Featured Stories:

- The Child Health Care Quality Act
- The Paul C. Gaffney Diagnostic Referral Service of Children’s Hospital of Pittsburg
- Management of Antenatal Hydronephrosis

You Are the Consultant:
A 2 year old with seizure and head tilt
Our Vision
The Section on Hospital Medicine of the American Academy of Pediatrics is dedicated to the health of all children in the hospital setting through advocacy, education and service—incorporating the core principles of safety, effectiveness, timeliness, efficiency, and equitability in family-centered health care.

Our Mission
Advocacy
The Section is dedicated to being a leader in inpatient Pediatric Hospital Medicine in the Pediatric community—advocating for the health and safety of hospitalized children.

Education
The Section is dedicated to being a leader in educating health care providers, patients and families.

Service
The Section is dedicated to being a leader in identifying the professional needs of Pediatric Hospitalists.

inside this issue...

3 Making the Rounds
Letter from the chair of SOHM

4 Hospital Pediatrics — A News Journal is Born
Letter from the Editor

6 Children’s Health Care Quality Act Introduced
Ethics and Politics — Susanne Miller, MD, MA, FAAP, Editor

7 The Paul C. Gaffney Diagnostic Referral Service, Children’s Hospital of Pittsburgh
Practice Profile — Susan Wu, MD, FAAP, Editor

8 Opportunities and Resources
For Your Information

9 Denial or Restriction of Hospital Privileges for Hospitalists
Hospitalists On-line — Jennifer Maniscalco, MD, Editor

13 Pediatric Rapid Response Team:
An Academic Children’s Hospital Experience
On the Ward — Julie Lipps Kim, MD, FAAP, Editor

14 Management of Antenatal Hydronephrosis:
From the Fetus and Beyond
Neonatal Medicine Update — Ursula Kneissl, MD, FAAP, Editor

16 Case: A 2 year old with seizure and neck tilt
You are the Consultant — Lisa Zaoutis, MD, FAAP, Editor

18 What’s New?
Subcommittee Updates

19 Special Report
From the Subcommittee on Palliative Care

20 Section on Hospital Medicine Program
SOHM Activities

Publication of this newsletter is supported by Mead Johnson Nutritionals.
As always, it is a pleasure to report on the activities of the Section on Hospital Medicine. Our membership continues to grow (we are the envy of many established sections) and the enthusiasm of our members continues to be the driving force behind the activities of the Section.

As many of you know, the Executive Committee of the Section meets twice a year—once at the autumn National Conference & Exhibition and once in the late winter. Our recent meeting was in Houston, hosted by our Executive Committee member Yong Han at Texas Children's Hospital. These meetings give us the opportunity to review our accomplishments of the previous six months and develop a strategic plan for the six months to come.

Here is a brief summary of the recent activities of the Section:
1. This year, the Section has taken on the role of primary sponsor for the Pediatric Hospital Medicine conference. It will be held in Salt Lake City at the Salt Lake City Marriott Downtown from August 2-5. I owe many thanks to everyone on the planning committee for their time and efforts—this was a major undertaking. The result is a fantastic 3½ day conference tailor-made for pediatric hospitalists and other clinicians involved in the care of pediatric inpatients. The topics are pertinent and varied, and every member of the faculty was specially chosen for their knowledge and talents.
2. We recruited a LISTSERV® moderator (Kevin Powell) who helps keep us in line as we debate and discuss topics of importance on the SOHM LISTSERV®.
3. Thanks to the efforts of Jennifer Daru, we were awarded a $10,000 grant to produce an enhanced newsletter (you are reading the result!).
4. Several patient/family brochures on topics pertinent to inpatient medicine (Pain, Group, Dehydration and Pneumonia) will soon be available through the AAP's bookstore. Samples of the brochures will also be sent to our Section members.
5. We have begun a special recruitment campaign targeted at pediatric hospitalists who are eligible for membership in the AAP and who are not yet members of our Section.
6. We are developing more inpatient brochures for pediatric patients and their families.
7. We are initiating serious discussions with experts within the AAP to develop a specific coding manual for inpatient medicine.
8. Two members of our Executive Committee, Michael Ruhlen and Daniel Rauch, will participate in the National Quality Forum (NQF) and report back to the Section membership.
9. Our Subcommittee on Medical Informatics and Technology has received renewed commitment from the AAP to assist us in further developing the search and archive capabilities of our website and LISTSERV®.
10. As always, my thanks to the members of the Section on Hospital Medicine for your energy, enthusiasm and participation. I look forward to seeing many of you at the Salt Lake City conference in August.

Laura Mirkinson
Before the Section on Hospital Medicine was given permanent status by the American Academy of Pediatrics, Jack Percelay, Laura Mirkinson and others began publishing the Section on Hospital Medicine Newsletter. This edition marks the next generation of that newsletter, designated with a title suggested by Dr Lisa Zaoutis, *Hospital Pediatrics*.

While our paper and print may be fancier thanks to sponsorship, our mission remains the same: “Dedicated to the Health of All Children in the Hospital.” Each article included should help you better take care of children whether it be from a clinical or practice standpoint.

Also new this month is a database of articles from *Hospital Pediatrics* on the Section’s website using article keywords. This will allow you to search for articles within *Hospital Pediatrics* in the future and refer others to these articles as well. Who knows? Perhaps one day *Hospital Pediatrics* will be an indexed journal—but one step at a time!

I would be remiss not to mention that in May my husband and I happily welcomed our first child. Taking care of him over the past few weeks has begun to totally reshape my view of what Pediatrics (and motherhood) is all about.

While I don’t think this new newsletter format will reshape your view of practicing Pediatric Hospital Medicine, I do hope it will keep you thinking and help to enhance the care of children in the hospital setting.

Write in, volunteer, let us know what you think. There is plenty more to say!

Jennifer Daru
Dear Dr. Daru,

Thank you for the wonderfully informative article on perinatal effects of SSRI. I would add a clinical pearl that the central tachypnea can last for quite a while. Seven years ago, before much (or any) of these effects were published, I was a hospitalist that also covered deliveries in a rural setting providing Level II+ care. A baby without septic risk factors was born to a mom who had been taking Zoloft throughout pregnancy. The neonate became tachypneic and remained so for more than 3 weeks despite repeated negative blood cultures, chest x-rays, spinal taps, electrolytes, etc. We never found another explanation for the tachypnea — at that point, I could find no reports in the literature of maternal SSRI’s doing such things, but that was the working diagnosis. Since then, it has become a well-documented phenomenon, as the newsletter article so wonderfully summarized.

I thought of publishing a case report at that time, but never did. I was just out of residency, a non-academic in a community-based rural hospital. It was a mistake. There’s one thing I’m more and more convinced of the longer I practice and the different settings I’ve been in: We all see important information in every setting. We just have to recognize it and be prepared to share it (the definition of the “academia”). I, therefore, also would use this story to encourage the non-academic hospitalists to NOT just leave publishing to the professionals.

As a second note, I thought the most recent issue of the Section Newsletter was a quantum leap in the direction of advancing the pediatric hospitalist movement. The quality of its articles meant the descriptor “section newsletter” just didn’t do it justice.

Scott J. Weiner, MD, PhD, FAAP

From the Editor

Dear Dr. Weiner,

Thank you for your letter. Of note, it is the first we have ever received. I second your call to action for community hospitalists and encourage you and those like you to participate in the Subcommittee for Community Hospitalists (see Page 18 Subcommittee Updates for more information) or submit case reports or other comments as often as you can either to us at Hospital Pediatrics or elsewhere.

As to your second point, we continue to evolve as a “newsletter” and with this edition move closer to being what I call a “news-journal.” I hope that we can continue to grow with the field and support pediatric hospitalists and their patients!

Jennifer Daru, MD
Editor-in-Chief
Hospital Pediatrics
Children’s Health Care Quality Act Introduced

Suzanne Miller, MD — Rush Foundation Hospital, Meridian, MS — Suzanne.miller@rushhealth.com
and
Jennifer Daru, MD — Advocate Illinois Masonic Medical Center, Chicago, IL — jadaru@gmail.com

The American Academy of Pediatrics, the National Association of Children’s Hospitals, the March of Dimes, the American Hospital Association and others endorsed a bill that was introduced to the Senate in April to provide federal authority and a hundred million dollars over 5 years for the development of evidence-based quality measures for pediatric health care. Grants would be provided for demonstration projects in pediatric health care including the use of information technology, disease management, and testing of provider quality and performance measures. Funds would also be available to private entities as well as Centers for Medicaid and Medicare Services to sponsor development of evidenced-based hospital measures for pediatric hospital care.

