

LRC Highlights April - June 2001

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1. Applications of Evidence-Based Practice

The LRC at the National Republican Center for Emergency Medical Care in Tashkent, Uzbekistan facilitated an evidence-based change in ovarian cancer treatment. The head of oncogynecology department at the Ministry of Health Oncology Center came to the LRC for information on the use of laparoscopic equipment in the treatment of ovarian cancer. He and many of his colleagues were skeptical about the use of this procedure, which was considered too nonradical, and wanted to find scientific evidence to justify his opposition to the laparoscopic treatment. Based on the information found using the LRC resources, the physician fundamentally changed his opinion about the laparoscopic treatment and even made a presentation about this method to his colleagues. He is currently practicing the new procedure, which, according to his research, has a number of advantages over surgical treatment: noninvasiveness, decreased likelihood of suppurative complications from surgical access, lack of postoperative ventral hernia, decreased use of dressing during the procedure, shorter hospital stay for patients as well as cosmetic reasons, which are important to many patients.

In June, the LRC at the Inspectorate of Public Health in Cluj, Romania helped two occupational health specialists find accurate information on toxic effects of a substance that was improperly used as an insecticide in several rural areas of Romania. The Inspectorate's lab traced alpha-hexachlorocyclohexane, which was detected in milk, to a chemical plant in Turda, Cluj County. The two doctors entrusted with this case used the LRC to find well-documented evidence about toxicity and long-term effects of alpha-hexachlorocyclohexane in order to provide accurate information to the media, which had begun to create panic in the population, exaggerating toxic and carcinogenic effects of this substance.

The Cardiosurgery Center at the Republican Clinical Hospital in Chisinau, Moldova performed an operation on an aneurysm in the ascending aorta using a new method of valve preservation. This procedure was used by the hospital for the first time, based on information found by LRC staff using the Ovid on-line database as well as the www.cardiosource.com Web site. The patient who had undergone this procedure was discharged from the hospital in good condition two weeks later.

In June, physicians from Polyclinic #8 in Baku completed a practice standard review on the use of antibiotics in the treatment of acute bronchitis. Having analyzed the literature found through the LRC, the committee of polyclinic physicians came to the realization that current methods employed at the institution do not comply with the latest evidence-based approaches and require a thorough reevaluation. The committee is currently working on the plans to make institution-wide changes in the treatment of acute bronchitis with antibiotics.

The Snezhinsk LRC in the Chelyabinsk region of Russia assisted staff physicians in developing treatment protocols for iron-deficiency anemia and is preparing literature reviews for future protocols on bronchial asthma and stomach ulcers. In addition to resources found on the Internet, the information coordinator is collaborating with other LRCs and institutions in Russia that have experience in developing similar guidelines.

Pediatricians and cardiologists from the Joint Clinical Hospital No.6 in Baku, Azerbaijan, regularly use LRC resources to prepare presentations to inform other practicing physicians about latest diagnostic and treatment data. Two pediatricians at the hospital collected information from the Internet and CD-ROMs to create presentations on bronchial asthma and rheumatism. The cardiologist, based on materials found through the LRC, conducted a seminar for his colleagues to introduce new medications and US treatment protocols for ischemic heart disease.

Using Ovid's on-line database, Adriana Galan from the University of Medicine and Pharmacy in Bucharest, Romania researched the cost-effectiveness of two types of gynecological treatment. Together with a gynecology specialist, she analyzed the results of this research, determining the most cost-effective and successful treatment.

A foreign literature research on laparoscopic adrenalectomy, conducted at the Polyclinic #5 LRC in L'viv, Ukraine, was used to analyze preoperative diagnostics, preparation and surgery methods, which were later used in two patient cases of adrenal gland tumor removal.

Using the Stat-Ref! CD-ROM available at the Niyazov Medical Consultative Center LRC in Ashgabat, Turkmenistan, information coordinator was able to correctly identify foreign-made medications that the clinic had received as a part of a humanitarian aid package. This information, in addition to dosage, side effects and other warnings, was used to appropriately distribute medications among different departments at the clinic.

Using Internet resources available through the LRC at the Polyclinic #11 in Ashgabat, Turkmenistan, a training physician found the latest information on menopause, osteoporosis, substance abuse, pregnancy and nutrition during pregnancy. Using this information, she was able to identify treatment methods as well as preventive measures for some of these conditions, and passed this knowledge to her medical students who will use it in their practice.

The City Clinical Hospital #2 in Vladivostok, Russia has revised its practice of defibrillation paddle placement during cardiac resuscitation based on evidence-based resources found through the LRC. Literature reviews in this area revealed that most doctors, irrespective of grade or specialty, incorrectly place the defibrillation paddles when performing cardiac resuscitation, which results in a greater percentage of current passing through non-cardiac tissue, thus reducing the chances of successful defibrillation. The newly adopted guidelines come from the International Liaison Committee on Resuscitation.

