Adult Acute Care Bulletin

July/August '99

Notes from the Editor

by Nicholas Widder, RRT

It has been said that you can't go home again. Indeed, it is a difficult thing to do as an adult child. For many years I was blessed with healthy parents and had not been faced with the burden that some of you know all too well. All that changed when I was asked to assist as both a son, and to some extent, a medical professional, when my father had a lobectomy for cancer.

My father was in good spirits when he entered a large teaching hospital in a large city (one that I had moved away from years ago) for his surgery on a Thursday. My mother, sister, brother, and I accompanied him. After being "signed in" by the admissions staff, Dad was taken to pre-op holding and prepared for surgery. We met the anesthesiologist, who, after a few minutes of generic commentary, answered our questions. When I asked if the "big IV in his neck" was a Swan or a CVP line, I got the usual look, followed by the, "I see someone has some medical knowledge" comment. (It was a CVP line.) Dad was wheeled off, and we went off to the waiting room to wait.

A few hours later, we got a telephone call from the surgeon telling us that everything went well, that the original plan for a thoracoscopic resection had been followed, and that Dad would be off to the ICU. To this day, I still have not met the surgeon, but I did come away with the impression that he has excellent phone manners. I was told that Dad would stay on the ventilator overnight, because it was, "better for patients who had the VATS (Video Assisted Thoracoscopic Surgery) procedure," and that he would stay sedated ("with propofol?" "Yes, how do you know about propofol?")

Off we trooped to the ICU, where we saw him, in bed, with his A-line, CVP, SpO2, and ECG monitors, his ETT, and his ventilator. (Yes, I looked. Not my settings, but I could live with them.) We met his nurse, got the routine ICU orientation talk from her, held his hand, and told him to get some rest. I asked when a.m. rounds were usually done, when the propofol would be d/c'ed, and a few more questions, and once again, got "the look." In the 30-40 minutes we were there, the only health care professionals we met were the nurse and the residents.

We came back later that evening to say goodnight and meet the night nurses. We were standing at the bedside when a professional-looking person came in. Mom asked her a basic question about some minor concern, and she was answered with, "I'm not the nurse, you will have to ask her. I'm the respiratory therapist." With the 45-second vent check completed, she exited the room and was not seen again.

At this point I will digress from my story. In a time when the AARC is sending out messages that respiratory care is an entity worthy of funding by the Health Care Financing Administration and other payers, WHY are we, as a profession, allowing this sort of thing to happen? What happened to the answer, "I'm sorry, I am not the nurse. I am the respiratory therapist, and I am here to assist your husband/father with his breathing. I am checking to make sure that the ventilator is set correctly and to make sure that he is getting enough oxygen. I'm sorry that I can't assist you with that specific question, but I will send his nurse in to answer that for you. Is there anything else you need?"

I never got "the look" from the therapist, because she never interacted with me enough to figure out that I "deserved" one.

In this day and age when we, as a profession, want to be recognized for who and what we are, don't you think it might behoove each of us to be our own advocates with the public? Had I not chosen this profession to make my livelihood, I seriously doubt that the other members of my family (the realtor, the attorney, and the chemist) would have known what "The Respiratory Therapist" was. Certainly they would not have realized that she was part of the health care team integral to caring for my father.

The next morning, we arrived before the planned extubation. Dad was awake, alert, anxious, and on pressure support of 5. (Hey – what did you think, I didn't look?) The nurse was busy charting a blood gas. ("Do you know what this is and what it means?") I didn't get "the look" but the question, "so you are the respiratory therapist?" We attempted to calm Dad down and let him write us a few notes. Finally, the nurse

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brought another respiratory therapist (without even an introduction) into the room, asked us to step out, and he was extubated.

We came back in, talked to him about how good he looked and how well the surgeon said that he did throughout the case. About a half-hour later, his nurse came back in the room and drew another ABG. She told me that it was "so nice" to have a blood gas analyzer in the unit, because otherwise they might have to wait 30-45 minutes for results. I looked at Dad's flow sheet, and I saw seven prior blood gas results. Eight ABGs in an 18-hour period. That averages to one blood gas every 135 minutes. Not good when you consider that he had a total of ONE ventilator change and his extubation during that time frame.