It is essential to measure and report on quality health care in children and this bill provides funding to begin the establishment of these important measurement parameters. A study done by Beal et al published in the January 2004 Pediatrics entitled “Quality Measures for Children’s Health Care” (Vol. 113, no. 9, pp. 199-209) found that few measures for assessing patient safety, living with illness, or designed for specific age categories among children and none for end-of-life care existed.

Information on the Children’s Health Care Quality Act is summarized in Table 1. Introduction of House companion legislation is expected in the near future. Keep in touch with legislative issues by checking the Federal Advocacy web page in the Member Center at http://aap.grassroots.com/(member login required).

**TABLE 1**

**Summary of the Children’s Healthcare Quality Act**

Excerpted with permission from the National Association of Children’s Hospital Website (http://www.childrenshospitals.net/AM/Template.cfm?Section=Homepage&Template=/CM/HTMLDisplay.cfm&ContentID=26670)

**Section 101: Pediatric Quality and Performance Measures Program**

- Authorizes the Secretary of HHS, acting through CMS and in consultation with the Agency for Healthcare Research and Quality (AHRQ), to establish a program supporting the development of new quality and performance measures for children’s health care.
- In establishing the program, the Secretary would consult with national pediatric organizations, consumers of children’s health services, and others with expertise in pediatric quality and performance measures to identify gaps in existing measures and priorities for development.
- The program would provide grants and contracts for the development of new measures and the advancement of those measures through validation and consensus.
- The authority would be continuing. $10 million a year for fiscal years 2008 – 2012 would be authorized and appropriated. (850 million over 5 years)

**Section 201: Grants to States for Demonstration Projects Transforming Delivery of Pediatric Care**

- Authorizes the Secretary to provide grants to states for demonstration projects transforming the delivery of children’s health services in Medicaid and SCHIP in four areas:
  1. Health information technology,
  2. Disease management,
  3. Evidence-based approaches to improving hospital care, and
  4. Pilot testing provider quality and performance measures.
- The Secretary would award grants to states applying for the demonstration projects.
- Uniform metrics would be applied in the conduct and evaluation of the demonstrations in each model program area.
- The Secretary would report to Congress before the end of the project on the results of these demos, whether they should be expanded or have broader implementation.
- $10 million a year for fiscal years 2008 – 2011 would be authorized and appropriated. (850 million over 5 years)

**Section 202: GAO Report: Design and Implementation of a Multi-state, Multi-hospital Demonstration Evaluating Existing Quality and Performance Measures for Children’s Inpatient Hospital Services**

- Requires the Comptroller General to report to Congress on recommendations for design and implementation of a multi-state, multi-hospital demonstration project to evaluate the suitability of existing pediatric inpatient quality and performance measures for public reporting, differentiating quality, identifying best practices and payment rewards.
- The report would include alternatives for administering and directing the program considering the potential involvement of multiple states and State Medicaid and SCHIP programs, as well as requirements for consistency in measures, metrics and risk adjustment across hospitals and State lines.
The Paul C. Gaffney Diagnostic Referral Service, Children’s Hospital of Pittsburgh

Program History and Overview
The hospitalist division at Children’s Hospital of Pittsburgh, also known as the Paul C. Gaffney Diagnostic Referral Service (DRS), was founded in the 1950’s in response to a growing need for comprehensive care for medically complex children. The focus of the DRS is on the inpatient management of acutely ill children, with outpatient consultation and case management for complicated patients. This division covers 3,000 to 3,500 admissions per year, more than any other division in the hospital. In addition, the DRS staffs 1,300 to 1,600 medical short stay encounters and 1,500 to 1,600 outpatient consultations per year. The DRS works closely with primary care physicians and therefore does not engage in primary care.

Ward Coverage
The Diagnostic Referral Service staffs several areas. The general pediatric inpatient ward is divided into a 50 bed unit for infants and children, and a 25 bed adolescent unit. The service also covers a 12 bed limited stay unit for less than 24 hour admissions. Starting this year, the DRS staff will also be covering an 8 bed transitional care unit at an independent facility. All inpatients are covered by house staff, including consultations. The DRS is available to subspecialty services, both medical and surgical, for in-house consultations.

The division assigns each inpatient a “primary hospitalist,” who makes every effort to be the primary attending throughout the hospital stay, as well as during subsequent stays. A dry-erase board with each on-service attending’s name and assigned patients is maintained in the DRS office, and each morning during sign-out rounds, the group determines patient assignment. During the weekdays, 6-7 hospitalists are rounding, with a census of 5-10 patients each. There are also one or two hospitalists staffing the limited stay unit.

Outpatient Services
One of the reasons the DRS is so successful is that physicians maintain proficiency in both outpatient and inpatient management. Nearly all DRS physicians spend time in the outpatient DRS clinic doing follow-ups and consultations. Common reasons for referral include failure to thrive, fever of unknown origin, genetic syndromes, abdominal pain, chest pain, syncope, and chronic fatigue. The physician, with the assistance of a nurse care coordinator, arranges for appropriate lab and imaging tests and subspecialty referrals. He/she then writes a comprehensive summary letter to the referring physician. This system facilitates prompt and efficient evaluation, which may be cumbersome for community physicians.

The remaining outpatient encounters are follow-ups. The purpose of the hospital follow-up is to provide support and care coordination for treatments and equipment ordered during the inpatient stay, and to aid in transition to the primary provider. The DRS physician works collaboratively with the community physician, but does not supplant the role of the primary doctor. Routine well child care and immunizations are not provided in the DRS clinic.

Staffing
There are 14 members in the division, most of whom are full time. Some individuals spend more time as evening hospitalists, and others spend more time in the limited stay unit. Members of the division are leaders in the hospital and residency program, and hold prominent positions in medical education (e.g., Assistant Residency Program Director), quality improvement, medical informatics, and hospital administration.

Patients without a pre-assigned physician are assigned to the Ward Attending Service. The Ward Attending Service is primarily staffed by members of the DRS in 2 week blocks, although on occasion a subspecialist will cover. In addition, there is an evening hospitalist from 4 pm to midnight, who assists with new admissions. On the weekends, depending on the census, there are two or three attendings rounding during the daytime, and an evening hospitalist in house from noon to 10 pm.
Courses and Seminars

Pediatric Hospital Medicine Conference – August 2-5, 2007
Salt Lake City, Utah
SOLD OUT

With the ultimate goal of improving patient care, the Pediatric Hospital Medicine course provides an educational forum for pediatric hospitalists and other clinicians involved in the care of pediatric inpatients. This educational activity seeks to increase participants' knowledge in the areas of clinical medicine, practice management, education, and research and to provide the tools, skills, and strategies necessary to improve practice. It also offers an opportunity for networking and discussion among pediatric hospitalists as they engage in shaping the future of this rapidly evolving specialty in pediatric medicine.

PREP The Course – September 15-19, 2007
Philadelphia, PA

You should attend PREP® The Course if you are:
• Seeking examination preparation for the PMCP®
• Providing health care for infants, children, and/or adolescents and are interested in a diverse, intensive format to update your knowledge and skills
• Interested in having your questions answered by experts in case-based sessions

For more information, please visit www.pedialink.org

Frontiers in Pediatric Hospitalist Medicine – October 25-26, 2007
San Francisco, CA

2nd Annual Symposium sponsored by the Pediatric Hospitalist Division, Physician Foundation at California Pacific Medical Center.

For more information, please visit www.cpmc.org/frontiers
To register for this event, please contact Beverly Hoover at 415/600-6484 or hooverb@sutterhealth.org

San Francisco, California in conjunction with the Academy’s National Conference & Exhibition (October 27-30)

This pre-NCE event will take place on Friday, October 26 from 12:00pm - 5:30pm at the Marriott Hotel in San Francisco. The program is free for NCE registrants and will begin with a resident poster session. The symposium will focus on Community Pediatrics, specifically on advancing the health of children through community health efforts and child advocacy. Participants will gain an understanding of the social, economic, and environmental factors that affect the health of children and learn about models for becoming engaged in community health work on a practical level.

