Notes from the Chair

by Jerry A. Focht, RRT, NREMT

I don’t know what effect the nursing shortage is having in your area, but in ours it has made for some interesting juggling of patients and resources. It has also made it easier for the unions to bargain for better benefits and wages. One hospital here is paying double time for any overtime in the critical care units.

Given the current nursing shortage, I believe this is the time for respiratory therapists to expand their scope of practice. If your hospital or service has a shortage of nurses, volunteer for expanded duties and/or procedures. For instance, suggest that instead of requiring two critical care nurses on transports the hospital have an RN and an RRT. We can also expand into different skills, such as starting IV’s or drawing blood or doing patient assessments in the ER or on the units. Now is the time for us to expand our scope beyond that of the airway.

On another note, I am happy to report that we are experiencing an increase in membership in the Transport Section. We now have over 400 members. Of course, we still need 1000 to gain a seat on the AARC Board of Directors. But if all section members would recruit just two new members, we would reach our goal.

As you probably know, we received some great PR in AARC Times in January, via a wonderful article about transport RTs in general and an terrific article from our Bulletin editor, Steven Sittig, on pediatric transport. I would like to thank Steven not only for writing the AARC Times article, but also for the great job he is doing as Bulletin editor. We both welcome articles concerning transport issues from anyone, and Steven has the experience necessary to make the process as painless as possible, even for those who have never published before.

It’s not too soon to start planning your trip to the AARC International Respiratory Congress, December 1-4, in San Antonio. (See article in this issue regarding early bird savings.) We have submitted excellent lectures for the Transport Section’s portion of the program, so it should be a great conference. Also, please remember that the Air Medical Transport Conference will be October 24-27 in Orlando this year. I hope to see all of you at one or both this fall.

Notes from the Editor

by Steven E. Sittig, RRT

By the time you read this column, we will have weathered another winter and most likely will be busy planning our summer vacations. It will be nice to see green grass and walk out the door without a parka. Of course, some of you may be lucky enough to live in areas of the country where you don’t have to battle the snow and cold experienced by many of your fellow section members. But while the snow and cold can be a major problem, the sight of fresh snow on the ground during a rotor wing flight under a full moon is awesome. The blue white light of the moon illuminates the ground in an iridescent glow that brings out features on the ground you might not normally appreciate. I was on just such a flight not long ago, and as we flew along, the moonlight was reflected off a frozen creek. It was fascinating to watch the light bouncing off the clear ices as it raced alongside us, following the turns and bends of the creek. We were fortunate that we did not yet have a patient onboard and could enjoy this display of nature. As I have said before, sometimes you need to take a minute to appreciate the things around you.

Of course, we also have many professional concerns to occupy our attention. In this issue we have an article from David Blackney on a small, portable high frequency ventilator; an article on runway incursions, a subject of concern to all who fly; and a survey on transport ventilators. We need to be thinking ahead to future
“Notes from the Editor” continued from page 1

issues of the Bulletin as well. There was an interesting discussion on the Flight Web site recently regarding the use of handheld PDAs on transport. Are any of you using this technology in your transport role? This could be an interesting piece, if we could get several users to share how they are using these handheld assistants.

In fact, I’d like to encourage all of you to consider submitting an article of interest to the Bulletin. I am more than happy to help new and seasoned authors alike get their ideas into print. As we travel further into the new millennium, we need to renew our dedication to promoting the respiratory therapist in the transport role. The best way to do this is to publish articles on transport issues in this Bulletin and other journals. We need to show the industry that we are an important component of the profession. Our daily exposure to cardiopulmonary problems, airway management, and mechanical ventilation builds our knowledge base and makes us a valuable resource in the care of patients being transported.

I am happy to report that we have recently gotten some of this “good press” in one of our own publications. The January issue of the AARC Times featured an article on transport RTs. The issue also contained an article in the “Ventilation for Life” column on critical care transport and pediatric septic shock that gives an overview of the pathology and management of septic shock.

