

American Academy of Pediatrics

Section on Critical Care Medicine

Spring 2006

A Note from the Chair

by Alice Ackerman, MD

Greetings to everyone and "happy spring." Winter left us relatively unscathed, for which we can all be happy after the difficult summer and fall. Your Executive Committee has been busy and I am happy to update you on what is going on. Your Executive Committee met at the NCE in October, and again in January at the SCCM meeting in San Francisco. We continue to try to become more efficient as well as more effective in serving the members of our Section.

We spent a good deal of our time during our last meeting engaged in "strategic planning" for the Section. It is critical that we ensure that we are headed in the right direction, and for that strategic planning is essential. The strategic plan is a "way-finding" tool that helps us know where we are trying to go.



Without it, we will not know whether we have arrived! We discussed what it is that we want

the Section activities to focus on. We agreed that to do that we need to be certain that we are working for and with you, the members of the Section. Therefore, we need to stay connected to you, and need to hear from you about your goals, dreams, difficulties, and issues. We will be developing a survey tool to obtain your input, so that we know how we can best serve you. As we finalize the mission statement it will be circulated for your review.

One role of the pediatric intensivist is maintaining and enhancing awareness of our subspecialty among our pediatric colleagues. One of the ways to do this is by serving in the role of *section liaison* to your state chapter. Many of you have volunteered to serve this role, but are wondering what it entails.

The "job description" appears to be flexible at this point, but the intent of the

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Hurricane Katrina, Children & Pediatric Heroes

Submitted by Carden Johnston, MD

We have all been inundated with the bad news about Hurricane Katrina. But there were a lot of incredible stories with positive outcomes as well. Among those stories are those of the unselfish work of people who care for children. Fortunately, a few of these episodes of and about pediatricians were published in a supplement in the May edition of *Pediatrics*. The title is "Hurricane Katrina, Children and Pediatric Heroes."

These stories will have a lot of lessons to be learned for those of us in Pediatric Emergency Medicine. The purpose is not only

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This is the newsletter of the Section on Critical Care of the American Academy of Pediatrics. The opinions expressed herein do not necessarily reflect the opinions of the American Academy of Pediatrics.

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liaison role is to enhance communication within the state chapters, and between the chapter leadership and the Section members. We would encourage all chapter liaisons to contact your State Chapter President to let him or her know you are available and interested in participating in the activities of the chapter as they relate to critical care. Try to find out if the chapter is doing any activities that relate to critical care. Share this newsletter with the chapter so they know what we are doing, and where our interests lie. See what works and what doesn't and let us know if you need additional information in order to serve your state chapter more effectively.

Once again this year, our *section program* at the last NCE was superb, thanks in great part to the efforts of Jim Fortenberry, our Program Chair. We presented a well-received practice-management course as well as a half-day session on ventilator management. The Career Award was presented to Dr. Michael Dean, and we heard some wonderful and thought-provoking abstracts. In looking forward to next October's NCE, I wanted to let you know that we have decided to make some changes in our Section's program format. Notably, we are going to host a late-afternoon to early evening reception, in place of the lunch that we have traditionally held during our business meeting. The reception will offer time to network, review posters, and present an opportunity for the younger members to mingle with those more senior. We will be sending a special invitation to the former career award winners, hoping that they can join the reception, enhancing the networking opportunities. The Section update will be presented during that time, replacing the traditional business meeting. It will be held on October 8th from 4:30-6 pm. At that time we will announce winners of the abstract awards and also hold a raffle for those in attendance.

I hope you will make plans to attend the Section meeting next October in Atlanta. As always, we are eager to hear your thoughts. Please don't hesitate to contact myself, or any member of the Executive Committee, with your comments, concerns and ideas.

Alice Ackerman, MD aackerman@peds.umaryland.edu

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Hurricane Katrina, Children & Pediatric Heroes



"Lest we forget"

to document in their own words what these volunteers did, but also to help all of us individually and collectively better prepare for another disaster. These stories reinforce the need for pediatricians to be involved at all levels in planning for disasters; community, state, and national. Surge capacity problems uniquely impacting children are presented in spades.

We will all be moved as we read what our comrades have endured, their innovative solutions to complex problems and the incredible outcomes. There are many more stories of equal importance that need to be documented. The AAP requests that those stories be submitted to JOBrien@aap.org. This will make them available for future research and planning.

