

LRC Highlights **January - March 1999**

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Applications of Evidence-Based Practice

Physicians at Children's Hospital No. 2 in Kiev have recently started using oral antibiotics (including macrolides such as spiramycin) in treating pneumonia for children, as suggested by several sources found on the Internet and CD-ROM. This treatment has proven to be more effective, with fewer side effects occurring compared to previous treatments.

Information Coordinators continue to promote Evidence Based Practice within and beyond their institutions. Olga Asatiany, information Coordinator for the Tbilisi, Georgia EMS Center, developed a training program for Georgian Pipeline Company physicians that included Evidence-Based Practice and used these principles to search for new methods of emergency treatment.

Alexei Ovezov, information coordinator at the Ashgabat EMS Training Center, has been assisting his colleagues in the application of evidence-based practice. Information obtained from the Internet on the prevention of intra-hospital infections has enabled physicians at the Ashgabat Central Clinical Hospital to introduce a rational antibacterial therapy for patients in critical condition. Also, information on use of beta-blockers in intensive therapy has helped these same physicians to standardize their use for treating myocardial infarction. Finally, in February, Alexei assisted colleagues at the hospital as well as at the Ashgabat Scientific-Clinical Center of Cardiology in identifying a plan of intensive therapy for treating respiratory distress syndrome in adults.

Physicians in the ophthalmology department at Children's Hospital No. 4 in Minsk found on the Internet a software program called "Ocular," which was designed to assist in the early diagnosis of ophthalmologic diseases in children. They are now successfully using this software to assist in treating pediatric cases at the hospital. Elena Tarchilina, the hospital's information coordinator, has also helped the physicians to find the e-mail address for the designers of the software so that they can communicate with them to get some technical support and to request an updated version of the software.

Staff at Central Clinical Hospital in Moscow have been conducting case-control research for determining methods for treatment of prostate cancer. Their objective is to determine which types of cases call for maximum androgenic blockade therapy (which is expensive), and for which cases the standard method of treatment could be applied. The results of their research will be published in the journal "Urology."

In February, Dr. V. G. Pernakova, a bacteriologist at Donetsk Oblast Trauma Hospital, requested a search for evidence-based studies on the effectiveness of using a new method of sterilization called barosterilization. After careful review of studies obtained through the LRC, the hospital has introduced this method in the bacteriology lab in order to prevent intra-hospital infections.

Physicians at City Hospital No. 2 in Vladivostok have been using the Cochrane Database of Systematic Reviews and other sources to study data about the effects of beta-blockers on mortality among high-risk and low-risk patients after myocardial infarction. After thorough analysis and review, the physicians have started using beta-blockers for post-operative patients with high risk of acute coronary insufficiency.

Physicians at Riga City Maternity Hospital used meta-analyses from the Cochrane Library to evaluate different diagnostic and therapeutic protocols and the latest randomized control trials from various fields of medicine. The main focus areas of evaluation have been for prenatal audits (in collaboration with specialists from Sweden), perinatal infections, and the use of surfactant replacement therapy in newborn infants. Dr. Tereze Veinberga, the information coordinator for the hospital, said that Cochrane meta-analysis was useful in helping them to analyze the results of a wide range of studies.

Dr. V. I. Lapin of Almaty First Aid Hospital obtained information from the Internet as a reference guide for treating a patient with pseudotuberculosis. As a result, he adopted a more effective treatment.

In January, staff at Kiev Children's Hospital No. 2 synthesized data collected from Medline and the Internet relating to the air density norms of carbonic acid for newborns being treated with synthetic lung ventilation. These data are now being used in the resuscitation department and have allowed physicians to control for non-invasive parameter PaCO₂ as a regulator of cerebral circulation for prevention of ischemia of the brain and excess dilation.

Since AIHA provided multiple Russian-language copies of the evidence-based practice book, "Clinical Epidemiology," last fall, Julia Muravievskaya, the information coordinator at the Dubna City Health Department, has been lending copies out to colleagues, who are using the book as a reference tool in preparing clinical guidelines and protocols. In January, health professionals in Dubna, working with the LRC at the City Health Department, used research collected from the Internet and CD-ROMs to develop guidelines for treating five groups of diseases.