Finally, I want to encourage the membership to make a serious effort to recruit others in the field to join this section and the AARC. With the ever-changing health care reimbursement scenario, we need the formal representation that can only be provided by the AARC. For those who wish to contact me, my email address and phone number are listed on page two.

Until next time, may all of your transports end safely for both you and your patients.

CAMTS Report: The Standards of Care — “A Wave of Safety”
by Thomas J. Cahill, RRT, NREMT-P

As of December 2, 2000, the state of Washington began requiring all air ambulances to be accredited by the Commission on Accreditation of Medical Transport Systems (CAMTS) or another accrediting organization with equivalent standards to CAMTS that has been approved by the state. Washington has now joined a growing list of state and regional EMS agencies to adopt the CAMTS standards for licensure of air medical services. This list includes: Arizona, Michigan, Rhode Island, Utah, part of California (the Mountain Valley Region, consisting of five counties, including San Diego County and San Francisco County). Three states recognize CAMTS accreditation in lieu of licensure: Iowa, Texas, and Missouri.

A recent survey of the state EMS agencies showed that many are reviewing the CAMTS standards before revising their state regulations. States taking this approach include Connecticut, Hawaii, Maryland, New York, Oklahoma, Tennessee, Idaho, Kentucky, Massachusetts, Maryland, and Wyoming. Clearly, EMS administrators nationwide are looking for a way to uphold the public confidence in the air medical services that operate in their regions. They feel that the CAMTS standards will ensure public safety, meet patient needs, and assure conformity between services. Some agencies have taken it a step further and require services transporting out of state to be CAMTS accredited as well, even if their base is not located in that region. The state of Utah is very strict in this regard, and discharge planners can be fined for not finding a CAMTS accredited service for transport.

The Commission believes that the two highest priorities of an air medical transport service are patient care and safety of the transport environment. Several state agencies have seen the value of adopting these standards in order to promote these goals. These states are setting the path for all others to follow.

If you would like more information about CAMTS, please visit their website at www.camts.com.

Intensive Care Ventilatory Support During Transport
by David A. Blackney RCP, RRT, P/P Spec., Sutter Medical Center-Children’s Hospital, Sacramento, CA

TXP®? DUOTRON®? SPANKER®? They sound like characters from a sitcom cross between Our Gang and Star Wars. In reality, these are the “brain-children” of Dr. Forrest Bird. They represent “advanced pneumatic technology ventilatory devices” that can ventilate any size patient, from neonates to large adults, requiring advanced ventilatory support, anywhere, anytime.

Since 1982, many facilities and transport teams have discovered that high-frequency percussive ventilation (HFPV) is a superior mode of ventilation when compared to conventional techniques. Recently, a major, published National Institutes of Health study of existing (20-year-old-plus FDA 510K grandfathered design) volume ventilators incriminated high tidal volume techniques as potentially barotraumatic. The TXP® Transporters® can employ a
“Intensive Care” continued from page 2

unique sub tidal volume delivery with a step inflation of the lung to reduce barotrauma. The TXP® series of miniaturized PERCUSSIONATOR® ventilators have been sold by the thousands to military and civil medical facilities throughout the world, including the U.S. military before, during, and after Desert Storm.

The TXP® ventilators can operate from 30 to 60 psi sources of medical gases, with rate scheduling of from 6 to 750 breathes per minute, delivering percussive sub tidal volumes at the higher frequencies of less than the anatomical dead space. A major feature of Dr. Bird’s Military Transporter® (TXP®) ventilators is the “automatic i/E, i/e ratio control” to prevent elevated FRCs, as rates are increased by a single control knob, which selects the desired delivery frequencies.

