American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

THE STEERING COMMITTEE ON CLINICAL INFORMATION TECHNOLOGY

Volume 1, Number 2 **Newsletter Spring 2003**

From the SCOCIT Chair:

S. Andrew Spooner, MD, FAAP

The Steering Committee on Clinical Information Technology (SCOCIT) was born from the merging of the Section on Computers and Other Technologies (SCOT) and the Task Force on Medical Informatics (TFOMI). As such, SCOCIT inherited 2 basic missions:

1. to run AAP educational programs in matters of technology (SCOT's old role) and

2. to push for technology policies that benefit children (TFOMI's task)

In creating SCOCIT, we added a third task:

3. to come up with resources to enable pediatricians to make informed day-to-day decisions about technology in clinical practice.

TABLE OF CONTENTS

That's all very fine and good, but what does it mean for the former SCOT member whose membership was transferred to SCOCIT? A lot of stuff will stay the same (newsletter, web site, articles in AAP news, NCE session), but there are some changes:

You can help create special interest groups (SIGs) on any information technology area in pediatrics. Our first SIG is the e-prescribing SIG, but we are hoping to start more. The (free) registration point to join this SIG is: http://groups.yahoo.com/group/scocit-eprescribing

If you are interested in technology policy (e.g., you want to help write AAP policies like responses to HIPAA and such) you can become a member of the SCOCIT Executive Committee via election (Before, you had to be appointed to get on such a committee).

While we will continue to put on CME events at AAP meetings, we are working on ways to help people make decisions about technology in everyday practice. This includes identifying SCOCIT members with experience who might be able to help others with these decisions. The Applications and Technology Committee of SCOCIT has a mailing list for this committee to which you can subscribe by sending an e-mail message to: ajohnson@aap.org and request to be added to the SCOCIT technology mailing list..

Update on Health Level 7 (HL-7): Not much has happened on the HL-7 front yet. We are still waiting to hear how HL-7 plans to incorporate the AAP into its decision-making structure. Our main concern is that the interests of children are met by the standards HL-7 promulgates. If you have an interest in this particular area you can e-mail me at: aspooner@aapscot.org.

Toward an Electronic Patient Record (TEPR) Pediatric Day: Once again, there will be a pediatric demo day at the meeting "Toward an Electronic Patient Record," (TEPR) this time held in San Antonio, TX, May 10-14. This time, 3 SCOCIT members will be presiding at the "bakeoff" style event, at which vendors

continued on page 2

Chair continued from page 1

show how well their EMRs handle special pediatric situations. The pediatric demo day will be Tuesday, May 13.

From the Education Committee Chair:
Mark Simonian, MD, FAAP

The Boston 2002 NCE meeting was a wonderful success with many satisfied attendees. The speakers were well received. The computer lab provided many topics from PDAs to the Internet. Many of the programs were published to the membership Web site and can still be reviewed.

The task of deciding on topics for these meeting is a challenge since it is so difficult to speak with the membership on a one-to-one basis. Even if I decided to be the sole decision maker on programs, what programs should be presented is the biggest obstacle. We are dealing with evolving technologies and interests of our audience change. How can anyone predict more than two years in advance what you or I will be interested in?

I decided to give members greater input in the decision making and designed an on-line survey where attendees in Boston or anyone from their personal computer with an Internet connection could participate. At least members have a chance to suggest what topics will be the most interesting. In the end that is what I see SCOCIT should deliver to our Steering Committee and general Academy members – topics pediatricians think will benefit their patients, their families and help their business objectives.

The Computer Lab will return better than ever with speakers already being solicited. We hope that the topics will interest you and be repeated by different knowledgeable speakers so you will have a chance to hear subjects that you want. Summaries of the programs should be available well before the meeting including short biographies of the individual speakers. There will continue to be computers for the Macintosh or regular Windows enthusiast. There should be PDA devices in two flavors for the Palm and Pocket PC users with some software installed. If you are interested in being a speaker at a future lab please contact **Lewis Wasserman** or me.

The newsletter will cover the activities of each of our Committees – Policy, Technology, and Education. **George R. Kim**, our editor, has been lining up some interesting articles you will enjoy in this issue. Past article are available through the member Web site. Let us know what interests you and what topics you want more information on. George Kim is anxious to receive your comments.

The Web site www.aapscot.org is full of relevant topics and references of our activities. Thanks to **Stuart Weinberg's** continued support of the system you can enjoy this terrific resource. There are links to our membership leadership including the Steering Committee leadership and what type of activities and information that is available from our knowledgeable members.

My future program goals include an increased dialog with different sections where unique or niche needs drive interesting technology-aided solutions. Programs might included interests that could provide a wider spectrum of technologies that effect members peripherally like Picture Archival and Communication Systems (PACS), Physician Order Entry and others.

Stay tuned. You can reach me through e-mail at msimonian@childrenscentralcal.org, (559) 221-7192, and 5305 N Fresno Street #105A, Fresno, CA, 93710.

From the Policy Committee Chair:
Ed Gotlieb, MD, FAAP

HIPAA Privacy – The 11th Hour Guide

HIPAA Privacy goes into effect April 14, 2003. Although it is late in the game to begin work on this project, the AAP has provided a step-by-step plan to assist compliance. This document is downloadable from the AAP Members Only Channel www.aap.org/moc under "HIPAA" (left hand navigation panel).

In my presentation at the 2002 NCE, I summarized the process as follows:

- **Understand the Rule**
- **Get Started**
- **Personalize the Forms**
- **Handle the Business Associates**
- **Educate your Staff**
- **Develop On-going Monitoring**

Although prudence would suggest that you follow all these steps, time pressure may necessitate a reordering of priorities. Certainly, you need to scan the AAP document ASAP, and get a basic understanding from its opening chapters of what the basic issues are. A walk-through (or run-through) of your operation to identify areas that stand out and need structural changes should begin immediately.

Getting your Business Associate agreements completed requires cooperation from others and needs to be begun now. Identify your business associates (see the document) and get the text of your contract finalized. The AAP—provided form is a starting place, but may not conform to subtleties in you state's contract law – if you are in doubt, run it by a lawyer. Then hound your Associates to sign and get the form back to you quickly. Lack of signed agreements will be one of the easiest omissions for outside auditors to check.

At least get your Notice of Privacy Practices posting in a form acceptable to your needs, ready to be displayed and available to be distributed to your patients.

After you get working on these areas – walk-through, business associate agreements, and privacy information posting – you can get your privacy officer – typically your practice manager or nurse – to develop the rest of your forms, your staff education program, and your on-going monitoring process.

This will give you time to get a cup of coffee and read the Federal Register of February 20, 2003, in which was published the HIPAA Final Security Rule, which has an effective date of April 21, 2003 http://ww.cms.gov/hipaa/cms0003-5/0040f-econ-ofr-2-12-03.pdf

Most of us covered entities will not have to comply with the standards until April 21, 2005. The AAP will be developing an update of the HIPAA manual to walk you through the implementation of the Security Rule, too.

In other HIPAA news, the modifications to the Electronic Transactions and Code Set Standards Final Rule: http://www.cms.gov/regulations/hipaa/cms0003-5/0003ofr2-10pdf incorporating changes to the previously published standards was also published in the February 20, 2003. This rule modifies a number of the electronic transactions and code sets adopted as national standards under HIPAA, and eliminates the NDC code set as the standard for all providers except retail pharmacies. Assuming you filed your extension last year, you will not have to comply with these standards until October 16, 2003. One would hope these are mainly issues for the health plans and practice management software people to deal with.

From the Applications and Technology Committee Chair:
Kevin Johnson, MD, FAAP

Technology is "looming large" as a focus of SCOCIT for the next year! We have had a series of activities that will be of interest to the members:

1. The Open Health Electronic Medical Record Initiative
2. Surveying Practice Management Vendors
3. SIGS

The Open Health Electronic Medical Record Initiative:

Many members may have read recent statements by the American Academy of Family Practitioners (AAFP) stating their intention to pioneer an ambulatory electronic medical record. A story in the Wall Street Journal stated,

"David Kibbe, AAFP's director of health information technology, says the aim is to get 10,000 of its 95,000 doctors using the electronic records by the end of next year, for starters. AAFP has approached other medical societies representing 400,000 doctors with other specialties about joining the program."