To download this supplement, a 112 pade pdf file, go to http://www.aap.org/advocacy/releases/hurrkatsupp.pdf





Welcome New Section Members July 2005 - April 2006

Dalia M Al-Abdulrazzag MD Eman Al-Khadra MD Heidi Appel MD, FAAP Binod Balakrishnan MD Keisha G Bell MD, FAAP Aaron S Bernstein MD Michael T Bigham MD James A Bishara MD Donald L Boyer MD Melanie Brown MD, FAAP Shira H Brown MD Raeford E Brown, Jr MD, FAAP Eric A Browner MD Alicia M Casey MD Heather K Chandler MD Nalina Chandrasekharan MD Robert N Chaplin MD Anjali Chelliah MD Fakhra Choudhry MD Cheryl A Clay MD Edward B Cooper Alexandra G Cornell MD Jorge A Coss-Bu MD Shaeegua P Dasnadi MD Daniela H Davis MD, FAAP Jennifer A Davis MD, FAAP Reynaldo S Dela Rosa MD, FAAP John T Eanes II MD, FAAP Wael Ezz Edeen El Mallah MD Heidi-Marie Farinholt MD Angelique J Ferayorni DO Ericka L Fink MD Tiffany F Frazer MD Anya J Freedman MD Joshua M Friedland-Little MD Mary Lou Gaeta MD, FAAP Therese M Giglia MD, FAAP Lorelei A Gonzalez MD Nan A Graber MD Amanda M Gripe MD Sumit Gupta MD

Jorge A Gutierrez, Jr MD, FAAP Michael R Hainstock MD Craig K Hallstrom MD, FAAP Celine A Hamilton MD Justin Thomas Hanrick MD Janet R Hume MD Juliette L Hunt MD Olanrewaju A Ijaola MD Prakruti R Jambula MD Mustafa Kabeer MD, FAAP Jennifer M Kaplan MD Chhavi Katyal MD, FAAP Sadaf Ahmad Khan MD, FAAP Sandeep K Khanna MD, FAAP Gagik Khoylyan MD Tiffany A Klein MD Allison M Klimis MD Samip D Kothari MD Pooja Kulkarni MD Joanna R Kuppy MD Yi-Chen Lai MD, FAAP Vinh T Lam MD, FAAP Thomas H Lamirand MD Khristine B Lanuza MD Heather A Lau MD Ngoe Minh Le MD Raymond P Leonard MD Orly L Levit MD Gautam G Malkani MD, FAAP Pramod Mallipaddi MD Alexandra D McCollum MD Shana E McCormack MD Nina I McFarlane-Johnson MD Michelle A Merwood MD Timothy E Mitchell DO, FAAP Charles Nakar MD Simona H Nativ MD Kristen L Nelson MD Allison F O'Neill MD Eduard H Panosyan MD N. William Parilla MD, FAAP Anitha Parthiban MD, FAAP Sung E Park MD Elizabeth M Pasley DO Blaine B Pitts MD Osvaldo Planche MD Ingrid C Polcari MD Jagdeep S Pruthi MD Jamie Jo Quintana DO Dustin J Rayhorn MD Lindsay A Redican MD

Jorge G Sainz MD, FAAP Adler M Salazar MD Eric Scheier MD Paula P Schleifer MD Leah C Schulte MD Scott A Schwantes MD Lawrence I Schwartz MD, FAAP Dilip Sen MD, FAAP COL. Rana Sharara-Chami MD Jeffrey H Shaw MD Steven L Shein MD Mish Shoykhet MD, PhD Jennifer D Skelton DO Shayna A Smith MD Annemarie S Smith MD Lincoln S Smith MD, FAAP Robert K Smith II MD, FAAP Ekaterina Sokolova MD Jennifer L Sorrell MD Cozumel Southern MD Ramya Srinivasan MD Stephen W Standage MD Michael H Stargardt DO, FAAP Richard A Turner MD Nachman Ullman DO Rebecca A Vento MD Laura A Vose DO. FAAP Andrea W Wan MD Kevin A Weingarten MD Matthew J Weiss MD Randall C Wetzel MD, FAAP Robin K Whyte MD, FAAP Sri J Wijegoonaratna MD Jinny R Wilson DO, MPH Kristina M Wilson MD Anne M Yeakey, MD, FAAP Jay Yeh, MD Shatha W Yousef, MD



Aaron A Reeves MD

Rebecca L Ruebner MD

Value of SOCC Membership

Submitted by Richard Salerno, MD, FAAP

Critical Care can be a lonely profession. There are those many nights with patients, families, nurses and housestaff are looking to you for answers with a child's life hanging in the balance. And, compared to our adult colleagues, there are relatively few of us. You may wonder where those of us who practice pediatric critical care can turn to for support and information. The AAP's Section on Critical Care (SOCC) is an excellent source for these badly needed resources.