For more information, please visit the website at: http://www.aap.org/peds-21/ or contact Alanna Bailey Whybrew at awhybrew@aap.org.

Preparing for Life in Academics – October 26, 2007
San Francisco, California in conjunction with the Academy’s National Conference & Exhibition (October 27-30)

Preparing for Life in Academics is a one-day seminar developed specifically for those preparing to enter academic medicine or just starting their academic career. The course brings together academic leaders from a number of medical disciplines to discuss many of the issues not covered during traditional fellowship training. In this course, participants will learn the promotion and tenure process, strategies for providing evaluations and feedback to trainees, how to design slides and give effective presentations, disclose errors/reduce malpractice risk, and understand the basic science of clinical research and funding research.

For more information please visit www.aap.org/nce.

SOHM Academic and Scientific Program – October 29, 2007
San Francisco, California in conjunction with the Academy’s National Conference & Exhibition (October 27-30)

The Program includes the presentation of the inaugural Section on Hospital Medicine Research Award sponsored by The Children’s Dream Foundation (a plaque and a $500 honorarium), as well as a complimentary lunch – a way to say thank you to membership for continuously supporting SOHM and its activities. A ticket is required for the lunch (details noted in the NCE registration packet available June 1).

For more information please visit www.aaphospmed.org.
e-Sessions

Pediatric Leadership Alliance – Access Through September 29, 2007

The Pediatric Leadership Alliance (PLA) module is based on a live seminar given annually to leaders in pediatrics. The online module contains real-world case studies along with theoretical models and tools for your practice that can assist you in becoming a more effective pediatric leader.

For more information please visit www.pedialink.org.

Newborn Jaundice – Access Through December 31, 2010

The AAP’s Practice Guideline: Management of Hyperbilirubinemia in the Newborn Infant > 35 Weeks of Gestation is presented in this online module. Pediatric practitioners completing this module should be prepared to reduce the frequency of severe neonatal hyperbilirubinemia and the risk of bilirubin encephalopathy. Downloadable tools include a nursing assessment, a bilirubin nomogram, and phototherapy guidelines.

For more information please visit www.pedialink.org.


PREP Self-Assessment On-line is a compilation of clinically relevant questions written by practicing pediatricians. The material is presented in a logical, challenging, problem-solving format requiring you to select the single best answer. Electronic formats include animated illustrations, tables, photos, audio, and video clips.

For more information please visit www.pedialink.org.

Policy Statements and Reports

For information on any of the statements and reports noted below, please visit the Pediatrics web site at http://pediatrics.aappublications.org/ (login required for full access to the articles).

1) Noninitiation or Withdrawal of Intensive Care for High-Risk Newborns
Committee on Fetus and Newborn; February 2007

2) Special Requirements of Electronic Health Record Systems in Pediatrics
S. Andrew Spooner, MD, MS and the Council on Clinical Information Technology; March 2007

3) Beyond Munchausen Syndrome by Proxy: Identification and Treatment of Child Abuse in a Medical Setting
John Stirling, Jr., MD and the Committee on Child Abuse and Neglect; May 2007

General Information

Free Subscription to AAP Grand Rounds for Residents
To assist in residency training the AAP is offering residents a free subscription to the online edition of AAP Grand Rounds. This literature review journal provides the latest evidence-based, research, reviews and commentaries. Residents can activate their subscription at www.aapgrandrounds.org

Resources for Members

Pediatric Hospitalist Programs of North America
The Pediatric Hospitalist Programs of North America resource can be used by individuals and programs to network as well as by members to seek out contacts and job opportunities in a location of interest. Visit the SOHM web site at www.aaphospmed.org for more information.

Neonatal/Pediatric Transport Team Database
The Neonatal/Pediatric Transport Team Database is a resource for professionals who are interested in reviewing transport programs across the country. Visit the Section on Transport Medicine web site at www.aap.org/sections/transmed for additional information.

PedJobs (http://www.pedjobs.org/) has been the official employment resource for the American Academy of Pediatrics since 2001. Employers post jobs online, along with print in Pediatrics and AAP News if they choose. PedJobs has job postings for all subspecialties in clinical settings as well as academic settings. If you have any questions about PedJobs, please contact Mary Lynn Bower, the manager of PedJobs, at mbower@aap.org or 847/434-7902.

And for a limited time only, SOHM members will receive a 10% discount for PedJobs postings. Contact Niccole Alexander for more information at nalexander@aap.org.
Denial or Restriction of Hospital Privileges for Hospitalists

Mario A. Reyes, MD, Mario.Reyes@mch.com, and Marcos A. Mestre, MD, Marcos.Mestre@mch.com
Pediatric Division, Hospitalists of America, LLC
Miami Children’s Hospital, Miami, Florida

EDITORS NOTE:
This piece does not reflect the views of the American Academy of Pediatrics or the AAP Section on Hospital Medicine but is a well-researched editorial developed out of an on-line discussion on the AAP SOHM LISTSERS® by one of our members presented for your consideration and response.
— J. Maniscalco, MD

The following are excerpts from a letter recently received by our group practice from the Chief Executive Officer (CEO) of a local hospital in response to our application for privileges in the Department of Pediatrics to practice as hospitalists.

Dear Doctors...
Thank you for your letter regarding your request to apply for privileges to practice as pediatric hospitalists. The Board of Directors imposed a temporary moratorium for six months, during which time the hospital evaluated the pediatric hospitalist service. The hospital has decided to continue providing pediatric hospitalist services pursuant to an exclusive arrangement with the current pediatric hospitalist group. Thank you for your inquiry.

With the continuing growth and maturation of the field of hospital medicine, credentialing and privileging for hospitalists are becoming more complex processes. More frequently, hospitals and administrators are seeing hospitalists as simply different generalists when considering credentialing and privileging. As a result, healthcare facilities across the country are successfully restricting the number of practicing hospitalists.

It is the position of the Society of Hospital Medicine (SHM) that, “the designation of a physician as a hospitalist must not be used as criterion to restrict or withhold hospital privileges. Physicians who are identified as hospitalists and who apply for hospital privileges, should be subject to the same Medical Staff Bylaws and privileging requirements as physicians with the same or similar background, training and experience who are not so identified. It is indefensible and inappropriate to deny hospital privileges to any physician solely on the basis of being identified as a Hospitalist.”

On the other hand, in 2004, the SHM requested the American Board of Internal Medicine (ABIM) to consider subspecialty board certification or recognition of focused practice for adult hospitalists. This is currently an area of active discussion and analysis between the SHM and the ABIM. There is not a similar request or position statement from the SHM or the American Academy of Pediatrics (AAP) with regards to this special consideration from the American Board of Pediatrics (ABP). In principle, the leadership of the SHM, advocates for the “uniqueness” of our practice with a focus on inpatient medicine and the possibility of a future “focus practice” recertification based on volume and expertise, but not on formal training, i.e., fellowships. This topic was made evident at the end of the opening session of the SHM annual meeting of 2007 in Dallas, TX. The president of the SHM asked approximately 2000 participants about their support for “recognition of focused practice”, and there was an almost unanimous approval of the principle.

The “Applicable Law”:
Regulatory and Legal Instruments
The following summary lists the most important legal and regulatory principles related to this complex issue. A basic principle that we must all be aware of is that the practice of medicine within a hospital in the United States is not a right of every physician, but rather a privilege extended by the hospital in accordance to the applicable law.