The Phasitron® injector/exhalation valve allows the TXP® patient to spontaneously override any scheduled ventilatory program, with total “fluid clutching” to limit “endobronchial obstructive pressure rise barotraumas.” Operational pressure selection determines the peak delivery pressure, from 10 to over 120 cm H.O. The percussive endobronchial gas mixing serves to decrease peak sustained delivery pressures, resulting in considerably less hemodynamic effects when compared with conventional volume-oriented ventilatory techniques. Alveolar recruitment, as well as secretion mobilization, is enhanced by the percussive endobronchial sub tidal deliveries.

The standard Percussionaire® Military Transporter® (TXP®) ventilator measures 4 inches in diameter by 6.6 inches long and weighs 1.5 pounds. The Institutionalized Percussionaire® Intensive Care VDR-3C® Universal Transporter® measures about 12 inches wide by 5 inches high and 10 inches deep, weighing 12 pounds.

Currently, there are three or four transport facilities that are utilizing Dr. Bird’s “Percussionaire® manufactured” Transporter® devices for transport and institutional nitric oxide administration, with considerable success.

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Runway Incursions: An Increasing Danger in Aviation

by Steven E. Sittig, RRT

I have flown as part of a medical crew for some time now, but the first time I heard the word “incursion” applied to aviation was just a few months ago. The Federal Aviation Administration (FAA) defines a runway incursion as, “Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in loss of separation (distance separating two aircraft) with an aircraft taking off, landing, or intending to land.” The FAA only recognizes runway incursions at airports with operating control towers.

Over the last five years, runway incursions have increased 71%, from 186 per year in 1995 to 318 in 1999. Preliminary data from the year 2000 show another increase over 1999. Detailed investigations of these incidents have identified three major contributing factors: communications, airport knowledge, and cockpit procedures for maintaining orientation.

One might think that only a large airport would have a high risk of runway incursions, but any airport can be a potential site for catastrophe. Los Angeles International topped all airports in number of incursions with ten, a rate of about 1.3 per 100,000 takeoffs and landings. Los Angeles was followed by Orange County, CA (nine), San Francisco (eight), and St Louis and Dallas/Ft. Worth, which had seven each.

The airport at Springfield, IL, however, had the highest rate, with about a 4.8 per 100,000 takeoffs and landings. Springfield was followed by Fargo, ND (4.3); Palm Springs, CA (3.9); Boise, ID (3.3); and Providence, RI (3.2). So you can see that smaller airports can actually be more dangerous.

Typically, pilots observe what is called a “sterile cockpit,” where they must concentrate on the job of taking off or landing while listening to air traffic control instructions. This is an FAA regulation and must be strictly observed. This is not the time for any nonessential conversation. For fixed wing aircraft, the sterile cockpit rule is in effect from the time the aircraft departs or leaves the gate until it passes 10,000 feet, or when on descent from 10,000 feet, until the aircraft comes to a stop at the designated point on the tarmac. For rotor wing aircraft, it must be observed during any critical phase of flight, such as landing, hovering, and taking off or cruise altitude.

While, as medical crew, we do not have any duties in actually flying the plane or helicopter, we do have an important role to play in terms of being an extra pair of eyes for the pilots. While our primary role is that of caregiver to our patient when he/she is on board, we still need to remember that we are also crew members. As the aircraft taxis to the runway, we can be on the lookout for aircraft, ground vehicles, or even ground personnel who might be moving on a course that could interfere with our taxi path. The pilots might be aware of this traffic, but if you feel for a second that they do not see the traffic, you should notify them immediately. Better safe than sorry.

Even while airborne, we, as medical crew, need to be alert to other aircraft in our area. Many areas of the country have small, uncontrolled airports with no tower to report small aircraft take off or approach information. Therefore, airborne aircraft in that area would be unaware of the additional aircraft in their vicinity.

I was once on a rotor wing flight that was inbound to the hospital. It was a nice, sunny summer afternoon, and all of a sudden we noticed a small, ultralight aircraft at our 9 o’clock position climbing toward us. He had just taken off from an open field and was heading in our general direction. He ended up not being a factor in our flight path, but he easily could have been, depending on his altitude and heading relative to our flight path. I cannot imagine that the pilot of the ultralight didn’t see our BK-117, but that is something we will never know.