The AAP is among those medical societies. While much of the discussion is still on the confidential side, Dr. Joe Schneider was able to attend the first meeting between the AAP and AAFP, and reports on that meeting in this issue of the Newsletter. "If you are interested in this topic, please join the SCOCIT technology mailing list by sending a message to ajohnson@aap.org and request to be added to the SCOCIT technology L mailing list to receive e-mails that are distributed about this topic". Also, take a look at this story: http://www.ama-assn.org/sci-pubs/amnews/pick_03/bisb0217.htm

Surveying Practice Management Vendors:

Many members of the AAP have been poised to adopt electronic medical record (EMR) systems in their practices, but are in need of information to help them make an educated choice. How can we help them? Following the lead of the AAFP, we have begun the process of developing a survey to send to a select group of EMR vendors. Over the past 3 months, we have assembled "a list of over 30 vendors. Our current list includes the following vendors: Chartware, e-MD, EncounterPro, EpiCare, GE, Logician, MedComSoft, Medic, Medical Manager, Medplexus, Misys, Nextgen, and Noteworthy Medical Systems."

It is now time to refine the lengthy survey that has been developed elsewhere into something of value to pediatricians. We also need to make sure we are aware of the major systems in use by members. It's our first major project, and I'd like to involve as many of us as possible. If you are interested in working on this survey, adding vendors to our growing list or helping to analyze the results, PLEASE join the SCOCIT-TECHNOLOGY Listserv mailing list. We need you!

SIGS:

Although SCOCIT is an outgrowth of two groups within the Academy that have a reasonably long track record (Task Force on Medical Informatics (TFOMI) and Section on Computers and Other Technologies (SCOT), SCOCIT is trying to be a better "service" group for members, as well as to involve more members in its activities. Along those lines, we are encouraging members to set up special interest groups (SIGs). We envision that these groups will operate without the heavy involvement of SCOCIT leadership, but that they will call upon SCOCIT as needed to carry out action.

For example, a group of us would like to discuss electronic prescribing in pediatrics, we can start an electronic mailing list within Yahoo! Groups, called e-prescribing which we have done. (See the SCOCIT Chair Report earlier this issue). Your responsibility as SIG members will be to involve the SCOCIT executive staff to facilitate action at the Academy level. For example, if the SIG would like to include something in the NCE Computer Lab, a member should contact the person in charge of Education (currently Mark Simonian, MD, FAAP). SIGs that have a desire to produce an Academy Statement should work with the Policy person (currently Ed Gotlieb, MD, FAAP), and SIGs with an interest in technology adoption or development should contact the person working on Technology (currently Kevin Johnson, MD, FAAP).

continued on page 5

Applications continued from page 4

We are excited about putting our plans into action. We invite all SCOCIT members to join the SCOCIT TECHNOLOGY list, to become involved in the work of our group, and to let us know how to make the Technology group benefit you and the Academy!

AAP Survey Highlights Use of Computers

S. Andrew Spooner, MD, FAAP and
Karen O'Conner, AAP Staff

This survey, initiated by the former Task Force on Medical Informatics, addressed pediatricians' use of computers at the office and at home. Some of the questions were replicated from the Periodic Survey #36, 1997. New questions were added on personal digital assistants (PDAs), email interaction with patients, availability of an office or personal Web page, and pediatricians[1] personal use of computers and the Internet.

Periodic Survey #51, 2002, was an eight-page self-administered questionnaire sent to 1,616 active US members. After the original mailing and five follow-up mailings from October 2001 through February 2002, the AAP received a total of 882 completed questionnaires for a response rate of 54.6%. Thirteen percent of the respondents were residents. Seventy-three percent of the pediatrician respondents indicated that their primary professional activity is the direct care of patients. There were nearly equal numbers of male and female pediatrician respondents (45.5% v 54.5%).

Highlights of Results (all results are from 2002 survey unless noted):

- Personally use a computer at work: 95%
- Personally use a computer at home: 79%
- No access to the Internet or choose not to access the Web: 1%
- Daily Web use: 50%
- Use the web for medical information: 85%
- Use a PDA in practice: 38%
- Of PDA users, use for keeping daily schedule: 77%
- Of PDA users, use for pharmacology reference: 76%
- Use email to communicate with patients: 14%
- Of email-with-patients users, use of secure messaging system (as opposed to plain email):16%
- Of email-with-patients users, use of email for prescription refills: 54%
- Of email-with-patients users, use of email for test results: 41%
- Of email-with-patients users,use of email for scheduling appointments: 37%
- Lack of physician time as a reason for not using email with patients: 52%
- Concerns about privacy/confidentiality as a reason for not using email with patients: 45%
- Pediatricians or their practice with a Web page: 51%
- Pediatricians reporting an office computer system that stores or processes patient information in 2002: 91%
- Pediatricians reporting an office computer system that stores or processes patient information in 1997: 91%
- Use computer to manage diagnoses or problem lists: 41%
- Use computer to manage diagnoses or problem lists, 1997: 33%
- Use computer to track immunizations, 2002: 37%
- Use computer to track immunizations, 1997: 28%
- Submit electronic claims for private third-party payers, 2002: 39%
- Submit electronic claims for private third-party payers, 1997: 21%
- Submit electronic claims for Medicaid, 2002: 35%
- Submit electronic claims for Medicaid, 1997: 17%
- Transmit prescriptions to pharmacies, 2002: 6.3%
- Transmit prescriptions to pharmacies, 1997: 3.3%

Summaries of all Periodic Survey data are available on the Academy web site, under Research, Periodic Survey of Fellows list of topics. For this survey, PS#51, the data on computer/Internet use was published in AAP News August 2002, Vol 21 (2) which can be accessed via the Periodic Survey PS#51 site http://www.aap.org/research/ps51.htm 'We will have an Executive Summary on the Periodic Survey web site (under PS#51) that includes the practice management."

Technical Reports Under Review
by Ed Gotlieb, MD, FAAP

Two technical reports — on *Clinical Issues in Telemedicine* for pediatrics, co-authored with the Committee on Medical Liability (COML), and on *Pediatrician-Patient E-mail Communications* — have been sent to the AAP Board of Directors for review. A second telemedicine technical report on medical-legal issues for pediatrics is in development, also with COML.

Formatting Web-Based Output
A Vaccine Label Application
by Stuart T Weinberg MD, FAAP

There are several nice features to a web-based interface - platform independence, generally intuitive ease of use, and flexibility in design and presentation. But there are challenges in imposing set formats when printing web-based (HTML) output. Even something as simple as generating mailing labels from a web-based database can prove complex when dealing with different browsers, platforms, default settings, fonts, etc.

One of the solutions on the web to preserving a single look-and-feel to a document has been, of course, the ***Adobe Portable Document Format*** (PDF) file, which can be accessed and read from any browser with the Adobe Acrobat Reader plug-in and which retains a strict format and appearance independent of browser or platform.

There are several methods to converting an existing document to a PDF file, using either the Adobe Acrobat software or other software that is available as shareware, such as ***PrinttoPDF*** for the Macintosh.

But is there a way to create PDF files "on the fly" from output that comes from a web-based database, forexample? Of course there is!

PHP and PDF files

An increasingly popular multi-platform scripting language to develop Web sites is ***PHP:*** **http://www.php.net**. PHP has seen remarkable growth in the past few years. A February 2003 Netcraft survey **http://www.php.net/usage.php** estimates that it is now being used in over 10.5 million domains and 1.2 million IP addresses.

The current version of PHP contains the ***PDFlib*** library of functions that can be used to generate PDF files dynamically. However, there are some licensing issues which may make this a less than optimal solution. Specifically, a commercial license is required for such uses as shipping a commercial product containing *PDFlib*, and distributing (free or commercial) software based on *PDFlib* when the source code is not made available.

Other alternatives have taken advantage of the PHP Class structure. One such option is the ***FPDF Library***, with information available at: http://www.fpdf.org including online tutorials, documentation, scripts, a FAQ section, and a Forum for questions. The F from FPDF stands for Free: it can be used for any kind of usage and modified to suit your needs.

The Vaccine Label Application

Applying this technology to a straightforward application, Children's Hospital of Pittsburgh (CHP) currently uses a text-based database to generate sheets of labels for each vaccine in stock in the Primary Care Clinic. Each label contains information on the vaccine name, manufacturer, lot number, and expiration date.

continued on page 7

Formatting continued from page 6

The label also contains the latest Vaccine Information Statement (VIS) date(s) for all components of the vaccine.

