader.

The book contains 15 chapters and begins with a brief introductory chapter explaining the concepts that are mainstay to telesurgery; subsequent chapters are built on those foundations. Within each chapter, the goal is to provide a comprehensive overview of the topic. The chapters on telementoring and law are deliberately placed in this first edition of the book to emphasize the fundamental importance of these topics. Nevertheless, its content is not inclusive, since opportunities arise progressively in this domain. The final chapter covers future directions for telesurgery.

This book would not have been possible without the assistances of various people. We acknowledge and appreciate the assistance of all reviewers and Ms. Latika Hans, editorial assistant from Bangalore, India. We would like to thank all authors for making this possible through their chapter contributions. Their contributions in the nottoo-distant future will be seen as major developments in health care.

SAJEESH KUMAR and JACQUES MARESCAUX

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