Incursions can occur during any phase of flight, but generally they occur at the critical phases of flight, such as takeoff and landing. While the patient is our primary focus, we, as flight crew, also need to be aware of all that is around us, because an aircraft that is two miles away or taxying out to the runway could be an incursion incident waiting to happen. An old adage states that you should never walk across a road without looking both ways. Should we not have the same attitude regarding our awareness of all surrounding traffic on any flight? The few seconds it takes to scan all around you while the aircraft is in motion can be a lifesaver.
The Transport Community: The NAACS

Editor’s Note: The Transport Community is a regular feature of the Bulletin that takes a closer look at some of the other organizations in our industry. This issue we feature the National Association of Air Communication Specialists.

The National Association of Air Communication Specialists (NAACS) is a not-for-profit professional organization representing the air medical communication specialist on a national level through education, standardization and recognition. Formed in 1989, the association’s mission is to provide quality educational opportunities, foster team work, and build recognition for communicators as professionals within flight programs.

NAACS membership consists of active communication specialists and administrative managers. In addition, air medical flight programs and others associated with or interested in communications may join as associate members. The association is guided by a board of directors elected by the membership. NAACS is involved in providing:

- Communicator-specific courses certified for continuing education units offered at the Air Medical Transport Conference (AMTC).
- The NAACS Training Manual, the standard textbook for air medical communication training.
- Ongoing standardization efforts including research into the establishment of a communicator certification program and pursuit of a national minimum standard for air medical communications specialist training.

Calling All Disaster Response RTs

Robert R. Fluck, Jr., MS, RRT, who chairs the AARC’s Ad Hoc Committee on Disaster Response, is looking to generate a list of respiratory therapists who have been active in disaster response and to suggest methods of communicating among them. If you have (at any time) been active on a team that responds to disasters (or other events where there is a potential for casualties), such as a Disaster Medical Assistance Team (DMAT), the committee is looking for you. Please contact (e-mail preferred): Robert R. Fluck, Jr., department of cardiorespiratory sciences, SUNY Upstate Medical University, 750 East Adams St., Syracuse, NY 13210, fluckr@mail.upstate.edu, (315) 464-5580, FAX (315) 464-6876.

New Pressure Dressing Developed in Israel

Victims of severe automobile accidents, battle wounds, or terrorist bombs may soon have an increased margin of survival, thanks to a unique pressure dressing to stop bleeding developed by a researcher at Ben-Gurion University of the Negev in Israel. The new dressing enables the emergency worker to apply high pressure over the wound, stopping bleeding without the use of a painful tourniquet, which can itself sometimes cause tissue damage. The new bandage can also be used for wounds on the head, face, shoulder, armpit, and even the neck, parts of the body where bleeding is difficult to control.

“New Pressure” continued on page 5
Children Feel Pain Too

A new study of acute pain in children published in the Annals of Emergency Medicine has determined that increases or decreases in pain scores become clinically significant at similar levels for children and adults -10 mm on a 100-mm visual analog scale (VAS).

The VAS is the method commonly used for quantifying the severity of pain and relief. For pain research, one of the challenges is to determine the minimum clinically significant difference in pain experience, which is defined in this study as the mean difference between current and preceding pain scores. Previous research had determined this difference in VAS pain scores for adults, but no other studies had looked at children with regard to this issue.

“Pain is a complex interplay of physiologic, psychological, cultural, and situational factors,” says Anne-Maree Kelly, MD, of the department of emergency medicine, Western Hospital, in Melbourne, Australia. “Children differ from adults in many ways, and thus, it was quite possible that minimum pain scores for children could be different from adults. This study confirmed the minimum measurement of pain in children is similar to that for adults, and it will help us continue to evaluate and manage pain in children.”