When a vaccine is administered to a patient, a corresponding label is peeled off, applied to the patient's progress note in the chart, and signed off by the nurse. The nurse still fills in the date in the appropriate boxes on the front immunization sheet, but all other documentation requirements have been satisfied. It's not as efficient as having an electronic medical record, (the vaccines are downloaded into the system later from billing data), but it serves its current purposes well.

A Web-based alternative to generating these labels was recently created, so that the additional outlying satellite clinics could generate labels and follow the same procedure. An individual selects a vaccine product from a list, enters the lot number and expiration date, selects the desired label format, and clicks on a button to generate a sheet of labels which will be in PDF format, ready to be printed directly onto the specified labels. Want to try it? The current solution is at:
http://www.stwmd.net/chp/immlabel.php. and is available to be used by anyone who thinks it might benefit their workflow.

There also exists PHP solutions to create barcodes on the fly, and CHP will be using web-based technology to maintain vaccine inventory information and not only create sheets of text labels but dynamic barcodes as well for more accurate, streamlined, data-entry. Stay tuned!

EMRS and CPOE: Could They Be Dangerous to Patient Safety?

By: Joseph Schneider, MD, FAAP

While there are many benefits to the implementation of electronic medical records (EMRs) and computerized physician order entry systems (CPOE), improper implementations can be dangerous.

Many EMR/CPOE systems are currently very basic, but in the future they will be increasingly complex as they interconnect with each other and other hospital and office systems. For example, hospital CPOE systems will electronically link the doctor and nurse directly to pharmacy, dietary and other departments. Unfortunately, errors in one location can have significant ramifications in others. This article discusses some pitfalls that can occur. The examples, as incredible as some seem, are real.

Make sure that the technology is adequate

One of our hospitals has chosen to scan handwritten and other documents as a first step towards an EMR. The advantage of this is that they do not have to store and move large paper charts. Ideally users can easily access the EMRs whenever and wherever they need them (or can get to a computer that has the software).

Unfortunately, scanned documents do not always capture fine printing or lightly written handwriting. Poor handwriting becomes even more difficult to interpret when it is scanned. So there are now numerous medical records in this hospital that contain essentially blank or unreadable pages. Obtaining the paper record to decipher these pages is now much more difficult, as the hospital has significantly reduced this capability, feeling that it is no longer needed.

Make sure the technology is accessible for all purposes

In the same hospital, prior to the implementation of the EMR, the obstetricians from a women's hospital and the neonatologists from an adjoining children's hospital met regularly to discuss the morbidity and mortality issues associated with deliveries. In this meeting they reviewed treatments, radiographs, and autopsy results.

Implementation of an EMR in the OB hospital necessitated moving the meeting to a location where there were enough computers for each physician to be able to access the mother's record. Unfortunately, because of this, the children's hospital radiology system became unaccessible because of firewall problems. So the meeting is now conducted mostly without the benefit of radiology images, which are a key component of this meeting. When the children's hospital implements inpatient EMRs, this meeting may no longer be possible, given current technology.

continued on page 8

EMRs and CPOE continued from page 7

Make sure that everyone always understands how to use the system appropriately

Another of our hospitals has implemented a computerized order entry system for use by nurses and clerks. Prior to the implementation, when a manual order came down to change a diet (e.g., from clears to regular or vice versa), the clerks in dietary simply replaced one with another. When the new system started up, it required two steps to change the diet – one to discontinue the old diet, and the second to order the new diet. Training was done initially, but as in all institutions, turnover occurred and as new/temporary staff filled the ordering positions, they did not appreciate the need to discontinue the old diet until many patients got two meals, with potentially disastrous results in some cases.

Another hospital implemented a CPOE system and trained only the high-volume physicians in the use of the system. Many failed to appreciate that the CPOE system had direct links to the pharmacy and other departments. This system allowed patients to have incompatible orders, including both receiving and not receiving antibiotics at the same time. This error occurred when the physicians wanted to discontinue all antibiotics; they entered a global "discontinue antibiotics" order (as they would in the paper world) instead of discontinuing each antibiotic separately. Global orders only went to the nurses; the pharmacy never got them because they were not entered properly. The medications were sent to the patient's bedside until the nurses called the pharmacy and undid the error. The physicians were re-trained on the proper use of the system, but with turnover and infrequent users who forgot, the problems persisted. The system has since been withdrawn.

Make sure that the system is easy to access

In the same hospital that unsuccessfully implemented the CPOE system, the system was set up so that no orders could be entered until the patient was registered. While this should have been instantaneous, at times registration could take up to a half-hour to complete. Several instances occurred where babies were born and key orders such as medications could not be entered. Luckily the nursing staff ignored the computer system and processed physician verbal orders as before. CPOE systems need special controls for code and emergency room situations, but patient care in normal situations should not be held up awaiting completion of an administrative process.

Make sure that finding information is easy

One of our outpatient locations implemented an EMR that records each visit as a separate document and also interfaces directly to the laboratory. Unfortunately, each lab transaction is also recorded as a separate document rather than as a subset of a visit. So looking for a visit among dozens or more lab transactions on complex patients becomes a hunt for a needle in a haystack,

Consider the impact of technology on medical students and residents

Medical students and family practice residents in our program cover at least seven different locations (5 hospital, 2 outpatient). Each of these has a separate EMR and there will eventually be at least five CPOE systems, if not more. Pediatric residents cover four locations.

Most of us know one word processing program rather well. Sophisticated users may know two. Consider what it would be like if you had to know seven, all very well. The fact is, you can't. So are we are teaching our residents and students that it's okay to not know how to use their EMR/CPOE systems well? One of our hospitals (a fourth) has even had discussions about not allowing medical students to enter information into the EMR. The impact of these issues could be extremely significant for the future.

Consider how to transfer an EMR when a patient asks for their records

In the paper world, copying a patient's chart is a simple but time-consuming event. In most of the EMRs in our system, it is impossible to transfer medical records another physician with a different EMR and it is extremely difficult to transfer copies of the EMR in paper form.

The situations above are just the surface of the types of

continued on page 9

EMRS & CPOE continued from page 8

errors that can occur as EMRs and CPOEs become more complex and are not standardized. This "Tower of Babel" that we are creating needs to be fixed, and soon.

EMR and CPOE systems, properly implemented, have been shown to be beneficial. In addition to the headings of the paragraphs above, the following are some potential solutions.

Conduct a "Failure Modes and Effects Analysis (FMEA)" on the system and its users

Most good EMR/CPOE systems undergo testing by the vendor to eliminate obvious possible errors. However, as shown above, it is in the implementation where many errors occur. Each hospital and office should take the time needed to seriously evaluate what possible errors could occur in their specific implementation and what the impact of these errors would be. This type of analysis (FMEA) is common in manufacturing and engineering. It can serve to eliminate costly errors before they happen. A good FMEA can take significant time to complete, but the cost of one major error usually is far greater than the cost of this time. A good FMEA typically lead to some degree of redundancy, which is often critical for patient safety.

Make sure that physicians have the proper incentives to use the system correctly

The Cedars-Sinai CPOE system, a multi-million dollar project, reportedly was difficult to use in that it took additional physician time; it was recently stopped. The AMA News reports that the University of Virginia and VA Puget Sound had to shut down their systems for poor response times or risks to patient care.

It is unlikely that any EMR or CPOE system will be faster to use than pencil and paper. The savings of having data properly entered into an EMR or CPOE system are significant greater than the costs of the extra physician time, but usually these savings do not accrue directly to the physicians. So there needs to be meaningful ways of rewarding physicians who take the time to use these systems correctly.

Standardize systems

One solution to some of the above problems is to require systems to adhere to standards. Currently there are standards such as HL-7 that address some of the communications issues between systems. However, HL-7 does not address any of the human interface issues that are at the root of some of the problems above.

An acceptable (to some) but not ideal solution would be for all EMRs and CPOE systems to have the same graphical interface. This could eliminate issues such as the learning problems of residents/medical students and many of the training problems for physicians and nurses who travel between systems. However, it would be similar to everyone using the same word-processing program, i.e., not so bad in terms of compatibility, but innovation could be stifled.