Dr. A. Aksenti from City Ambulance Hospital in Chisinau found information through the hospital's LRC which helped him to successfully perform his first ureteroplasty.

Tibor Baska of Jessenius Faculty of Medicine, Comenius University, in Martin, Slovakia, has been using the results of observational and interventional epidemiological studies to prepare a smoking prevention program tailored for the Martin region.

Galina Sergeeva, information coordinator at the Institute of Oncology and Radiology in Bishkek, found information on the Web about a program for pediatric hematology and oncology which has been implemented at the National Hematology Research Center in Moscow (<http://hp.pccenter.ru/~migroup/prog.htm>). The head of the Pediatric Department hopes to implement a similar program at the Institute. Galina also downloaded an Atlas of Tumors (<http://www.bioscience.org/atlases/tumpath/index.htm>) which she disseminated to several staff. Finally, Galina has been downloading free software from the Russian Freeware site (<http://www.freeware.ru>) to help staff with presentations and guidelines.

Vadim Dubrov from Pirogov First Municipal Hospital in Moscow has created a database for monitoring the results of orthopedic knee surgeries. He hopes to use the database to document the effectiveness of the methods and treatments he is using.

Aleksandr Dubikov of City Hospital No. 2 in Vladivostok has been researching the role and use of macrolides for treating community respiratory infections such as community-acquired pneumonia (CAP). The research suggests that choice of therapy must take into account the most common pathogens, age, and comorbidities. The American Thoracic Society recommends macrolides as monotherapy for patients with CAP who have no comorbid disease and are younger than 60. Macrolide therapy may be particularly effective because new studies show that the most common pathogens for outpatient CAP are atypical, such as *Mycoplasma pneumoniae* and *Chlamydia pneumoniae*.

Physicians at the Clinic for Occupational Diseases in Cluj-Napoca regularly consult the Internet to find medical articles related to various occupational health issues. These articles are used for morning presentations to staff and analyzing specific issues such as methodology for different types of biochemical analysis or the health effects of particular metals.

LRC Outreach Into the Community

In November 1998, Vadim Dubrov, the information coordinator from Pirogov First Municipal Hospital in Moscow, gave a lecture on evidence-based practice principles and applications to a student seminar at the Russian State Medical University.

Tatyana Ushakova and Evgenia Lipina, information coordinators at the Moscow Central Clinical Hospital, have created a Web page for the Russian-language clinical journal "Kremlevskaya Meditsina. Klinicheskii vestnik" on their Web site (<http://pmc.ru/data/Vestnik/Vestnik.html> or, in English, <http://pmc.ru/data/Vestnik/Vestnik-e.html>).

During this quarter, the National Information Learning Center in Tbilisi published 6 issues of its Internet Medical Digest, a biweekly, bilingual bulletin, with a current circulation of 500. The Digest contains medical news from the Internet for health professionals and patients, devoting about half of its content to health promotion topics.

In February, the Second Tashkent State Medical Institute, published a series of five manuals, including one on the Internet and distance education for physicians and others on grant-writing and business plan development. The manuals were published in collaboration with "Rustam and Sukhrob Co." in its series of textbooks for medical education, and they have been adopted by the Academic Councils of the First and Second Tashkent State Medical Institutes as well as the Institute of Pediatrics for postgraduate courses on "Market Economics and Medicine." Five thousand copies of the manuals have been distributed among medical institutions and universities throughout Uzbekistan.

Lev Dubovoy from Stavropol Krai Clinical Hospital is working with FORAMED, a local non-governmental foundation dedicated to the development and dissemination of medical technology, on developing a regional medical server. This Web site (<http://www.foramed.ru>) provides links and information about health providers, equipment manufacturers, pharmaceutical companies, and other health organizations in the region. The medical server also provides key resources to local health professionals, including a Russian-language version of the ICD-10 codes and a drug index.

