

Preface 1

Dear colleagues,

As highly qualified intensive care professionals or ICU nursing staff, those of us caring for seriously ill COVID-19 patients these days are among the intensive care experts for whom ventilation is a daily reality. Nevertheless, the ventilation of COVID-19 patients presents with particular challenges because our “usual” intensive care patients don’t always exhibit severe lung damage up to and including ARDS. All of us “handle” ventilation, but the detailed ins and outs of differentiated ventilation therapy for ARDS patients is another matter altogether.

Many colleagues from related medical fields, both physicians and nursing staff, who have stepped up to face the immense challenges of the COVID-19 pandemic, now have to manage ventilated patients with lung failure, often without any previous expertise and experience in intensive care or respiratory therapy.

That made it necessary to compile a crash course offering a quick yet well-founded introduction to intensive care ventilation therapy as well as a refresher on ventilation for patients in lung failure. This manual was written for exactly this purpose – to serve as a crash course and refresher and to provide those who now handle cases in intensive care with the necessary practical expertise required in such exceptional situations as succinctly as possible.

The authors, Peter Kreimeier, Sven Pulletz, Christian Woll, Wolfgang Oczenski and Stephan Böhm, have done an excellent job of producing just that in record time, almost overnight – there simply wasn’t any more time.

This manual will undoubtedly offer valuable guidance for our work in the upcoming months and will help our patients recover from the illness as well as possible with our help.

A big thank you to the authors and to all who supported this project and will carry this manual back to their clinical practice!

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Preface 2

Dear colleagues, dear medical professionals currently involved in treating patients infected with SARS-CoV-2!

Since all congresses, meetings and annual events have been cancelled until August 2020, we must take new ways of sharing information that do not require personal/physical attendance.

The European Society of Anaesthesiology (ESA) is currently organising webinars on the topic of COVID-19 to enable healthcare professionals to fill gaps in their knowledge. In addition, ESA is working to disseminate the practical information that we collect every day in the treatment of infected patients. It is not surprising that some 70% of intensive care patients in Europe are treated by anaesthesiologists.

We as clinicians rely on online publications and quickly released reports to collect information and to receive support, especially in situations where there are few anaesthesiologists/intensive care professionals on site.

As someone who spends his days in the ICU treating numerous ventilated COVID-19 patients, I know first-hand that we must recruit doctors from other medical fields to manage the large number of patients. That means we must involve physicians whose primary working field is outside of anaesthesia/intensive care. Peter Kremer and his colleagues wrote this book to address exactly this problem and to support doctors in their efforts to treat COVID-19 patients.

I congratulate the authors on their initiative and salute their efforts. I hope the manual will enable all readers to support the intensive care of COVID-19 patients together with anaesthesiologists/intensive care professionals.

Stay healthy and help us save as many patients as possible in the current situation.

Best regards,
Professor Kai Zacharowski, MD PhD ML FRCA

President, European Society of Anaesthesiology

Frankfurt/Brussels, April 5, 2020



<https://www.esahq.org/>

Introduction

Dear colleagues,

I am grateful that so many nursing staff and physicians from different medical fields are currently participating in the treatment of intensive-care patients. COVID-19 brings up questions, treatment strategies and problems you may not be familiar with.

The authors of this manual came together on short notice to compile the necessary information for confronting these challenges. We did not intend to write a condensed textbook or a scientific paper. Rather, we wanted to outline practical solutions for the most common problems encountered in your intensive care work. Because we are aware that you may have to act without background knowledge in some cases, this manual focuses on standard operating procedures (SOP) – in the form of flowcharts. The notes, warnings and QR code links are designed to help you make quick decisions.

We know of course that experienced intensive care physicians frequently use alternative strategies and understand that the readers of this manual may have an extremely inhomogeneous spectrum of intensive care medical training. Accordingly, the second focus of this manual is a comprehensive annex that adds detailed information to the actual SOPs.

This manual does not claim to show the only right way. Any ambiguity is due to the haste in which this book was compiled, and we ask for your understanding. We wish you and your patients all the best.

With best collegial wishes,

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Sven Pulletz

Christian Woll

Gerardo Tusman

Wolfgang Oczenski

Stephan Böhm