cocitnews

The Council on Clinical Information Technology

Volume 4, Number 2, Fall 2006

inside this issue

From the Chairperson

By Mark M. Simonian, MD, FAAP
Chairperson, Council on Clinical Information Technology

I am sitting in my family room on a beautiful Saturday morning, thinking about what we have been doing at the Council on Clinical Information Technology (COCIT) Executive Committee and what is news.

Every Executive Committee member has been participating in one meeting or conference this year, with the conversation focused on how we need to share medical information more effectively and building the rules to get that done. The momentum has been driven by many governmental agencies and national information associations. The Executive Committee has selected as many standards groups as it could to keep pediatrics in the discussion as those rules are being written. This is a tough task, with a volunteer physician group that is composed of academic, specialist, and general pediatric members. These dedicated souls have shared their time based on their interests, location, and availability. Important conferences and meetings pop up with short notice or are located around the country. We also have tried to involve members outside the Executive Committee to represent COCIT and pediatricians, and they have stepped forward and shared their conversations. I thank them all for their participation. You will hear what has been learned in this and future newsletters, *AAP News,* or other forums.

This last fall, we have had a tremendous program at the National Conference & Exhibition (NCE), designed and moderated by **Lewis Wasserman.** He has been a huge asset to our Council's educational agenda. My only regret is that only a small portion of the members get a chance to see what is available in conference topics and exhibits. I look to you to give us some ideas how we can deliver this information beyond that venue, like transcripts, videos, satellite conferences, or any other ideas. But, for those who travel to Atlanta, GA, expect another wonderful experience.

The Technology Learning Center (TLC) has been a revolution in the way information is displayed to our American Academy of Pediatrics members. The setting, in a separate room away from the exhibit floor, has shown that we can attract a great audience and continue to present wonderful speakers and interesting topics that are relevant to a diverse membership. There has been progress soliciting corporate sponsorship to fund the extra cost of providing this venue. We are very thankful to NextGen and Cerner for their contributions to the TLC and newsletter.

In the few words I have left, I want to give special thanks to 3 people who have been so important to my enjoyment and experience in SCOT (Section on Computers and Other Technologies), SCOCIT (Steering Committee on Clinical Information Technology), and, now, COCIT. **Robert Gerstle** has had a long history as the technology group policy contributor and, more recently, chaired the Policy Committee and is lead author of our upcoming E-prescribing statement. **Christoph Lehmann** has been generous in sharing his informatics and technology experiences in many programs, lectures, and articles. He has invigorated the Abstract Program into a session that can't be missed, attracting fascinating speakers and topics. **Kevin Johnson** has brought his honest, bright, humorous comments to every conversation. He has been an in-demand speaker at every event where technology topics are requested and has been the primary contributor to the electronic medical record project you can enjoy online. It has been a huge honor to know, share bread, and laugh with these 3, who I will miss at the Executive Committee table.

Lastly, we are adding 4 new smiles to our Executive Committee meetings. I know 2 well. **Alan Zuckerman** has been extremely important as a COCIT member outside the Executive Committee. He has represented pediatricians and COCIT at many meetings, and as speaker at COCIT events. **George Kim,** who had served briefly as our newsletter editor prior to **David Stockwell,** now takes over for Chris Lehmann as Abstract Program Chair. I look forward to learning more about **Donna D'Alessandro** and **Michael Leu,** who will have a chance to share their experiences and represent you in the coming years. I am sure all 4 will be a great addition to our Executive Committee.

Editor's Column

By David C. Stockwell, MD, FAAP
Editor, cocitnews

What an interesting time for our group and our newsletter. As informatics grows and the number of pediatricians interested in information technology follows, we have a corresponding growth in a variety of articles from our members. Our newsletter and readers are the beneficiaries of this. The fall edition of *cocitnews* has a tremendous amount of information and depth.

For example, we have a unique military perspective on electronic medical records (EMRs) as well as a compelling article about an Iraqi physician trying to access American Academy of Pediatrics resources and its terrific outcome. There is a terrific article about sources for medical informatics training, from short classes to full-blown master's programs.

(continued on page 2)

Editor's Column

(continued from page 1)

Complementing the Council on Clinical Information Technology's (COCIT) excellent EMR Review Web site (http://www.aapcocit.org/emr/) is an article guiding a potential health information technology consumer to buying/evaluating products. It is a tremendously helpful document and one to save. Also, we have an excellent article discussing Medem's history and utility in pediatric practices. Finally, one function that our leadership serves is to assist with TEPR (Towards an Electronic Patient Record) evaluation of pediatric EMRs. One of the COCIT leaders outlines the recent experience with exquisite detail.

These articles are just a few of the examples of helpful articles that COCIT members will find in this and future *cocitnews* editions. Any thoughts on this edition and future suggestions are welcome, and please consider e-mailing me at dstockwe@cnmc.org. I hope that you enjoy this edition. Thank you to all of the authors. You are the reason that this edition shines.

Pediatric Electronic Health Records Face Off in Competition


By Joseph H. Schneider, MD, MBA, FAAP, COCIT Vice Chairperson, and Eugenia Marcus, MD, FAAP, COCIT Executive Committee Member

Nine pediatric electronic health records (EHRs) participated in the fourth Documentation Challenge and third Pediatric EHR Award Program held in late May. The sessions were held at the 22nd annual Towards an Electronic Patient Record (TEPR) meeting in Baltimore, MD. Towards an Electronic Patient Record is conducted by the Medical Records Institute (MRI) of Boston, MA.

In the morning session, clinicians and vendors had 17 minutes to show how their system handled 10 difficult pediatric issues. The scenarios were created by Council on Clinical Information Technology (COCIT) members Andy Spooner, Lewis Wasserman, and Joe Schneider, and modified by Bill Zurhellen, and are based on the article, "Special Requirements for Electronic Medical Record Systems in Pediatrics" (*Pediatrics.* 2001;108:513-515). The morning program was judged by COCIT members Eugenia Marcus, Alan Zuckerman, and Bill Zurhellen.

The following table shows the years of participation by the various vendors and the awards over the 3 years that they have been earned.

Vendor	# of years of participation	Awards
eClinicalWorks	2	First, 2006
Office Practicuum	2	First, 2005 Second, 2006
Medical Communications Systems	1	Third, 2006
JMJ Technologies	4	Second, 2004
EHS	3	First, 2004
e-MDs	2	Second, 2005
Practice Partner	1	
Noteworthy	1	
Bond Technologies	1	
GE	1	Third, 2005
Integrated Healthware	1	Second, 2004
NextGen	2	Third, 2004

Performance on each scenario was scored using an Apgar-like system of 0 (couldn't or didn't do it) to 2 (handled the scenario extremely well). In an extremely close vote, first honors went to **eClinicalWorks,** with an average score of 19.7 out of a possible 20. Second honors went to last year's winner, **Office Practicum,** with 19.0 points. Then, in an extremely close race, **Medical Communications Systems** took third place. Previous winners (**JMJ Technologies, e-MDs,** and **Electronic Healthcare Systems**) were all within a few points of tying for third place. For the first time, the table below shows the average scores for each of the scenarios and the rankings of the judges.

Julius Edlavitch, MD, and others had lots of questions. It was noted that the judged scenarios didn't test workflow well and future sessions are likely to try to measure this. The focus of the scenarios has been pediatric functionality and the vendors, for the most part, are showing that they are capable of providing this. The judging also didn't consider cost, so the value received may be affected by this. If anyone is interested in getting a copy of the 10 scenarios, please e-mail me at drjoes@pol.net.

In the afternoon, the same vendors and clinicians played to a standing-room-only audience in the unjudged "Documentation Challenge." This was an office visit scenario of a 4-year-old child being seen for a well-child check. The script (available at http://aapcocit.org/scenario1.pdf) was prepared by Dr Marcus and parallels a script being used by the Certification Commission for Health Information Technology that will certify EHRs.

The afternoon Pediatric Documentation Challenge™ will be repeated in the Technology Learning Center at the National Conference & Exhibition in October in Atlanta, GA. This session will be the second time the American Academy of Pediatrics has offered this program.