Extending web page development efforts to benefit the local community, Andrew Tooziak, the information coordinator at the Lviv Regional Neonatal Center, created a new web page for the Lviv Regional Charitable Foundation "Infant." The new bilingual English-Ukrainian web site (<http://www.leopolis.net/infant>) reaches out to the Internet community for help in the improvement of health care for Ukrainian children.

In March, Alexei Nekrasov from the Niyazov Medical Consultative Center in Ashgabat assisted organizers of a non-AIHA health project working in Turkmenistan to organize a Maternal and Child Health Seminar. During the seminar, Alexei presented information about the capabilities of the Learning Resource Center and distributed packets of Russian-language materials, which he had found on the Internet, related to the seminar's theme. Alexei then extended an invitation to local participants to contact him for further information support whenever they need it.

An updated web page for the Kyrgyz Institute of Oncology and Radiology announces an upcoming conference on "Current Problems in Oncology and Radiology" to be held on September 23-24, 1999 in Bishkek. Addressing the international medical community via the Internet, the Institute invites medical researchers to present their findings and other works at the conference.

During a meeting with the academic council at Donetsk Medical University, Svetlana Chelakh, the information coordinator at Donetsk Oblast Trauma Hospital, gave a presentation about the value and benefits of the hospital's Learning Resource Center. She discussed how students and professors from the University are frequently using the hospital's LRC to access current information. As a result, the University is now working to upgrade its Internet connection to a direct connection in order to establish a center modeled on the LRC and to be able to more regularly access the Trauma Hospital's web server (<http://www.trauma.donetsk.ua>), which provides useful medical information from Ukraine and the US.

Bruno Jezek of the Purkyne Military Medical Academy in Hradec Kralove, Czech Republic, developed a Czech-English and English-Czech dictionary of military and medical terms for the Academy's Web site (<http://med3.pmfhk.cz/cgi-bin/s.pl>) as a resource to staff and other Czech health professionals.

Ihor Pshenychny, the information coordinator at Lviv Oblast Clinical Hospital, has prepared a marketing strategy for advertising the services of the hospital using e-mail and the Web.

Promoting LRC / Partner Sustainability

Zhyldyzkhan Ismailova from the Kyrgyz State Medical Academy has submitted a grant proposal to the Soros Foundation in Kyrgyzstan to help in establishing an additional Internet connection for the Academy. Also, to further promote the sustainability of the LRC, Zhyldyzkhan has developed a schedule of fees for various information searching services for scientific researchers wishing to use the LRC. She hopes to introduce this fee schedule later this year in order to cover the costs of maintaining the center.

Jarmila Potomkova of Palacky University in Olomouc, Czech Republic, prepared a grant proposal to submit to the Fund for the Development of Czech Universities that would allow them to purchase an ultra*net CD-ROM server for the University in order to improve access to CD-ROM resources provided through the LRC.

As a means of preparing for the transition to self-sustainability for the LRC, Zhyldyzkhan Abdrakhmanova of the Scientific Center of Pediatrics and Children's Surgery in Almaty recently started providing searching services to physicians and other health professionals from outside the Institute. In January, she received payment for her first two search requests.

Galina Sergeeva of the Institute of Oncology and Radiology in Bishkek, recently received a free GLOBOCAN1 CD - Cancer Incidence and Mortality Worldwide - after contacting the International Association of Cancer Registries (IACR), the producer of the CD. GLOBOCAN provides access to information on the incidence and mortality from 25 major cancers for all the countries and areas of the

world and allows estimation of future cancer burden using user-specified trends and population figures that are included in the package.

Doina Suciu of the Inspectorate of Public Health in Cluj-Napoca recently installed a local area network in order to allow staff to access the Internet and e-mail from multiple workstations. In all, four computers can access the Internet, and five can be used for sending and receiving e-mail. Demonstrating the administration's recognition of the importance and value of promoting information technology, the network installation was funded entirely out of the Inspectorate's own budget. Doina also reports that since installing the network, staff interest in using the Internet and receiving training has increased significantly; the level of Internet traffic at the Inspectorate has quadrupled. They hope to be able to expand the network to all departments by the end of the year.

