The critical care medicine is in a continuous research for better care to patients admitted to ICU with failing key organ function in a very broad medical setting. By definition, patients admitted to ICU have used all their intrinsic resources and adaptive mechanisms are overwhelmed facing an acute illness. The patients we are to admit to our units are almost at the point to lose the battle. That means that we have to quickly assess the clinical scenario and deliver the most adequate and efficient support to the failing response of the body. The knowledge in this area of medicine is expanding dramatically, making concepts and recommendations the intensivists have to keep up more and more complex and continuously evolving. Therefore, point-of-knowledge updating the number of new results and findings that regularly feed the literature each year is welcome. This is the purpose of this book.

This book entitled “Key Leaders’ Opinion on Critical Care Medicine” provides indeed a very interesting compilation of 44 review or editorial papers written by experts in the field of intensive care medicine. They had basically worked on original papers, which, for most of them, were published in the last year in top ranked journals. Organized in different sections, the two largest parts of the articles are dedicated to both mechanical ventilation and acute respiratory distress syndrome one hand and sepsis on the other hand. These areas are really the core of our daily practice.

The authors reanalyzed the articles in details and produced thorough comments about methods and data used in the original studies. Therefore, throughout this book are displayed three among the basic tenets upon which the clinical research in the ICU is founded, namely epidemiology, pathophysiology and clinical trials. Furthermore, the selected original papers were put in some perspective: which gaps had bridged the study, what should be done in the future from the new findings. Several articles were used for a given topic. As an example, three articles deal with noninvasive ventilation in immunocompromised patients with acute respiratory failure, three others with the management of fever in the ICU, four papers with delirium and sedation assessment and management and three with catheter-related infections in the critically ill. Moreover, different experts gave specific comments for a given topic and that enhanced and enriched the appraisal of the original studies.

Finally, two papers explored two ways for handling and designing future studies. In one paper, a method was proposed to take into account some imbalance between groups at the time of randomization in trials and to quantify the weight this imbalance may have in the effect size of the tested intervention or strategy. Another paper dealt with the issue of the selection of patients to be included in trials in the current era of personalized medicine. Instead of including a large population of patients, the authors proposed to select patients upon their physiologic response to a given intervention, for instance the oxygenation response to positive end-expiratory pressure, and to test the intervention versus a control in those who responded positively.

This book is very stimulating and I hope you will enjoy reading it as much as I have had in going through.

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