

LRC Highlights
July - September 2002

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. For more information about AIHA's Learning Resource Center project, please see AIHA's web site at www.aiha.com or contact Mark Storey, AIHA Program Officer for Information and Communication Technology, at mstorey@igc.org.

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Applications of Evidence-Based Practice

The EBM working group, an interdisciplinary team that consists of the information coordinator, faculty, students, physicians and other interested parties from health and educational institutions in Olomouc, Czech Republic, recently took part in several local and international events promoting the use of evidence-based practice. In May, they organized and moderated an EBM panel for the "XX Days of Clinical and Practical Pediatrics" international conference held in Olomouc. One topic discussed at the conference was the treatment of the fever of unknown origin in children, which was the subject of a PSR developed by the LRC information coordinator and a professor of pediatrics from the EBM working group. In June, several members of the working group made presentations on the principles of EBP and information resources at the Summer School of Epidemiology and at a special seminar on Evidence-based Hematology. In September, the information coordinator presented a poster called "Librarian's participation in evidence-based pediatrics" at the 8th Conference of Medical and Health Libraries in Cologne, Germany.

Based on the review of quality control literature in Ovid and Cochrane databases, the Stavropol Krai Clinical Hospital in Russia has introduced new health care quality indicators. The new monitoring system, which required the development of special internal quality control journals, is based on an intermediate results assessment strategy. According to this method, each department head monitors a number of healthcare quality indicators, which, among others, include the frequency of extended hospitalizations (over 30 days), frequency of unplanned returns to the operating room, positive and negative treatment outcomes, unnecessary use of medications, and patient satisfaction levels. The hospital epidemiologist and other involved staff plan to conduct annual and intermediate (for every 100 treated patients) analyses of the quality control data.

The LRC staff at the Odessa State Medical University in Ukraine have organized a training session for the physicians of the local family medicine center on the principles of evidence-based practice. The

information coordinator has also presented a paper on the use of EBP in education at a health informatics conference held in Ternopil, Ukraine in September 2002.

When a local hospital reported a sharp increase in the level of nosocomial infections, the staff of the Department of Epidemiology at the Mechnikov Medical Academy in St. Petersburg, Russia, helped find a solution. During the initial investigation, the hospital staff reported low performance levels of the standard disinfectant. The on-line database search at the LRC helped identify a disinfectant that was effective against specific strains circulating in the hospital. After the introduction of the new disinfectant, the rates of the nosocomial infections at the hospital have dropped.

Based on the results of two PSRs, the staff at the City Hospital #25 in Donetsk, Ukraine, are developing educational programs for the local population. The first PSR has become the foundation for the scoliosis prevention program for local adolescents. The second program is aimed at the use of ACE inhibitors for chronic failure. The staff is also working on the development of guidelines for the treatment of pyelonephritis.

To address vitamin deficiencies common for most Russian adults, the staff at the Vladivostok Hospital #2 in Russia have analyzed the latest literature on the subject. Particularly useful in this process was an article by Fletcher and Fairfield published in the Journal of the American Medical Association (JAMA 2002; 287:3116-29). The article outlines the results of Medline search for articles and randomized trials involving vitamins, published from 1966 to 2002. The literature search disclosed that people who have alcohol dependence, are elderly, vegans or have malabsorptive disorders are especially at risk of vitamin deficiency. In particular, low levels of folic acid and vitamins B-6 and B-12 are risk factors for cardiovascular disease, neural tube defects, breast and colon cancers. High homocysteine levels are associated with atherosclerosis, and most adults would benefit from folic acid supplementation. Based on this information, Vladivostok physicians are beginning to prescribe necessary vitamin supplements to at-risk populations.

A team of physicians from the Chuguev Rayon Hospital in Kharkiv region, Ukraine, has been working on the development and the implementation of treatment guidelines for the hospital. To make this process more efficient, the group of “developers” was given unlimited access to the LRC and its resources. After the completion of the draft version of a guideline, all team members meet at the LRC to discuss the details. The final guidelines are presented in the form of diagrams and distributed among other physicians and hospital administrators.