I was elected to the SOCC Executive Committee as the Critical Care Fellow representative. I honestly did not know what the role of the SOCC was or what role I could play in the Section. Additionally, I have never been a "joiner" and I am generally reluctant to become affiliated with groups that I do not fully understand. As I complete my second year in the SOCC, I can honestly say that I have been pleasantly surprised every step of the way.

The SOCC's most valuable resource is its members. I have met many people with whom I have shared (i.e. stolen) ideas to implement in my practice. I have gotten support from those with practice situations similar to my own as well as many whose practices were much different ("Wow, you need another partner!"). I have learned from the best minds in our field whether they are established leaders or the up-and-coming generation. And, yes, I have kept abreast of the various employment opportunities if only to keep my current partner nervous enough to treat me well. Some may call this networking. I call it a reality check in a field where many of us do not have all of the access to our peers that we would like.

So, OK, you can meet great people. What else does the SOCC have to offer? First, there is education. The SOCC has sponsored many educational offerings including the Critical Care Coding Course, Preparing for Life in Academics and PICU Practice Management. Additionally, the SOCC is taking the lead in the development of web-based learning modules that will work towards satisfying requirements for recertification in Pediatric Critical Care. But wait, there's more! There are the SOCC sponsored poster sessions at the AAP National Conference & Exhibition (NCE) as well as clinical education sessions (Mechanical Ventilation in the PICU: An Update at the most recent NCE in Washington, D.C.). Then there is the SOCC Newsletter which includes information on upcoming meetings, Drug Updates, Coding Updates and more.

Next, there is policy. The SOCC has participated in the development of several important policy statements such as Guidelines and Levels of Care for Pediatric Intensive Care Units, Admission and Discharge Guidelines for the Pediatric Patient Requiring Intermediate Care, and Guidelines for Developing Admission and Discharge Policies for the Pediatric Intensive Care Units. All of these address the quality and safety issues that have become so important to the practice of Pediatric Critical Care.

Furthermore, the SOCC works to recognize those who make outstanding contributions to our field. The SOCC Distinguished Career Award serves to highlight those who have made a positive and sustained impact on our profession through research, education and advocacy. The New Investigator Award serves to recognize those who will be the research leaders of the future (and is only open to SOCC members!).

Finally, by becoming a member of the SOCC, you become eligible for election to the SOCC Executive Committee. Committee membership gets you in on the "ground floor" for planning of educational sessions, policy statement/guideline review, collaboration with other AAP Sections, Award selections, abstract review (I learned a lot!) and the company of some of the most intelligent and devoted practitioners of Pediatric Critical Care. There is not a more interesting and interested group of people in our field.

Support, Advocacy, Research, Leadership. I have seen for myself how the SOCC is advancing the practice of Pediatric Critical Care along all of these fronts. I have been surprised and excited by my participation in the SOCC. I hope that you will consider joining us in the SOCC.

For membership information go to http://www.aap.org/moc/memberservices/sectionform.cfm

Sunday, October 8, 2006

8:30 am - 6:00 pm

8:30 am – 12:00 pm	Joint Session-Sections on Critical Care, Cardiology, and Emergency Medicine "Pediatric Update: 2006 Revised AHA Guidelines on Emergency Cardiovascular Care & CPR"
8:30 – 8:45 am	Introduction Robert Hickey, MD, FAAP Arno Zaritsky, MD, FAA
8:45 – 8:55 am	Scope Of The Problem Vinay Nadkarni, MD, FAA
8:55 – 9:25 am	CPR Bob Berg, MD, FAAP
9:25 – 9:40 am	Defibrillation Dianne Atkins MD, FAAP
9:40 – 9:50 am	Questions/Discussion
9:50 – 10:05 am	Airway Allan de Caen, MD
10:05 – 10:20 am	Drugs Ric Samson, MD, RAAPA cademy of Pediatrics
10:20 – 10:40 am	Post-resuscitation Conference & Exhibition Arno Zaritsky, MD, FAAP
10:40 – 10:50 am	Questions/Discussion
10:50 – 11:20 am	Neonatal Issues Jeff Perlman, MD, FAAP
11:20 – 11:40 am	Educational Challenges and Opportunities Steve Schexnayder, MD, FAAP
11:40 – 11:50 am	Future Directions Robert Hickey, MD, FAAP
11:50 – 12 noon	Questions/Discussion