	General Topics Covered	Noteworthy	EHS	Practice Partner	Bond Technologies	Office Practicum	JMJ Technologies	eMDs	Medical Communication Systems	eClinicalWorks
1	Growth Charts et al	1.7	1.7	1.7	2.0	2.0	1.0	2.0	1.7	2.0
2	Summary Lists; Foster Care	2.0	1.3	2.0	1.3	2.0	2.0	1.7	1.7	2.0
3	Age-based Normals	1.3	1.7	2.0	1.0	1.3	2.0	2.0	1.7	2.0
4	Weight-based Prescribing	1.0	2.0	1.3	0.7	2.0	2.0	1.0	2.0	2.0
5	Immunizations: Decision Support	1.7	1.7	2.0	1.3	2.0	2.0	1.3	2.0	2.0
6	Immunizations: Recall Ability	1.7	2.0	1.7	1.7	2.0	1.7	1.7	2.0	2.0
7	Catch-up Immunizations; Name Changes	0.3	1.3	1.7	0.7	2.0	2.0	1.7	1.7	2.0
8	Family Member Links; Adoption	Not Done	1.3	1.3	1.0	1.7	1.3	1.3	1.7	2.0
9	Special Reporting (eg, Camp Forms)	1.3	1.7	1.3	1.7	2.0	1.7	1.7	1.7	2.0
10	Adolescent Privacy	Not Done	1.7	1.0	1.0	2.0	2.0	2.0	2.0	1.7
	TOTAL (3 Judge Avg)	**11.0**	**16.3**	**16.0**	**12.3**	**19.0**	**17.7**	**16.3**	**18.0**	**19.7**
	Rankings									
	Judge 1		5	5		2	3	7	3	1
	Judge 2		6	7		3	4	5	1	1
	Judge 3		4	4		1	3	4	4	1
	OVERALL		**5**	**7**		**2**	**4**	**5**	**3**	**1**

Executive Summary—Council on Clinical Information Technology Executive Committee

AAP Headquarters—Elk Grove Village, IL
March 19, 2006

The Council on Clinical Information Technology (COCIT) Executive Committee met in Elk Grove Village, IL, on March 19, 2006. The Executive Committee discussed the following items:

- The FY 2005-2006 budget was reviewed. The issue of unanticipated charges from the 2005 Technology Learning Center (TLC) was reviewed, as well as plans to seek outside funding for the 2006 TLC.
- Dr Mark Simonian was reelected as chairperson and Dr Joseph Schneider was reelected as vice chairperson. Each will serve a second 2-year term beginning July 1, 2006.
- COCIT will consider implementing a membership recruitment program based on the Section on Administration and Practice Management's "Chip In" program.
- Staff will work with the Executive Committee to prepare and file COCIT's Annual Report of Councils.
- The eligibility rules for the Byron Oberst Award were amended to eliminate current Executive Committee members from consideration while they are still serving their terms. The deadline to submit nominations for the 2006 Award will be extended to allow new nominations to be sought.
- The Executive Committee provided comment on a proposal for the American Academy of Pediatrics (AAP) to enter into a co-marketing agreement with the Isabel Web service.
- A report was provided on the work of the COCIT Policy Committee, including the status of statements currently in progress and new statements planned.
- Plans were discussed for the 2006 TLC, which include a partitioned area with a round table for vendor user group sessions and COCIT-guided tours of the Technology Row section of the Exhibit Hall.
- Plans were discussed for the scientific program that will take place during the 2006 National Conference & Exhibition, including the selection of abstract reviewers and a panel of judges to select the Best Paper Award winner on site.
- The Spring issue of *cocitnews* will be released in electronic (PDF) format in late March. A report was given on ongoing efforts to obtain outside funding for future print issues.
- The Executive Committee discussed the anticipated Summer 2006 release of the Speaker's Kit and Toolkit on Electronic Health Records, including plans for distributing and the future release of updated editions.
- It was reported that more than 50 reviews have been posted to the EMR (electronic medical record) Review Web site. The Executive Committee discussed suggestions for encouraging additional reviews and the status of the Buddy List feature.
- Reports were provided from COCIT liaisons to the Physicians Electronic Health Record Coalition, the ANSI (American National Standards Institute) Health Information Technology Standards Panel, and the Continuity of Care Record.
- An update was provided on the work of the Partnership for Policy Implementation.
- The Executive Committee discussed efforts to formalize cooperation between COCIT and the Steering Committee on Quality Improvement and Management.
- The COCIT Executive Committee will next meet on Monday morning, October 9, 2006, during the American Academy of Pediatrics National Conference & Exhibition.

For a complete set of minutes or further information on specific items, please contact Rebecca Marshall, Manager, Health Information Technology Initiatives, at 800/433-9016, ext 4089, or bmarshall@aap.org.

Content Submission

Would you like to contribute to this newsletter? Articles should be approximately 500 to 1,000 words in length. Submit articles to David C. Stockwell, MD, newsletter editor, at dstockwe@cnmc.org.

Watch the Council on Clinical Information Technology (COCIT) Web site at www.aapcocit.org for information on submission deadlines for the Spring 2007 issue.

The Council on Clinical Information Technology Announces New Executive Committee Members

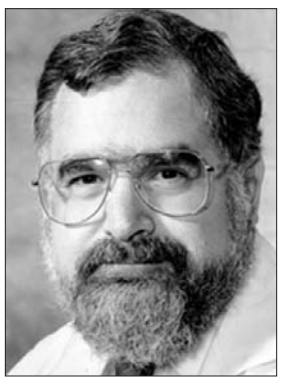
Elections

Thank you to all Council on Clinical Information Technology (COCIT) members who participated in the electronic elections in March 2006. We had a response rate of over 40%! (Our goal was 35%.)

The Council on Clinical Information Technology is pleased to congratulate the newly elected members of the Executive Committee, all of whom began their first terms on July 1, 2006:

Donna M. D'Alessandro, MD, FAAP
Iowa City, IA

George R. Kim, MD, FAAP
Baltimore, MD



Alan E. Zuckerman, MD, FAAP
Potomac, MD

NO PHOTO AVAILABLE: *Michael Leu, MD, New Haven, CT*

COCIT Leadership

According to governance rules established in 2005 for AAP Councils, the COCIT Executive Committee votes to elect the COCIT chairperson and vice chairperson. At the March 2006 COCIT Executive Committee meeting (see left for an executive summary of the meeting), Dr Mark Simonian was reelected as COCIT chairperson, and Dr Joseph Schneider was reelected as COCIT vice chairperson.

Upcoming Executive Committee Vacancies

The Council on Clinical Information Technology will have 4 open positions for the 2007 AAP Council elections. Please see below for a Call for Nominations. Nominations must be received by December 1, 2006.

RESPONSE REQUESTED BY DECEMBER 1, 2006
COUNCIL ON CLINICAL INFORMATION TECHNOLOGY (COCIT)

CALL FOR NOMINATIONS

The American Academy of Pediatrics (AAP) Council on Clinical Information Technology (COCIT) seeks nominees to run for election to the Executive Committee. Four positions are up for election.

Successful Executive Committee Member candidates will serve 3-year terms, to begin July 1, 2007.

Summaries of responsibilities for Executive Committee Members can be found on the AAP Member Center Web site (http://www.aap.org/moc). Go to the Member Services Area and select Orientation Materials for New National Committee and Section Executive Committee Members. The Council will appoint a nominations committee to review the nominees and select the candidates for the ballot. Submission of this form does not guarantee inclusion on the ballot.

If you would like to be considered for candidacy, or if you would like to nominate a colleague, please

1. Complete this form;
2. Attach a brief biographical sketch (no more than 250 words), which will be used on the ballot, *if you are nominated;* and
3. Fax it to 847/434-8000, ATTN: Beki Marshall, *no later than December 1, 2006.*

NAME (PLEASE PRINT OR TYPE)

ADDRESS

TELEPHONE FAX

E-MAIL

CURRENT POSITION

Fax (**847/434-8000**) to Beki Marshall **on or before December 1, 2006.** Thank you.

Visit the Technology Learning Center at the 2006 American Academy of Pediatrics National Conference & Exhibition!

The Council on Clinical Information Technology (COCIT) invites you to the Technology Learning Center (TLC)! Our faculty will be available to answer questions and help guide you through whatever information technology (IT) challenge you are facing. Discussion topics will focus on electronic medical records (EMRs), personal digital assistants (PDAs), digital prescribing, and a host of other topics.

Lectures this year will explain how to use the most current technology at the point of care to improve care and reduce errors. Topics include electronic prescribing, using a PDA, and Internet-based continuing medical education. We continue to offer the Pediatric Documentation Challenge™, where you can see firsthand how EMRs can work in your office. This year marks the debut of the Pediatric Frontier Forum. This new offering is the ultimate geek question-and-answer session. We will bring together many of the TLC faculty for a panel discussion on any topic you have in mind. This is your opportunity to pick the brains of some of the leading authorities in pediatric IT, namely our faculty. We will answer as many questions as time permits. Come prepared to ask a question, discuss a problem, or just learn from the experts.

See below for the full schedule of TLC sessions.

2006 TECHNOLOGY LEARNING CENTER

Sponsored by the Council on Clinical Information Technology

Educational Programming Schedule

(Please see the session listings at www.aap.org/nce for individual session descriptions.)

