The 19th Annual AARC New Horizons Symposium: Integrating Evidence-Based Respiratory Care Into Clinical Practice

All of us learned lots of facts in our preclinical education. In our clinical rotations we learned from local experts. Although we may not have appreciated it at the time, the title "expert" was usually based as much on status and charisma as it was on knowledge. After completing our formal education, the practice for many of us became largely anecdotal. The pressures of our lives overwhelm our desire and ability to read the peer-reviewed literature. Eventually, we may let our memberships in professional organizations lapse. At first we feel a little guilty, but we realized long ago that we had stopped reading the professional journals that came as part of those memberships. Every now and again we hear about some important new study, but we quickly reject its findings as an unnecessary intrusion into our comfortable practice. We become comfortable basing our practice on short-term physiologic findings (eg, blood gas values) and never stop to consider whether our practice might contribute in some way to long-term harm to our patients. This paragraph describes what evidence-based medicine is not.

So you think you know someone who really knows the evidence. He (or she) supports or rejects every aspect of respiratory care with emotional fervor. When challenged he is quick to inform others of best practice using rational-sounding arguments and pithy references to the literature, including experimental animal studies conducted by the world's leading authorities. Listening to him, there seems to be no question unanswered—he's even aware of studies that have been completed but not yet published that further prove his arguments. He is unhesitant to provide a directive for any clinical situation. He seems to have a reference to support anything he says. Moreover, he is constantly looking for additional proof to further support his biases, which are cleverly concealed with references to the peer-reviewed literature. This paragraph *also* describes what evidence-based medicine is not.

So what then is evidence-based medicine and how can it be incorporated into practice? This was the focus of the New Horizons Symposium presented at the International Respiratory Congress of the American Association for Respiratory Care, in Las Vegas, Nevada, on December 9, 2003. I was fortunate to be invited to chair that session. In addition to the lectures, the symposium faculty prepared manuscripts, which appear in this issue of RESPIRATORY CARE. I prepared the first manuscript in this series, "What is Evidence-Based Medicine and Why Should I Care?" which provides an overview of evidence-based medicine, with examples specific to respiratory care practice.

Which ventilation modes should we use? Do new ventilation modes make a difference? And are they cost-effective? The evidence regarding ventilation modes is provided in Richard Branson and Jay Johannigman's article, "What Is the Evidence Base for the Newer Ventilation Modes?" Respiratory care protocols are increasingly being used and the evidence supporting protocols is reviewed by James Stoller in his article, "The Effectiveness of Respiratory Care Protocols." Greg Schumaker and Scott Epstein reviewed "Managing Acute Respiratory Failure During Exacerbation of Chronic Obstructive Pulmonary Disease." Thomas Kallstrom's report is on "Evidence-Based Asthma Management." Richard Kallet provides a most comprehensive report on the current evidence about managing acute lung injury and acute respiratory distress in "Evidence-Based Management of Acute Lung Injury and Acute Respiratory Distress Syndrome," which addresses several important issues, including how to select the tidal volume and the positive end-expiratory pressure.

Over the past 10 years much evidence has evolved to support the use of noninvasive positive-pressure ventilation with selected patients. I address that subject in a report called "The Evidence for Noninvasive Positive-Pressure Ventilation in the Care of Patients in Acute Respiratory Failure: A Systematic Review of the Literature." One of the more controversial aspects of mechanical ventilation is when and how to liberate patients from mechanical ventilation. Neil MacIntyre summarizes the evidence related to discontinuation of ventilator support in "Evidence-Based Ventilator Weaning and Discontinuation."

One of the challenges of evidence-based medicine is to locate the best evidence. One of the best sources of evidence is a carefully prepared systematic review. The conference reports presented in this issue of RESPIRATORY CARE provide some of the most comprehensive reviews to date of the evidence supporting respiratory care practice. My hope is that these reviews will help all of us move our practice up to a level that can be described as "evidence-based."

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