Another potential solution could be the development of a new type of software, the "personal EMR/CPOE browser". The idea behind such a system would be that an individual user could use this tool to interact with EMR and CPOE systems without having to know the intricacies of the system itself. Users could personalize their browsers to match their needs (e.g., placing order entry in a particular location and setting up macros for rapid data entry). This would require a fair amount of standardization among EMR/CPOE vendors, which is a trait not seen to date. The AAFP is currently leading an effort that could result in some basic standardization in office EMRs.

There are increasing pressures on physicians to use EMRs and CPOE systems. Examples of these pressures include:

1. CPOE is a core requirement of the Leapfrog Group, formed by businesses to increase patient safety.

2. California recently passed legislation that requires all except small and rural hospitals to implement a formal plan to reduce medical errors that includes technologies such as CPOE by January 1, 2005.

EMRS & CPOE continued from page 9

For the safety of our patients, we as pediatricians need our national organizations to lead in the safe design and implementation of these technologies. The time to do this is now since, as the examples above show, we currently are allowing the EMR/CPOE process to wander virtually aimlessly on a national level, which can be dangerous.

AAFP Proposes Low-Cost Open-SourceEMR

By: Joseph Schneider, MD, FAAP

The American Academy of Family Physicians recently approved a plan to pursue the development of a low-cost open-source office-based electronic medical record (EMR). The EMR would be built upon an existing EMR currently owned by MedPlexus, Inc. that would serve as the core for the EMR. The MedPlexus EMR was developed over the past decade and reportedly is very robust in certain areas.

The current plan is for MedPlexus to assign the rights to this EMR to a Foundation composed of the leading medical societies, potentially including the AAP. The Foundation would coordinate an "open source" effort to improve the software. "Open source" essentially means that the code is accessible to all and, through a coordinated process, multiple users can contribute to the upgrading of the system. The Foundation would charge a "nominal" amount for use of the EMR, in order to encourage adoption by physicians. Software from other companies could interface with this to add improved capabilities. The EMR would likely be Internet-based, although the Foundation probably could allow local installations. Patient data could be stored locally, but one advantage of this EMR system is that patient data could be stored securely on the Internet, making it available almost wherever the patient goes. The AAFP plans to have the EMR available on multiple devices, including handhelds.

The AAFP is currently in discussions with various medical societies regarding participation in this project. Many details need to be worked out, including the business plan for the Foundation.

Why does the AAFP think that this can succeed when so many other vendors have failed? First, the development cost of the software is reportedly low in that most of it has been shouldered by companies who have gone under or been purchased. At the moment it appears that the pediatric component of this EMR is somewhat basic, but this needs additional review.

Second, the plan is for this Foundation to be composed of key medical societies. This backing could remove much of the concern that physicians have that their EMR vendor will go bankrupt.

Third, the nominal cost of the EMR should encourage rapid adoption. The AAFP plans for 10,000 users by the end of next year. At that rate of adoption and with the backing of the medical societies, the software potentially could become the outpatient standard to which all other EMRs must interface. This potential to become a standard could be supported further by the ability for patients to "transport" their information over the Internet to new doctors, new locations, etc.

Fourth, the "open-source" nature of the software could allow this it to rapidly evolve towards being a strong market leader, much as Linux is beginning to challenge Microsoft's Windows.

There are many challenges for the AAFP and the medical societies in this project and it needs to be carefully evaluated. However, it offers great potential if successful and SCOCIT will try to keep members aware as it progresses.

Computerized Quality Management
The Shriners Hospitals for Children Experience

by Donald E. Lighter, MD, MBA, FAAP

Shriners Hospitals for Children is a 22 hospital network of pediatric orthopaedic, burn care, and spinal cord injury institutions. In 1997, the hospital system decided to implement a clinical outcomes research and management department to encourage clinical research and performance improvement. The challenge of coordinating these efforts among all of the hospitals was daunting, since the information systems varied significantly in workstation configuration and software versions. The solution chosen by the hospital system was an integrated, distributed database management system that accommodated the needs of patients and parents, while collecting the data necessary to improve performance, conduct quality improvement projects, and carry out multicenter clinical research programs.

Starting in 1999, the Clinical Outcomes Management Department surveyed the marketplace for automated solutions that could address these challenges, as well as some nuances of the Shriners patient population and clinical research environment. Some examples:

- Children with certain clinical conditions, such as cerebral palsy, could not easily utilize standard keyboards for recording responses to clinical outcomes instruments. A touch screen interface for the system was specified as part of the system design.

- Each hospital needed the ability to conduct individual projects, as well as the system wide projects that would be conducted by the Clinical Outcomes Management Department. Thus, the system required local processing capability, as well as the ability to "roll up" data into a centralized system.

- Principal investigators of research projects require access to data from multiple centers, and that data must be protected according to the requirements of Institutional Review Boards that monitor the research programs.

Addition of clinical outcomes instruments needs to be a relatively easy process, with a user friendly interface, so that research coordinators and performance improvement professionals could add customized instruments developed at a specific hospital.

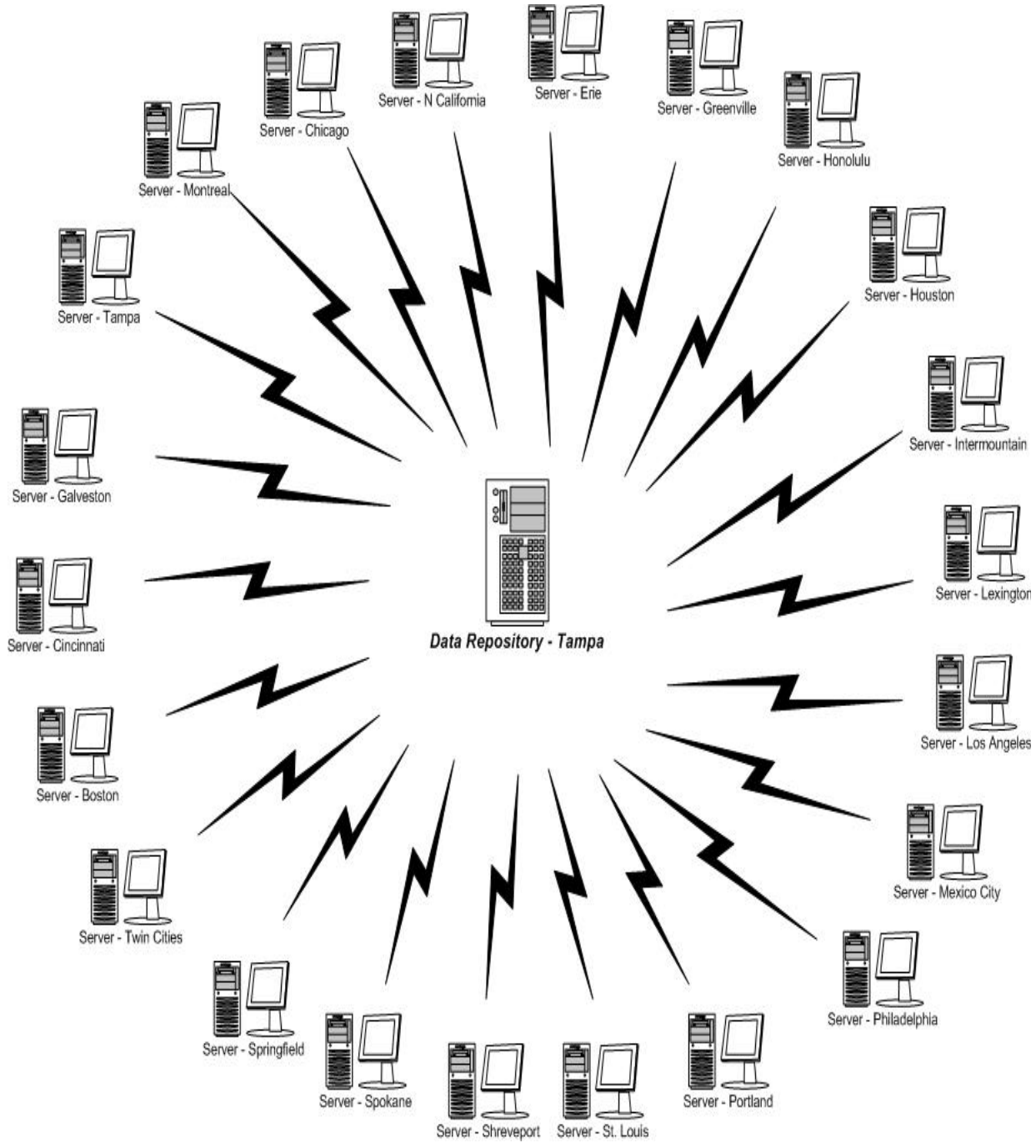
A Request for Proposals was issued in 1999, and the review of the proposals included staff members from headquarters and the hospitals to assure a satisfactory decision. The system was implemented in the first two quarters of 2002 and is presently in the early stages of deployment. In addition to the expected application to clinical outcomes research and performance improvement activities, the system has proven valuable for other uses, such as collection and aggregation of Occurrence (Incident) Reports.