Saturday, October 7
EMR-athon

10:00 am-12:00 noon
The State of the Pediatric EMR
(Repeats on Sunday)
Peter Kenny, MD, FAAP
Donald E. Lighter, MD, MBA, FAAP

12:15-1:15 pm
Making the Transition to EMR
Alice A. Loveys, MD, FAAP

1:30-3:30 pm
Pediatric Documentation Challenge™, Part I
(no CME credit)
Eugenia Marcus, MD, FAAP
Joseph H. Schneider, MD, MBA, FAAP

4:00-6:00 pm
Pediatric Documentation Challenge™, Part II
(no CME credit)
Eugenia Marcus, MD, FAAP
Joseph H. Schneider, MD, MBA, FAAP

Sunday, October 8
Information Technology at the Point of Care

10:00-10:50 am
Using Video, DVD, and Multimedia to Boost Compliance and Patient Satisfaction
David Mark N. Paperny, MD, FAAP, FSAM

11:00-11:50 am
AAP Multimedia Projects
David Mark N. Paperny, MD, FAAP, FSAM

12:15-1:15 pm
E-Prescribing: From Hand to Mouse
Philip D. Goldstein, MD, MPH, FAAP

1:30-2:20 pm
Online Diagnostic Tools and Information at the Point of Care
S. Andrew Spooner, MD, MS, FAAP

2:30-3:20 pm
Online CME: PediaLink and other sources
Henry H. Bernstein, DO, FAAP

4:00-6:00 pm
The State of the Pediatric EMR
(Repeat from Saturday)
Peter Kenny, MD, FAAP
Donald E. Lighter, MD, MBA, FAAP

Monday, October 9
10:00 am-12:00 noon
Leveraging IT—Reducing Errors in a Pediatric Practice
Rainu Kaushal, MD

1:30-3:30 pm
Where the Money Is: Show Me Your Billing System
Donald E. Lighter, MD, MBA, FAAP
S. Andrew Spooner, MD, MS, FAAP

4:00-6:00 pm
Personal Digital Assistants 202: Wireless, Advanced Features, E-Rx & EMR on PDA
Geoffrey L. Bird, MD, FAAP
Alan E. Zuckerman, MD, FAAP

Tuesday, October 10
10:00-10:50 am
PubMed/Medline
Tania P. Bardyn, MLIS, AHIP

11:00-11:50 am
Finding Clinical Information
Tania P. Bardyn, MLIS, AHIP

12:15-1:15 pm
Voice Recognition & Other New Technology
Alice A. Loveys, MD, FAAP

1:30-3:30 pm
Personal Digital Assistants 202: Wireless, Advanced Features, E-Rx & EMR on PDA
Geoffrey L. Bird, MD, FAAP
Alan E. Zuckerman, MD, FAAP

4:00-6:00 pm
Pediatric Frontier Forum
(no CME credit)
TLC Faculty

COUNCIL ON CLINICAL INFORMATION TECHNOLOGY (COCIT)

Program for Council Members (H216)

Sunday, October 8, 2006
9:00 am–5:30 pm
(refer to on-site program for exact room location)

9:00 am **Electronic Health Records: Which One Is for You?**
Joseph H. Schneider, MD, MBA, FAAP
S. Andrew Spooner, MD, MS, FAAP

12:00 noon **Section Business Meeting and Lunch**

1:30 pm **Break**

Scientific Abstract Session
(Note: Underlining indicates presenting author.)

2:00 pm **Computer-Aided Translation in Patient Care: Solution for Language Barriers?**
Michael A. DeGuzman, MPH,[1] Gus E. Turner, MPH(c),[1] and Harold K. Simon, MD, MBA.[1,2] [1]Department of Emergency Medicine, Children's Healthcare of Atlanta, Atlanta, GA, 30329; and [2]Departments of Pediatric and Emergency Medicine, Emory University School of Medicine, Atlanta, GA, 30329.

2:15 pm **Conforming the Athletic Pre-Participation Examination To Structured Data Entry**
Frederick E. Reed, MD, and Deborah Baker, NP. Pediatrics, Medical University of SC, Charleston, SC, 29425.

2:30 pm **Controlled Substances Prescription Writer: Utility in Medical Error Reductions**
Karen P. Zimmer, MD, MPH,[1] Marlene R. Miller, MD, MSc,[1] Benjamin Lee, MD, MPH,[2] Myron Yaster, MD,[2] Robert E. Miller, MD,[3] and Christoph U. Lehmann, MD.[1] [1]Pediatrics, Johns Hopkins University, Baltimore, MD, 21287; [2]Anesthesia and Critical Care, Johns Hopkins University, Baltimore, MD, 21287; and [3]Pathology, Johns Hopkins University, Baltimore, MD, 21287.

2:45 pm **Challenges of EHR Implementation in a Pediatric Subspecialty Hospital System**
Donald E. Lighter, MD, MBA, FAAP, William Bria, MD, and Ralph Lewkowicz, MS. Medical Affairs, Shriners Hospitals for Children, Tampa, FL, 33607.

3:00 pm **A Novel Web-Based Antimicrobial Approval Program Improves Efficiency, Communication, User Satisfaction, and Results in Significant Cost-Savings**
Allison L. Agwu, MD,[1] Carlton K.K. Lee, PharmD,[1,2] Sanjay K. Jain, MD,[1] Kara Murray, PharmD,[2] Jason Topolski, PharmD,[2] Robert E. Miller, MD,[3] Timothy Townsend, MD,[1] Kwang Sik Kim, MD,[1] and Christoph U. Lehmann, MD.[3,4] [1]Department of Pediatric Infectious Diseases, Johns Hopkins School of Medicine; [2]Pediatric Pharmacy; [3]Division of Health Information Sciences, Johns Hopkins School of Medicine, Baltimore, MD, 21287 and [4]Division of Neonatology; .

3:15 pm **Break**

3:30 pm **The Impact of Computer-Assisted Auscultation on Physician Recognition and Interpretation of Heart Murmurs**
Reid Thompson, MD,[1] Stacey J. Ackerman, PhD,[2] and Raymond L. Watrous, PhD.[3] [1]Department of Pediatrics, Division of Cardiology, Johns Hopkins University School of Medicine, Baltimore, MD, 21205; [2]Covance Market Access Services, Inc, San Diego, CA, 92037; and [3]Zargis Medical Corporation, Princeton, NJ, 08540.

3:45 pm **Small Patients, Big Hospital: Implementing an Enterprise-Wide EMR in the NICU**
William MacKendrick, MD, FAAP,[1] Sue Wolf, RN,[2] and Anne Wild, BSN, RN.[2,3] [1]Pediatrics, Evanston Northwestern Healthcare, Evanston, IL, 60201; [2]Nursing, Evanston Northwestern Healthcare, Evanston, IL, 60201; and [3]Medical Informatics, Evanston Northwestern Healthcare, Evanston, IL, 60201.

4:00 pm **Web-Based Child Psychiatry Access Project: A Feasibility Study**
Maan Dela-Cruz, MPH,[1] Deborah Steinbaum, MD, FAAP,[1] Anthony Battista, MD, FAAP,[2] Rachel Zuckerbrot, MD, FAAP,[3] Danielle Laraque, MD, FAAP,[1] and NY Chapter.[3] [1]Pediatrics, Mount Sinai School of Medicine, New York, NY, 10029-6574; [2]Private Practice; and [3]Pediatrics, Columbia University, New York, NY, 10032.

4:15 pm **Examining the Effect of a Pharmacy System & Electronic Medical Administration Record on Medical Errors and ADEs**
Joseph Dye, RPh, PhD,[1] James Jose, MD, FAAP,[2] Paula J. Edwards,[3] Kimberly Rask, MD, PhD,[4] Alan Kohrt, MD, FAAP,[2] Steven Culler, PhD,[4] Francois Sainfort, PhD,[3] and Timothy Stacy, RPh, MBA.[1] [1]Pharmacy, Children's Healthcare of Atlanta, Atlanta, GA, 30329; [2]Clinical Informatics Department, Children's Healthcare of Atlanta, Atlanta, GA, 30332; [3]Health Systems Institute, Georgia Institute of Technology, Atlanta, GA, 30332; [4]Rollins School of Public Health, Emory University, Atlanta, GA, 30322; and [5]Quality Department, Children's Healthcare of Atlanta, Atlanta, GA, 30329.

4:30–5:30 pm **Reception/View Posters**

P1 **Unanswered Questions Arising During Primary Care Visits**
Chuck Norlin, MD, FAAP,[1] Adam L. Sharp,[2] Michael H. Carpenter, MD,[2] and Sean D. Firth, PhD.[1] [1]Pediatrics, University of Utah Health Sciences Center, Salt Lake City, UT, 84132; and [2]School of Medicine, University of Utah Health Sciences Center, Salt Lake City, UT, 84132.

P2 **Web-Based Information for Medical Homes**
Chuck Norlin, MD, FAAP,[1], and Dustin Whitney.[2] [1]Pediatrics, University of Utah Health Sciences Center, Salt Lake City, UT, 84132; and [2]Spencer S. Eccles Health Sciences Library, University of Utah Health Sciences Center, Salt Lake City, UT, 84132.

P3 **Experience With Consultwiz—The Simultaneous Electronic Notification, Documentation, and Tracking of Inpatient Consult Requests**
Stuart T. Weinberg, MD, FAAP,[1] Kevin B. Churchwell, MD, FAAP,[2] Lemuel R. Waitman, PhD,1 and Ty Webb.[1] [1]Department of Biomedical Informatics, Vanderbilt University, Nashville, TN, 37232; and [2]Department of Pediatrics, Monroe Carrell Jr Children's Hospital at Vanderbilt, Nashville, TN, 37232.