Using the Ovid database, the information coordinator and other staff from the Tallinn Central Hospital in Estonia conducted a literature search for an article that was presented at the XXXII Nordic Conference of Obstetrics and Gynecology, held in Umea, Sweden in May 2002. The article entitled “Why Women Apply for Abortion And Why They Use No Contraception,” is based on a case study of 128 women who applied for elective first trimester abortion at the Tallinn Central Hospital. The authors of the article conclude that in addition to improved economic conditions, better and more widespread counseling on conception physiology, safe and postcoital contraception is necessary to lower the abortion rate. They also noted that post abortion counseling needs immediate improvement.

LRC Impact on Patient Care

Several thoracic surgeons at the Republican Center for Emergency Medicine in Tashkent, Uzbekistan, used the LRC to research indications and contraindications on the use of thorascopy for intrapleural pressure syndrome. Based on the results of their findings, which showed positive effects of endoscopic surgery in emergency medicine, they assigned a skilled surgeon to begin testing thorascopy in various

emergency cases. Using his experience, other surgeons were able to analyze several methods for thoracoport placement, systematize the procedure for endovisual inspection of the pleural cavity, agree on anesthesia methods and determine optimal levels of intrapleural pressure. Following several presentations to staff about this new method, thoracoscopy has become the procedure of choice for the early diagnosis of certain thorax trauma cases at the Center.

To resolve a complicated case for a 52-year old woman with a tumor-like growth in the retroperitoneal space, the LRC staff at the L'viv Polyclinic #5 in Ukraine turned to the Internet and e-mail. They compiled a comprehensive teleconsultation request and received a response from a group of radiologists in Chicago. Based on their recommendation, local physicians decided to use puncture biopsy to diagnose the patient. As a result of the teleconsultation, other, previously not considered, diagnostic procedures were applied. Most importantly, physicians were able to avoid a potentially harmful surgical intervention, which was highly recommended prior to the teleconsultation.

While reading through obstetrics books available at the Maternity Hospital LRC in Tirana, Albania, the information coordinator learned about the use of pudendal anesthesia for episiotomy and forceps application. Because the Maternity Hospital normally uses general anesthesia for these procedures, the new method was explained and discussed with other practicing physicians. Soon afterwards, the physicians successfully used pudendal anesthesia on four patients, and hope to introduce this method into standard practice at the hospital. In addition to the cost and the ease of application advantages, this new anesthesia method provides more comfort for women compared with currently used procedures.

To help a boy suffering from pulmonary atresia, the information coordinator at the Center for Disaster and Emergency Medicine in Tbilisi, Georgia, conducted an extensive Internet search and compiled a teleconsultation request to learn about treatment options available abroad. She received a response from another information coordinator in Kosice, Slovakia, suggesting to contact the organization One Rotary Center, which agreed to arrange travel, accommodation and surgery in Bratislava, Slovakia. In addition to other responses, the information coordinator found a Web site with a story of a child with the same pathology. She contacted the surgeon, who had successfully conducted four such operations, and received information about the treatment, prices and other details. Currently, the boy's parents are waiting for the results of angiography to make a decision about which option to choose.

LRC Outreach Into the Community

Within the scope of Palacky University (Olomouc, Czech Republic) long-term project "University for the Third Generation," the LRC has begun offering training courses for local seniors. A total of 60 people were trained in four parallel sessions on how to use the Internet and search for consumer health information. Following positive feedback from the participants, University administrators have asked the LRC staff to organize intermediate level courses for seniors in the next academic year.

After attending the LRC Open House at the Medical-Sanitary Unit #50 in Sarov, Russia, the representatives from a local youth club have requested LRC help with information resources for the creation of an anonymous consultation service for people with drug addiction, HIV/AIDS and STIs. Another group of youth leaders has suggested collaboration in the development of an Internet links catalogue for youth issues. Representatives from the city preschool education department, which has access to the Internet, have asked to receive training on information searching strategies.

