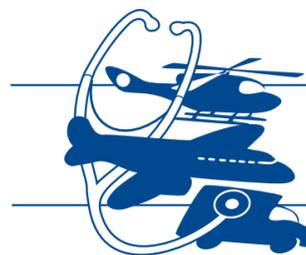


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American Association for Respiratory Care's

Transport

July / August 2002 **Bulletin**

Notes from the Editor

by Steven E. Sittig, RRT

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One thing was clear: the printed Bulletin is something people want to see continued. I also received comments that the "Bulletin" is often too focused on air transport. Kathleen Adams brought up a good point when she said that many issues encountered in air transport also affect ground transport. So, with your help I will try to ensure future "Bulletins" contain more articles of interest to those who do both air/ground or ground only. If any of you who primarily transport by ground have interesting tips or stories, please forward them to me. I have done my share of ground transport and know that it is often more challenging than flying.

Continued on page 3

Why Does Everyone Think Transport is So Easy?

by Steven E. Sittig, RRT

I have been involved with transport for about 16 years, and the one thing that has remained constant is a misconception among my peers that transport is easy work. After all, they only see us drop our workload and run off to the ambulance or the aircraft, leaving them to pick up the pieces. The typical lament: "While you were out flying around the country taking care of one patient, I had 12 nebs and 6 CPT treatments to do."

It is not easy to convince these coworkers that we are exposed to significant physiologic and psychological stresses as we do transport by ground or by air. We work in a very unique and dynamic environment that varies immensely from the hospital environment. Whether you are racing down the road in an ambulance at 80 mph or zooming across the sky in a helicopter at 2,500 feet and 150 mph, you are taking care of a critically ill patient. There is no physician providing direction as you and your colleague follow your protocols, basing care on the patient's needs as you transport him to the hospital.

The stress created by taking care of critically ill patients is compounded by environmental factors such as vibration, noise, fatigue, and even altitude - regardless of whether you are doing ground or air. While RTs who primarily do ground transport might think, "altitude doesn't affect us," a recent discussion on the section listserv suggested otherwise. Kathleen Adams made a great point when she noted that even going through a small mountain range during a long ground trip can expose both patient and therapists to altitude changes.

There are eight stress factors that can impact the transport crew in varying levels depending on mode and duration of transport: vibration, fatigue, noise, barometric pressure changes, thermal changes, decreased partial pressure of oxygen, decreased humidity, and gravitational forces. Fatigue is listed as a separate factor; however it is usually more a result of exposure to the other seven factors than a factor in and of itself. I know when I return from a transport my adrenalin levels are often high. Then, within an hour, I feel a crash in energy. Ever feel that way?

I am sure this is the cumulative effect of the tension created by dealing with a critically ill patient and the pressure of dealing with the stress factors of transport. While hospital-based caregivers may be affected by one or two of the above factors, those of us who do transport can be affected by all of them.

For example, while most transport personnel don't consider vibration an overly serious factor, Spaul looked at the relationship of vibration and thermoregulatory responses to heat. Vibration simulates the act of shivering, the body's response to retain heat. His study found healthy men exposed to heat and whole body vibration suffered vasoconstriction, affecting the body's ability to cool itself through vasodilation. Those of us who wear long-sleeved Nomex flight suits year round need to be aware that on hot days we can be more susceptible to heat exhaustion and dehydration during transport. The Nomex flight suits can trap body heat, and with the exposure to vibration and subsequent vasoconstriction, you can lose your ability to sweat and cool yourself.

While you may never be able to convince your hospital-based colleagues that transport is not always easy and stress-free, you can smile and imagine how they might react to all we experience during a day. And, as you feel dehydrated after being shaken, rattled, and rolled on your next transport, just remember the valuable service we provide. ♦

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Viasys Sponsors Professor's Rounds Program

Viasys Healthcare sponsored the third program in this year's series of Professor's Rounds videoconferences offered by the AARC. The session "Neonatal and Pediatric Ventilators: What's the Difference?" featured Mark Heulitt, MD, FAAP, FCCP, who provided participants with an excellent overview of the issues and concerns regarding these ventilators. Moderating the program was Richard Branson, BA, FAARC.

A video of the session is available at the AARC store at store.yahoo.com/aarc.

By the time you read this notice, there will be only three live teleconferences left this year:

- Pressure Versus Volume Ventilation: Does It Matter?: September 10
- Inpatient Management of COPD: October 22
- High-Frequency Oscillatory Ventilation: November 19

Sign up for any or all of these informative programs at www.aarc.org. ♦

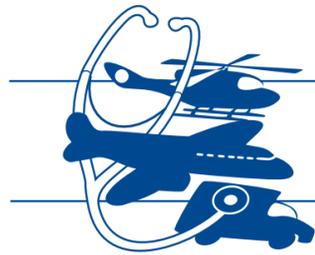
Flight Crew Delivers Baby in Route

A flight crew transporting an expectant mother to a hospital in Pennsylvania experienced a first earlier this summer. The STAT MedEvac Helicopter System, operates out of the Baltimore/Washington, D.C., area, has completed nearly 60,000 patient transports since 1984 - many of them specialty obstetrical flights - but never in that time has a crew actually had to deliver a baby en route.

