

## **LRC Highlights July - September 2003**

AIHA information coordinators recently reported the following activities and accomplishments in their monthly activity reports for the Learning Resource Center (LRC) project.

If you would like more information about any of these highlights, please contact the information coordinator at the partner institution. The e-mail addresses of all AIHA partnership information coordinators are available on AIHA's Web site.

LRC Highlights are meant to demonstrate the impact of access to health information, not the effectiveness or otherwise of different treatments. The content is anecdotal and is *\*not\** intended as a source of reliable health information in itself. Healthcare providers are advised not to change practice on the basis of anecdotal material. Healthcare providers should consult evidence-based textbooks, guidelines and systematic reviews before making any changes in practice.

For more information about AIHA's Learning Resource Center project, please see AIHA's Web site at <http://www.aiha.com/index.jsp?sid=1&id=1280&pid=4739> or contact Mark Storey, AIHA Program Officer for Information and Communication Technology, at [mstorey@igc.org](mailto:mstorey@igc.org).

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### **Applications of Evidence-Based Practice (EBP)**

[Note: In order to promote the principles of evidence-based practice, all LRCs are required to regularly conduct "Practice Standard Reviews" (PSR) in which they evaluate the available evidence for a particular clinical intervention, health policy, or educational method. For more information on PSRs, please see: <http://www.aiha.com/index.jsp?sid=1&id=7992&pid=7976>]

Following the successful implementation of diagnostic and treatment guidelines for acute bronchitis at the Aerospace University Clinic in Kharkiv, Ukraine, a team of physicians and the LRC staff from the Kharkiv Oblast Student Hospital collaborated with three other clinics to introduce the new protocol. The primary healthcare clinics at the Auto Transportation University, the Agriculture University and the National Law Academy implemented the new guideline with impressive results. The findings of six- and nine-month follow up evaluations showed that the rates of unnecessary antibiotic therapy have dropped to 17% at the Auto Transportation University, to 0% at the Agriculture University, and to 25% at the National Law Academy. The hospitalization rate for acute bronchitis at all three clinics dropped to zero. The staff at the Kharkiv Oblast Student Hospital are now conducting a research and literature review to develop a new guideline on acute tonsillitis. They have also recently developed a protocol on community-acquired pneumonia, which is being implemented at the hospital therapy department.

Since 2001, the LRC staff at the Institute for Postgraduate Medical Education in Prague, Czech Republic, has been providing two types of EBP training courses for medical librarians affiliated with healthcare

institutions throughout Czech Republic. The first, beginner-level course focuses on EBP history and philosophy, systematic reviews, metaanalysis, the Cochrane Library, MEDLINE methodology filters, and the librarians' role in searching and providing the best evidence. The second course, for advanced users, provides training on interactive database searching and critical appraisal of the literature. These classes will continue in the 2003-2004 academic year.

Thanks in part to information provided by the LRC staff, the hospitalization rate for diabetic complications at Hospital #2 in Vladivostok, Russia, has been reduced by approximately two days. The LRC staff provided the hospital endocrinologist with preventive care, treatment and patient education information concerning diabetic foot. Using this information, the hospital staff are working with patients to prevent such diabetic complications as foot ulcerations, sepsis, and amputations, and learn to quickly respond to the appearance of lesions with proven and effective treatments.

The Faculty of Preventive Medicine of the Odessa State Medical University has approved a new elective course called *Foundations of Evidence-based Medicine*. This 36-hour course will include 10 hours of lectures on introduction to EBP, study design, biostatistics, and clinical practice guidelines; and 26 hours of practical individual and group sessions on levels of evidence, journal article assessments, on-line searches, and the Cochrane Library. The students will also prepare Practice Standard Reviews. This course will be offered to six-year medical students and residents.

In collaboration with several physicians from the Women's Wellness Center, the LRC staff at the Mirkasimov Republican Clinical Hospital in Baku, Azerbaijan, prepared a Practice Standard Review on iron deficiency anemia during pregnancy. Based on the results of this review, which explored the effectiveness of different prevention and treatment methods, the staff made several changes to the existing practices. Additionally, they decided to place greater emphasis on anemia prevention during training provided at the Women's Wellness Center, especially the classes for pregnant women, as well as educational seminars on family planning, and healthy lifestyle and nutrition.

