



# Foreword

## Cardiothoracic Surgery



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*Consulting Editor*

When I was a very junior resident, one of my staff surgical mentors told me that if I ever had a profoundly sick patient and wasn't sure what to do, just treat them as I would a postoperative cardiac patient. That was some of the best advice I ever received. My very first rotation as a surgical intern was on the cardiothoracic service. To be sure, the idea of covering a large volume of patients in the ICU, many of whom had vast arrays of tubes and monitoring devices with which I had only passing familiarity, was daunting to say the least. However, in those days where "on-boarding" largely consisted of a quick push into the deep end of the pool, it was a fantastic chance to learn at an accelerated rate. At first one realized that all the gadgets and devices made a great deal of sense once you learned the basics. After becoming comfortable, sometimes perhaps too comfortable, with the large-volume data analytics, one then had to learn when the numbers did not tell the whole story, and going back to good clinical skills and pattern recognition was essential. Still, getting a handle on those basic functions and how to assess them in real time was excellent training for taking care of every other kind of patient who might be struggling.

In previous issues of our series that we have presented on critically ill patients, I have written that there are three basic concepts that drive our ability to keep profoundly ill people alive: air goes in and out, blood goes around and around, and oxygen is good. As overly simplified as that is, it remains fundamentally true at most levels. As with many parts of life, the basics of this paradigm can be learned in short periods of time, but even a lifetime will only let you approach mastery.

When Dr Cuadrado and I first discussed this issue of the *Surgical Clinics*, we wanted to assure that we covered topics that could be useful to all manner of surgeons as well as nonsurgeons in the care of complicated patients. The goal was to provide a concise resource for understanding the evaluation of cardiopulmonary performance under more routine conditions as well as updating people on interventional capabilities for either cardiac or pulmonary dysfunction as stand-alone problems or in the setting of

other clinical maladies. By necessity, there is considerable overlap in the topics covered here or covered in issues we have created on surgical critical care or emergency care of other types. However, since our goal at the *Surgical Clinics* series is to put clinical content in context, it is vital to look at these topics through the varied lenses of all of our colleagues.

This issue on cardiothoracic surgery that is compiled by Dr Cuadrado and his colleagues is an exceptional collection of articles that address the essential components of cardiac and pulmonary function as well as give us a broad overview of treating the dysfunction that may arise in those organs. We are indebted to them as a group, and I am indebted to them personally. Many of our contributors to this issue are not only members of our surgical community but also members of our military community. I have had the opportunity to work alongside many of them personally in varying capacities. They are extraordinary people who give selflessly to care for our service members and their families. We should all be grateful for their personal sacrifices as well as the sacrifices endured by their families.

No matter what kind of physician, surgeon, or caregiver one is, each patient we care for needs the core elements of cardiopulmonary function to be viable. That vital core cardiopulmonary component can and will falter, frequently at the worst time and frequently without much warning. Having an excellent grounding in these systems as a baseline will be quite comforting in times of unexpected trouble. As I stated earlier, one can learn the basics quickly, but mastery takes time—lots of time. Beginning clinicians tend to first look at the monitors; more seasoned clinicians tend to look first at the patient. I would submit the latter approach is adopted by those who have honed their ability to recognize more complex patterns. That experience comes from developing a good foundation of understanding followed by long-term correlations between the numeric data stream and clinical observations. We hope that this issue of the *Surgical Clinics* helps our readers in their quest of mastery.

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