The system configuration addresses the needs outlined above, as well as a number of other, more standard, requirements. Figure 1 demonstrates the system configuration.

continued on page12

Computerized Quality Management continued from page11

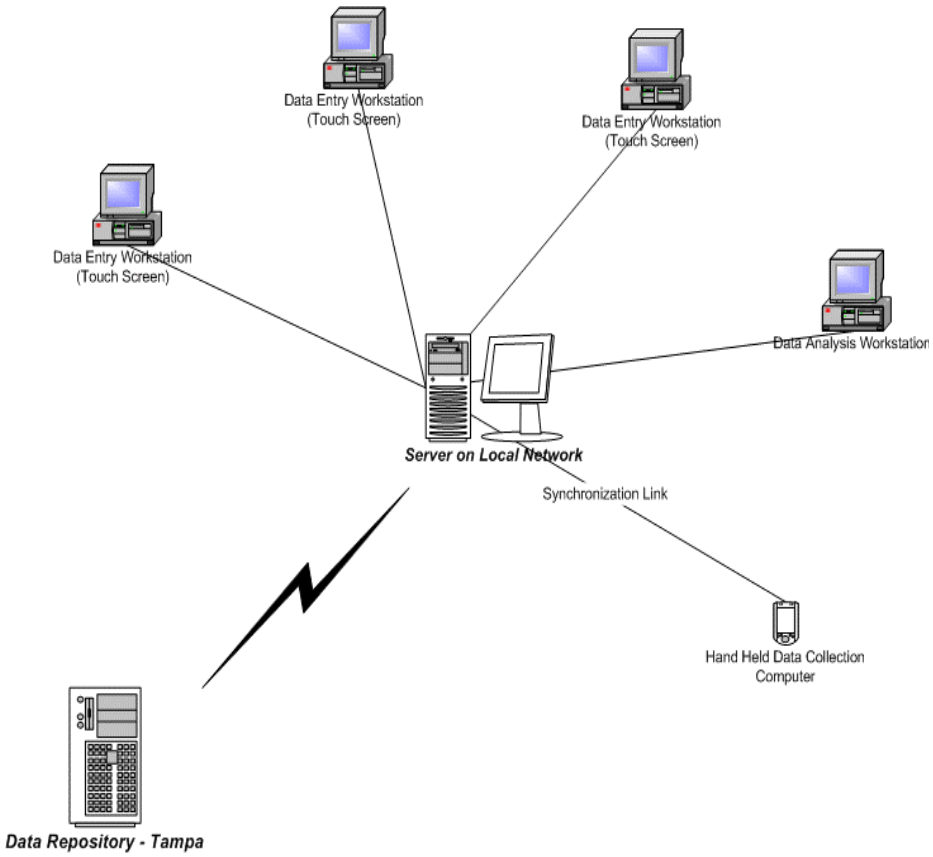
Figure 1: Configuration of Shriners Hospitals for Children Clinical Outcomes Management System



continued on page13

Computerized Quality Management continued from page12

Each hospital has a server running the Shriners Hospitals for Children Outcomes Management System (SHCOMS) software, and each of these servers communicates regularly with the data repository at SHC Headquarters in Tampa, Florida. All data is transmitted via the secure SHC corporate intranet. Each hospital's system is connected to the hospital's local area network (LAN) and has five workstations, one of which can be a PDA device, as demonstrated in Figure 2.



One of the workstations at each hospital has a full version of SPSS for sophisticated local analysis of data. Touch screen workstations can be placed anywhere in the hospital environment, and in some institutions, the workstations are on mobile carts for use throughout the hospital.

SHCOMS is built in SQL Server 2000, providing an ODBC compliant backbone for data entry and transfer. The system's interface is based on forms that can be created using a wizard designed by the software vendor. As new instruments are added, the hospital has the option of sharing the forms with other hospitals in the system, reducing the work necessary to implement new data collection tools.

Summary

Shriners Hospitals for Children has implemented an advanced database system for collecting and analyzing clinical outcomes and performance improvement information. Through a state of the art software and hardware solution, the Shriners Hospitals for Children Outcomes Management System (SHCOMS) is becoming an invaluable tool for capturing point of service clinical information, as well as potentially expediting data collection and analysis for quality improvement initiatives that can have system wide impact.

Preventing the Misuse of an Online Medical Image Library

By: Christoph Lehmann, MD, FAAP,
Michael RG Cohen
and Bernard A. Cohen, MD, FAAP

In December of 2000, Johns Hopkins University launched Dermatlas, a new educational dermatology website at: http://www.dermatlas.org. Dermatlas was designed to provide high quality dermatology clinical and histologic images as well as detailed descriptions of the patient and the associated disease processes and was previously reported in this publication. Currently the Dermatlas contains more than 3,450 images 806 diagnosis and 62 categories and continues to grow rapidly. An average of over 4,000 visitors come to the site every day with the majority (75%) of visitors originating from locations in North America. Since its launch, users have posted 1,650,000 searches for images.

In attempt to determine user needs, all queries to the database by visitors were recorded and occasionally analyzed to determine the areas of greatest interest for the user. These areas were then targeted for image addition. To make this data collection on users' searches transparent, it was described ion the disclaimer section of the website and a dynamic link to the last 1,000 queries performed by users were provided. In December of 2001, during a review of recent searches by users, a group of users a group of users were found to conduct searches only for genital body regions (example: penis, vulva). By January 2003, more than 9,400 IP addresses (6.5% of all IP addresses) were recorded in our database that had preformed five or more searches for genital body areas. Analysis of these IP addresses further revealed that the majority had no other search interest in Dermatlas. Analysis of keyword searches revealed similar search patterns (Example: "nude vagina). Dermatlas contains a large number of pediatric images, and users from 315 IP addresses were found to have combined body region with a query for pediatric images only. The ten most common sites are in order: face, genital, penis, leg, total body, abdomen, hand, vulva, chest and groin.

None of the images in Dermatlas can be described as pornographic in nature. All images are designed to serve as educational resources for health care providers, parents and patients, however the discovered search patterns became a source of concern for the editors of Dermatlas. First, by conducting repeated searches for genital areas, users would reduce the processor time available to regular users and slow the Dermatlas response time. Second, while all patients have consented to the publication of their image in an educational setting, we cannot assume that they agreed to their images being used for non-educational purposes.

In order to continue our audience to have full use of Dermatlas, but at the same time reducing inappropriate usage patterns, we devised a simple tool to prevent further misuse of the Dermatlas. Each night, all user searches are analyzed and all IP addresses that submitted more than seven searches for genital images are added to the list. Users who access the Dermatlas from an IP address that is contained in the list, can still search the Dermatlas and may see the thumbnails of the images. However, if they try to see the enlarged image with metadata indicating that the image contains the view of the genital area, they are denied access and are advised that multiple searches for genital or anal pictures have been conducted from their IP address. They are offered the opportunity to email the editors of Dermatlas for a password, which they then may us to gain access to all images. Computers that are identified indexing tools (Internet spiders) are exempt from the access denial.

We instituted this screening tool in February and received thus far 95 password requests. The majority of password requests were from health professionals. A typical example was a physician who used Dermatlas to prepare a talk on child sexual abuse. Our current policy is to provide the password upon request to any user who:

1. Identifies himself and
2. Explains his rational for usage pattern.

Anonymous email accounts are not considered adequate identification.