Time to digress again. The excessive number of ABGs in my father's case implies a total lack of collaborative practice in that ICU (surprising, since it was the CVICU). If we, as a profession, expect to succeed, then we MUST take a proactive stance when we see that unnecessary testing and delays in removing patients from mechanical ventilation are occurring. This means that ongoing communication with the ENTIRE team must be initiated and follow-up must be maintained. There is a need in every institution for RTs to be a part of the whole and to lead by example. I hope that those of you who read this will be able to help the people you work with understand the importance of working within the system to enhance the care provided to patients. Further, there cannot be enough said about the importance of ensuring that both patients and their families leave the hospital with good feelings towards our profession.

I may be sensitized towards this issue because I live in an unlicensed state, but there are no nametags worn by family members that identify them as state senators, or congressmen, or even newspaper editors. (I was "just the son who is a respiratory therapist.") If we, as a profession, wish to succeed, we must represent ourselves as important members of the health care team, not just people who can be hired off the street and given lab coats.

Dad did well, was discharged on post-op day four, and was able to walk up and down steps as soon as he got home. All in all, I was happy with his care. I just wish that my chosen profession had made a better showing. ■

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FYI...

Low one-year survival associated with prolonged ventilation

A study of outcomes over a one-year period for 133 patients who required more than two weeks of mechanical ventilation showed very low survival rates.

During an average stay of 63 days in a long-term acute care hospital, 50% of the patients died. At the end of one year, 77% (103) of the original 133 patients had died in either acute care or long-term care facilities. Of the 30 one-year survivors, 8% (11 patients) were fully functional, whereas 19 had a major reduction in functional capabilities. (American Journal of Respiratory and Critical Care Medicine, 5/99)

Nicotine's unrelenting grip

Researchers from the University of Wisconsin-Madison Center for Tobacco Research and Intervention (CTRI) have found surprising variation in the length and intensity of symptoms across smokers attempting to quit. While some fit the typical pattern, experiencing more severe withdrawal effects at the outset and then lesser effects as time goes on, some experience intense spikes of withdrawal symptoms months after their initial quit attempts.

In a study of withdrawal data from 800 subjects in two clinical trials of the nicotine patch, researchers identified three common patterns, or clusters, of withdrawal response over a two-month period. The two "atypical" clusters – i.e., smokers who showed increasing or prolonged withdrawal – experienced higher relapse rates than the first group, which followed the commonly accepted notion that withdrawal effects taper off with time.

Those in the atypical groups had double or triple the risk of relapse as those in the typical group. What's more, these "atypical" patterns were actually quite common. In the first study, 39% of subjects fell into the second or third clusters; in the second study, the number was 68%.

Common withdrawal symptoms measured by the study included irritability, depression, difficulty concentrating, disturbed sleep, and hunger. The subjects self-reported these symptoms over the course of the study.

The findings could be important in identifying the right cessation program for smokers, say the investigators. They suggest that, for many smokers, the duration or pattern of withdrawal symptoms is more difficult to overcome than the initial intensity of withdrawal. (Journal of Abnormal Psychology)

Anew look at the impact of shift work

Can shift workers be safely rotated between day and night shifts? They can, say investigators from the University of Florida, if the rotation takes place in a rapid manner.

In their study of 37 air traffic controllers in Jacksonville, 19 controllers worked two or three night shifts, from 4 p.m. to midnight, followed by two or three day shifts, from 8 a.m. to 4 p.m. The other 18 worked a rapid rotation of these two shifts, followed by a third shift from midnight to 8 a.m.

Over seven days of computerized testing, the controllers working the rapidly rotating three-shift schedule demonstrated a quicker reaction time during a series of spatial visualization and tracking tasks on the computer than those who worked the more slowly rotating schedule. They also

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improved their attention skills when learning a new cognitive task, while the other group did not.

One possible explanation for the poorer performance of people on the two-shift rotating work schedule, say the investigators, is that they may vary their sleep schedule more erratically or become "evening types," with a loss of alertness during the day. After working two or three consecutive evening shifts, they may get used to staying up after midnight, continuing to do so even after switching to the day shift. (University of Florida)

Smoking and depression weakens immune system

Depressed people who smoke cigarettes may be at increased risk of cancer and other diseases, say researchers from the University of California, San Diego and the Veterans Affairs San Diego Healthcare System Administration Medical Center. The study found that the combination of depression and cigarette smoking contributes to increased white blood cell count and a decline in the activity of natural killer cells (NK) that fight off tumors.