Using resources found on the Internet, the staff at the Women's Wellness Center in Tirana, Albania, learned that the use of Doppler examination in early pregnancy can help detect preeclampsia. The data showed that the Doppler examination of high risk women can detect preeclampsia before clinical signs are visible. Verifying and supplementing this information with data from specialized CD-ROMs and Cochrane Library reviews, the physicians developed and began implementing new diagnostic and treatment protocols for eclampsia and preeclampsia at the clinic. The new guidelines specify the criteria for hospitalization, Doppler ultrasound and other treatment and diagnostic practices.

Using clinical epidemiology resources available at the LRC, the staff of the National Republican Center for Emergency Medicine in Tashkent, Uzbekistan, have changed their practices for the prevention of postanesthetic pneumonia for patients undergoing long-term artificial lung ventilation. They learned that the use of specialized bacterial filters can be more clinically and cost effective than routine prophylactic antibiotic therapy. Following these changes in practice, the staff are considering other areas for infection control improvements at the Center.

### **LRC Outreach Into the Community**

Information Coordinators Jarmila Potomkova from the Palacky University Faculty of Medicine in Olomouc, Czech Republic, and Eva Lesenkova from the Institute for Postgraduate Medical Education in Prague, prepared a poster and made an oral presentation at the 2<sup>nd</sup> International Conference of Evidence-Based Health Care Teachers and Developers in Palermo, Italy in September 2003. Their presentation, entitled *A Role of Medical Librarians in Evidence-based Medicine: Czech Experience*, focused on EBM

advocacy and the need for end-user training on accessing and interpreting evidence. The poster discussed AIHA Practice Standard Reviews as one of the delivery methods and presented impressive results of EBM activity at the national and local levels: EBM training courses and workshops for medical librarians, epidemiologists and students; book translation; and introduction of EBM into medical curricula. More information about the conference and the abstract are available at <http://www.ebhc.org>.

The LRC staff at the First Tashkent Medical Institute in Uzbekistan have been researching educational practices and methodologies to support several new developments at the institute. Beginning in the fall 2003, the institute has adopted a credit-based educational system. To help the faculty learn how to convert and calculate credit hours as well as to find out about the use of similar systems in Europe and the United States, the LRC staff prepared and disseminated information packets to all departments. Additionally, the LRC helped to find information on the objective structural clinical examination (OSCE), which helps to test students' intermediate and advanced levels of proficiency in specific clinical situations. This approach is being introduced at the institute and requires significant methodological preparation, including clinical case development.

Using the Internet and other resources available at the LRC, the staff of the City Health Care Department in Dubna, Russia, compiled a list of counterfeit medications being sold at pharmacies in Russia. This list is being used to conduct periodic checks of the city pharmacies.

Access to the Internet and LRC resources helped a professor at the Almaty Medical College in Kazakhstan to develop a curriculum for a new course on psychosomatic conditions. Due to the lack of textbooks or other information on this topic at the college, Russian-language Web sites became a primary source of lecture materials for the new course. Furthermore, the instructor was able to find books and other literature that are being used as supplemental readings for the 68-hour course.

In July, the LRC staff at the National Center for Disease Control in Tbilisi, Georgia, organized an Open House for the students of the Tbilisi State Medical University. The event was set up as a workshop that included a brief lecture on the use of information technologies in healthcare and practical sessions on Microsoft Office, graphics programs, and e-mail. Following the Open House, several students offered to volunteer at the LRC.

After completing a Practice Standard Review on the use of prokinetic drugs for the treatment of gastroesophageal reflux disease in children, the staff of Children's Hospital No.4 in Minsk, Belarus, shared the review with other pediatric institutions in the city. The physicians prepared a presentation at a meeting for pediatric gastroenterologists and disseminated new practice recommendations, which were also sent for approval to the Ministry of Health.

Recognizing a lack of information on injection techniques available to physicians at the local healthcare district in Albania, the LRC staff at the Primary Healthcare Directorate in Lezha developed a special brochure using a new CD-ROM, *General Practice Series: General Practice, Patient Education and Practice Tips*. This color brochure is now available to the physicians visiting the LRC and is being disseminated among district healthcare professionals.

The LRC staff at the Stavropol Krai Clinical Hospital in Russia are actively disseminating evidence-based practice resources among staff and other healthcare professionals in the region. They have subscribed to mailing lists and announcements issued by such Web sites as the National Guidelines Clearinghouse, the Agency for Healthcare Research and Quality, EGuidelines, the National Quality Measures Clearinghouse, Cochrane Consumer, the American Health Information Management Association, and Evidence Based Librarianship. They regularly forward these messages to a specially created mailing list of Stavropol

healthcare professionals. Additionally, within the framework of the regional Total Quality Improvement program, the LRC staff made eight presentations on EBP basics to the physicians of healthcare institutions in Stavropol and three presentations for colleagues in the wider region.