Three Internet service providers have been a problem for this system. The National Health Service in Great Britain, the US Navy and a Canadian Internet Provider (shaw.ca)

continued on page15

Misuse continued from page14

route all their users through a proxy server, which resulted in a large number of access users direct access without the need to request a password. In the light of recent arrests of dentists and physicians in Great Britain, we will have to reconsider this decision.

In summary, we identified a group of users of an online medical image database to search and view images of genital areas only. We developed a successfully implemented screening tool that prevents users with inappropriate usage patterns from viewing any images of genital areas.

References:

1. More than Just Skin Deep: PedsDermAtlas Lehmann CU, Cohen MRG,, Cohen BA. The SCOT Report, May 2001.
2. SFGATE: Police question Pete Townshend about his use of an Internet child pornography site: http;//www.sfgate.com/cgi-bin/article.cgi?f=/news/archive/2003/0/international1246ESTO543.DTL
3. CNN: Child porn: Even surfing can mean jail http://www.cnn.com/2003/TECH/internet/01/14/porn.surf/index.html

Review of the Harriet Lane Handbook for Handhelds

by: S. Andrew Spooner, MD, FAAP

Product Name/Requirements:

The Johns Hopkins Hospital Harriet Lane Handbook, 16th Edition, Handheld Software version. Veronica L. Gunn, MD, and Christian Nechyba, MD, editors. Mosby, 2002. ISBN 0-323-02291-X. $50.

Memory requirements: 5.2 MB

Compatibility: Palm OS 3.5 and above, Windows CE 2.0 and above, and PocketPC.

Specifications:

Nine ounces. Five-eights of an inch thick. Four inches by about six inches...ideal for any pocket.

Are these the specs for a palmtop device?

No. They are the specs for the Harriet Lane Handbook that I carried as a pediatric resident in 1988—the hard copy, that is.

In 2003 the hard-copy HLH weighs a pound and six ounces, is over an inch thick, and at 4-1/2 by 7 inches, strains the capacity of all but the biggest pockets. It's enough to make one seriously consider an electronic version of this venerated reference.

Fortunately, one *can* seriously consider it, with the new Mosby version, which I will call the eHLH.

The HLH has for years been available as a Franklin eBook, but you had to have a Franklin eBook reader, and reading it on that device was like trying to read Nelson's textbook through an otoscope—a little too tedious. The SkyScape came out with a version that not many people were happy with, including this reviewer.

Now we have another attempt, this time from the publisher of the print version, Mosby. But the eHLH has some competition—ePocrates, Kidometer, Growth2, Shots, and the 5-minute Pediatric Consult are several of the titles filling portions of the Harriet Lane's niche. How does the current palmtop HLH stack up? In particular, how does the electronic format improve on the paper original?

Navigation:

Hyperlinks are used liberally in the book. For example, if one is looking up N-acetylcysteine, one can jump immediately to the acetaminophen poisoning algorithm. Nice.

One thing a book like the HLH needs is a way to quickly look things up. With the electronic version, you can still go to the index at the back of the book. What you can also do—that the paper version cannot—is search for text strings. Unfortunately, it's often not clear to the user whether one is searching for text on the current page or the entire book, so when the "not found" message appears, you're never sure what it means. for example, I searched for the string

continued on page16

Handhelds continued from page15

"SVT," but got nothing. I also searched for "supraventricular"... still nothing. I guess I was using the search function incorrectly, but it should not be that hard. I found that using the index was faster.

The best thing about navigation in the eHLH was the web-browser-like "back" button that made backtracking through previous pages possible. The tabbed interface in the drug section makes reading about the various drugs very easy, better than in the print version, in my opinion.

Graphical information (e.g., dosing nomograms and Tanner staging pictures) are included in this version. I found nothing in the print HLH that was not in the electronic version (unlike the previous version of the HLH, which is no longer sold). This is a great improvement!

It takes a little getting used to how the book is organized. For example, to get the blood-pressure norms for age & height, One must make the following clicks: Index -> Diagnostic and Therapeutic Information -> Cardiology -> Pressure -> Blood Pressure -> [Scroll down to bottom of page] -> [Pick gender of interest] -> [Pick age] -> [Pick height percentile—not actual height(!)]. Then you can read the data. After using Kidometer to look up the same stuff, it seems pretty labor intensive.

One can set bookmarks with custom names for frequently used pages. One can also add annotations to any text by selecting the text and entering what you want, and you can search this text later to retrieve tidbits.

Calculations:

It's a computer, right? Ought to help you with calculations, right? It does, but not as much as I'd like. For example, it would be fabulous to jump from the medication listings to a calculator page pre-populated with dosing data. Not so. One must jump between the eHLH and the built-in palmtop calculator to get a prescription calculated.

There is a section in the eHLH called "Calculators" that has a lot of potential but in this release is disappointing. For example, the first "calculator" is titled "Assessing Fluid Deficit," but if you think you can plug in vital signs and get a percent dehydration, think again: All the calculator does is take a pre-illness weight in kilograms—not pounds—and subtract from it a current weight in kilograms and give you the liters of water needed to fill the gap. As if parents come in knowing their kid's weight in kilograms before they got sick.

There is also a calculator that gives growth percentiles given a gender and age. But the results show only weight and height percentiles, and exclude head circumference and BMI data. Why? Sure, there is a BMI calculator (which incidentally does not allow you to enter data in pounds and inches) but why not throw it in with the rest if the measurements?

Drug Information:

The main reason people carry this book is because of its drug information section, entitled "Formulary." The same familiar organizational scheme is used, with hyperlinks to the information on use in pregnancy/lactation and renal failure dosing. If a drug is mentioned in another part of the book, a link to the formulary section is included. This feature alone is worth the extra $10 one would pay over the cost of the print version.

Summary:

For $50 (compared to $40 for the print version) you can get the Harriet Lane Handbook's content into your Palm OS or Pocket PC device. The eHLH works as well as the book, and adds some features that a print version could not possibly have (like searchable annotations), but falls short of the full potential for a PDA-based reference. Still, for the first true effort to get the entire HLH in electronic form, the publishers did very well. If you carry a palmtop, and you like the Harriet Lane, you should consider getting this title.

Pediatric Informatics in the Recent Literature and on the WWW

By: George Kim, MD, FAAP

Evidence-Based Pediatrics:

Cochrane Library – January 2003
http://www.update-software.com/abstracts/newreviews.htm

New Reviews in Pediatrics (Abstracts):

- Adeno-tonsillectomy for obstructive sleep apnoea in children
- Area-wide traffic calming for preventing traffic related injuries
- Cot-nursing versus incubator care for preterm infants
- Educational interventions for asthma in children
- Fluoride toothpastes for preventing dental caries in children and adolescents
- High versus low medium chain triglyceride content of formula for promoting short term growth of preterm infants
- Inhaled versus systemic corticosteroids for preventing chronic lung disease in ventilated very low birth weight preterm neonates
- Manual versus powered tooth-brushing for oral health
- Oral immunoglobulin for the treatment of rotavirus infection in low birth weight infants
- Parent-mediated early intervention for young children with autism spectrum disorder
- Prophylactic intravenous antifungal agents to prevent mortality and morbidity in very low birth weight infants
- Psychological therapies for the management of chronic and recurrent pain in children and adolescents
- Short versus standard duration oral antibiotic therapy for acute urinary tract infection in children
- Steroids for improving recovery following tonsillectomy in children"

Updated Reviews

- Community interventions for preventing smoking in young people
- Corticosteroid therapy for nephrotic syndrome in children
- Continuous nasogastric milk feeding versus intermittent bolus milk feeding for premature infants less than 1500 grams
- Group-based parent-training programs for improving emotional and behavioral adjustment in 0-3 year old children
- Inhaled nitric oxide for acute hypoxemic respiratory failure in children and adults
- Prophylactic methylxanthines for extubation in preterm infants

Onady G, Raslich MA, "Evidence-based medicine for the pediatrician"

"The purpose of this article is to introduce an effective approach toward answering the questions generated from...practice experiences. This approach centers on the concept of evidence-based medicine (EBM), which will be defined, demonstrated by using the previous clinical scenario, and introduced as a decision-making model. Finally, several common concerns about EBM will be addressed."