- The Joint Commission on Accreditation for Healthcare Organizations (JCAHO) standards and the Center for Medicare Services (CMS) “Conditions of Participation” (COP) are the main regulatory documents on credentialing and privileging. The standards are quite similar, and CMS usually considers a healthcare organization’s accreditation by JCAHO as evidence of “de facto” compliance with it’s COP. These standards are not legally binding, but have been used as the benchmark for the application of “common law” in the court system.
- The Joint Commission defines privileging as “the process whereby specific scope and content of patient care services (clinical privileges) are authorized for a healthcare practitioner based on the evaluation of the individual credentialing and performance.” It is specified in standard MS.4.20, #5 of the JCAHO manual that the governing body (Board of Directors or similar entity) has the final authority for granting, renewing, or denying privileges to physicians.
- The processes of privileging and making Medical Staff appointments should be related to these uniform regulatory requirements, as well as to standards for patient care and the specific objectives, purposes and resources of each individual institution. Each hospital develops its own criteria for credentialing and granting privileges based on both external regulatory requirements and the internal or institutional requirements. Internally developed criteria must be clearly defined in the Medical Staff Bylaws and may include such items as board certification or eligibility, scope of the practice, exclusivity to the institution, and limitation in the number of practitioners based on practical institutional needs. Joint Commission standards do not regulate or limit the specific internal requirements for credentials and privileges, as long as they are applied fairly and uniformly to all applicants.
• “Economic credentialing” is defined by the American Medical Association (AMA) as “the use of economic criteria in determining individual qualifications for privileges that are unrelated to the quality of care or professional competencies.” In this regard, it is the position of the AAP Committee on Hospital Care, that the credentialing process must not allow conflicts of interest (economic or otherwise) to impair due process or affect the credentialing process. In other words, economic criteria cannot be the sole basis for granting, renewing, or denying privileges.

• “Exclusive contracting” refers to the practice of limiting specified clinical privileges to a single physician, a limited set of independent physicians, or a physician group with whom the hospital has contracted. In return, the physician or group of physicians will be available to provide specified services, such as general inpatient care or care for the uninsured, and will perhaps have administrative and teaching responsibilities. Such an agreement keeps other professionally qualified and competent physicians in that particular medical specialty or field from offering the same services within the institution.

• Antitrust laws are federal and state statutes that prohibit individuals and businesses (i.e. hospitals) from monopolizing or attempting to monopolize markets and from engaging in unfair or deceptive business practices. “Restraints of trade” refer to contracts or other actions designed to eliminate competition or otherwise prevent free competition in business, such as the creation of a monopoly or the limiting of the market. The historic goal of these laws is to protect economic freedom and opportunity by promoting competition in the market place. Free competition is supposed to benefit consumers, by lowering the prices, promoting better quality, and offering more choices. The major federal antitrust law is the Sherman Act. It was passed in 1890 and makes illegal every contract, combination, or conspiracy leading to restraint of trade. Essentially, the Sherman Act prohibits monopolies. The Clayton Act supplements the Sherman Act, and prohibits mergers and acquisitions which are designed to substantially lessen competition by creating a monopoly. Each state has enacted its own antitrust laws, as a supplement to the Sherman and Clayton Acts.

Regarding hospital credentialing and privileging, antitrust laws may be applicable in the following circumstances:

• When there is an adverse outcome to a physician as a result of biased peer review, implying revocation of existing privileges.
• When the Medical Staff has conspired to exclude specific providers through coercive actions toward the hospitals, such as if privileges are granted to a competitive physician group(s).
• When the hospital makes exclusive contracts or arrangements with an individual or physician group(s).
• Arrangements made between the hospital and a physician group that includes economic incentives or benefits for the doctor's group may be in violation of the Ethics and Patient Referral Acts, known as the Stark I and Stark II Laws. These arrangements may include leasing office space at rates below fair market value, employing or subsiding support personnel like allied healthcare professionals, or compensating for other services above fair market value.

The Hospital Perspective
Both the organized Medical Staff and the hospital administration are ultimately responsible for ensuring that the best patient care is provided by qualified professionals. With that premise, hospitals may choose to enter in exclusive arrangements with a physician or physician group to provide patient care in certain specialties or services.

Several years ago, exclusive contracts involved only traditional hospital-based services such as radiology, pathology and some surgical subspecialties like cardiovascular surgery and neurosurgery. These subspecialties are different from hospital medicine in that they strongly depend on ancillary services, equipment and personnel provided by the hospital. Therefore having one group of physicians who is familiar with the system within the hospital may indeed improve administrative organization and eventually quality of care. Recently, with the rapid growth of the hospitalist movement, many hospitals are employing or contracting exclusively with an individual hospitalists group based on similar arguments.

The Board of Directors or equivalent authority would make this choice an institutional policy, responding to internal requirements. They assume that such an agreement will help standardize care and help to simplify scheduling and other administrative issues, finally leading to improvement in quality of care and services provided. If there are several groups of hospitalists within the same organization, it is arguable that it will be more difficult to attain these goals and develop quality initiatives. For this reason, application for privileges will be denied to applicants outside of the group with exclusive privileges, even though the applicants having appropriate credentials. On the other hand, precluding other physicians from practicing in the hospital will automatically eliminate competition, which could result in a decrease of collections for the group that holds exclusive privileges.

Other organizations, such as Miami Children's Hospital where our group practice is based, have chosen to allow multiple hospitalist groups to practice on campus. This system will foster competition, and benefit consumers like community pediatricians and patients by offering more choices when selecting an admitting hospitalist. Some would argue that this policy will actually improve the quality of services rendered. This practice is more in tune with the previously quoted position of the SHM Board of Directors, and fully supported by our group.

As we mentioned before, according to the Joint Commission, the governing body of the institution has the ultimate right to determine the extent of privileges delineated, and to decide what practitioners are granted the ability to carry out those specific privileges. In other words, the hospital has the ultimate authority to decide who practices within the “four walls” of the building.

Litigation
When engaging in “exclusive contracting,” hospitals could be exposed to liability regarding violations of antitrust laws, restriction of trade, or complaints about economic credentialing in civil court.

More than forty years ago, the judicial system began to examine whether the denial or revocation of physician hospital privileges was justified in some fashion.

Continued on page 12
when challenged by a grieving physician. The first of these cases, Blank v. Palo Alto-Stanford Hospital Center, took place in California in 1965. The case involved the hospital’s exclusive radiology contract. The court ruled that the decision to provide exclusive privileges to a designated group of physicians promoted better patient care and more efficient hospital administration, and the hospital prevailed.

Subsequent cases have also been tried in civil court, and usually result in adverse decisions for the physician plaintiffs. When the denial of privileges was not related to substandard credentialing or performance, the plaintiffs (physicians) have alleged that this practice is a violation of antitrust laws, specifically restraint of trade. The defendants (hospitals) have argued that their decisions are based on the goals of improving organization and efficiency, making scheduling more reliable, and positively impacting the quality of services provided. The hospitals have usually prevailed in such litigation. In general, the courts have ruled that within the scope of the law, the governing body had the authority to take these actions, and these actions were not considered arbitrary or capricious.

In the civil court system, the burden of proof for a ruling is lower than the “proof beyond a reasonable doubt” used in criminal cases. Instead, the cases are proven by “preponderance of evidence”.

In the final ruling, the defendant (i.e. a hospital) may be found “liable”, as opposed to “guilty,” as in the criminal court system. If a physician decides to sue a hospital or healthcare organization in civil court and eventually prevails, the retribution will be either compensation for monetary damages or an injunctive relief that reverts the decision of the hospital. For example, the courts may rule that the hospital must reinstate or grant the privileges that were initially denied or revoked. The authors wonder: under these circumstances would you really want to practice at an institution that granted privileges to you under an injunctive relief from a civil court? We will leave this answer to the readers.

---

**Denial or Restriction of Hospital Privileges for Hospitalists, continued from page 11**

---

**Adverse Consequences of Denial of Privileges**

The Healthcare Quality and Improvement Act (HCQIA), administered by the U.S. Department of Health and Human Services, was passed in 1986. The law mandates that hospitals must report adverse decisions related to credentialing or denial of clinical privileges to the National Practitioner Database (NPDB) only when such events were the result of substandard professional competency or inappropriate conduct. Performing a NPDB query is currently a crucial step of the credentialing process in hospitals and healthcare organizations in the United States.

The HCQIA Act provides, as well, immunity for antitrust prosecution for physicians to engage in good faith peer review. Hospitalists should be aware that if the application for privileges is processed and the requested privileges are denied for reasons other than substandard credentialing or faulty conduct, for example, as a consequence of exclusive contracting, this is not a reportable event to the NPDB. In this case, it is recommended that the provider fully disclose the event and provide all the associated documentation when asked to by another institution.