In September, the LRC staff at the Model Family Medicine Center "Demeu" in Astana, Kazakhstan, together with local social workers, used the Internet to find resources about NGO bylaws and other information for the creation of a rape crisis center. Particularly useful in this search was the Web site of

the Consortium of Women's Nongovernmental Associations (www.wcons.org.ru), which featured an article on the creation of women's crisis centers. Through e-mail, the social workers also established contacts with other similar centers to exchange experiences and information.

In July and August, members of the Open Medical Club, who use EBP resources at the Faculty Hospital LRC in Kosice, Slovakia, participated in two one-hour discussions on the National Radio about new intervention strategies in neonatology and general anesthesiology.

As part of the biweekly *LRC Hour* (on Thursdays at 2pm and Fridays at 8am), the information coordinator at the Central Medical Unit #15 in Snezhinsk, Russia, has been introducing the LRC information resources to the heads of departments at CMU#15 and physicians from the adult polyclinic. The usual agenda of the *LRC Hour* includes a discussion of the Internet and database resources available at the LRC, LRC virtual library materials posted on the local area network, and a question-and-answer session.

The Uzhgorod Oblast Medical Information Center in Ukraine has recently donated a computer to the LRC at the Oblast Clinical Hospital. This computer, which is being placed at the medical library, will contain LRC information resources. The plan is to connect this computer to the library local area network, thus integrating LRC materials with the library catalogue and other resources.

To teach healthcare administrators, chief physicians and other medical professionals new healthcare management skills, the Kazakhstan School of Public Health in Almaty has organized training seminars throughout the country. Each 72-hour health management and economics course includes six hours of information technologies training, taught by the LRC information coordinator. The laptop, LCD projector, Web and digital cameras, and other *LRC on Wheels* resources are used to teach participants information technology and teleconsultation skills. When local training facilities offer Internet access, participants also learn about Russian-language Internet resources and Medline searching strategies. The KSPH has already conducted three such workshops in Astana and one Uralsk.

The LRC staff at Mirkasimov Republican Hospital in Baku, Azerbaijan, have been providing information support to hospital physicians who are conducting trainings for the medical staff of the hospital and refugee camps in the Sabirabad region. Using the Internet and other LRC resources, physicians have prepared training materials and presentations on first aid response for acute cardiac and neurological conditions, and on the use of colposcopy and Pap smears for gynecologic patients. Additionally, the LRC provided nursing training materials for nursing workshops in the Sabirabad region and offered patient education brochures that have been previously translated into the Azeri language.

To bring health information resources closer to the users, the LRC at the Faculty Hospital in Kosice, Slovakia, is circulating a bag with Cochrane Library CD-ROM and other information materials between hospital units. The Open Medical Club members at the hospital have been trained to work with staff and explain how to use these resources.

LRCs as Health Promotion Centers

Endocrinologists at Mirkasimov Republican Hospital in Baku, Azerbaijan, have organized a Diabetes Club for diabetes patients and their relatives. The LRC staff prepares information resources and presentations for each Club meeting. During the meetings, patients usually ask questions about their condition, and, together with the information coordinator, search the Internet for consumer health resources and learn basic computer skills.

Using the Internet, e-mail and a digital camera, the LRC staff at the Oblast Clinical Hospital in Uzhgorod, Ukraine, together with a representative from the local public organization “For Healthy Lifestyle” developed a presentation on healthy lifestyle for adolescents. The presentation, which included information about HIV/AIDS prevention, dangers of smoking and responsible sex, was delivered at a youth conference in Kiev in August 2002.

The LRC staff at the Pereyaslavka Rayon Hospital in Khabarovsk region, Russia, are regularly producing educational brochures for patients and the general public. The brochures, which feature current information on diabetes, hypertension, obesity, asthma, dermatological conditions, and other common diseases, are being disseminated during patient visits, at the local youth center, and at the medical department of sobriety.

A neuropathologist from the National Center of Pediatrics and Children’s Surgery in Almaty, Kazakhstan, participated in the “How to be Healthy” program on the national television. Prior to the taping of the program, she searched the Internet to find additional resources on health promotion.

