

Book Reviews

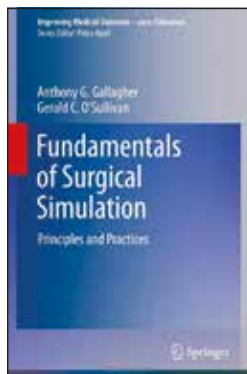
FUNDAMENTALS OF SURGICAL SIMULATION

Anthony G Gallagher and Gerald C O'Sullivan, Springer-Verlag 2012, 390 pp. ; 41 Figs.; 23 tabs.; HARD COVER £144

In twelve informative chapters Gallagher (an experimental psychologist) and O'Sullivan (a master surgeon and Past President (2006 – 2008) of the Royal College of Surgeons in Ireland) tell the story of the emergence of simulation based training as the most significant change in medical education since the apprenticeship model developed by Halstead in the 19th century. Gallagher and O'Sullivan argue that it represents nothing less than a paradigm shift. In this book they set out to equip the reader with the fundamentals of what is required to develop and validate a methodical, evidence-based approach to the training of surgeons and other interventionists in this new paradigm.

The conversational style of the writing coupled with historical and clinical anecdotes which are peppered throughout the book make the content accessible to the non-specialist and easy to read but no less scholarly for that.

Taken as a whole the book gives an historical overview and a chronicle of the latest developments in the training of surgeons and other interventionists – but it is more than this. Each chapter tackles a specific aspect in the development of the thinking behind proficiency-based progression training.



The book may be read cover to cover and will afford the reader a global perspective on the state of simulation based training. Each of the chapters, however, can stand alone and each has its own extensive bibliography which will satisfy the most demanding of scholars. In particular, the chapters on human factors (3 and 4) and those on metrics (5, 6, 7 and 8) give the reader a solid grounding in the theoretical underpinnings of simulation and the assessment thereof. Chapter 7 for example gives a comprehensive account of issues to do with the reliability and validity of tests and how to address these and would be very useful to anyone involved in the construction of high stakes assessments of procedural skills. One chapter (9) even describes how education technology can be harnessed appropriately to ensure that trainees are ready for hands-on skills based programmes.

This book is a must for all those involved in the organisation and delivery of surgical and procedure-based training programmes. It highlights the way training programmes can not only be made more effective but also argues that they can be made more efficient in terms of training time and to a quantitatively defined, quality assured, level of performance. Trainees who wish to gain greater insight into how skills are acquired and who wish to understand how the new paradigm of deliberate practice and proficiency-based progression work, would do well to read this book.

Gallagher and O'Sullivan point out that surgery and medicine with the apprenticeship model are training doctors for 21st Century medicine using a 19th Century training paradigm. Their book will act as a beacon, casting light on how the best of the old can be combined with an understanding of how trainees learn, to produce training schemes which are better attuned to the demands and constraints of modern clinical practice.

Kieran McGlade