Ranging in age from 8 to 15, the 73 children enrolled in the study suffered from limb trauma, abdominal pain, head/face trauma, medical trauma, back trauma, abdominal trauma, and headaches. They were asked to rate their pain on a scale marked at one end as “no pain” and at the other as “worst pain ever.” At 20-minute intervals, they then were asked to rate their pain as “heaps better,” “a bit better,” “much the same,” “a bit worse,” or “heaps worse.” Pain management was not delayed or withheld by participation in the study.

Early Bird Savings for the 47th International Respiratory Congress

How can you get up to 25 hours of continuing education credit (CRCE) for the lowest possible price? Take advantage of the opportunity for early bird savings by registering now for the AARC’s 2001 International Respiratory Congress, to be held this December 1-4 in San Antonio, TX. As the longest running respiratory therapy convention in the world, the AARC’s annual show boasts:

- The lowest cost of continuing education per credit of any show, anywhere. And the early bird savings make your costs are even lower.
- The largest and most impressive exhibit hall with the most vendors.
- The largest gathering of respiratory care experts in the world.
- The most diverse and most dynamic series of lectures.
- The largest presentation of original research in the profession by RCPs.
- The most opportunities for YOU to participate in your profession through research and networking.

The following chart provides the registration deadlines and costs for each phase of registration. So secure your low-cost registration fee by signing up to attend today. Registration forms are available in AARC Times magazine, online at www.aarc.org, or by calling the AARC office, (972) 243-2272. Hotel reservation materials will be available soon, and you can learn more about San Antonio, a great holiday destination, at www.sanantoniocvb.com.

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The AARC Online Buyer’s Guide: Your Ultimate Resource for Respiratory Product Information

The AARC Online Buyer’s Guide is your ultimate resource for locating product information, company profiles and contacts, and trademarks and brand names.

Since it is updated continually throughout the year, the Buyer’s Guide contains the latest information on companies and products. What’s more, the Buyer’s Guide is your source for information about new product releases. Three main information resources provide you with everything you need to find the products you’re looking for: the Company Directory, the Equipment and Supplies Directory, and the Trade-marks/Brand Names Directory. Product information is only a click away from the National Library of Medicine and free access to Medline. Visit the Online Buyer’s Guide today at http://buyersguide.aarc.org.
Specialty Practitioner of the Year

Don’t forget to make your nominations for the 2001 Transport Specialty Practitioner of the Year. This honor is given to an outstanding practitioner from this section each year at the AARC’s Annual Convention.

The recipient of this award will be determined by the section chair or a selection committee appointed by the chair. Each nominee must be a member of the AARC and a member of the section.

Use the following form to send in your nominations for this important award:

I would like to nominate ____________________________ for Transport Specialty Practitioner of the Year because
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Nominee Your Name

Hospital

Address

City State, Zip

City State, Zip

Phone

Phone

Mail or FAX your nomination to the section chair at the address/number listed on page 2 of this issue.
The American Association for Respiratory Care and its science journal, RESPIRATORY CARE, invite submission of brief abstracts related to any aspect of cardiorespiratory care. The abstracts will be reviewed, and selected authors will be invited to present posters at the OPEN FORUM during the AARC International Respiratory Congress in San Antonio, Texas, December 1-4, 2001. Accepted abstracts will be published in the October 2001 issue of RESPIRATORY CARE. Membership in the AARC is not required for participation. All accepted abstracts are automatically considered for ARCF research grants.

SPECIFICATIONS—READ CAREFULLY!

An abstract may report (1) an original study, (2) the evaluation of a method, device, or protocol, or (3) a case or case series. Topics may be aspects of adult acute care, continuing care/rehabilitation, perinatology/pediatrics, cardiopulmonary technology, or health care delivery. The abstract may have been presented previously at a local or regional—but not national—meeting and should not have been published previously in a national journal. The abstract will be the only evidence by which the reviewers can decide whether the author should be invited to present a poster at the OPEN FORUM. Therefore, the abstract must provide all important data, findings, and conclusions. Give specific information. Do not write such general statements as “Results will be presented” or “Significance will be discussed.”