### **LRCs as Health Promotion Centers**

The LRC at the Pereyaslavka Rayon Hospital in Khabarovsk Region, Russia, has been providing the local military draft office, police station, alcohol detox center, and secondary school with printed health promotion resources. The medical staff of the military draft office received up-to-date information on dentistry, ophthalmology, dermatology, and infectious diseases while recruits were provided with educational brochures on the prevention and treatment of venereal diseases, respiratory infections, sinus infections, skin rashes, and cavities. The police station and the alcohol detox center are regularly supplied with health promotion brochures. For the local school, the LRC staff helped find easy-to-understand information that was used for a lecture on prevention, diagnosis, and treatment of viral hepatitis.

Using LRC resources, a pediatrician from Central Medical Unit #15 in Snezhinsk, Russia, prepared first aid guidelines for pediatricians working at children's summer camps. The new guidelines covered such topics as snake bites, tick bites, electric shock from lightning or power sources, plant poisoning, and other emergency conditions.

### **Promoting LRC / Partner Sustainability**

In collaboration with a local NGO, the Model Family Medicine Center "Demeu" in Astana, Kazakhstan, won a grant from the Ministry of Culture, Information and Public Accord. This grant provides for the development of a computer classroom and a statistical database for the Center. Ten computers for the new classroom are being donated by Carelift International. Additionally, an agreement was reached with Soros-Kazakhstan to offer computer training courses for socially vulnerable population groups (adolescents, children from low-income families, orphans, etc.).

Setting sights on their long-term sustainability goals, the LRC staff at the Mirkasimov Clinical Hospital in Baku, Azerbaijan, organized an Open House for potential users and clients of the LRC. Representatives from medical and educational institutions located within walking distance from the hospital were invited to attend the special event. The discussion among the participants showed that none of the treatment facilities located nearby had an information or computer center analogous to the LRC, and their physicians were particularly interested in the opportunities to receive access to evidence-based medicine resources. The participants discussed the procedures for receiving and fulfilling information requests and organizing paid training courses. The representatives from the local medical school and the communications and transportation college, which have large computer classrooms, shared their experiences using paid services and made tentative plans to collaboratively develop databases and other computer applications. All participants were interested in the opportunities to rent LRC facilities and equipment for conferences or workshops and discussed potential collaboration on grant applications.

As part of the information and communication development program of the Kyrgyz State Medical Academy (KSMA) in Bishkek, the LRC has expanded to include another computer classroom. This new space, intended for international students, provides access to the Internet from ten networked computers. This project was financed by KSMA's Institute of Medicine. Additionally, the LRC has received a \$1,500 grant from the Soros Foundation to create a Web site for the Academy's library.

The National Information Learning Center (NILC) has won a tender from the Ministry of Labor, Health and Social Affairs of Georgia to support information resources development for the Georgian healthcare

sector. The tender, in effect from July to December 2003, covers electronic medical databases, on-line and printed versions of the *Journal of Contemporary Medicine*, Web site [www.health.net.ge](http://www.health.net.ge), fundraising activities, and the development of a long-term medical informatization plan.

### **Application of Information Technology, Telemedicine, and Databases**

In collaboration with the Regional Medical Information and Analytical Center, the LRC staff of the Oblast Clinical Hospital in Uzhgorod, Ukraine, developed a database of patients with insulin dependent diabetes. Additionally, the e-mail capabilities of the LRC were used to collect information for the database from all districts in the Zakarpatska Region. As a result, the database has a wide range of data, which is being analyzed for preventive, diagnostic, and treatment purposes.

Using a scanner and the Internet connection available at the LRC of the Primary Healthcare Directorate in Lezha, Albania, an orthopedic surgeon was able to consult with a colleague at the University Hospital 'Mother Teresa' in Tirana. An X-ray image and case information was transmitted on a patient whose leg injury has been deteriorating following a car accident. The Tirana physician helped to better assess the situation by noticing a small fracture that was hidden by muscle edema and related infection. Using this information, the Lezha surgeon was able to reassess the case and suggest additional treatment options. Following this intervention, the patient's condition improved, and he has been discharged from the hospital.

The department of emergency neurology at the Fergana Affiliate of the National Republican Center for Emergency Medicine in Uzbekistan has begun to utilize the program *Neurostatus*, which keeps and organizes case summaries, test results and other medical data for neurologists. The program was found on the Download.ru Web site.