If the physician provides accurate information, no adverse consequences should be expected.

**Conclusion**

Denying hospital privileges to hospitalists is not necessarily a violation of the law, nor a violation of the JCAHO standards or CMS’s COP. Nevertheless, these actions may expose healthcare organizations to scrutiny and potential liability for violation of federal and state antitrust laws, specifically on restriction of trade. In general, hospitals have prevailed in civil courts with the argument that exclusive contracts are intended to improve quality of patient care and institutional organization.

Different from other subspecialties that strongly depend on hospital technology and support personnel, hospitalists provide general inpatient pediatric care, without depending on such services or personnel. Hence, it will not compromise the quality of care delivered to the patients or institutional organization if more than one group of hospitalists would be allowed to practice within the hospital.

It is the opinion of the authors that denying privileges to hospitalists as a result of exclusive agreements or economic credentialing does not represent the spirit of free enterprise on which our great nation was founded. In the future, more specific and concrete regulatory standards, along with federal and/or state statutes, may be needed to reinforce antitrust laws with respect to the practice of hospital medicine.

**REFERENCES AND SUGGESTED READING**


---

**Did a particular topic on the LISTSERV® spark your interest? Take the opportunity to share your knowledge with your colleagues and submit to Hospitalists On-Line!**

**Please contact**

Jennifer Maniscalco, MD,
MPH at jmanisca@cmc.org

for more information.
Pediatric Rapid Response Team: An Academic Children’s Hospital Experience

Paul Sharek, MD, MPH
Lucile Packard Children’s Hospital, Palo Alto, CA

Editors Note:
This article was adapted with permission from an article submitted for publication by Paul Sharek, MD, MPH, Director of Quality Management, Lucile Packard Children's Hospital. Pediatric Hospitalists are committed to improving the safety and quality of care provided to pediatric inpatients. Dr. Sharek’s study shows the remarkable benefit of the implementation of a rapid response team in an academic children’s hospital. We encourage pediatric hospitalists in both large and small settings to become involved or perhaps lead the development of more of these teams as well as track and publish data on their outcomes.

Introduction of a rapid response team (RRT) has shown to decrease mortality and cardiopulmonary arrests outside of the ICU in adult inpatients. The 100,000 Lives Campaign, an initiative brought forth by the Institute for Health Improvement (IHI) to decrease adverse medical events, recommends the implementation of a RRT as part of a strategy to reduce the number of preventable inpatient deaths. Lucile Packard Children’s Hospital (LPCH) was one of several children’s hospitals to embark on this intervention despite the paucity of data supporting a benefit in pediatric patients. As a result of this intervention, LPCH now has data to show a significant reduction in mortality and cardiopulmonary arrests in its pediatric inpatients.

A Rapid Response Team (RRT) is a multidisciplinary team, which at LPCH consists of intensive care unit (ICU)-trained personnel, who are available twenty-four hours per day, seven days per week for evaluation of non-ICU inpatients who develop signs of clinical deterioration. The RRT intervention was developed in response to research that revealed adult cardiopulmonary arrest rates while the second shows a decrease in the total code rate but no impact on mortality.

On September 1, 2005, LPCH implemented a pediatric RRT which consisted of a physician (PICU attending or fellow), an experienced ICU nurse, an ICU trained respiratory therapist and a nursing supervisor. Criteria was established for when to activate the RRT: 1) any staff member who worried about a patient, 2) acute change in respiratory rate, 3) acute changes in oxygen saturation, 4) acute change in heart rate, 5) acute change in blood pressure and 6) acute change in level of consciousness. When activated, the RRT was expected to initiate evaluation within five minutes of the call, write orders necessary for any diagnostic or therapeutic interventions, discuss management with primary provider and determine optimal location for the patient's care. A comparison was made between pre and post intervention data for non-ICU cardiopulmonary arrests and hospital-wide mortality. A significant decrease in hospital-wide mortality rate by 18% occurred after implementation of the RRT. The code rates outside of the ICU per 1000 eligible patient days decreased by 71.2% and the code rates outside of the ICU per 1000 admissions decreased by 71.7%. The result is an estimated 34 lives saved during the 19 month post intervention period.

Survival rates of pediatric inpatients following cardiopulmonary arrest is poor with just 34% surviving 24 hours and 15% surviving one year. It would seem that implementation of a RRT would impact survival and rates of cardiopulmonary arrest in pediatric populations similar to the results seen in the adult literature. However, only two published studies exist describing the effect of a RRT on pediatric outcomes. One study shows no impact on hospital mortality or cardiopulmonary arrest rates while the second shows a decrease in the total code rate but no impact on mortality.

REFERENCES
1. Berwick DM, Galindo BR, McCanno CJ, Backharth AD. The 100,000 lives campaign: setting a goal and a deadline for improving health care quality. JAMA. 2006;295:324-327.
Management of Antenatal Hydronephrosis: From the Fetus and Beyond

Amaya L. Bustinduy, MD, delosmadrides@yahoo.com, Valerie Hines, MD, hinesvalerie@gmail.com, Wednesday Sevilla, MD, medserf@yahoo.com, Nicholas P. Morley, nnorle1@uic.edu, and Jennifer Daru, MD, jadaru@gmail.com
University of Illinois, Chicago/Advocate Illinois Masonic Hospital, Chicago, IL

Introduction
Routine prenatal ultrasonography frequently detects the presence of antenatal hydronephrosis (AHN), with reports stating that detection occurs in less than 1 to as high as 5 percent of all fetal ultrasound studies. There is no clear consensus on postnatal management. Differing criteria exist for establishing the diagnosis and grading the severity of fetal hydronephrosis. Some reports suggest AHN is a benign condition that may resolve without intervention. The clinical significance of AHN remains unclear although the majority of cases have no associated renal abnormality. This article provides a review of current literature as well as practical steps to take when managing a neonate with hydronephrosis detected on prenatal ultrasound.

Prenatal Diagnosis
In the United States, 3 million maternal ultrasounds are performed annually with hydronephrosis being the most commonly detected anomaly. The term hydronephrosis, originating from the Greek hydro (“water”) and nephro (“kidney”), refers to dilation of the renal pelvis or collecting system of the kidneys. Among the most common causes of AHN (Table 1) are transient and physiologic hydronephrosis, ureteropelvic obstruction, vesicoureteral reflux, megaloureter, multicystic dysplastic kidney disease, and ureterocele.

One of the difficulties in discussing postnatal management of fetal hydronephrosis stems from different criteria used to grade the abnormality seen on fetal ultrasound. One of the most widely accepted systems from the Society of Fetal Urology (SFU) grades hydronephrosis from 0 to IV, ranging from increasing dilation of the renal pelvis and calyceal involvement to full dilation in addition to alteration of the parenchyma. Other investigators use measurement of the anterior-posterior pelvic diameter (APPD). John et al. in 2004 conducted a study with one hundred and ninety six pregnant women referred for suspected renal anomaly in the fetus. The purpose of the study was to assess the clinical relevance of pelvicaliceal dilatations diagnosed prenatally and to determine thresholds for the fetal renal anterior-posterior diameter. They found that an APPD ≥ 4 mm before 33 weeks and of ≥ 7 mm from 33 weeks onwards of gestation yielded a high sensitivity of 100% but low specificity 18.7-47.8% for the diagnosis of significant hydronephrosis. They concluded that those thresholds warranted a complete postnatal evaluation.

TABLE 1

<table>
<thead>
<tr>
<th>Common Causes of Antenatal Hydronephrosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transient and physiologic hydronephrosis</td>
</tr>
<tr>
<td>Ureteropelvic obstruction</td>
</tr>
<tr>
<td>Vesicoureteral reflux</td>
</tr>
<tr>
<td>Megaloureter</td>
</tr>
<tr>
<td>Multicystic dysplastic kidney disease</td>
</tr>
<tr>
<td>Ureterocele</td>
</tr>
</tbody>
</table>

Prognosis
The natural history and clinical significance of a diagnosis of AHN is unclear. A recently published systematic review and meta-analysis of 25 articles, mostly observational studies, completed by Sidhu et al. (2006) found that more than 70% of the cases with mild hydronephrosis (SFU grades 1-2; APPD<12 mm) resolve or improve without intervention. More variable results were found on grades 3-4. This was likely due to the different grading systems used. The most consistent findings were in the studies that used the SFU grading system. Other studies have pointed out that patients with any degree of AHN detected are at greater risk of pathology compared to the general population, with moderate and severe AHN needing comprehensive postnatal work-up but correlations are still imperfect.