12:00 – 1:00 pm	Lunch Break
1:00 – 5:00 pm	SOCC SCIENTIFIC and EDUCATIONAL SESSION
1:00 – 1:30 pm	Presentation of SOCC Distinguished Career Award – Alice Ackerman, MD, FAAP Recipient: David G. Nichols, MD, FAAP
1:30 – 2:45 pm	Abstract Session I Moderators: James Fortenberry, MD, FAAP and John Straumanis, MD, FAAP
2:45 – 3:00 pm	Coffee Break and Poster Review
3:00 – 4:15 p m	Abtract Session II Moderators: Richard Salerno, MD, FAAP and Donald Vernon, MD, FAAP
4:15 – 4:30 pm	2005 SOCC New Investigator Research Award: Presentation of Findings "The Role of Myosin Light Chain Kinase in Acute Lung Injury and Sepsis" <i>Janet L. Rossi, MD, FAAP – Children's Memorial Hospital, Chicago, IL</i>
4:30 – 6:00 pm	SOCC Reception, Poster Review & Awards Ceremony Outstanding Abstract Awards Introduction of SOCC Executive Committee Update on SOCC Initiatives Role of SOCC Chapter Liaisons Meet the Past SOCC Distinguished Career Award Recipients Poster Review Raffle
Monday, October 9, 8:00 – 11:00 am	Joint Session-Sections on Critical Care and Bioethics "Organ Donors Wanted-Dead, Alive, Minors, Siblings, For Sale: Ethical Issues in Organ Procurement for Pediatrics"
8:00 – 8:10 am	Introduction Oct.
8:10 – 9:05 am	Connceptual Foundations and Controversies in Organ Donation with Neurological and Cardiac Determination of Death Robert Truog MD, FAAP - primary discussant Mark Fox MD, PhD, FAAP - faculty respondent
9:05 – 9:50 am	Is It Morally Justifiable For Children To Serve As Living Organ Donors? Lainie Ross MD, PhD, FAAP - primary discussant Robert Truog, MD, FAAP - faculty respondent
9:50 – 10:05 am	Coffee Break
10:05 – 11:00 am	Controversies in Allocation and Sale of Organs From Living and Deceased Donors Mark Fox MD, PhD, FAAP - primary discussant Lainie Ross MD, PhD, FAAP - faculty respondent



David G. Nichols, MD, FAAP

Section on Critical Care 2006 Distinguished Career Award Winner



David G. Nichols, M.D. is Professor of Anesthesiology and Critical Care Medicine and the Vice Dean for Education at the Johns Hopkins University School of Medicine. He received his B.A. in Molecular Biophysics and Biochemistry from Yale University, his M.D. from Mt. Sinai School of Medicine and

completed his pediatric residency and fellowship trainings at the Children's Hospital of Philadelphia.

Since joining the Hopkins faculty in 1984, Dr. Nichols assumed various roles within the Department of Anesthesiology including Associate Director of the Residency Education Program, Director of the Pediatric Intensive Care, and Director of the Division of Pediatric Anesthesiology/Critical Care Medicine. In January 2000 he was recruited to oversee undergraduate, graduate, postgraduate and continuing medical education within the Dean's Office of the Johns Hopkins University School of Medicine. Dr. Nichols became the recipient of the first Mary Wallace Stanton Professorship for Education in November 2004.

During his career, Dr. Nichols has received a number of teaching honors and awards and has authored numerous journal articles, abstracts, and book chapters. On the national level, he chairs the Committee on Maintenance of Certification for Specialists of the American Board of Pediatrics and is a member of the FDA, Center for Drug Evaluation and Research, Anesthetics Advisory Committee and the NIH, Director's Pioneer Awards, Review Panel.

2006 New Investigator Research Award

The SOCC New Investigator Research Award provides a \$10,000 grant to an individual who has demonstrated aptitude for clinical or basic science research, and who presents a sound plan of investigation. Proposals are now under review and the award will be announced during the Section's program at the 2006 NCE in Atlanta. GA.