The crew was transporting a 30-year-old pregnant woman from St. Mary's Hospital in Leonardtown, MD, to Johns Hopkins in Baltimore when they realized the baby just wasn't going to wait for them to get to the hospital. Flight Nurse Lisa Denton and Flight Paramedic Jarrett Dixon delivered the six-pound baby, and MedEvac reports both mother and child are doing fine. Denton summed up the experience for her coworkers when she returned to home base, "I just have to say that, surprisingly, this was the coolest thing I've ever done!"

STAT MedEvac is operated by the Center for Emergency Medicine of Western Pennsylvania, serving the Johns Hopkins Hospital System and other health care facilities of the area. ♦

	<p>AARC'S INTERNATIONAL RESPIRATORY CONGRESS TAMPA, FL. • OCTOBER 5-8, 2002</p>
	<p>Come to Tampa, FL, for one of the most breath-taking educational events of the year. Mark your 2002 calendar for the AARC Congress, October 5-8, 2002.</p>



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Case Study, Part 2: One-Year-Old With Decreased Oral Intake and Fever

by Steven E. Sittig, RRT

Editor's Note: In the last issue of the "Bulletin" we presented part one of a case study involving a one-year-old child with a chief complaint of fever, decreased oral intake, and increasing fussiness. The child subsequently died. This issue, we look at the cause of death.

The condition this patient actually presented with was Kawasaki disease. Kawasaki disease is an acute febrile multisystem vasculitis affecting children and is the leading cause of acquired heart disease among children. Kawasaki disease has been increasingly recognized since 1976. Eighty percent of affected children are less than 5 years of age, and the male to female ratio of incidence is 1.5 to 1. The disease occurs year-round, but a greater number of cases are reported in winter and spring. No definite etiologic factor has been found, but epidemiologic features and clinical presentation suggest an infectious etiology. The principal cause of death is myocardial infarction.

Kawasaki disease is diagnosed by the presence of fever (typically greater than five days duration) and four of the five following features:

1. Oral changes such as fissuring and crusting of the lips, diffuse oropharyngeal erythema
2. Conjunctival injection
3. Peripheral extremity changes, including erythema of the palms and soles of the feet, induration of the hands and feet, desquamation of the fingertips and toes about two weeks after onset, transverse grooves across the fingertips around 2-3 months after onset
4. Erythematous rash
5. Lymphadenopathy of greater than 1.5 cm in diameter (typically cervical and nonsupportive)
6. Elevations of the estimated sedimentation rate (ESR), white blood count (WBC), and platelet count.

The most important clinical association with Kawasaki disease is the reported 30% incidence of cardiac disease, of which there is a 2% mortality rate secondary to sudden cardiac death. Risk factors most often associated with coronary involvement are:

1. Under one year of age
2. Anemia
3. WBC > 30,000
4. Elevated ESR and/or C-reactive protein (suggestive of infection)
5. Fever for 14 days

The diagnosis of Kawasaki disease is often difficult in that children present with less than four of the five criteria. Younger infants especially often present with milder or more subtle signs and symptoms. The term "atypical" Kawasaki disease is used in patients who do not have four of the five criteria but have evidence of coronary artery involvement. Serious complications can be reduced if treated early with aspirin and IVIG (intravenous gamma globulin). Kawasaki disease is often misdiagnosed, as it is hard to differentiate from serum sickness, erythema, Stevens-Johnson syndrome, or viral exanthems. If any of these conditions are being discussed, Kawasaki disease should also be considered in the differential. Early recognition of the signs and symptoms of Kawasaki disease is very important. The sooner pharmacologic therapy can be instituted, the less chance there will be of sudden cardiac death. ♦

Get the Latest 4-1-1 From the AARC

Did you know the AARC sends weekly news updates to AARC members through its *News Now@AARC* e-mail newsletter? Or that the executive office staff conducts surveys, issues AARC Store sales announcements, and sends other general messages via e-mail? If you aren't receiving these important updates, it's probably because your current e-mail address is not in your membership record. To update your membership information and receive all the AARC 4-1-1, contact Catalina at mendoza@aarc.org. ♦

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NOTES FROM THE EDITOR

Of course, this doesn't answer the key issue facing us today: membership. The Specialty Sections face the same issues as the AARC as a whole when it comes to membership. When you look at all RTs across the country, only about 30% belong to the AARC. I believe costs are part of the reason. Most states now have licensure, and therapists are faced with additional fees to maintain their license. When you add AARC and/or NBRC membership dues to that, then include optional Specialty Section membership dues, it can all add up to a fair amount of money each year.

All of these organizations deserve our support because their work and representation on a state and national level is why we continue to exist as a true profession. There are many forces involved in the current evolution of health care, and without this representation we could see lower paid, less qualified personnel providing respiratory care to unsuspecting patients.

But it takes a considerable financial outlay to provide this degree of representation, and the Association must make the most of every dollar. Therefore, the Board of Directors has decided that sections with less than 350 members as of December 31, 2003 be converted to "Roundtables." These groups would have specific interest areas such as home care, education, transport, acute care, and so on. However, the primary tool for communication would be the Internet. Space on the server would be made available to the group, much as it is now. There would be no printed "Bulletins", but each Roundtable would be able to request lectures for the AARC Congress and continue to recruit members to the Roundtable and the AARC.

With our current membership numbers, the Transport Section would be converted to the "Roundtable" format. I would encourage you to contact either myself, Tim Myers, or AARC Associate Executive Director Sherry Milligan with your questions or concerns. But the ball is clearly in our court: if we want to remain a section, we need to recruit additional members. Let's begin now! ♦

RC Week Oct. 20-26, 2002 Are You Ready?

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