Post-natal Management
The goal of postnatal management of AHN is early detection and management of lesions that can cause renal damage. The most severe outcomes of undetected bilateral hydronephrosis include pyelonephritis, hypertension and progressive renal failure leading to end-stage renal failure.

The newborn history should include maternal prenatal history, gestational age at detection of AHN, amniotic fluid levels and other detected malformations. As with all newborns, initial assessment with a complete examination should be done with close attention to abdominal masses (indicating possible a hydronephrosis or multicystic kidney disease). Further investigation starts with renal ultrasonography. It offers a visualization of the renal parenchymal structure and presence of calyceal dilatation, renal length, cortical thickness and the echogenicity of the renal parenchyma. This should not be done earlier than day three of life as a false negative result may be obtained due to reduced urine production during the first 48 hours of life.

A voiding cystourethrogram (VCUG) is recommended to rule out vesicoureteral reflux. VCUG can give additional information on anatomical and functional assessment and is still considered the gold standard for classification and grading of vesicoureteral reflux. Aksu and colleagues conducted a prospective study on 85,573 pregnant women attending antenatal clinics in SSK Ege Obstetry and Gynecology Teaching
Hospital between January 1998 and December 2003. Prenatal sonography was obtained after the 20th week of gestation for obstetric reasons. Of those, they identified 136 antenatal scans that showed an APPP $\geq 5$. Since there is no consensus on normal upper limits, they recommended that infants with antenatal renal pelvis measurements $\geq 5$ mm should be investigated postnatally with a VCUG even if the postnatal ultrasound was normal. This is because a negative ultrasound result does not preclude the presence of urinary tract abnormality but is unclear whether detected reflux is clinically significant. Riccabona suggested indications for VCUG: suspected intravesical obstruction, bilateral hydronephrosis, dilated ureter, duplex kidney, small kidneys, abnormal echogenicity, abnormal bladder and as work-up prior to pyeloplasty.

Renal function and drainage can be evaluated using diuretic renography (Mag3 scan). This entails administration of furosemide twenty minutes after intravenous infusion of a tracer. This allows increased urine flow to detect pelvicicaleal or ureteral dilatation and differential renal function. Further specialized testing in the form of the F-15 Mag3 scan can shed more light on initial routine Mag3 scan studies that are labeled as equivocal.

Although 85% of patients with prenatal hydronephrosis resolve spontaneously without any intervention, conservative non-operative management should be reserved for patients who have unilateral hydronephrosis, remain asymptomatic and free of febrile infections, observed to have stable hydronephrosis on serial ultrasound studies and improving relative urine function (via Mag3 scanning). Your local specialist may provide indications for anterograde or retrograde ureteroscopy for patients with any evidence of severe progressive hydronephrosis and obstruction should be referred to a urologist for possible surgical correction.

Conclusions
The detection of antenatal hydronephrosis has increased with the routine increase of ultrasonographic studies in the prenatal period to assess the fetus. There is no standard protocol for diagnostic measurement cut-offs or even post-natal management. As such, the clinician is presented with the obligation to assess the need for more detailed investigations on a case-to-case basis. A summary of current recommendations include a thorough history and physical examination in the newborn; a renal ultrasound after the 3rd day of life; a VCUG to rule out reflux; consideration of a Mag3 scan to assess differential function if the VCUG is abnormal; and giving prophylactic antibiotics.

For the Pediatric Hospitalist working in the nursery setting, his or her role involves ensuring scheduling of a renal ultrasound and VCUG and consideration for initiation of prophylactic antibiotics. In addition the hospitalist should ensure adequate communication and transfer of data to the primary care provider from the obstetrician and the hospital stay as well as early education of the family on next steps to ensure the child's health.

While the majority of patients will recover without need for invasive treatment, a significant minority will need to be followed and may need intervention. Patients with any evidence of severe progressive hydronephrosis and obstruction should be referred to a urologist for possible surgical correction.

REFERENCES

The Paul C. Gaffney Diagnostic Referral Service, Children’s Hospital of Pittsburgh, continued from page 7

Maintaining Continuity
The DRS has implemented several strategies to maintain continuity of care in the inpatient and outpatient settings. The same physician will care for a patient throughout their inpatient stay as much as possible. When patients are admitted, they are assigned to the same physician who cared for them the previous admission, whenever possible. An automatic fax program is starting this year, which faxes key documents such as admission and discharge notes, radiology reports, and operative reports to the primary physician before the patient is even discharged. Each hospitalist also writes a summary letter to the primary physician at the end of hospitalization. After discharge, the DRS physicians and case managers are still available to the patients and primary physicians to handle referrals, prescriptions, supplies, and follow-up care. Patient continuity has led to great patient satisfaction. The DRS has consistently been among the top in-house divisions for patient satisfaction ratings, and has received national recognition as well.

Secrets to Success
Although the group is large, DRS faculty work closely together. Because they do not work in shifts, the group is able to attend educational conferences together and eat lunch together almost every day. They often discuss cases and management styles with each other and sign out as a group. “Communication and relationships are very powerful, and are a key component to our success,” explains Dr. Urbach.

For more information on The Paul C. Gaffney Diagnostic Referral Service, contact Basil Zitelli at basil.zitelli@chp.edu.

Interested in submitting an article to Practice Profile? Contact Susan Wu at suwu@chla.usc.edu.
You are the pediatric hospitalist at a community hospital called down to the emergency department (ED) during a busy winter night to evaluate a 2 year old little girl for admission. The child had a 2-minute self-limited tonic-clonic seizure shortly after arrival to the ED, witnessed by the staff. She is now awake, with stable vital signs with an IV catheter in place. An initial work-up was completed by the emergency department team.

After peeking in on the child to assure yourself that she appears stable, you obtain the history from the family and ED staff, examine the patient, and review the initial results. This previously healthy little girl was well until 3 days prior when she developed fever (101-102°F), decreased activity, a mild non-productive cough and some nasal congestion. Over the preceding 24 hours the patient has been sleeping more than usual and seemed “cranky” or “confused” when awake. The parents brought the child to the ED when they noticed her holding her neck in one position, tipped a little to the left. They report that her voice is muffled or hoarse. She has no difficulty breathing. They deny that they have been sent. A fingerstick glucose at the time of the seizure was 86. She remained sleepy but arousable for approximately 20 minutes after the seizure. Intravenous access was placed, blood and urine specimens were obtained, and the initial diagnostic evaluation was completed.

On physical examination you note her most recent vital signs: T =100.4°F (38.0°C), HR = 115, RR 18, BP 92/60, oxygen saturation 99-100% on room air. She is sleeping sitting up in her father’s lap when you enter the room but awakens promptly when you approach her. She fusses when you attempt to talk with her and seems uncomfortable when her father repositions her in his lap. At times she does turn her head side-to-side and up-and-down spontaneously but with reduced range, and she does tend to hold her head cocked to the left as a position of comfort. Her eyes, ears and oropharynx are clear. Her nares have scant dried mucus but no flaring. Multiple small anterior cervical lymph nodes are palpable bilaterally, but none are red or tender. She has no palpable muscle spasm and no localizable tenderness of her neck. Her Kernig and Brudzinski signs are negative. The remainder of her examination, including the remainder of her neurologic examination, is normal. When left alone, she falls back to sleep.

The laboratory results include a white blood count of 20,000/mm³ (77% neutrophils, 18% lymphocytes), with a normal hemoglobin level and platelet count. Her basic metabolic panel and urinalysis are normal. Blood cultures and urine cultures have been sent. A chest radiograph and lateral neck film are normal. A lumbar puncture was performed which reveals 18 WBC/hpf (18% neutrophils, 29% monocytes, 20% lymphocytes and 30% macrophages), 1 RBC/hpf, protein 45 mg/dL (normal 5-40 mg/dL) and glucose 46 mg/dL (normal 40-80 mg/dL). The Gram stain of the cerebrospinal fluid reveals no organisms, and the fluid has been sent for routine culture and PCR assay for herpes simplex virus (HSV) and enterovirus. Computerized tomography (CT) of the head was performed which showed “leptomeningeal enhancement and multiple areas of subtle hypointensituation in the white matter.”