Pediatrics in Review. 2002;23:318-322
pedsinreview.aapjournals.org/cgi/content/full/23/9/318

Decision Support:

The ISABEL Medical Charity, "ISABEL"

ISABEL is an online clinical decision support system for healthcare professionals developed by The ISABEL Medical Charity (UK). This online application has received much recent press in the British health community. It takes symptoms and other information suggested by users to return differential diagnosis information based on underlying pediatric texts processed by a proprietary algorithm developed by the Autonomy Corporation. No specific recommendation about the site is made, but it is listed as a resource for exploration.

ISABEL site:
http://www.isabel.org.uk

Recent articles about ISABEL performance:

http://www.isabel.org.uk/about/aboutsubset/conference.htm

Electronic Medical Records:

Adams WG, Mann AM, Bauchner H,
"Use of an Electronic Medical Record Improves the Quality of Urban Pediatric Primary Care"

continued on page 18

Recent Literature continued from page 17

"Use of the EMR in this study was associated with improved quality of care. This experience suggests that EMRs can be successfully used in busy urban pediatric primary care centers and, as recommended by the Institute of Medicine, must play a central role in the redesign of the US health care system."

Pediatrics Vol. 111 No. 3 March 2003, pp. 626-632

http://pediatrics.org/cgi/content/abstract/111/3/626

Immunization Registries:

Gaudino JA, deHart MP, Cheadle A, Martin DP, Moore DL, Schwartz SJ, Schulman B,
"Childhood immunization registries: gaps between knowledge and action among family practice physicians and pediatricians in Washington state, 1998"

"Provider-based systems can improve immunization coverage, but the feasibility and effectiveness of community wide and statewide systems remain unexplored. Because these systems depend on participation, more understanding is needed to help organizations implement them. Interventions to increase availability and use should address provider and health organization needs."

Arch Pediatr Adolesc Med 2002
Oct;156(10):978-85
http://archpedi.ama-assn.org/cgi/content/short/156/10/978

Consumer Health Informatics:

Wegner MV, Girasek DC, "How Readable Are Child Safety Seat Installation Instructions?"

"Child Safety Seat (CSS) instruction manuals are written at a reading level that exceeds the reading skills of most American consumers. These instruction sets should be rewritten at a lower reading level to encourage the proper installation of CSSs."

Pediatrics Vol. 111 No. 3
March 2003, pp. 588-591
http://www.pediatrics.org/cgi/content/abstract/111/3/588

Li Y, Bain L, Steinberg A, "Parental Decision Making and the Choice of Communication Modality for the Child Who Is Deaf"

"Professionals who work with deaf children and their parents should recognize the presence of many relevant issues beyond the extent of the child's hearing loss. Interventions may be most effective if aimed at balancing parental beliefs and aspirations and audiologic considerations."

Arch Pediatr Adolesc Med. 2003;157:162-168
http://archpedi.ama-assn.org/issues/current/abs/poa20041.html

Internet:

Tuffrey C, Finlay F, "Use of the internet by parents of paediatric outpatients"

"A significant proportion of parents have access to the internet and use it to find information about their child's medical condition. The parents who discuss what they find with the clinic doctor are in the minority. Doctors should be prepared to ask parents about their information needs and discuss use of the internet."

Archives of Disease in Childhood 2002;87:534-536
http://adc.bmjjournals.com/cgi/content/abstract/archdischild%3b87/6/534

Slakey DP, Nowfar S, "Internet use by a multidisciplinary transplant clinic population"

"Patients use the Internet to find information about their doctors and results of transplantation and other treatments. Physicians should consider establishing guidelines for use of Internet services by patients for education and communication."

Transplantation 2003 Jan 15;75(1):155-7
http://www.transplantjournal.com/article.asp?ISSN=0041-1337&VOL=75&ISS=1&PAGE=155

Pew Internet and American Life Project, "Parents Online"

"More parents are wired. Online parents are more likely than wired non-parents:

- to do research for school or training or research for

continued on page 19

Recent Literature continued from page 18

their jobs
- to participate in online banking
- to use the Internet to contact a local community group or association, a support group, or a religious organization
- to say the Internet played a role in their finding a new place to live, dealing with a medical condition (their own or a loved one's), and starting a hobby.

Pew Internet and American Project: Parents Online: http://www.pewinternet.org/reports/toc.asp?Report=75

Pew Internet and American Life Project: "The Internet Goes to College - How Students are Living in the Future with Today's Technology"

"College students are heavy users of the Internet compared to the general population. Use of the Internet is a part of college students' daily routine, in part because they have grown up with computers. It is integrated into their daily communication habits and has become a technology as ordinary as the telephone or television."

Pew Internet and American Project: The Internet Goes to College: http://www.pewinternet.org/reports/toc.asp?Report=71

Wireless and Portable Computing:

Ratib O, McCoy JM, McGill DR, Li M, Brown A, "Use of Personal Digital Assistants for Retrieval of Medical Images and Data on High-Resolution Flat Panel Displays"

"For its new acute care hospital, the University of California at Los Angeles is evaluating innovative technology involving high-resolution flat panel display devices configured as "network appliances" that can be wall mounted for use in the retrieval and display of medical images and data."

Radiographics. 2003;23:267-272: http://radiographics.rsnajnls.org/cgi/content/abstract/23/1/267

California Highway Patrol, "Driver Distraction and Inattention: Data Summary"

This document is a report and succinct summary of a number of studies examining the issue of cell phone use in motor vehicles. The writers conclude that the central issue is that of driver distraction instead of any specific technology, and that car radios and CD players have been associated with as many collisions as cellular telephones.

CHP Report to the Governor and Legislature (Nov 2002): http://www.chp.ca.gov/pdf/CellphoneLegRpt.pdf

---

Invitation to Present Your Research at the 2003 AAP NCE

Dear Colleague:

I would like to invite you to present your research at the American Academy of Pediatrics National Conference and Exhibition. Please consider enriching the scientific portion of our program by submitting your abstract to the AAP Steering Committee on Clinical Information Technology (~250 words).

Online submission of AAP Abstracts is now available for presentation at the:

American Academy of Pediatrics
National Conference and Exhibition
October 31 - November 5, 2003
New Orleans, LA
http://www.aap.org/profed/cfa.htm

Submission Deadlines:
Monday, April 14, 2003 (print submission)
Friday, April 18, 2003 (online submission)

A print version of the Call for Abstracts is available (or will be shortly) via the Faxback system.

If you have any questions, please contact:

Rebecca Marshall
Manager, Section Administration
AAP Dept of Committees & Sections
Tel: 847-434-4079
Fax: 847-434-8000 or email Bmarshall@aap.org

continued on page 20

Research continued from page 19

Thank you very much for your interest.

Best regards,

Christoph U. Lehmann, MD, FAAP
Chair, AAP NCE SCOCIT Scientific Committee

New Directory Created to Assist with HIPAA Compliance

A new resource is now available to assist practices develop a strategy to comply with the administrative simplification provisions of the Health Insurance Portability and Accountability Act of 1996, better known as HIPAA. HIPAA mandated a set of electronic transactions and code sets standards to be used in the health care system. These include important business transactions commonly utilized in medical practices such as the health care claim, remittance, patient eligibility verification, treatment and referral authorizations and certifications, claim status, and others. Although originally scheduled to go into effect October 16, 2002, President Bush signed a law extending that deadline one-year.

The American Academy of Pediatrics, in collaboration with more than a dozen medical specialty organizations, have created a website designed exclusively to ascertain the HIPAA-readiness level of their practice management software (PMS) vendors. This resource offers contact names and numbers, transaction-specific information, and opportunities for vendors to list several products.

Located at http://www.hipaa.org/pmsdirectory , this site allows vendors to self report the HIPAA-readiness level of their products and if the product has been certified by a third party. Physicians and practice administrators can access this site free of charge to establish the readiness level of their own vendors or review the compliance status of potential new software.

Typically, many medical practices have been anticipating that their PMS vendors will be providing a "HIPAA-compliant" solution for them. In many cases this will be true. However, concern has been raised in the industry that many PMS vendors will be unable to offer medical practices the necessary solution for the following reasons:

- Some software vendors will be offering appropriate modifications, but not in time to meet the deadline;
- Some vendors have made a corporate decision not to offer a HIPAA compliant solution, but rather will be requiring their customers to go through a particular, clearinghouse that they own, and incur per transaction fees; or
- Some vendors will not be offering any HIPAA ready solution.