SOCC Chapter Liaisons

f you are interested in serving as a laison to a Chapter that is currently not represented, please contact Sue Tellez at stellez@aap.org

Alabama Alaska California (1) Colorado Delaware

District of Columbia Hawaii

Idaho
Iowa
Kansas
Kentucky
Massachusetts
Maine

Maine Michigan Missouri Mississippi Montana North Dakota New Hampshire New Mexico Nevada New York (2) Oklahoma Oregon Pennsylvania Puerto Rico Rhode Island South Carolina South Dakota

Texas Virginia Washington Wyoming

Canada Alberta Manitoba New Brusnwick

Newfoundland Nova Scotia

Prince Edward Island

Quebec Saskatchwan

Drug Update - Spring 2006

I. MEDICATION ERRORS

1. Glass bottle of 23.4% sodium chloride solution was mistaken for a glass bottle of sterile water, and used as a base for an arterial line solution for a neonate. The serum sodium was 266 mmol/L and the child died despite aggressive support that included an exchange transfusion.



- 2. Errors involving neuromuscular blocking agents:
 - Measles and BCG vaccines reconstituted with vials of pancuronium and given to healthy infants. The pancuronium vial resembles the vial of sodium chloride diluent.
 - Pancuronium was mistakenly administered as influenza vaccine. Vials were the same size and had similar labels, and had been stored next to each other.
 - Pancuronium was mistaken for heparin flush solution
 - Pharmacist misread a fax'ed order for vancomycin as vecuronium
 - Atracurium was thought to be hepatitis B vaccine and given to 7 infants. An anesthesiologist had stored a vial of atracurium next to the hepatitis B vaccine vials in the NICU refrigerator. The vials looked similar. Five infants recovered, one had permanent injury and one died.
 - Mivacurium was mistaken for metronidazole (both have foil wrappers). One patient died and another sustained severe injury.
 - An ED physician gave a patient vecuronium and midazolam for intubation. He then subsequently entered the orders into the computer but mistakenly input the orders for an oncology patient. The oncology nurse who did not know about the effects of vecuronium, gave the medications to the patient and left the room. He arrested and could not be revived.
 - A physician prescribed Narcan. The nurse did not recognize the drug on the automated dispensing cabinet screen as it was listed by its generic name. She subsequently wanted to ask another nurse for the generic name of Narcan, but was confused and asked the nurse for the generic name of Norcuron. She was told it was vecuronium which the nurse then administered. The patient arrested but recovered.
- 3. Another case of vincristine administered intrathecally: a few months ago, a 21-year- old man died after a physician gave vincristine intrathecally believing that it was a different drug.

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4. An adult patient was receiving 4 mg/hour of lorazepam, increased over a few days to 8 mg/hour (716 mg cumula tive dose). He deteriorated after a few days - with renal failure and metabolic acidosis and osmolal gap of 90 mOsm/L. His propylene glycol level was 37 mg/dL (greater than 18 mg/dL is toxic). Fortunately, the renal failure resolved with treatment. When using high-dose continuous infusions of lorazepam for more than 48 hours, be aware of potential propylene glycol toxicity. Monitor accordingly, and evaluate alternative means of sedation.

II. WARNINGS

- 1. Avoiding radiocontrast toxicity be aware that radiocontrast-induced nephrotoxicity is associated with the following risk factors: diabetes mellitus, volume depletion, heart failure, hypoalbuminemia, hypertension and concomitant use of drugs that alter renal hemodynamics such as NSAIDS and ACE-inhibitors.
- 2. Baxter changed the color of phenytoin vials from orange to green to prevent mix-ups with heparin vials. However, now phenytoin and phenobarbital vials look alike.
- 3. Valproic acid tablet and syrup: Hyperammonemia and encephalopathy have been reported in association with concomitant use of topiramate.
- 4. An autistic boy died after he was given edetate disodium instead of edetate calcium disodium for chelation. Both are commonly referred to as "EDTA." Multiple deaths due to hypocalcemia have been reported from confusion over the 2 drugs during chelation therapy.