The LRC at the Republican Center of Family Medicine in Dushanbe, Tajikistan provided its Internet resources to develop clinical practice guidelines for the treatment of pediatric diarrhea. Based on a new protocol for examination and treatment of children, current standards were updated with new procedures—use of oral rehydration solution (ORS) in the initial stages of diarrhea, application of new criteria to determine stages of dehydration, and teaching mothers the principles of oral rehydration.

Based on research and literature review conducted by the LRC at the Tiz Komek EMS Training Center in Ashgabat, Turkmenistan, a number of clinical practice guidelines were developed and adopted by

departments of anesthesiology, intensive care and cardiology at several local hospitals. These guidelines, which were also used for lectures among students and physicians, focus on prevention of postoperative complications among elderly patients, treatment of multiple trauma patients, trachea intubation and block anesthesia for the upper extremities. In June, an information search for safety monitoring of anesthesia uncovered a protocol that was recently accepted in the United Kingdom. These guidelines were distributed to 12 anesthesiology and intensive care departments throughout Turkmenistan. A special information letter about minimal safety standards for anesthesia was also sent to the Ministry of Health.

At Odessa Medical University, a committee of five staff reviewed 72 articles related to the use of cartilage protectors for treating osteoarthritis and determined that they needed to change their existing treatment standards at the Family Practice Center. They further made plans to conduct research on the effectiveness of their recommended new standard and to try to get this research published in a national medical journal.

Using 45 articles obtained through the LRC, five staff at Martin Faculty Hospital and Comenius University in Martin, Slovakia, reviewed the use of bupropion and nicotine replacement therapy in order to promote their ongoing smoking cessation programs. They specifically tailored their review, which they plan to publish in the Bratislava Medical Journal, to take into account the economic conditions in Slovakia in order to make a stronger case for insurance companies and legislative bodies to support these therapies. This review was used by the Martin Non-Smoking Promotion Center for the development of clinical practice guidelines.

2. LRC Outreach Into the Community

A physician from Schuche Rayon Hospital in Kurgan Oblast, Russia used LRC resources to research and write an article about Lyme disease, which was published in a local newspaper. Through this article the physician tried to educate and warn the local community, which lives in an area seasonally affected by tick-borne diseases, about preventive measures and first response to tick-borne encephalitis and related Lyme disease.

Robert Qirko, information coordinator from the Women's Wellness Center in Tirana, Albania, together with his colleagues organized a Women's Education Project for female patients at the clinic. Through this project, women are able to attend special topic classes related to women's health and to use LRC computers and medical CD-ROMs. In addition to patient education efforts, the LRC has helped to institute computerized patient data sheets, originally introduced by the US partners. The electronic version of the data sheet, located on the reception desk's computer, is not only more convenient than a handwritten version, but is also used to collect monthly data for patients and physicians.

The LRC at the Astana Family Medicine Center "Demeu" in Kazakstan plays an integral role in the clinic's community health education efforts. To better address the needs of different local population groups, the medicine center organized various specialized clubs for children, teenagers, parents, the elderly and cardiac patients. The LRC resources are being used to develop educational materials for the club members, focusing on promotion of healthy life style and basic emergency care procedures. For example, in June, during a special discussion on diabetes, patients were invited to the LRC where they learned about various Internet resources and received printed materials related to diabetes.

In response to a dermatologist's request for information on sexually transmitted infections, the LRC at the Odessa Sea Port Polyclinic in Ukraine compiled a variety of materials from CD-ROMs and Internet resources, which were later developed into an educational brochure for the Sea Port workers.

The administration of the Kurgan Maternity Hospital in Russia asked the LRC find information about neonatal resuscitation equipment currently available on the market. Using the Internet, the information coordinator pulled together technical specifications, prices and contact information for manufacturers and resellers of the equipment. The final report was shared with all specialized health care facilities in the city and several regional centers.

3. Promoting LRC / Partner Sustainability

In June, the Family Health Center in Odessa, Ukraine opened an LRC branch called "The Pulse of Odessa." For the official opening of the center, the LRC prepared and distributed a variety of educational materials based on 24 information requests. The main LRC, located at the Odessa State Medical University, is planning to involve volunteers from local NGOs to help at the new center, which will mainly focus on community education and mobilization efforts. In the near future, "The Pulse of Odessa" center will receive a digital telephone line, which will provide Internet connection for all center computers linked into a local area network.

In a step toward sustainability, the LRC at the Odessa Sea Port Polyclinic in Ukraine has reached an agreement with the journal "Vestnik Morskoy Mediciny" to publish archival issues on the Sea Port's Web site. Currently, the site features three full issues from the year 2000 and a topical listing of all (109) available articles. The goal of this collaboration is to disseminate locally developed health resources on-line and to raise the Web site's visibility in order to attract other organizations and sponsors in the future. So far, Odessa Oblast TB dispensary, the Odessa Institute for Curortology and Balneotherapy, and the Ukrainian Physicians Association have expressed an interest in this project.

In May, Latvian Medical Academy's Clinical Children's Hospital in Riga organized a national conference for 300 hospital pediatricians. The hospital's LRC played a crucial role in the information support for the conference, preparing a total of 27 reports. All reports were published in Latvia's main medical journal and distributed to more than 3,000 physicians.