Medical practices are "covered entities" under HIPAA and must adopt these new standards if they fall into either of the following categories:

· Those practices that electronically exchange information related to any of the HIPAA transactions (i.e., you submit health care claims electronically, use a web site to check a patient's health plan eligibility); or
· Those practices that pay a third party (clearinghouse or billing service) to submit any of the HIPAA transactions electronically on their behalf.

The repercussions of any of the above scenarios could have detrimental impact on the cash flow of a medical practice. Therefore, it is important that physicians and their practice administrators act proactively to ensure that their organization will be in full compliance by next October and incur no disruption in cash flow or patient services. It is recommended that a contingency plan be developed that includes setting aside cash reserves, instituting a line of credit at a local bank, and establishing a relationship with a HIPAA-compliant clearinghouse permitting you to send paper or non-compliant electronic claims (at least for the short term) thus ensuring continual cash flow.

Rather than wait for your vendor to contact your practice, it is also recommended that you adopt a proactive policy with your practice management software vendors and

continued on page 21

HIPAA continued from page 20

contact them as soon as possible in writing. The following are a series of questions that you should consider asking of your vendor:

- Will the version of your software product that I currently use be able to send to all payers a claim/ encounter form in the HIPAA standard 837 content and data format?

- Have your transactions been tested and certified by a third party as offering a "HIPAA-compliant" software modification?

- When will you be ready to upgrade my system (ask for a specific date)?

- Will the modifications require a new version of my PMS software?

- Will I require any new hardware to support these modification?
- When will you be sending me a schedule of testing that includes:

Internal testing

- Testing with a clearinghouse (if applicable)
- Testing with commercial payers?
- Can I upgrade to the various standards incrementally (i.e., can my system generate HIPAA-compliant 837 form (Health Care Claim: Professional) immediately, and then move to the other transactions standards at a later time)?
- Will my modified system accept the National Provider Identifier (NPI) number (expected to be a ten-digit numeric number)?
- Do you offer a product or service that will assist me in completing my "gap analysis" (moving my practice from the paper HCFA1500 claim form to the electronic 837 claim form (Health Care Claim: Professional) will require additional data elements)?
- Will you be providing training for this modification?
- What are the expected costs?

It is recommended that you get all answers in writing. If your vendor is NOT offering an appropriate HIPAA solution, you should identify alternative products as quickly as possible in order to meet the October 16, 2003 deadline.

The contributing author of this month's update is Robert Tennant, Government Affairs Manager, of the Medical Group Management Association (MGMA) in Washington, DC. He can be contacted at: 202-293-3450.

For more information on HIPAA, email hipaa@aap.org or contact Aiysha S. Johnson in the AAP Division of Health Care Finance and Practice at (800)433-9016 ext.4089. Updated compliance manuals on Privacy can be downloaded from the Members Only Channel of the AAP website: http://www.aap.org/moc

Pediatric Informatics Events Calendar 2003

April 2003

07: Persons United Limiting Substandards and Errors (PULSE) in Health Care Working with Survivors of Medical Error, Needs, Options nd Outcomes
VA Medical Center, Northpoint, NY
http://www.pulseamerica.org/workshop.htm

07-08: Center for Business Intelligence
6th Annual Drug Delivery Systems
Philadelphia, Pa
http://www.cbinet.com/events/HB306/index.html

10-11: Financial Research Associates
Innovative Informatics for Reducing Medication Errors, Boston, MA
http://www.frallc.com/infotech.asp#C106

May 2003

02-07: Medical Library Association Annual Meeting 2003
"Catch the Wave"
San Diego, California
http://www.mlanet.org

03-06: Pediatric Academic Societies
2003 Annual Meeting
Seattle, Washington
http://www.pas-meeting.org/

07-08: The Center for Business Intelligence
6th Annual Drug Delivery Systems
Philadelphia, PA
http://www.cbinet.com/events/HB306/index.html

09-10: American Nursing Informatics Association
2003 Conference & Business Meeting
Nursing in the Digital World:
Using Technology to Optimize Patient Care
Chicago, Illinois
http://www.ania.org

10-16: Medical Records Institute
TEPR 2003: 19th Annual Conference and Exhibition
San Antonio, Texas
http://www.medrecinst.com/conferences/tepr

28-30: American Medical Informatics Association
2003 Spring Congress
Bridging the Digital Divide: Informatics and Vulnerable Populations
Philadelphia, Pa
http://www.amia.org

June 2003

07-10: SCAR 2003
20th Symposium for Computer Applications in Radiology
Boston, Massachusetts
http://www.scarnet.org/html/calendar.html

July 2003

16-19: University of Maryland School of Nursing
Informatics 2003: The Annual Summer Institute in Nursing Informatics
Baltimore, Maryland
http://nursing.umaryland.edu/informatics/

August 2003: No Listings

September 2003

20-23: Agency for Health Research and Quality
Global Evidence for Local Decisions
The Fifth Conference on the Scientific Basis of Health Services
Washington, DC
http://www.icsbhs.org

October 2003

18-23: American Health Information Management Association 2003 National Convention and Exhibit
http://www.ahima.org

November 2003

01-05: American Academy of Pediatrics National Conference and Exhibition
New Orleans, LA
http://www.pedialink.org/pedialink/cme/nursefinder/Detail.cfm?Id=14675&area=liveCME

08-12: American Medical Informatics Association 2003 Fall Symposium:
Foundations of Informatics: Building Models and Methods for Biomedical information Systems
Washington, DC
http://www.amia.org

SCOCIT Candids from the AAP NCE 2002 Computer Lab in Boston

Courtesy of Lewis Wasserman, MD, FAAP

Joseph Schneider, MD, FAAP

William Zurhellen, MD, FAAP
Mark Simonian, MD, FAAP

AMERICAN ACADEMY OF PEDIATRICS

NEW ORLEANS 2003

National Conference & Exhibition
November 1-5

GET INVOLVED IN YOUR CHAPTER!!

SCOCIT Members: Serve As Chapter Contact!

There has been much discussion recently about how sections and the Steering Committee on Clinical Information Technology (SCOCIT) can work together with chapters to further the Academy's mission. At the 2000 Annual Chapter Forum, members of the Council on Sections Management Committee (COSMAN) met with chapter representatives to discuss ways to facilitate collaboration.

Based on these discussions, SCOCIT is seeking volunteers to serve as a contact person for each chapter. The contact person is not obligated to attend all meetings of the chapter; however, it is hoped the individual will attend at least the chapter's annual meeting. In addition, the chapter leadership may call upon a SCOCIT volunteer in their chapter for expertise on a particular issue or to discuss joint projects with SCOCIT.

If you are interested in serving as SCOCIT's contact for your local chapter, please contact:

Mark Simonian, MD, FAAP
Phone: (559) 221-7192
Fax: (559) 221-7195
E-mail: msimonian@childrenscentralcal.org

The American Academy of Pediatrics Steering Committee on Clinical Information Technology (SCOCIT)

SCOCIT Chair: S. Andrew Spooner, MD, FAAP

Committee Chairs:

Education: Mark Simonian, MD, FAAP
mms88@pacbell.net
Policy: Ed Gotlieb, MD, FAAP
egotlie@emory.edu
ApplicationsTechnology:
Kevin Johnson, MD, FAAP
kevin.b.johnson@vanderbilt.edu
Webmaster: Stuart Weinberg, MD, FAAP
stuweinberg@pol.net
Newsletter Editor: George Kim, MD, FAAP
georkim@pol.net

SCOCIT Manager: Aiysha Johnson
Tel: 1-800/433-9016 x4089 or
1-847/434-4089
Ajohnson@aap.org

Interested in Joining SCOCIT?
To join SCOCIT, contact AAP Membership:
AAP Membership: Tel: 1-800-433-9016
Ask for Membership
E-mail: membership@aap.org

Interested in joining a Speial Interest Group (SIG) Mailing List?
To join a list associated with an area of SCOCIT:

For Committee SIGS:
1. Send an email message to: ajohnson@aap.org
2. Request to be added to the mailing list for your area of interest

- EDUCATION: SCOCIT-education
- POLICY: SCOCIT-policy
- TECHNOLOGY: SCOCIT-technology

For General SIGS:
- e-Prescribing SIG (YAHOO!® Mailing List):
  - See: http://groups.yahoo.com/group/scocit-eprescribing
  - Follow instructions on that web site