III. ITEMS OF NOTE

- 1. Many of you know this by now but on January 14, 2006, the CDC recommended that clinicians not prescribe amantadine or rimantadine to treat or prevent influenza because of the predominant strain of influenza (H3N2) has developed resistance to these drugs.
- 2. Tamiflu (oseltamavir) or Relenza (zanamivir) is not recommended for the treatment of influenza in children less than 1 year of age. The recommendation to avoid the use of Tamiflu for children in this age group is based on preclinical studies in juvenile rats given 250 times the recommended dose of Tamiflu. Deaths in juvenile rats were associated with unusually high levels of oseltamivir phosphate (1500 times) in the brain as compared to older juvenile rats given the same dose. This is thought to be due to an immature blood brain barrier in younger animals.

IV. INTERESTING ARTICLES

- 1. Mangano DT, Tudor JC, and Dietzel C: The Risk Associated with Aprotinin in Cardiac Surgery. N Engl J Med 2006; 354:353-365.
- 2. Chambers CD et al: Selective Serotonin Reuptake Inhibitors and Risk of Persistent Pulmonary Hypertension of the Newborn. N Engl J Med 2006; 354:579-587, 636-638.



URGENT NATIONWIDE RECALL OF

Vapotherm 2000i Respiratory Gan Humidification Devices

These devices have been pulled off the shelf after discovering Ralstonia contamination was coming from the manufacturing process.

www.fda.gov/oc/po/firmrecalls/Vapotherm2000i 01 06.html

PICU Update

The picucourse.org Website remains a helpful resource. Our colleagues in the international community have started to be involved. All the Power Point presentations in the picucourse have been translated to Portuguese. Heading this effort are Francisco Cunha and Ana Carvalho. The Portuguese version of the presentations will be in a Website they set up that will be linked to the picucourse Website soon. In addition, a Website set up by Norbert Lutsch contains German translations of the presentations, and this too will be linked to picucourse.

The latest presentation added to the Website is on Medication Safety in the ICU and Disclosing Medical Errors by John Straumanis at the University of Maryland. We are awaiting several other presentations that will be uploaded soon.

The second version of the post-test has been entered and will soon be available to residents to use. A third set of questions is being developed. We are grateful to the SCCM IT staff headed by Judith Nykiel for all the work related to the Website.

Under the leadership of Mohan Mysore a picucourse proposal was submitted to SCCM for financial support to significantly improve the functionality and offerings of the Website. The proposal ranked high enough for consideration by the Finance Committee, and then to Council for final approval. Once approved, budgets will developed for FY 2007 and FY2008. We are hoping that this will allow venues such as the addition of audio-visual components to the presentations and the creation of Webcasts **or** Podcasts. This process may take a couple of years. Stay tuned and keep using picucourse.org!

picucourse.org





Section on Critical Care Reception

WHERE: National Conference

& Exhibition

WHEN: Sunday, October 8, 2006

TIME: 4:30 - 6:00 pm

LOCATION: TBA

Scheduled Events

- Outstanding Abstract Awards
- Introduction of SOCC Executive Committee
- Update on SOCC Initiatives
- Role of SOCC Chapter Liaisons
- Meet the Past SOCC Distinguished Career Award Recipients
- Poster Review
- Raffle



Advances in Patient Safety

When the Institute of Medicine published "To Err is Human - Designing a Safer Health System" in the year 2000, providers of health care were hesitant to accept that 44,000 - 98,000 die each year as a result of medical error. Many have now come to realize that whether this number is higher or lower, health care can be made safer.

To better understand how Pediatricians can make health care safer for the patients we serve, we must develop a working knowledge of a few key concepts. Health care, whether looked at from a single office, inpatient unit, individual hospital or national industry, is a complex, tightly coupled system. A system is "a set of interdependent human and non-human elements interacting to achieve a common aim" (IOM 2000 publication). In the Pediatric Intensive Care Unit, the system elements include the people (patients, health care providers, environmental services, visitors, etc), equipment (monitors, devices, computers, etc), environment (lighting, noise, lack of standardization, high acuity, staffing), and decision-making (complex, multiple data sources, frequent interruptions). Work models, such as Plan-Do-Check-Act, provide a structure for investigating events or prospectively evaluating risk of patient harm so that alternative processes or systems may be developed.