The LRC at the Medical-Sanitary Unit #50 in Sarov, Russia helped a traumatologist find information and write a proposal for the purchase of new arthroscopic surgery equipment. The physician's first task was to find information about the arthroscopic procedure in general and the results of its application in practice. To this end, the information coordinator trained the physician on the basics of Internet searching and information quality assessment. The traumatologist soon found a variety of Web sites on his own and contacted colleagues, whose e-mail addresses he found on-line. The next challenge was preparation of the proposal itself. Grant proposal writing skills and materials from one of the Information Coordinator workshops were used to determine the structure of the document, as well its goals and objectives. The proposal also examined different options and their costs (diagnostic equipment only or a variety of additional instruments for treatment) against the current needs of the MSU-50 using statistical analyses of patient databases. The proposal also attempted to determine the effect of this equipment on the health status of local population. Based on this research and current economic conditions, the option with less arthroscopic equipment was recommended as the most viable. The medical advisory board unanimously accepted this proposal. The next step is presenting the proposal to the city health officials.

4. Internet Consultations

Peter Krcho, a neonatologist and information coordinator from the Faculty Hospital in Kosice, Slovakia has been communicating with genetic labs in Helsinki, Finland and Mobile, AL to help a couple expecting their second child. The couple's first child suffers from Nemaline Rod Myopathy, a severe congenital muscular abnormality, and they are using the latest technology to determine the risk for the unborn child. Prenatal diagnoses for this condition are difficult to determine due to few genes associated with the disease, but teleconsultations with Western specialists and the use of digital images available through the LRC are expected to offer the couple the maximum information possible during the prenatal period.

E-mail and digital camera resources from the Medical-Sanitary Unit #50 LRC in Sarov, Russia were used during a recent teleconsultation case to help diagnose a child's complex neurological condition. Digital images were taken directly from the CT machine screen and e-mailed to the Children's Clinical Hospital in Nizhny Novgorod. A CT specialist from the hospital's laboratory soon e-mailed back a report confirming preliminary diagnosis by local physicians.

Through Internet consultation and resources, the LRC at the Donetsk Hospital #25 in Ukraine helped diagnose and recommend treatment for a pregnant patient. The 21-year old woman decided to seek medical help after discovering a lump in her right breast. After an initial examination, a group of obstetricians and gynecologists chose to confirm their preliminary diagnosis – fibroadenoma – by consulting a local oncologist and by researching similar cases on-line. Physicians needed information not only for diagnostic purposes, but also to determine the most effective course of treatment, which was complicated by the pregnancy factor. Internet resources available through the LRC yielded a variety of useful information. A mammologist from the Web site 03.ru, which offers free on-line consultations, recommended surgical treatment under local anesthesia. A medical literature review showed that in recent years cases of fibroadenoma are rather common, 12% of which affect pregnant women. Additionally, in 95% of all such cases, specialists recommended surgical intervention. After the group of physicians reviewed all information received through the Internet and a local oncologist confirmed the preliminary diagnosis, the patient was operated on under local anesthesia.

5. Communications And Information Exchange

Based on a request from the otolaryngology department for information about hearing aids, information coordinator from the University Hospital Center in Albania, Tirana found a specialized Web site www.oticomus.net. After one of the department physicians contacted a representative of Oticomus—a firm in Padova, Italy—the company initiated shipment procedures to send free hearing aids to a group of Albanian children with congenital hearing loss.

6. Application of Information Technology, Telemedicine, and Databases

Using e-mail, the LRC at the Donetsk Oblast Trauma Hospital in Ukraine facilitated two teleconsultations for patients in Mariupol, a town in the Donetsk region. In both cases, hospital physicians confirmed preliminary diagnoses and offered recommendations for treatment. They used case descriptions, digital images of x-rays and digital photos in while arriving at diagnosis. To facilitate diagnosis and treatment of future patient cases, the Donetsk Oblast Trauma Hospital together with the Scientific Research Institute for Traumatology and Orthopedics has developed a teleconsultation Web site (www.trauma.donetsk.ua/consult-r.html or www.telemed.org.ua/constr.html), which offers free consultations to physicians and patients on cases with musculoskeletal traumas, endoprosthesis, brain and spinal cord disorders and other conditions related to trauma and orthopedics.

The LRC at the Almaty Medical College in Kazakstan assisted the college faculty in developing an electronic textbook on pedagogy, thus integrating information technology in everyday academic life of the college. The textbook, which covers 40 hours of training sessions, was prepared for fourth-year medical students studying at the college. Following the success of this textbook, electronic textbooks on anatomy and other disciplines are being prepared using the resources of the LRC.

The LRC at the Faculty Hospital in Kosice, Slovakia has found many applications for its new digital video camera. Recorded video files, which are available to physicians and nurses 24 hours a day, are being used to educate students and postgraduate physicians; to review common intervention procedures performed by hospital staff; and to show parents improvements in the conditions of their newborns, especially related to children's psychomotor development. In May, some of the video files were used during a videoconference between Prague, Bratislava and Kosice. Several other files were used in a local television program, which talked about the role of the regional perinatal center in Kosice.