

# Practical Operating Theatre Management

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Measuring and Improving Performance and  
Patient Experience

Edited by

**Jaideep J. Pandit**

Oxford University Hospitals



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## Foreword

The successful management of operating theatres is essential to the success of a hospital. The challenges have always been to try to maximise the use of resources, whilst minimising any expensive and disruptive overruns, and preventing on-the-day cancellation of patients. This book, perhaps for the first time, explains how these three seemingly mutually exclusive goals can be achieved in a rational way. It does so using the language of mathematics, but presented in a way that makes it easily readable. Professor Pandit has considerable experience as a senior Consultant Anaesthetist, very familiar with the practicalities and environment of operating theatres, both in the United Kingdom and other parts of the world. He also has distinction as an academic leader. He has coupled his clinical insights with a scholarly and academic analysis that formed the basis of his own award-winning thesis. The result is an exceptional book that meets an important need and reaches out to all those involved in theatre management. Topics

that might otherwise seem complex are made user-friendly through the use of simple toolkits and illustrations of practical examples using vignettes and scenarios. The international chapters underline the reality that healthcare challenges are broadly similar the world over – and if this is the case, then so too should be the solutions to meet those challenges. Professor Pandit has risen to the task of explaining core practical theatre management principles at a tactical level to all those responsible for managing operating theatres. The onus is now on managers to begin the work of translating those principles into reality, in a way that delivers real benefits to patients.

*Professor Andy Hardy, BA, MBA  
Chief Executive,  
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## Preface

This book arose out of a series of papers I published focussed on the broad concept of ‘theatre efficiency’. In turn, these were based on some very basic questions that occurred to me when I was appointed to an NHS Consultant post in the United Kingdom in 1999 (having been an Attending Anaesthesiologist in the United States for the previous year). I was tasked with a role of leading a new initiative based on improving preassessment of short-stay and day-case patients. Although our initial endeavours led to major improvements in patient care, it became clear that further improvements required more in-depth knowledge and analysis of concepts such as ‘utilisation’, ‘efficiency’ and ‘productivity’.

I was struck by the dearth of information available to guide me in planning this new service. What relatively little there was largely originated from the United States and was not readily applicable to models of working in the United Kingdom. The existing literature was also presented in a way that was not accessible to those charged with managing operating theatres on a day-to-day basis, as it was rather academic in its approach. I therefore sought to fill this void and embarked on a long, continuous project using our own experiences from analysis of operating rooms in Oxford, as well as insights gained through official visits and collaborations internationally.

I presented my collected works as a doctoral thesis at the University of Oxford, where it was successfully

examined by the Said Business School in 2015; in 2017 this thesis was also awarded the prestigious Emerald/EDRF Prize for Outstanding Doctoral Thesis in Healthcare Management. The idea of Cambridge University Press to help present these important ideas in a user-friendly format is very apposite, and I appreciate their encouragement and support throughout this project.

I sincerely hope that the principles presented in this book will create a new norm for how operating theatres should be managed, based on rational, data-driven principles. The notions of ‘efficiency’ and ‘scheduling’ presented are especially important. Moreover, the book will offer all parties involved in theatre management a common language and common understanding that they can use to communicate better with each other. I would like to see two rallying cries from theatre managers: ‘*Give us more data on timings!*’ and ‘*Don’t just use means; use variances!*’ Not necessarily catchy phrases, but really essential ones nevertheless.

In summary the aim of this book is to disseminate the quantitative measures of operating theatre performance, already validated, that are useful and meaningful, presented in a simple way to improve patient care. I hope this book will achieve this aim.

*Jaideep J Pandit St John’s College Oxford*

## About the Author

Jaideep J Pandit has been Consultant Anaesthetist at the Oxford University Hospitals NHS Foundation Trust since 1999. He trained in Medicine at Oxford (Corpus Christi College) and obtained a Double First in Physiology and Medicine, with University prizes in Medicine, Cardiology and Clinical Pharmacology. After a Wellcome Trust Research Fellowship to support a DPhil in Respiratory Physiology at Oxford, he undertook anaesthetic training in the Oxford region. He was Visiting Assistant Professor of Anesthesiology at the University of Michigan, Ann Arbor (1998–9), and when appointed to his NHS Consultant post at the John Radcliffe was independently elected to a personal Fellowship at St John's College, Oxford, in 2000.

He has held several national and specialty roles. As the Academic Strategy Officer of the Royal College of Anaesthetists (2005–7), he published the specialty's *National Strategy for Academic Anaesthesia* – a policy document commissioned to help prepare the specialty nationally for changes in academic medical training. Since 2015 he has been elected Member of Council of the Royal College and its Director of Patient Safety (Chair of the Safe Anaesthesia Liaison Group). He served as member of the Court of Examiners of the Royal College of Surgeons of England (until 2010), examining the MRCS exams. For over 10 years he has been editor of the journal *Anaesthesia* and has served on roles at the Research Council of the National Institute of Academic Anaesthesia (United Kingdom) and as Scientific Officer of the national Difficult Airway Society (the largest specialist society in anaesthetics in the United Kingdom) until 2016.

In 2010 he was elected chairman of the John Radcliffe Medical Staff Committee (chairman of consultants) for a 4-year term and was the first consultant re-elected to a second term in 2014. In 2014 he published the international report (NAP5, United Kingdom and Ireland) on *Accidental Awareness during*

*General Anaesthesia*, culmination of a 4-year Royal College project making over 60 recommendations for clinical practice. In 2016, he was appointed by NHS England to be a Clinical Associate, to advise on its New Care Models programme, a £50 million initiative designed to adopt new and efficient ways of working through selected 'Vanguard' sites. This work in part has included advice on topics related to theatre efficiency and management.

At the University Professor Pandit was the first Chairman of Examiners of the then new Graduate-Entry Medical Exams and has served several terms as Examiner for Oxford's Final Honour School in Medicine and Physiology. In post-graduate training he has served as Training Program Director for over 400 NHS consultants in Oxford, supervising their specialist registration as trainers with the General Medical Council (2014–17).

National and international awards include the Royal College's Gold (Jubilee) Medal (2000), Humphry Davy Medal (2006) and Macintosh Professorship (2012). He received the Spring Silver Medal (2012) of the College of Anaesthetists of Ireland. He has been visiting professor as follows: at the Mayo Clinic, Jacksonville, Florida, 2014; at Harvard University (the Massachusetts General Hospital), 2015; and at the University of Texas Southwestern, Dallas, 2016; Jobson Visiting Professor at the University of Sydney, Australia, 2017; USP Professor at the University of Michigan, Ann Arbor, 2017; Besokande Professor at the Karolinska Institute, Stockholm, Sweden, 2018; elected Difficult Airway Society Professor of Anaesthesia 2018. He is also an Associate Professor, Nuffield Department of Clinical Neurosciences, University of Oxford, and has delivered the invited Victor Horsley Lecture of the British Medical Association 2015 and the Spyros Makris Lecture of the Greek Society of Anaesthesia 2018.