Since the 2001 Academy release of Principles of Patient Safety in Pediatrics (Pediatrics. 2001;107:1473-1475), progress has been made in our understanding of error and how systems analysis can positively impact patient care. Beckmann found that real time reporting of events by staff rather than retrospective chart reviews led to more complete descriptions of events and subsequently a more meaningful analysis (CCM. 2003;31:1006-1011). Two separate investigations using work models and continuous quality improvement methodology were able to decrease the incident of unplanned extubations in their respective PICUs by applying the results of the investigations (Pediatr Crit Care Med 2004;5:58-62 and Pediatrics. 2004;114:28-632). Other studies have demonstrated that the frequency of some types of medication errors markedly decrease with the use of computerized physician order entry. However, the use of technology has also introduced new sources of error

Although advances are being made in the area of patient safety, more knowledge, especially in the area of human factors is needed to design better systems. Human factors, such as fatigue (not just trainees) and workload, play a key role in understanding how error occurs. It is clear from the sleep literature, that acute and chronic sleep deprivation negatively impact performance. During a week of sleep restricted to 4 - 5 hours per night, decreases in psychomotor vigilance performance occur (Sleep 1997;20:267-7). Interns made significantly more serious medical and diagnostic errors during the critical care rotation when call was every 3rd night and included extended shifts (N Engl J Med 2004;351:1838-38)). It is likely that research will demonstrate that attending physicians, particularly those in high acuity subspecialties, experience similar changes in performance when fatigued

Fatigue and workload also impact nursing care. Nurse staffing ratios and skill set influence the occurrence of medical error (Advances in Nursing Science 2005;28:163-174). Shifts > 12 hours and any overtime regardless of shift duration were associated with higher rates of medical error (Health Affairs 2004;23:202-212). Intensive Care Unit nurses complete many tasks during a shift. It is unknown how many actions can be juggled by one nurse in the ICU environment before the risk of error increases.

Pediatricians in all disciplines can contribute to progress in reducing medical error. Identify potential risk areas or investigate actual events in your practice, fully investigate the current process by applying event analysis tools, develop and study the new process to identify new sources of error, and implement the new process.

Vicki Montgomery, MD, FAAP Executive Committee Member AAP Section on Critical Care

See You in Atlanta!



To register or for more information click on the link!

www.aap.org/nce/

AAP Grand Rounds

Susan L. Bratton

Parental Mental Illness after the Death of a Child *AAP Grand Rounds*, Aug 2005; 14: 17.

Frank W. Moler

Selective Head Cooling After Neonatal Encephalopathy

AAP Grand Rounds, Aug 2005; 14: 19 - 20.

Susan L. Bratton

Adrenal Insufficiency in Septic Shock *AAP Grand Rounds*, Oct 2005; 14: 39 - 40.

Susan L. Bratton

Treatment of Rabies with Induced Coma *AAP Grand Rounds*, Oct 2005; 14: 42 - 43.

Susan L. Bratton

Medication Errors Reduced with Smart-Pump Infusion

AAP Grand Rounds, Dec 2005; 14: 68 - 69.

Gitte Larsen

Vancomycin-Heparin Lock Solution Decreases the Rate of Sepsis in Neonates

AAP Grand Rounds, Jan 2006; 15: 5 - 6.

Susan L. Bratton

Risk Factors for Respiratory Failure in Hospitalized Children with Influenza

AAP Grand Rounds, Jan 2006; 15: 6.

Susan L. Bratton

Unexpected Increase in Mortality Associated with Implementation of a Computerized Order Entry System

AAP Grand Rounds, Mar 2006; 15: 32 - 33.

Susan L. Bratton

Management of Splenic Injuries Varies Between General and Children's Hospitals

AAP Grand Rounds, Mar 2006; 15: 25 - 26.

Gail E. Wright

Neurologic Outcomes in Infants Requiring Open-Heart Surgery

AAP Grand Rounds, May 2006; 15: 61 - 62.



Save the Date

5th World Congress on Pediatric Critical Care

> June 24-28, 2007 Geneva, Switzerland

For more information or to register:\ http:///:www.pcc2007.com

**Endorsed by the American Academy of Pediatrics



It's a Boy!



Congratulations!

Dr Otwell & Nicol Timmons on the birth of their son Christopher Timmons! September 22, 2006

Section on Critical Care Membership

Membership Benefits

- √ Advocacy
- √ Educational Programs
- √ Networking
- √ Leadership opportunities
- Awards / New Investigator Research Grant (for SOCC members only)
- √ Abstract Submission
- √ Biannual Newsletter
- $\sqrt{}$ Eligible for election to the SOCC Executive Committee
- √ Access to SOCC website (http://www.aap.org/sections/critcare) and Listserv

How to Join?