You note that the patient has already received her first dose of ceftriaxone (after all cultures were obtained), and vancomycin and acyclovir are on the way up from the pharmacy. Although the patient is well covered for possible bacterial or herpes meningitis, you worry about other processes and chose one of the following studies to do first.

1. Electroencephalogram
2. CT of the neck
3. Magnetic resonance imaging (MRI) of the brain
4. MRI of the neck
Infections from some bacterial pathogens (e.g., Epstein-Barr, hepatitis A or B) and although other common viral infections (Coxsackie, influenza, measles, varicella) may cause upper respiratory illness (e.g., corona, ADEM most often follows a common viral infection. ADEM appears to be an auto-immune process thought to be triggered by the immune response to the preceding infection or immunization. Myelin autoantigens on host oligodendrocytes may be targeted by the antiviral cell-mediated response to infection due to a cross reaction. The resulting inflammation causes scattered foci of perivenous demyelination with infiltration of lymphocytes and macrophages in the subcortical white matter. The thalami and basal ganglia are often involved (usually bilaterally) and asymmetric lesions in the supratentorial regions, brain stem and spinal cord are common.

**Clinical Features**
A few days to weeks after a viral illness or immunization, patients develop nonspecific symptoms of fever, malaise, myalgias, headache, nausea, or vomiting. This is followed by neurologic symptoms that often include change in mental status with altered level of consciousness (encephalopathy), meningismus and multifocal neurologic deficits depending on the location and distribution of the lesions. Findings of ataxia, tremors, dysarthria, seizure, visual changes, hemiparesis, or cranial nerve palsies are common. If present, optic neuritis is typically bilateral, and transverse myelopathy is often complete with areflexia.

**Diagnostic Studies**
Neuroimaging is key in establishing the diagnosis of ADEM. MRI of the brain (and/or spinal cord) is more sensitive and provides better delineation of the findings compared to CT. Characteristic MRI findings include bilateral, asymmetric lesions of the central white matter that measure 1 to several centimeters each. Approximately half the patients will demonstrate involvement of the thalamus or basal ganglia. Lesions are best demonstrated on the T1 or fluid-attenuated inversion-recovery (FLAIR) images. Lesions seen by CT are typically low-attenuation lesions in the subcortical white matter.

The cerebrospinal fluid (CSF) is frequently abnormal, but can be normal in up to 40% of patients. The most common abnormalities include a mild, lymphocyte-predominant pleocytosis or elevation of the protein level. The opening pressure may be elevated. The glucose level is usually normal. Viral proteins may be detectable, but their presence does not necessarily indicate causality of the ongoing inflammatory process.

Electroencephalography (EEG) can be normal, and even abnormalities found are often nonspecific (e.g., excess background slow wave activity). This limits the utility of this testing for establishing the diagnosis of ADEM.

**Differential Diagnosis**
Other diagnostic considerations include multiple sclerosis (MS), transverse myelitis, optic neuritis, cerebellar ataxia, and other forms of postinfectious demyelinating disorders. Also, depending on the salient symptoms, ADEM may share features with a range of infectious, inflammatory or toxo-metabolic encephalitides. Finally, other entities to consider include acute psychosis, brain tumors, osmotic myelinolysis, or subacute sclerosing panencephalitis. Variants of ADEM seem to exist, including acute hemorrhagic leukoencephalitis which is a hyperacute form that is often fatal.

Distinguishing ADEM from an initial presentation of MS is attempted based on several clinical and neuroimaging features, but it can be difficult. Unusual for MS, but typical for ADEM are a preceding viral illness, meningismus,
What’s New?

Subcommittee on Community Hospitalists
Beth Robbins, MD, FAAP
erobbins@aahs.org

Greetings. After a quiet year, the community hospitalist subcommittee has two new contacts: Beth Robbins MD, at the Anne Arundel Medical Center (erobbins@aahs.org) is the subcommittee chair, and John A Pope MD, MPH of Phoenix Children’s Hospital (jjope@phoenixchildrens.com) is the editor for our Hospital Pediatrics articles. We are actively recruiting new members and updating contact information on previous members. Please contact Beth if you are a previous member of the subcommittee or if you are interested in joining. No time commitment is required, just an interest in the unique perspectives, problems, and practice of pediatric medicine in the community hospital.

We would like to hear your thoughts as to what characteristics define a community hospitalist and our hospital environments: is it the smaller numbers of patients? The negative aspects such as absence of residents or fewer, if any, pediatric sub-specialists? Or positives aspects such as more direct patient care? Importantly, what barriers to care do you experience, and how can we help each other overcome them? Share your thoughts, ideas, and stories with us!

We have been discussing key goals for our subcommittee. Our most important goal is to foster communication and exchange of ideas among community pediatric hospitalists. Another goal is to encourage community hospitalist participation in collaborative research projects, such as the PRIS network, to ensure that study subjects are representative of the greater pediatric community, not just children who receive care at academic centers. Major project goals include a more formal survey to characterize our practices further, and developing a “leadership tool kit” for community hospitalists in leadership positions. Finally, we plan to publish columns in every Hospital Pediatrics that address a variety of issues important to community hospital practice such as hospital service planning, quality measurement, budgeting/financial management, physician and hospital administration relations, resident education, and work life balance. John is currently looking for a writer for an article about “communicating with community physicians” for our next column so please email him if you are interested.

I find that one of the joys of community hospital work is that a large proportion of my time is spent on direct patient care. However, this can lead to feelings of isolation from fellow practitioners and frustration in a lack of time to lift my head, look up, and see what other folks are doing. We all search for opportunities to break that isolation and find personal satisfaction and professional growth.

I hope that this subcommittee will represent an opportunity for us to move past the bedside, reach out to our fellow practitioners, and gain insight from our shared experiences. We welcome your ideas and contributions in any form and look forward to hearing from you. Hope to see you in Utah this August!

Interested in writing for our new column Community Hospital Medicine? If so, please email jjope@phoenixchildrens.com. We are currently looking for an author to write a piece entitled "Communicating with Community Physicians."

Subcommittee on Critical Care
Kim Boland, MD, FAAP
k.boland@louisville.edu
Ben Alexander, MD, FAAP
balexander@wakemed.org

Our subcommittee goal for the summer is to gather data that will more clearly define Pediatric Hospitalist involvement in Pediatric Critical Care and Intermediate Care Units. To this end, we have created a survey for all Pediatric Hospitalist programs to determine the various roles we as hospitalists play in these areas. By gathering this information, we hope to be able to address the educational and professional needs of this subset of Pediatric Hospitalists. Our survey is brief and should take no more than 15-20 minutes to complete. Please keep an eye out on the LISTSERV® for information on participating.

Unfortunately, the Society of Critical Care Medicine sponsored course, Fundamentals of Critical Care Medicine, for pediatricians providing critical care will not be offered at the August meeting in Salt Lake City. We hope to be able to offer it or at least a course syllabus in the near future to assist in building hospitalist skill sets in the intensive care unit.

Interested in describing your Critical Care Program? Have a question about providing Critical Care?
Write Kim Boland, MD, FAAP, at k.boland@louisville.edu or Ben Alexander, MD, FAAP at balexander@wakemed.org.

If you have any comments, questions or suggestions for our sub-committee or wish to join, please feel free to contact us.

Subcommittee on Palliative Care
Maggie Hood, MD, FAAP
Maggie.hood@multicare.org

The subcommittee on palliative care of SOHM is gaining momentum and membership. We have been invited to participate in a follow-up survey sponsored by BENCH (Benchmarking Effort for Networking Children’s Hospitals) highlighting different aspects of pediatric palliative care at children’s hospitals. If you would like to join, please contact me.

In each issue of Hospital Pediatrics, we hope to highlight different Palliative Care programs from around the country. I hope you enjoy this one about the program at Children’s Hospitals and Clinics of Minnesota on page X.