P4 **Information Needs in Pediatric Emergency Department Workflow**
Daniel Langsam,[1] David Kaufman, PhD,[2] Stephen B. Johnson, PhD,[2] Peter S. Dayan, MD,[3] and Eneida A. Mendonca, MD, PhD.[2] [1]Department of Biostatistics, Columbia University School of Public Health, New York, NY, 10032; [2]Department of Biomedical Informatics, Columbia University College of Physicians & Surgeons, New York, NY, 10032; and [3]Children's Hospital of New York-Presbyterian, Columbia University College of Physicians & Surgeons, New York, NY, 10032.

P5 **Online Calculator For Intravenous Fluid and Electrolyte Management of Pediatric Dehydration: A Simple and Accurate Approach To Reduce Medical Errors**
Ravi Mishra, FAAP, Pediatrics, Midwest NeoPed Associates, Ltd, Chicago, IL, 60523.

P6 **Adapting an Enterprise EMR To the NICU: Use of a Helper Application**
William MacKendrick, MD, FAAP, and Matthew Derrick, MBBS. Pediatrics, Evanston Northwestern Healthcare, Evanston, IL, 60201.

P7 **Kidsgrowthtoolkit.com: A New Interactive Web Site For Healthcare Professionals**
Harold S. Starkman, MD, FAAP, and Daisy Chin, MD. Division of Pediatric Endocrinolgy, Goryeb Children's Hospital, Morristown, NJ, 07924.

P8 **Creating a Web Site For Pediatric Health Care Providers and Families: An Italian Experience in Pediatric Oncology**
Paola Sabrina Buonuomo, MD, Antonio Ruggiero, MD, Giuseppe Barone, MD, Emanuele Ausili, MD, and Riccardo Riccardi, Prof. Pediatric, Pediatric Oncology, Catholic University of Rome, Rome, Italy, 00168.

Additional NCE Programs Sponsored by the Council on Clinical Information Technology

(Please see the session listings at **www.aap.org/nce** for individual session descriptions.)

10/7/2006

9:20-9:40 am	P104	Electronic Medical Records
4:00-6:00 pm	S181	Digital Photography in Your Practice: The Pediatrician and the Digital Camera

10/9/2006

10:00 am-12:00 noon	S335	Making the Most of Your Handheld: The Best PDA Applications for Pediatricians (x2)

10/10/2006

10:00 am-12:00 noon	S419	Making the Most of Your Handheld: The Best PDA Applications for Pediatricians (x2)

Five Lessons Learned With Electronic Military Medical Records


By LTC Jeff Hutchinson, MD, and
LTC Arthur DeLorimier, MD, FAAP

The following opinions are strictly of the authors and do not represent the Army, Department of Defense, or the affiliated companies.

The military medical system has been intimately involved in electronic medical records (EMRs) for more than 15 years. As medical corps officers, we are in the habit of accepting and working with mandated tools, and EMRs are just one of them. There are several valuable reasons to implement an EMR, including more legible notes and easier access to past medical history. Yet, the implementation of the EMR has been compelled largely with the intention of ensuring more efficient patient coding for third-party payment. As the Department of Defense has devoted greater resources to the implementation of an EMR, we military physicians are some of the most experienced users of electronic systems. We are also part of one of the largest health care organizations in the world, with more than 9.2 million beneficiaries. This article is a lessons-learned opinion piece for those struggling with the decision of implementing a new system or for those who already utilize a system with its own set of problems.

1. Electronic record input decreases interaction with the patient.

In the past, there was only a paper record between the patient and provider. This has changed with implementation of the EMR, where, ideally, the provider inputs the patient note during the patient encounter. In 1992, we began using CHCS (Composite Health Care System) to order and retrieve information. We praised the ability to easily retrieve labs and review medications, but it was obvious that we had to sacrifice some interaction with the family for interaction with the computers. Today, we have a complete EMR that requires more input to complete all aspects of care, including the patient note. In reality, a provider must decide how much to input during the visit and how much to save for after hours, for it is nearly impossible to input a concise, pertinent EMR note (intended to communicate with other providers and with third-party payers) and attend to the patient at the same time. While the learning curve is steep, a certain amount of time is required looking at a computer screen to review vitals, labs, medication, or allergies, and more time is required to order labs, medications, and procedures. Finding the balance between computer and patient interaction is the first hurdle, and any system must have the optimal retrieval and input speed to minimize computer interaction. In addition, the best system will have heavy input from physicians who can guide the organization of the output with the needs of the patient and other physicians in mind.

2. Records are legible.

The joke and reality of illegible medical charts may, one day, be as rare as 8-track tapes. While legibility is an obvious advantage, EMRs can have flaws. Our current system does not have built-in growth charts, spell check, or integration with other common computer-based databases such as endoscopy equipment. The greatest challenge with our system is that changing the program requires tremendous effort. Before buying a system, all providers should compare the electronic output to their current records to see if the output meets their needs and can be adjusted for medical record compliance.

3. Encounters from around the world are available.

Before the current military EMR system, the patient carried his or her record from base to base. Now labs, medicines, and notes done in Hawaii can be reviewed in Germany. One day, there may be a universal database for health information. Until then, the US military medical system is "at the tip of the spear," as we like to say in moving toward access anywhere.

4. Medications and allergies are checked.

While there is still the possibility of human error, especially with erroneous input, electronic ordering has reduced error tremendously. Our system checks for medication interactions and allergies. An order entry system without the ability to check orders is nothing more than a glorified word processor.

5. Electronic data creates information for future evaluation.

As technology improves and providers become more proficient, the data collected will be more valuable. Currently, there are more than 13 years of data, including labs, medications, number of visits, and radiology reports stored. Now we are collecting subjective and more detailed objective information that may hold the key to scores of diagnoses. This may be the ultimate legacy and benefit of electronic records—the ability to learn from our past.

These are the top 5 lessons about military electronic records that we have learned. Of course, the list of benefits and pitfalls of any system could cover many more points. Like so many others working in open communication or creating discussion groups, we are not here to curse the dark, but to light a candle. There is no question the EMR is here to stay because of the quick access to information. There are many possibilities to implementing the EMR. There will be mistakes. There will be tears and complaining. However, when all is said and done, we will look back and wonder how we got along without them.

eHealth Initiative: An Organization at Work for You!

By Kristin Benson, MD, FAAP
Member, COCIT Executive Committee

I am your American Academy of Pediatrics (AAP) representative to the e-Health Initiative (eHI), an organization that brings together key stakeholders from the health information technology (HIT) community. I would like to share with you highlights of the recent meetings at eHI.

The eHI is funded by a combination of federal agencies and grants, membership fees (the AAP is a member), and private donations. Some of the key contributing members are the Markle Foundation, Bridges to Excellence, and the Department of Health and Human Services (DHHS). The eHI has an annual budget of approximately $5 million/year, a staff of 70, and an associated foundation headed by Francois deBrantes, previously with the Bridges to Excellence (BTE) program.

I have participated in the following eHI conferences:

1. The first annual meeting was in November 2004, and I was not yet your representative until October 2004.
2. May 25-26, 2005, "Connecting Communities for Better Health Learning Forum and Exhibition."
3. November 30, 2005, "Emerging Trends and Issues in HIT Exchange."
4. April 10-11, 2006, "Connecting Communities Learning Forum."

The national conferences have had 700 to 800 attendees. There are a wide variety of industry and government participants, though relatively few physicians who are currently in active practice. Besides these national conferences, the eHI has a number of work groups. From January to June, 2005, I participated in the Workgroup for Small and Medium Practices. Within this, the Subgroup on Laboratory Connectivity had a series of conference calls and came up with a draft of results reporting requirements. Likewise, the Subgroup on Business Practice had a series of conference calls and published the Master Quotation Guide, designed to help clinics negotiate a complicated electronic health record (EHR) contract with a vendor. I am currently participating in the Workgroup for Practice Transformation, which is addressing clinical workflow issues. The Workgroup for Connecting Communities is lead by Mark Overhage, MD, and has monthly conference calls with more than 200 participants! Other work groups include the Employer and Purchase Advisory, Finance and Incentives, E-Prescribing, and Global Leadership.

Two major themes have immerged at the "30,000-foot level." I will elaborate on these issues from what has been discussed at eHI:

1. The need for new organizational collaborations
2. The need to realign incentives by combining HIT (Health Information Technology) with quality improvement

Collaboration is "where the rubber hits the road." The Office of the National Coordinator for Health Information Technology has provided a framework of "Regional Health Information Organizations" (RHIOs) that

will interconnect with each other nationally, yet be governed and managed as independent, federated entities. Leadership on RHIO development has, in many cases, fallen to state health departments, although there is no restriction on this, and other RHIOs have developed in areas of geographic proximity or common interests. The eHI has used a $4 million grant from DHHS to provide seed funding for 11 RHIOs, with 7 new grantees this year. There are at least 25 RHIOs in development around the country. Crucial to the RHIO success is identifying key stakeholders and developing a sustainable business model. There are many issues around privacy and security, standards, and data sharing that are far from clear. The eHI now offers a toolkit for HIT Exchange on its Web site, sharing the experiences of its members. The eHI goal for December 2006 is to have at least 4 successful RHIOs that interconnect with the National Health Information Network as functioning prototypes.