It's easy! Go to http://www.aap.org/moc/memberservices/sectionform.cfm (AAP Members Only Channel, Member Services) to complete a fast-track online application or call AAP Membership at 800/433-9016. Annual dues are \$35 for AAP Fellows; \$10 for Residents.

SOCC Executive Committee (2005-2006):

Chairperson: Alice Ackerman, MD

Tom Bojko, MD, MS Dave Jaimovich, MD

Barry Markovitz, MD, MPH Vicki Montgomery, MD Richard Salerno, MD, MS

Don Vernon, MD

Ex-Officio: Michele Moss, MD

Newsletter Editor: Mary Lieh-Lai, MD Program Chair: Jim Fortenberry, MD Program Chair Elect: John Straumanis, MD Web Site Editor: Barry Markovitz, MD, MPH SCCM Liaison: Stephanie Storgion, MD ACCM Board Liaison: Tim Yeh, MD

Transport Medicine Liaison: David Jaimovich, MD

AAP Staff: Sue Tellez

Slate of Candidates for 2006-07 Executive Committee Vacancies

Chairperson: Alice Ackerman, MD, FAAP (incumbant)

Candidates for Executive Committee Member - Post Residency Training Fellow

Jane Linsley Di Gernnaro, MD, FAAP - Seattle, WA

Joshua D Koch, MD - Plano, TX

Megan E McCabe, MD - Baltimore, MD

Michael Stargardt, DO, FAAP - Rochester Hills, MI

Candidate for Exexutive Committee Member

Edward E Conway, Jr., MD, MS, FAAP, FCCM - Hartsdale, NY Richard Salerno, MD, MS, FAAP - Burlington, VT

Election results will be announced later in May.



CALENDAR OF EVENTS

http://www.pedsccm.org/

Critical Care: Speaking Out for Sick Kids

June 5-6, 2006
Toronto, Ontario, Canada sickkids.ca/ccuconference/default.asp

Pediatric Intensive Care 2006, State of the Art Medical & Nursing Symposium

June 9-10, 2006 Kerry, Ireland www.ipaccs.com/

5th Summer Conference - Evidence-Based Management of Sepsis & Multi Organ Failure

June 9-11, 2006
Prague, Czech Republic
www.sccm.org/education/summer_conference/program/index.asp

Pediatric Cardiology Review 2006

June 12-16, 2006 Miami, FL www.cbcbiomed.com

Contemporary Questions in Congenital Heart Disease: The Right Heart Symposium

June18-20, 2006 Toronto, CA www.sickkids.ca/cardiologysymposium

Clinical Strategies and Skills Simulation in Pediatric Critical Care

July 16-17, 2006 Chicago, IL www.sccm.org/education/

Pediatric Multiprofessional Critical Care Review Course

July 18-22, 2006 Chicago, IL www.sccm.org/education/

21st Annual BACCN Conference

September 11-13, 2006 New Castle upon Tyne, UK www.baccnconference.org.uk

Excellence in Quality and Safety in Critical Car

September 21-23, 2006 Baltimore, MD www.sccm.org/education/

VIII Congreso Lantinoamericano de Cuidado Intensivo Pedaitrico

September 20-30, 2006 Cartagena, Columbia www.slacip.org

AAP National Conference & Exhibition (NCE)
October 7-10, 2006

Atlanta, GA

www.aap.org/nce/

31st Australian & New Zealand Annual Scientific Meeting on Intensive Care

October 12-15, 2006 Hobart, Tasmania, Australia www.anzics.com.au

Clinical Focus: Glycemic Control and Sepsis in the ICU

November 2-4, 2006 San Diego, CA

www.sccm.org/education/conference calendar/index.asp

Annual Meeting of the Japanese Society of Pediatric Intensive & Critical Care

November 25-26, 2006 Kazusa, Japan www.jspicc.jp

16th Argentine Congress on Intensive Care Medicine

December 1-4, 2006 Mar del Plata, Argentina www.sati.org.ar

36th Critical Care Congress

February 16-21, 2007 Orlando, FL

www.sccm.org/education/annual congress/index.asp

5th World Congress on Pediatric Critical Care

June 24-28, 2007 Geneva, Switzerland www.pcc2007.com

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