Promoting LRC / Partner Sustainability

The LRC staff at the Polyclinic #5 in L’viv, Ukraine have developed a database program for the payroll department. The creation of this database has helped the polyclinic to reduce payroll-related costs by about \$4,000. Prior to this, the polyclinic had to hire an outside company to print all payroll documents (which is a state requirement) for over 1000 polyclinic employees, costing about \$2,000 per year. The database had also helped to bring other accounting procedures in-house, which has saved the polyclinic additional money. Due to the success and significant cost savings through the use of information technologies, the administration has invested in enhancing other technical and programming capabilities at the polyclinic.

During the LRC Open House at the Medical-Sanitary Unit #50 in Sarov, Russia, the chief administrator encouraged physicians to actively demonstrate their use of the LRC (in their reports and presentations) to substantiate the financial support necessary for the center. He also emphasized that each physician’s use of information resources will be considered when making career advancement and staff certification decisions in the future.

The LRC at the Women’s Wellness Center in Kutaisi, Georgia, received a grant from the Soros Foundation for the promotion of evidence-based practice in the Imerety region. Using LRC resources, including workbooks from previous LRC workshops, the information coordinator prepared all of the necessary training materials, manuals and an EBP booklet for dissemination at healthcare institutions in the area.

The LRC at the National Republican Center for Emergency Medicine in Tashkent, Uzbekistan, which was recently reestablished into a new scientific department, has been involved in grant proposal development for the Center and its regional affiliates. Using e-mail and specially developed surveys, the LRC staff collected information about the staff and technical resources of each affiliate, determined current emergency medicine needs and coordinated planned research topics. The LRC staff also assisted in the current literature research in the areas of thermal trauma, burn disease, clinical use of lasers and laparoscopic treatment of peritonitis, which was necessary for the development of grant proposals.

The LRC at the Women’s Wellness Center in Iasi, Romania, has been receiving technical support from the students of the Electronics Department at the Iasi Technical University. Students regularly help with network administration, database development and other technical issues. Additionally, the LRC is

receiving free Internet access from the local ISP. This was achieved by developing a three-way agreement with the Technical University and the ISP. The University students create applications for their diploma projects at the ISP; the LRC provides the laptop, the LCD projector and other equipment to students for their thesis presentations; and the ISP benefits from students' projects and provides free Internet access to the LRC.

Based on the EBP promotion discussions at the LRC Regional Dissemination conference in Samara, Russia, the chief physician at the Stavropol Krai Clinical Hospital in Russia announced to the heads of hospital departments that the use of evidence-based resources and regular review of professional literature is now required for physician certification. Following this announcement, staff began using LRC resources more actively and many have signed up for computer literacy courses organized by the LRC Technical Specialist.

The LRC at the Odessa State Medical University has been covering some of its operating costs through the rental of its presentation equipment. Recently, the local offices of the Interchem and Pfizer corporations as well as the 6th All-Ukrainian Meeting of Infectionists used the LRC equipment for their meetings in Odessa.

Application of Information Technology—Databases and Information Systems

In collaboration with the local healthcare administration and US partners, the information coordinator at the Polyclinic #5 in L'viv, Ukraine, developed an immunization software program, which easily adapts to various immunization schemes. After it is translated into the Ukrainian language, the program will be used to issue reports and reference slips to immunized patients. When this software was announced at the LRC Open House, several health care institutions in L'viv expressed interest in purchasing the program.

For nearly a year, the LRC staff at the Medical-Sanitary Unit #50 in Sarov, Russia, have been involved in the development of a corporate information network for the Unit. During recent months, the Women's Wellness Center as well as Asthma and Diabetes teams were added to the network, which provided them with access to the Internet, e-mail and all corporate network information resources. The local area network of the city polyclinic was reconstructed and connected to the corporate network as well. The LRC staff is also working on the development of databases for the School of Hypertension and the Women's Wellness Center.

The LRC at the Darnitsky Rayon Polyclinic in Kiev, Ukraine, is working on the development of a database of children with congenital abnormalities for the city Genetic Consultative Center. The LRC has collaborated with the Genetics Center on another database project and has helped with information searches on the early diagnosis of congenital disorders in other NIS countries. The LRC staff are also working with the district epidemiologic station to create a compatible information system between the station and other healthcare institutions in the district.