The second big issue is the need to join the efforts in quality improvement with those of HIT. The hope is that a sustainable model for HIT can be attained by quality-based initiatives. We cannot keep these agendas in separate silos. The current reimbursement system has not been effective in curbing skyrocketing health care costs. It does not adequately reward chronic disease management, longitudinal care, or improved outcomes. Instead, it rewards high-volume acute and episodic care. Physicians should view EHR as a means to facilitate change. With EHR, we have the potential to develop meaningful quality measures from clinical data on which to base reimbursement incentives and rewards. We should finally be able to get valid quality measures and ultimately clinical research from the clinical chart without manual data abstraction. But, to do this, we cannot look at EHR as a sophisticated billing tool designed around administrative needs.

Carolyn Clancy and Scott Young both spoke at eHI about the HIT portfolio for the Agency for Healthcare Research and Quality (AHRQ). There will be 122 funded projects in 41 states. It was pointed out that the total AHRQ budget, $320 million, compares minimally to the $1.4 billion spent PER DAY by the Centers for Medicare & Medicaid Services. The AHRQ also has a national resource center for HIT that is publicly available at www.healthit.AHRQ.org. It also has a 3-year contract with Medicare to promote HIT via a network of quality improvement organizations, such as Stratis Health.

Many other efforts have been presented. There are demonstration projects through the Medicare Modernization Act that tie HIT adoption to financial incentives. Leapfrog is a private sector purchaser group promoting hospital-based (computerized physician order entry [CPOE], outcomes measures) and MD-based (BTE, electronic prescribing [eRX], CPOE) incentives for HIT adoption. MASHARE is a regional collaborative that is a subsidiary of the Massachusetts Health Data Consortium, and is working on RHIO development. This organization was the recipient of a large grant from BlueCross BlueShield to provide an electronic medical record (EMR) of the clinic's choice to all of the participating clinics.

For physicians in practice, the barriers to computerized records remain. In general, EMRs require considerable customization for efficient use. Decision support is rudimentary. Simple tasks, such as populating health forms, may not be available. There are huge costs for software, training, support, upgrades, licenses, and interfaces. Clinics, which are often run on the "cottage industry" model, have no IT consultants to turn to. Although the Certification Commission for Healthcare Information Technology is soon to provide certification, contract negotiations with vendors and the evaluation of computer systems are all new to physicians. There is a dizzying array of legal statutes, varying from state to state, that may apply to confidentiality and security of electronic systems. Perhaps most daunting of all, the EMR systems available now may not be designed to report quality data without additional software, middleware, codes, and interfaces.

Success will take a great deal of passion on the part of physicians for improving the care of our patients. I would highly recommend bringing HIT issues to your local professional organizations, hospital committees, and educational forums. Otherwise, the needs and views of physicians will be underrepresented. I would also invite you to look at the eHI Web site at www.ehealthinitiative.org and consider attending the next conference. Scholarships have been available to practicing physicians in the past, there are continuing medical education credits available, and this organization welcomes interested physicians.

Training Opportunities in Informatics

By Eric Tham, MD
Liaison, AAP Section on Residents

When I was finishing residency, I found myself interested in learning more about the field of medical informatics, but did not know where to start to look for information. I had been involved in implementing the computerized physician order entry (CPOE) at our hospital and had hands-on experience as a resident, but had no formal training in medical informatics. Several members of the (then) SCOCIT (Steering Committee on Clinical Information Technology), now COCIT (Council on Clinical Information Technology), gave me great advice on the different programs available. Now, as I am finishing my MS in biomedical informatics at the University of Pittsburgh (http://www.cbmi.pitt.edu/trainingprogram/), I wanted to share, with residents and others who are interested in pursuing more formalized training in medical informatics, what I have learned along the way. There are many different types of programs available, from short-term introductory courses to distance classes to certificate programs requiring a few classes to full graduate degrees.

William Hersh, MD, of the Oregon Health & Science University (OHSU), provides a good overview and advice on choosing the right type of program for you (http://www.ohsu.edu/dmice/training/index. shtml). A full list of current training programs can be found on the American Medical Informatics Association (AMIA) Web site (http://www.amia.org/informatics/acad&training/). There are a range of programs available, from distance to campus course work and from introductory to PhDs.

There are several introductory courses taught each year. The OHSU and the University of Alabama provide an introductory class in conjunction with AMIA, entitled 10x10, with the goal of educating 10,000 health professionals by 2010 to be local experts in medical informatics (http://www.amia.org/10x10/). The 10x10 program involves both online coursework as well as live classes at the AMIA Annual Symposium. The National Library of Medicine (NLM) also sponsors an intensive weeklong course at Wood's Hole to educate health professionals with no previous background in informatics who can become local change leaders (http://courses.mbl.edu/mi/index.html).

The AMIA Web site lists many programs that also provide levels of training, from certificates in medical informatics to MS degrees to PhDs. There are many options available and many allow full-time or part-time studies. For example, I have been able to combine my MS in biomedical informatics with a clinical fellowship in pediatric emergency medicine. Luckily, I am able to receive tuition benefits as part of my clinical fellowship.

For those that can dedicate full-time studies to medical informatics training, the NLM provides training grants to multiple programs in biomedical informatics throughout the United States. These fellowships include short-term fellowships as well as salary and tuition support for MS and PhDs in medical informatics. The 18 programs are listed at http://www.nlm.nih.gov/ep/GrantTrainInstitute.html. For those who can dedicate full-time studies and research for several years, these are great opportunities because these fellowship positions provide both salary and tuition support. The NLM training grants also provide funding to attend conferences such as the AMIA National Conference as well as conferences to interact with other NLM fellows. There have been multiple COCIT members who have been through the NLM fellowships.

At first, I was a little hesitant to return to school, but it has been an amazing experience. I have taken classes in subjects that I never imagined that I would learn about, such as database management, organizational theory and health information technology, and evaluation methods for medical informatics. I started to notice the payoff recently while I was in a meeting planning for a new Emergency Department Information System. I realized that, as the clinicians and information technology department were having a hard time understanding each other, I was acting as a translator for each group. For those who want more information or have questions about training programs in medical informatics, please feel free to contact me.

Do We Know How to Find You?

To ensure that your contact information is kept up-to-date (so your colleagues can find you), please take the time to visit the Membership Information Change Form (www.aap.org/moc/memberservices/updatememberinfoform.cfm). You need to be logged into the Member Center to get to this link.

If you prefer to contact us by phone or fax, you can do this by calling 866/THE-AAP1 and providing one of the American Academy of Pediatrics (AAP) customer service representatives with your updated address information.

Council on Clinical Information Technology Online Discussion Board

The Council on Clinical Information Technology (COCIT) maintains an online discussion board on the COCIT page of the American Academy of Pediatrics (AAP) Member Center (www.aap.org/moc). To post a message to the discussion board, or to see previous postings, log into the AAP Member Center. On the left-hand side of the screen, you will see a drop-down box with a list of the sections to which you belong. Select "Council on Clinical Information Technology" from the list. On the COCIT page, click on the COCIT Discussion Group link.

Internet Access to American Academy of Pediatrics Journals in Iraq

By J. Randolph Bak, MD, FAAP
COCIT Member

If you're like me, you turn on National Public Radio (NPR) during the mundane activities in life—commuting, working around the house, or making dinner. In addition, if you're like me, you easily tune it out, especially when you have a bit of war-on-terror fatigue.

You're also like me if nothing pulls you back from that state of distraction like hearing your very own American Academy of Pediatrics (AAP) placed squarely in the middle of a somber story about how tough life is in Najaf, Iraq.

> **Dr Umran:** I want to go to Baghdad to get a course of training about certain things. I want to develop my knowledge. I cannot get Baghdad, go to Baghdad, because I am afraid.
>
> **Garrels:** To study by the Internet, he needs a credit card, an impossibility here. (Sound bite of baby crying)
>
> **Dr Umran:** *When I entered the site of* ***American Academy of Pediatrics*** *to subscribe as a member, there is a new journal, a new article. I cannot get this because I don't have the Visa or MasterCard.*
>
> Iraqi City Rebuilds in Relative Calm. "Morning Edition." National Public Radio. March 3, 2006. Available at: http://www.npr.org/templates/story/story.php?storyId=5243395. Accessed July 11, 2006

Already, everything about Iraq leaves me uneasy. Living my quiet FAAP (Fellow of the American Academy of Pediatrics) existence, I experience Iraq as news that a neighbor's reserve unit has been called up. Now, I hear the "American Academy of Pediatrics" in Dr Umran's own voice, describing how, incredibly, he can get online, seeking the AAP Web site, only to be thwarted by lack of a credit card. This guy has to go to Baghdad for continuing medical education! It was all a bit absurd.

It was also bothersome. Consequently, I can't get this story out of my mind.

I know that getting this guy, and others like him, access shouldn't be that hard. The servers that provide the online *Red Book* and *UpToDate* have no trouble divining where I'm sitting when I log on—the IP address lets them know I've paid already. The marginal cost of letting physicians who work in hardship conditions overseas access online information is such a nonissue that it isn't worth calculating. I am moved to try something to remedy this situation, so *I* go online.