Interested in describing your Palliative Care Program? Have a question about providing Palliative Care?
Write Maggie Hood, MD, at Maggie.hood@multicare.org.
Subcommittee on Palliative Care

Stefan J. Friedrichsdorf, MD
Medical Director, Pain and Palliative Care
Children’s Hospitals and Clinics of Minnesota, Minneapolis, MN
stefan.friedrichsdorf@childrensmn.org

Children’s Hospitals and Clinics of Minnesota are a not-for-profit, comprehensive health care provider serving the diverse needs of children from infancy through adolescence. With 316 staffed hospital beds, we are the sixth largest children’s health care organization in the U.S., with services available in all major pediatric specialties. The Pain & Palliative Care team aims to control acute, chronic and recurrent pain in all in- and outpatients at the hospital. The team also provides holistic, multidisciplinary care for children and teens with life-limiting or terminal diseases and their families.

The Acute Pain Service portion of the team follows more than 1000 patients per year and is designed as a consultation service for patients ranging from neonates to young adults. This team, which includes advanced practice nurses, provides pharmacological (non-opioids, opioids and adjuvant analgesia via different routes of application including patient-controlled analgesia) and integrative treatment modalities in close cooperation with all pediatric subspecialties including child life, psychosocial staff, medicine and nursing.

In our outpatient pain clinic we assess and follow children with chronic pain issues and their families through a multidisciplinary team consisting of a clinic nurse, social worker/family therapist, physical therapist, psychologist and pediatrician/pain specialist. The team assesses children with acute, chronic or recurrent pain jointly and the follow-up plan will be tailored upon the needs of the individual child and his or her family.

Our busy palliative home care and hospice service has a daily census of about 80-90 children with life-limiting and terminal conditions, which makes us the largest program in the USA. A multidisciplinary team, including nurses, pediatricians, social workers, psychologist, chaplain, child life specialist, bereavement counselor, provides care for in- and outpatients as well as in the community through disease, death and bereavement. A perinatal hospice and a significant educational component through our Children’s Institute of Palliative Care complete the service.

Case: A 2 year old with seizure and neck tilt, continued from page 17

fever, ataxia and altered level of consciousness. On MRI, evidence of thalamic involvement is uncommon in MS, and the white matter lesions in MS tend to be smaller, less numerous, and variable in age.

Treatment
Once the diagnosis of ADEM is established, treatment is targeted at suppression of the presumed immune-mediated inflammatory process. High-dose (“pulse”) corticosteroids (e.g., methylprednisolone 20-30 mg/kg/day intravenously for 3-5 days) have been shown to improve outcome in a large proportion of patients. This can be followed by oral corticosteroids which are often tapered over a 4-6 week period. There is some evidence that plasmapheresis or intravenous immunoglobulin therapy may provide benefit in some patients.

For patients with findings suggestive of meningitis, antiviral and antibacterial treatment is often appropriate until cultures and PCR studies are negative or the diagnosis of ADEM is made.

Outcome
With treatment, most patients with ADEM make an excellent recovery over the weeks or months following the illness with 57-81% demonstrating full recovery. Some children are left with neurological impairment that ranges from mild to severe. Recurrence has been reported in this usually monophasic illness and may represent a continuum of disease with MS (e.g., “multiphasic ADEM” or “relapsing ADEM”). It is estimated that 10-15% of ADEM cases will meet criteria for MS in the 5 years after the initial presentation.

The little girl described in this case was treated in consultation with pediatric neurologists. She received methylprednisolone 30mg/kg daily for three days. An EEG showed epileptiform discharges so the patient was started on phenytoin. Antibiotics and acyclovir were stopped after CSF bacterial cultures were negative for 48 hours and CSF viral PCR studies for HSV were negative.

On the third day of her steroid course, the child became somewhat more active, although she did not speak, could not reliably pick up items and did not walk. Physiatry, occupational therapy, physical therapy, and speech therapy were consulted. She continued to demonstrate improvement over the next 2 weeks and was discharged to home when she was able to ambulate safely with help from her family and could eat and drink adequately and safely. Ongoing therapy was arranged for her as an outpatient as well as follow-up appointments with pediatric neurology and her primary care physician.

REFERENCES

Do you have an interesting case you’d like to write up for You Are the Consultant? Contact Lisa Zaoutis at zaoutis@email.chop.edu and she’d be glad to help.
Section on Hospital Medicine Program
Monday, October 29, 2007 • AAP National Conference & Exhibition • San Francisco, CA

Moderator
Daniel Rauch MD, FAAP; Education and Program Chairperson

9:00 am
Poster Session and Research Award Presentation
sponsored by a grant from the Children’s Dream Foundation

10:00 am
The Chronically-Ill Child in the Hospital: Issues for Primary Care Providers and Hospitalists
Faculty: Raj Srivastava, MD, FAAP; Ellen Roy Elias MD, FAAP

11:30 am
Break

12:00 pm
Business Meeting and Lunch
Laura Mirkinson, MD, FAAP; Chairperson
Complimentary - Ticket Required

1:00 pm
Transitioning Care within the Hospital: ED ↔ Inpatient Service ↔ PICU
Faculty: Ed Conway, MD, FAAP; Juliann Lipps Kim, MD, FAAP; Kevin Whitelaw, MD, FAAP

2:30 pm
Break

2:45 pm
End of Life Care on the Inpatient Service
Faculty: Maggie Hood, MD, FAAP; Katie Larkin, MD; Marcia Levetown, MD, FAAP

4:15 pm
Adjourn

Posters for Viewing
• (6) Primary Operative Management for Pediatric Empyema Decreases Hospital Length of Stay and Charges in a National Sample.
• (69) Infantile Herpes Zoster after Intrauterine Exposure to Varicella.
• (76) Window of Opportunity: Referral of Adolescents to the Hospital Child Protection Team.
• (85) Staphylococcus Aureus Is Becoming More Multi-Drug Resistant in the Pediatric Population.
• (93) Paediatric Multiple Sclerosis: A Clinical Profile.
• (99) The Clinical Spectrum of Adenovirus Infection Encourages Inappropriate Anticold Use.
• (211) Understanding of Regulations Governing Pediatric Research among Members of Institutional Review Boards That Evaluate Pediatric Protocols.
• (239) Clinical Care Paths: Quality Improvement in Pediatric Hospitalist Medicine.
• (278) The Effect of a Nasal Decongestant on Respiratory Status in Infants Hospitalized for Bronchiolitis.
• (295) Implementation of a Pediatric Rapid Response Team.
• (306) Patient Outcome: Traditional Pediatric Faculty/House Staff versus Staff-Only Hospitalist Service.
• (312) Improving Pediatric Sedation Availability and Hospital Services Throughout by Initiating a Hospital Wide Service Provided by Emergency Physicians.
• (356) Can Hospitalists and Surgeons Work Together to Improve Patient Safety and Care Quality?
• (395) Swept Away and Left with a Broken Heart.
• (505) Using a Pediatric Hospitalist on a Subspecialty Service to Improve Utilization and Denial Outcomes.
• (551) Assessing System Needs for Transitioning Youth with Special Healthcare Needs (YSHCN) from Pediatric to Adult Care.
• (552) Safety and Pharmacokinetics of the Synera™ Patch in Pediatric Patients: A Randomized Clinical Study.
• (642) The Double Whammy: Two Rare But Dire Medication Induced Syndromes in One Patient.
• (684) Training of Clinical Empathy: Medical Students’ Perspectives.
• (727) Synera™ Versus Emla® Cream for Topical Local Anesthesia Before a Vascular Access Procedure: A Randomized Controlled Trial.
• (823) Oseltamivir Reduces the Risk of Influenza-Related Complications and Hospitalization in Children and Adolescents with Chronic Medical Conditions.
• (825) The Safety of Oseltamivir Treatment in Children and Adolescents: Analysis of Healthcare Claims Data from Six Influenza Seasons.
• (1005) Validating an Intensity Tool for Care Coordination.
• (1034) The Therapeutic Choice for Parents of Children with Community-Acquired Pneumonia: Patient-Focused Care at the Crossroads between Two Therapeutic Approaches of Equal Efficacy Based on a Cochrane Review.

Section on Hospital Medicine Program
Monday, October 29, 2007 9am-4:15pm
at the Moscone Center