ESSENTIAL CONTENT ELEMENTS

Original study. Abstract must include (1) Background: statement of research problem, question, or hypothesis; (2) Method: description of research design and conduct in sufficient detail to permit judgment of validity; (3) Results: statement of research findings with quantitative data and statistical analysis; (4) Conclusions: interpretation of the meaning of the results.

Method, device, or protocol valuation. Abstract must include (1) Background: identification of the method, device, or protocol and its intended function; (2) Method: description of the evaluation in sufficient detail to permit judgment of its objectivity and validity; (3) Results: findings of the evaluation; (4) Experience: summary of the author’s practical experience or a lack of experience; (5) Conclusions: interpretation of the evaluation and experience. Cost comparisons should be included where possible and appropriate.

Case report. Abstract must report a case that is uncommon or of exceptional educational value and must include (1) Introduction: relevant basic information important to understanding the case. (2) Case Summary: patient data and response, details of interventions. (3) Discussion: content should reflect results of literature review. The author(s) should have been actively involved in the case and a case-managing physician must be a co-author or must approve the report.

FORMAT AND TYPING INSTRUCTIONS

Accepted abstracts will be photographed and reduced by 40%: therefore, the size of the original text should be at least 10 points. A font like Helvetica or Times makes the clearest reproduction. The first line of the abstract should be the title in all capital letters. Title should explain content. Follow title with names of all authors (including credentials, institution(s), and location; underline presenter’s name. Type or electronically print the abstract single spaced in one paragraph on a clean sheet of paper, using margins set so that the abstract will fit into a box no bigger than 18.8 cm (7.4") by 13.9 cm (5.5"), as shown on the reverse of this page. Insert only one letter space between sentences. Text submission on diskette is allowed but must be accompanied by a hard copy. Data may be submitted in table form, and simple figures may be included provided they fit within the space allotted. No figure, illustration, or table is to be attached to the abstract form. Provide all author information requested. Standard abbreviations may be employed without explanation; new or infrequently used abbreviations should be spelled out on first use. Any recurring phrase or expression may be abbreviated, if it is first explained. Check the abstract for (1) errors in spelling, grammar, facts, and figures; (2) clarity of language; and (3) conformance to these specifications. An abstract not prepared as requested may not be reviewed. Questions about abstract preparation may be telephoned to Linda Barcus at (972) 406-4667.

Early Deadline Allowing Revision. Authors may choose to submit abstracts early. Abstracts postmarked by May 31, 2001 will be reviewed and the authors notified by letter only to be mailed by June 15, 2001. Rejected abstracts will be accompanied by a written critique that should, in many cases, enable authors to revise their abstracts and resubmit them by the Final Deadline (July 17, 2001).

Final Deadline. The mandatory Final Deadline is July 17, 2001 (postmark). Authors will be notified of acceptance or rejection by letter only. These letters will be mailed by September 1, 2001.

Mailing Instructions. Mail (Do not fax!) 2 clear copies of the completed abstract form, diskette (if possible), and a stamped, self-addressed postcard (for notice of receipt) to:

2001 RESPIRATORY CARE OPEN FORUM
11030 Ables Lane
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1. Title must be in all upper case (capital) letters, authors’ full names and text in upper and lower case.

2. Follow title with all authors’ names including credentials (underline presenter’s name), institution, and location.

3. Do not justify (ie., leave a “ragged” right margin).

4. Do not use type size less than 10 points.

5. All text and the table, or figure, must fit into the rectangle shown. (Use only 1 clear, concise table or figure.)

6. Submit 2 clean copies.

Mail original & 1 photocopy (along with postage-paid postcard) to

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Early deadline is May 31, 2001 (postmark)
Final deadline is July 17, 2001 (postmark)

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