Immediately, several modes of action come to mind. The Council on Clinical Information Technology (COCIT) e-mail list has ample collective technology know-how. Moreover, its members certainly will share my concern for the AAP role in this story. Next, there's that electronic medical record (EMR) update forum I lurk around—somebody's got to have an idea there. Finally, what about the Gates Foundation? It is probably in tune with technology-leveraged aid to areas of need. I try them all.

As I wrap up my various posts and e-mails, I think, what the heck, maybe I'll just get the guy a subscription myself. So, I e-mail NPR to see if it can facilitate such a transaction.

By the time I'm back to my in-box, things have already started to happen. Four members of the COCIT e-mail list have replied, saying they'll chip in to get Dr Umran access to the resources he needs. This is exciting. On the EMR update forum, some have posted back with suggestions about how to provide service. I go to sleep feeling I have made a good start.

The next morning, NPR sends back a note.

> Dear Listener:
> Please note the forwarded message below from the AAP, written to another concerned listener. The problem with Web access for the Iraqi doctor has been resolved.
>
> Thanks for listening,
> Morning Edition
>
> From: AAP Customer Service
> Thank you for contacting the American Academy of Pediatrics and your generous offer. We heard the same story and were troubled by it. It was our intention for online access to all AAP publications to be provided to everyone in Iraq free of charge (an AAP membership is not necessary). Due to an oversight by our Web site's service provider, this was not happening. This has now been corrected and anyone accessing AAP journal content from any computer in Iraq will be provided with free access.
>
> AAP journals are made freely available online to institutions and individuals in over 120 developing nations around the world through participation in the World Health Organization's HINARI initiative, the Satellife network, and a country-based access system installed directly on our Web sites (it was this system that was not working properly)….
>
> Best Regards,
> Chris Jenkins
> Director, Department of Customer Service
> American Academy of Pediatrics

In so many ways, the emerging networked world is amazing. I get an idea and come up with 3 nearly effortless, but broad-reaching, ways of trying to make something happen, only to find out I have been beaten to the punch by another listener; and that listener's wish had already been anticipated not only by the AAP, but by the World Health Organization's HINARI (Health InterNetwork Access to Research Initiative) program. But for someone toggling a setting, none of this would have happened. What a shame.

Although, maybe not. I thought through some issues, and learned a few things. By reaching for the mouse and out into online communities, I was able to raise some consciousness, if only about the things our AAP was already quietly doing, through technology, to help physicians care for children where a little peace and quiet is a desperate hope.

Coming Fall 2006

Practice Management Online

A Centralized, Online Practice Management Resource for Pediatricians

http://practice.aap.org/

Background

In any given day, the staff at the American Academy of Pediatrics (AAP) can receive calls from pediatricians at all stages of their careers, from those who have just begun practicing to those getting ready to retire. Until now, information on practice management has been scattered across AAP Web sites or external Web sites, or simply by word of mouth from those with experience. In October 2006, this will change drastically.

In fall 2005, Anne Francis, MD, FAAP, chairperson for the Section on Administration and Practice Management (SOAPM), formed an editorial committee with SOAPM and Committee on Practice and Ambulatory Medicine (COPAM) members Chip Harbaugh, MD, FAAP, Robert Walker, MD, FAAP, and Jerald L. Zarin, MD, MBA, FAAP. The charge was to develop a "one-stop shop" Web site for Practice Management information. Together with the Department of Practice and the Department of Marketing and Publications, the editorial committee has secured a vendor to develop the site, submitted content for the Web pages, and secured financial support from the Friends of Children Fund at the AAP.

About Practice Management Online

Practice Management Online (PMO) will be a resource for pediatricians to support them in running a practice that is fiscally sound, is efficient, and provides quality health care to children and families. Housed on the AAP Web site, this resource will be a virtual home for pediatricians seeking information on practice management. This new resource will be launched at the 2006 National Conference & Exhibition (NCE) in Atlanta, GA.

Practice Management Online will provide information to address 4 key areas.

- Practice Basics—How to start, join, or enhance a practice
- Finance and Payment—Helping pediatricians get paid for what they do
- Office Operations—Helping pediatricians run their offices as smoothly as possible
- Patient Management—Helping pediatricians get recognized for the quality health care they provide to children

Practice Management Online has devoted an entire section to "practice basics," including contract negotiations. This resource will be useful for *all* pediatricians, but will be particularly helpful to those pediatricians

who are taking over management activities, either in an established practice or in launching a new practice. In addition, resources on hiring new partners, coding and billing, increasing efficiency, medical liability, electronic health records, and more will be provided.

On the site, users will be able to browse newsletters, manuals, fact sheets, commentaries, sample forms and documents, and more. Users also will be able to stay informed by signing up for e-mail alerts (including breaking news), finding related articles on their topics of interest, or sending important links to friends and colleagues. Dr Francis summarized the Web site's purpose: "As the tagline for Practice Management Online says, we're aiming to provide the tools on this Web site to 'help you help children.'"

Materials have been shared from groups like SOAPM, the Private Payer Advocacy Advisory Committee, the Section on Telephone Care, the Committee on Medical Liability, the Committee on Coding and Nomenclature, the Council on Clinical Information and Technology, the Immunizations Task Force, and others at the AAP. In addition, external organizations and individual pediatricians provided articles, tools, and background for the site.

This new site, provided with a "button" on the Member Center site or directly by accessing http://practice.aap.org, will provide a simple and clear word search function and brief, descriptive annotations for each document to make it easy for pediatricians to find the information they need.

Next Steps

As the vendor completes the Web site design, the editorial committee and AAP staff will work together to make sure all the information is easily accessible and complete. Plans are in place to include tools for parents and new content will continually be added as it is developed.

The new PMO Web site will be shown at the NCE 2006 in the exhibit hall at the AAP Resource Center. The PMO editorial committee hopes to be able to demonstrate the ease with which any pediatrician can access the information needed to have an effective and rewarding career in pediatrics.

The editorial committee will continue to develop content and strategies for PMO to provide pediatricians the necessary tools to succeed in their practices.

practice management online
Helping You Help Children

Practice Management Online is made possible through the unrestricted support of our members and friends with their annual contributions to the AAP Friends of Children Fund.

Designate Your Friends of Children Fund Contribution for the Council on Clinical Information Technology Activities!

Did you know that you can designate your tax-deductible Friends of Children Fund contribution to specific programs or even a Section or Council? You can donate online at

https://www.aap.org/sforms/fcfform.htm

Toward the bottom of the form, where it says, "Please apply my gift to:", select "a program of my choice" and type COCIT in the text box. Donations received in this manner will supplement your COCIT dues and allow COCIT to continue ongoing programs or launch new programs. We appreciate your support!

Friends of Children fund®

Medem Then and Now

By Mark M. Simonian, MD, FAAP
COCIT Chairperson; Founding Societies Representative, Medem Board of Directors

Around 1999, leadership at the American Academy of Pediatrics (AAP) wanted to provide a service to its members and invested in a new Internet service provider. Entrepreneurs had been building Web sites for doctors for a couple of years, hoping to sell advertising time or trade their service for recognition (ie, drug companies or other consumer services). What the AAP wanted to do was unique. It would create professional-appearing Web sites too and have the ability to link to validated medical information. Now physicians would have dependable information they could share with their patients and not worry about the quality of that information—a problem doctors worried about when patients quoted Internet health sources. This was a free service to physicians who were members of partnering groups like the AAP or the American Medical Association (AMA). This new health portal with an association of medical professionals was called Medem (short for **MED**ical **Em**powerment). At that time, AAP Chief Executive Officer **Joe Sanders, MD, FAAP,** served on the Board as a representative of one founding professional society.

A group of 6 pediatricians with different backgrounds was asked to advise the AAP Board about the progress of Medem and make sure that services offered would have content that pediatricians would find useful. I was asked to participate on this Advisory Board and, twice a year, visited the Medem office in San Francisco, CA.

Unfortunately, pediatricians were creating volumes of information for competing providers of similar services, so Medem looked to distinguish itself with a new service.

Medem proposed Online Consultation, a new service model, which would allow patients to reach their physicians and seek advice at a convenient time and from home or work. This allowed patient savings in time and money seeking care without traveling to the doctor's office. Too few patients saw this benefit, and funds generated were inadequate to maintain Medem without further subsidies. The AAP Board was becoming concerned about Medem's ability to reach a stable financial footing and continue providing support.

Medem had been looking for investors to help subsidize their operations. **Allscripts** purchased a large portion of the available stock, and some financial stability was achieved. Allscripts, as an electronic medical record vendor, saw the value in such a portal connected to so many physician organizations. I had a close view of all that was going on after Joe Sanders retired, because I was asked to replace him on the Medem Board of Directors for the AAP and the other founding societies.

More than a year ago, a new service model was proposed that allowed patients the ability to share protected information about their health directly with their doctor through a service with Medem. Other groups had proposed doing this for a fee years before. One such service was advocated by a past Surgeon General, a pediatrician, **Dr Koop.** Unfortunately that service was not embraced by the public, the government, or the medical community.