The scientists took blood samples to measure the white blood cell counts and NK activity of 245 men in four distinct groups: 61 depressed moderate smokers, 46 depressed non-smokers, 127 non-smoker controls, and 11 moderate smoker controls.

Neither depression alone nor smoking alone was linked with decreased NK cell activity or higher white blood cell count.

In pairwise comparisons the researchers found that:

- Depressed smokers had lower NK activity than depressed non-smokers.
- Control subject smokers and non-smokers had similar levels of NK activity.
- Depressed non-smokers and control subjects had similar levels of NK activity.

The immunological findings of the study are compatible with epidemiological data showing that depressed mood and smoking contribute to the development of cancer, say the researchers. (Psychosomatic Medicine, 6/99)

PET imaging provides accurate staging for early NSCLC

Positron emission tomography (PET) imaging can accurately stage early non-small cell lung cancer (NSCLC) and demonstrate microscopic metastases that computed tomography (CT) may miss, say researchers from Duke University Medical Center who found that PETcorrectly staged this type of lung cancer in 80% of patients tested.

Researchers believe the study could help provide valuable information in determining the course of treatment for patients with NSCLC. A negative PETscan, for example, suggests that a medistinoscopy, an examination of the tissues and organs which separates the lungs by using a tubular instrument that can view this area, is unnecessary. This would allow patients to proceed directly to a thoracotomy, a procedure used for removing the primary tumor. (American Roentgen Ray Society)

Physicians need better education on diagnosing PE

Physicians need to be better educated about the relative risks and usefulness of various tests used to diagnose the potentially life-threatening pulmonary embolism (PE), say investigators who presented their work at the May meeting of the American Roentgen Ray Society. The study involved several departments at Madigan Army Medical Center, a teaching hospital in Tacoma, WA.

Overall, 56% of physicians surveyed were either dissatisfied or only partially satisfied with the current diagnostic approaches to detecting pulmonary embolisms at the hospital. Specifically, the doctors were concerned that some physicians weren't doing a full work-up on potential PE patients and that this could lead to under-treatment or over-treatment. Some were also reluctant to use pulmonary arteriograms because they believed the invasive test could be too risky. Others were not well versed in the value of the less invasive computed tomography angiography.

Diabetes linked to sleep apnea and stroke

Adults who suffer from obstructive sleep apnea are three times more likely to also have diabetes, and the blame falls squarely on excess weight gain.

Researchers from the UCLA School of Dentistry/Department of Veterans Affairs tested the blood sugar of 54 randomly selected male veterans previously diagnosed with obstructive sleep apnea. Seventeen of the 54 patients, or 31%, unknowingly suffered from adult-onset diabetes.

They then took panoramic x-rays of the men's necks and jaws. In 12 of the 54 patients, or 22%, the x-rays revealed calcified plaques in the carotid artery leading to the brain, a risk factor for stroke. Seven of the 12, or 58%, were also diagnosed with diabetes. What's more, the 17 patients diagnosed with diabetes showed nearly twice the incidence of blockage as those without diabetes. Seven of that group, or 41%, had carotid plaques, and only five of the 54 patients who displayed plaques did not also have diabetes. (Journal of Oral and Maxillofacial Surgery)

Large health care systems reap benefits

Sustained pressure on health care reimbursement rates has given rise to large not-for-profit health care delivery systems designed to take advantage of economies of scale, market dominance, and revenue and geographic diversification, according to a new report from Duff & Phelps Credit Rating Co. (DCR).

"The potential advantages of creating large and increasingly integrated health care delivery systems are significant, though they are not without incremental risk," notes Ethan J. Parks, DCR assistant vice president and author of the report. These include risks associated with capitated revenues, the challenge of integrating large physician service businesses, and potential difficulties in expanding into ancillary businesses such as home health care, skilled nursing, and assisted living.

In the new report, DCR suggests that underlying local market dynamics, as well as a health system's business mix, market position, management, and strategic focus, are the decisive indicators of the long-term viability of health care systems today. The report also considers legal, structural, and financial considerations.

"While fiscally painful in the short term, the significant investment in building a large health care delivery system is a reflection of market forces that demand its creation to preserve an issuer's long-term viability," says Parks. "Economic benefits include administrative cost savings, operating efficiencies, enhanced managed care contracting capabilities, and a diversified revenue stream."

For a copy of the report, *Not-For-Profit Health Care Delivery Systems*, visit the DCR website at http://www.dcrco.com. ■

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