Over the last 2 years, **President Bush** addressed the nation, stating the government's desire to see that the public has personal health records (PHRs) to share with their physicians and other medical professionals AND, in the next 10 years, expected most patients would be using it. The time was right. Health professionals were working to share information and set standards to reach that goal. Health Level Seven and the new Continuity of Care Record were working to build those standards, and the PHR was the vessel to achieve the goal of physician-patient communication.

In May of 2005, the iHealth Record (IHR) promoted by Medem would be available free to the public through its site or through associated professional organizations and physician practices that partnered with Medem. The IHR became a very hot product that looked like something the government wanted. The government controlled a large portion of the health dollar, so what it asked for, it got. It is the 800-pound gorilla. The Medem phone hasn't stopped ringing since it premiered the IHR a year ago. Medem's association with so many professional organizations was a plus to separate it from other vendors with PHRs. A few competitive online tools existed, so this distinction was important. Hospitals, professional medical associations, insurers, and corporations want to have a ready-developed tool to offer their clients with customized interfaces and would pay a fee to get that tool.

Medem had now found a financial success formula and venture capitalists were reenergized to fund necessary growth to meet the demand. Medem would be in the black in a year according to income projections. Product wouldn't be the issue, but growth and scalability are keys to continued success.

The AAP leadership had looked skeptically at the future of Medem because of the financial instability seen in the past. Now, with a promising value to provide to the membership, I hope their interest will be rekindled to continue a healthy relationship that will provide a service to pediatricians and their patients.

Editorial: Conceptual Toolboxes for Adopting Pediatric Health Information Technology


By George R. Kim, MD, FAAP, Member, COCIT Executive Committee, and Christoph U. Lehmann, MD, FAAP, COCIT Member

Due to increasing pressure and new incentives from government and industry, more hospitals and practices are considering purchasing and deploying health information technology (HIT): electronic health records (EHRs), computerized provider order entry (CPOE), electronic prescribing (eRx), and clinical decision support (CDS). Primary barriers include high costs of implementation, use and maintenance, risks of failure and loss of productivity, lack of guarantees on return on investment, and a paucity of guidance on strategies for successful realization. Research on HIT in pediatric settings comes principally from academic medical centers, whose needs and resources may differ from those of community hospitals, thus challenging the generalizability of published results.

At national and organizational levels, the Council on Clinical Information Technology (COCIT) is actively creating tools and standards to help pediatricians (and others) develop awareness of information technology issues as they relate to child health and to provide guidance. One recently developed tool, the EMR Review,[1] is an online repository of standardized reports by COCIT members on their experiences with specific electronic medical record products with regard to pediatric functionalities. This "community of practice" approach encourages dissemination and sharing of information about HIT products to and by practitioners (as well as others). While vendors highlight benefits of their wares to potential clients, it is the firsthand experience of a current user that provides information on the challenges and shortcomings that a new customer needs to make informed decisions. Similar forums for other applications will be needed if successful adoption is to increase.

Shared experience of specific products is necessary, but not sufficient. A "perfect" system in one environment may fail in another. For example, a CPOE product that works well on a regular medical floor may fail when deployed in an intensive care environment, due to the "need for speed." Each deployment must be analyzed and evaluated within its own clinical and organizational environment, with awareness by decision makers that HIT adoption results in major work flow changes that must be managed effectively. Clinicians and institutional leaders must have knowledge of applications/systems (the tools), of how they fit into clinical processes (the tasks), and of how they meet the needs of, and are accepted by, users (the teams) within work flow and environment.[2]

To be effective advocates for the best and safest care for children, pediatricians need to know what questions to ask when confronted with a decision to adopt HIT for their own practices or for institutions in which children receive care. To this effort, we suggest a basic checklist that pediatricians may use to explore HIT proposals (and, as with all tools, this list is intended for constructive, not destructive, analysis of legitimate HIT initiatives).

I. Why is a system/application being considered/adopted?
- **A.** What are the specific problems addressed by the system/application?
  - **1.** How severe are the problems (based on sentinel events and Root Cause Analysis data)?
  - **2.** How frequently do they occur (based on Quality Improvement indicators and common knowledge of staff)?
  - **3.** Are they preventable (with other means than HIT)?
- **B.** How will the system/application address the problem(s)?
  - **1.** What evidence shows the system works?
  - **2.** What are the data on the likelihood of success?
- **C.** What are the drivers and barriers to solving the problem(s)?
  - **1.** Financial (got money)?
  - **2.** Leadership (for or against)?
  - **3.** Regulatory issues (and deadlines for meeting them)?
  - **4.** Child advocacy/safety issues (at odds with any of the above)?
  - **5.** Culture (accepting of or adverse to change)?

II. What is the expected return on investment?
- **A.** What are expected changes (return) and the risks of failure?
  - **1.** Financial (how much, over what period of time and for whom)?
  - **2.** Technical (what process/outcome measures): safety and quality?
  - **3.** Organizational (staffing, satisfaction)?
- **B.** What are expected costs (investment)?
  - **1.** Financial (how much is budgeted over how long)?
  - **2.** Technical (hardware, technical expertise, consulting, contingencies)?
  - **3.** Organizational (staffing changes, training)?

III. How will the system/application change information assurance?
- **A.** How will it maintain confidentiality (compared to the present situation)?
  - **1.** How will users be authenticated?
  - **2.** How will users be authorized/denied access?
  - **3.** Who will be accountable to prevent and detect breaches and how will they be managed?
- **B.** How will integrity be maintained?
  - **1.** Will the content be completely trustable?
  - **2.** Will all transactions be tracked and verified?
  - **3.** Who will be accountable to prevent and detect breaches and how will they be managed?
- **C.** How will it affect availability of data/information?
  - **1.** How will users be able to access data/information (physically, remotely)?
  - **2.** Will users be able to access data/information at the point and time of need?
  - **3.** What are downtime and recovery procedures?

IV. How does the system/application interface with users (human computer interaction)?
- **A.** Is it usable?
  - **1.** How has it been studied? (Are new errors introduced?)
  - **2.** Is an interface available for testing? (If not, why not?)
  - **3.** What support and/or training are planned?
- **B.** Is it useful?
  - **1.** Are there specific tasks for which the application is planned? (See Question I.)
  - **2.** Can it be adapted for other tasks or environments?
  - **3.** What are the pediatric-specific features (and who else has used them)?
- **C.** What is the likelihood it will be used (as intended)?
  - **1.** What is the feedback from other users in similar environments?
  - **2.** Will it improve users' performance of their tasks?
  - **3.** Will your staff love it or hate it?

There are other questions as well as other basic checklists that are needed for specific applications, and we encourage discussion to develop and improve this type of tool for pediatricians.

1. American Academy of Pediatrics Council on Clinical Information Technology (COCIT). EMR Review Site. Available at: http://www.aapcocit.org/emr/. Accessed June 27, 2006

2. Ammenwerth E, Iller C, Mahler C. IT-adoption and the interaction of task, technology and individuals: a fit framework and a case study. *BMC Med Inform Decis Mak.* 2006;6:3

The Many Roads to Standards for Personal Health Records (PHRs)

By Alan E. Zuckerman, MD, FAAP
COCIT Executive Committee Member

The Personal Health Record (PHR) is receiving growing attention in 2006 and appears to be the next health care information technology application about to explode with rapid adoption and wide-spread support. Early concepts of PHR relied on patient-entered data or a patient-centered window into a single physician's electronic health record (EHR). New concepts of PHR call for patient-centric data from multiple providers to be accumulated through information exchange modeled after the Katrina Health project. While some PHRs rely on patient-carried USB disks or paper printouts, others call for integration into Health Information Exchanges, such as a Regional Health Information Organization (RHIO), or an insurance company, employer, hospital, or physician practice consumer Web portal with optional patient-carried media.

If a PHR is to have any value, uniform standards are essential. A physician uses one EHR in his or her practice, and, today, most Pediatricians are not even using an EHR for medical records. Patients will bring a large variety of PHR products to their physicians; therefore, ease of use by physicians, both with and without an EHR, is essential to avoid interfering with practice workflow. The problem with standards for the PHR is that we may be faced with so many to choose from.

For several years, the American Academy of Pediatrics (AAP) has been working with ASTM International on the Continuity of Care Record (CCR) that is now being used for data export and import from several PHR and EHR vendor systems. Health Level Seven (HL7) has developed the Clinical Document Architecture (CDA) that led to the Clinical Record Summary (CRS) for hospital discharge summaries and physician referrals. Since December 2005, ASTM and HL7 have been working together on the Continuity of Care Document (CCD) that represents the CCR content in a CDA format. The anticipated ability to translate between the CCR and CCD will create options for including most EHR systems in PHR data interchange.

The EHR Vendors Association (EHRVA) and Integrating the Healthcare Enterprise (IHE) have developed an Interoperability Roadmap that includes PHR. The IHE introduced its Patient Care Coordination (PCC) Domain in 2005 with the XDS-MS Cross Enterprise Document Sharing Medical Summary. It added the XPHR in 2006.

The Markle Foundation has been a strong advocate for Consumer Empowerment through PHR. It has developed a widely accepted framework of principles for PHR that has become the basis for the HL7 functional specifications for PHR that is now under development.

America's Health Insurance Plans (AHIP) and the BlueCross BlueShield (BCBS) Association have promised an insurance industry-based PHR standard by October 2006. Their proposed standard will allow portability of PHR between health plans and will incorporate existing standards where possible.

The Healthcare Information Technology Standards Panel (HITSP) will be releasing its PHR Interoperability Specification in October 2006 based on harmonization of standards and sorting out gaps and overlaps in existing standards.

The American Health Information Community (AHIC), chaired by Department of Health & Human Services (HHS) Secretary Leavitt, selected Consumer Empowerment through PHR as one of its Breakthrough areas in December 2005. The AHIC created a Consumer Empowerment Workgroup that has been reviewing the requirements, market, and implementation options for PHR and developing policy recommendations for the Secretary of HHS subject to approval by the AHIC.

The Certification Commission for Healthcare Information Technology (CCHIT) is trying to include the interface between EHR and PHR in their Ambulatory EHR Certification Requirements and is awaiting standards from HITSP. Because of the evolving nature of PHR standards, EHR certification will probably not begin until May 2008. Because of the importance to the AHIC of "Clipboard Elimination" through a PHR-based registration summary, an optional pilot certification might begin as early as May 2007.

The National Health Information Network (NHIN) prototype contractors will be required to implement a Consumer Empowerment Use Case using PHR in 2006-2007. They will look to HITSP for selection of standards.

One of the largest and most successful PHR systems is My HealthE Vet operated by the Veterans Administration using data in its in-house EHR system. At AHIC meetings, several large employers have expressed their intent to provide their employees with a PHR as an example of public private partnership to control health care costs and improve quality. A number of hospitals and health care systems have implemented PHR for their patients. The Pediatric Steering Group (PSG) has recommended basing PHR for Children in Children's Hospitals and cited several successful examples.

A new technology for PHR is emerging in the form of Adobe PDF for Health (PDF-H) that was demonstrated and discussed at the Towards the Electronic Patient Record (TEPR) 2006 conference in Baltimore, MD, in May 2006 as a best practices guideline for using existing PDF forms with XML data records. A PHR implemented in PDF-H can be delivered as a Web page containing an editable form, a PDF document, or even a patient carried paper printout with a 2D barcode. PDF-H may provide a way to deliver existing XML standards like CCR and CDA in a form that physicians and patients find familiar and easy to use by turning an Adobe Acrobat Reader and a Web browser into a PHR application that can print out an efficient PHR for the patient from data edited on the Web browser or exported as XML from an EHR.

Where will the final official PHR standard come from? Will we be faced with multiple PHR standards that do not interoperate? Will it come from the Standards Development Organizations (SDOs) like HL7 and ASTM? Will it come from the vendors through EHRVA and IHE? Will it come from standards harmonization at HITSP? Will the CCHIT be able to make it a requirement in all certified ambulatory EHR systems that physician purchase? Will it come from the insurance industry (AHIP)? Will it come from employer groups? Will standards accepted by patients, insurers, and employers also gain acceptance and use by physicians?

The year ahead represents a critical time period for all of these groups to work together and ensure that that we have PHR standards that give physicians with and without EHR access to whatever PHR their patients are using.

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All COCIT members are automatically subscribed to the cocit-news e-mail list. This list was created for announcements and newsletter distribution. If you have an announcement you would like posted on the list, please send it to cocit-news@listserv.aap.org. If you would like to be removed from this list, please send a message with UNSUB COCIT-NEWS in the body of the message to listserv@listserv.aap.org.

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11-31/0806

Announcing the Recipient of the 2006 Byron Oberst Award

Each year, the Council on Clinical Information Technology (COCIT) presents the Byron Oberst Award to recognize a pediatrician who has made significant contributions to the use of clinical information technology in pediatrics through efforts in one or more of the following areas:

- Improving pediatric clinical information systems
- Educating child health professionals in the use of clinical information technology
- Creating health policies that promote better use of pediatric clinical information systems

In 2006, the COCIT Executive Committee has selected Richard Shiffman, MD, FAAP, to receive the Oberst Award.

Dr Shiffman has had a long and distinguished career in the field of Biomedical Informatics with a pediatrics focus. He has been a productive researcher, evidenced by numerous awards he has won for both his papers and posters at the annual fall symposium of the American Medical Informatics Association (AMIA). In his role as assistant professor of pediatrics at Yale, he has worked closely with many students and has mentored a number of medical students, pediatric residents, and junior faculty. Dr Shiffman's research, entitled "The Guideline Elements Model (GEM)," and its associated tools have resulted in more than 40 publications, chapters, book reviews, and abstracts. Perhaps the major testament to the success of his work with GEM is its incorporation into the work conducted by Health Level Seven.

Dr Shiffman also has a distinguished career of service to the American Academy of Pediatrics (AAP). He served on the Executive Committee of the AAP Section on Computers and Other Technologies (SCOT) from 1992 to 1998, culminating as chairperson of the Section from 1998 to 2000. During that time, he also served as a liaison to the Committee on Quality Improvement and as a chairperson for the expert meeting on information technology and children's health in 2000. He also was an active member of the Task Force on Medical Informatics. In short, Dr Shiffman has had distinguished professional service to the AAP. Of note, his service to the AAP has resulted in his being awarded a citation and recognition of distinguished service from the Committee on Quality Improvement and a citation for outstanding service from the Task Force on Medical Informatics.

In addition to his outstanding service for the AAP, Dr Shiffman was elected to the American College of Medical Informatics, one of the highest honors available to professionals in the field of Biomedical Informatics. He also has participated on numerous study sections and expert panels sponsored by the National Library of Medicine and the National Institutes of Health. He has worked closely with groups of the AAP responsible for developing guidelines as a part of his overall research focus on improving computability of guidelines. In summary, Dr Shiffman exemplifies the ideals of Biomedical Informatics in his education and service through the AAP, his research (both in the AAP as well as through the AMIA), and his service to children's health care through participation in expert panels and through the development of new tools, such as GEM, that will effect the lives of all patients (pediatric and adult) for whom evidence-based health care is appropriate.

All COCIT members are invited to join the Executive Committee for the presentation of the 2006 Byron Oberst Award to Dr Richard Shiffman during the COCIT Business Meeting (H216) at the 2006 AAP National Conference & Exhibition on Sunday, October 8, 2006, at approximately 12:00 noon, in the Georgia World Convention Center.

CALL FOR NOMINATIONS
2007 BYRON OBERST AWARD AND LECTURESHIP

Nominations are being sought for an award to recognize pediatricians who have made significant contributions to the use of clinical information technology in pediatrics.

The Byron Oberst Award will be presented to a Fellow of the American Academy of Pediatrics (FAAP) who has made a significant contribution to the field in one or more of the following areas:

- Improving pediatric clinical information systems
- Educating child health professionals in the use of clinical information technology
- Creating health policies that promote better use of pediatric clinical information systems

Current members of the Council on Clinical Information Technology (COCIT) Executive Committee are ineligible to receive the award.

The award will be presented during the COCIT program at the AAP 2007 National Conference & Exhibition in San Francisco, CA. The winner will receive an honorarium and reimbursement of travel expenses to attend the program. The winner also will be expected to give a brief lecture during the program.

To be considered for the 2007 awards, nominations and supporting materials must be received by January 2, 2007.

Thank you!
Mark M. Simonian, FAAP
Chairperson, Council on Clinical Information Technology

Previous Byron Oberst Award Recipients
2006: Richard Shiffman, MD, FAAP
2005: S. Andrew Spooner, MD, MS, FAAP
2004: Stuart T. Weinberg, MD, FAAP
2000: William Zurhellen, MD, FAAP
1994: Donald E. Lighter, MD, MBA, FAAP
1992: M. William Schwartz, MD, FAAP
1991: James V. Lustig, MD, FAAP
1990: Olle Jane Z. Sahler, MD, FAAP
1989: Vincent A. Fulginiti, MD, FAAP

NOMINATION FORM
2007 BYRON OBERST AWARD AND LECTURESHIP

NAME OF PERSON SUBMITTING NOMINATION (PLEASE PRINT OR TYPE)

ADDRESS

CITY/STATE/ZIP

PHONE ☐ OFFICE ☐ HOME (CHECK ONE)

NAME OF NOMINEE (PLEASE PRINT OR TYPE)

ADDRESS

CITY/STATE/ZIP

PHONE ☐ OFFICE ☐ HOME (CHECK ONE)

EDUCATIONAL BACKGROUND

Please write and tell us why you feel the above individual should receive the award. A brief letter and/or supporting materials will be helpful to the committee when considering the nominee.

Submit all materials to:

Beki Marshall
Manager, Health Information Technology Initiatives
Division of Pediatric Practice
American Academy of Pediatrics
141 Northwest Point Blvd
Elk Grove Village, IL 60007
847/434-8000 (fax)
bmarshall@aap.org

Nominations received after January 2, 2007, will be considered for the 2008 award.