Galina Sergeeva of the Bishkek Institute of Oncology and Radiology is working with the head of the computer department at the Institute on drafting a plan for improving the sustainability of the LRC. As a first step in this direction, Galina started providing fee-for-service Medline and CD searching requests to non-staff members in January.

Armen Parsadonian, the information coordinator at Erebuni Medical Center in Yerevan, recently introduced a list of more than twenty different computer and information services available at the LRC. These services, which range from simple text searches to computer programming, are being made available to staff outside the medical center for a fee.

Svetlana Chelakh, information coordinator at Donetsk Oblast Trauma Hospital, is conducting a market analysis to determine the feasibility of using the hospital's Internet server to provide Web-hosting services for local firms and organizations.

The Institute of Oncology and Radiology in Bishkek has sent a request to an American agency to obtain a donation of "second-hand" computers in order to increase the number of computer workstations for staff at the Institute.

Grigory Tyapkin, information coordinator from Odessa Oblast Hospital, recently sent out an announcement that described the various types of fee-based information retrieval services that the LRC can provide to hospitals in the city and oblast.

Riga Jewish Hospital "Bikur Holim" recently received a grant from the Latvian Welfare Ministry, which will allow them to purchase software to upgrade their computers. The hospital is planning to upgrade their system to the Microsoft Windows2000 operating system.

Internet Consultations

A doctor from the ophthalmology department at the University Hospital Center "Mother Theresa" in Tirana, Albania, had a patient with severe diabetic retinopathy and macular edema. With the help of the hospital's information coordinator, Miranda Zhegu, she communicated by e-mail with a professor of retinology in the United States and soon received precise instructions on how to treat the patient using laser photocoagulation.

In February, physicians at the Bishkek Institute of Oncology and Radiology used e-mail and the Internet for a variety of purposes. They performed a teleconsultation with physicians from Kansas University Medical Center and Orlando Regional Healthcare System. After an additional MRI revealed thymoma,

their partners in Kansas provided recommendations and guidelines for managing the disease. Several physicians also used the Internet to submit abstracts to the Second World Conference for Cancer Organizations (to be held in Atlanta in May 1999). One of these abstracts ("Prevalence of Breast Cancer in the Kyrgyz Republic") was approved by the Planning Committee and was accepted for presentation. Finally, Dr. Iyazaliev, a urologist from the Institute, has been in e-mail communication with Dr. Patrick Walsh of Johns Hopkins University, a world-renowned expert in radical prostatectomy, in order to discuss applications of this treatment.

Aleksandr Dubikov of Vladivostok City Hospital No. 2 has been using Internet Relay Chat (IRC) to confer with colleagues in Moscow about antibiotic resistance and its effects on long-term care, a critical issue for his hospital.

In February, Dr. Galina Beisenova, deputy director of the Almaty Medical College who was treating a 22-year-old patient with epilepsy, asked Gulzhan Ayapova, the information coordinator, to help her to find a clinic that specializes in neurological diseases. Gulzhan found contact information for the "Primavera" clinic in Moscow which specializes in studying new methods for treating epilepsy, and Dr. Beisenova began to consult by e-mail with specialists at the Moscow clinic.

In January, a physician at the Bishkek Institute of Oncology and Radiology consulted by e-mail with physicians from the Kiev Medical Academy of Postgraduate Studies on a patient with mesothelioma. The physician followed the recommendations on further management and therapy of the patient provided by his Ukrainian colleagues.

In March, physicians in the neurosurgery department at Odessa Oblast Hospital were actively using e-mail to consult and exchange information with colleagues and specialists at the Burdenko Neurosurgery Institute in Moscow. For one case, they received information on treating a hemophiliac patient with an internal hematoma. In another example, physicians were treating a patient with an inoperable brain tumor. In the former case, the treating physicians chose an alternative therapy and the patient has recovered. In the latter case, the patient is now undergoing chemotherapy treatment.

In February, a doctor from Ophthalmology Department at University Hospital Center in Tirana communicated with several NGOs in the USA and with the Ellex Laser Production Firm in Australia regarding problems they had had using their NdYAG Laser. After an exchange of 3 or 4 e-mail messages, all of the problems were solved and the laser was again operational.

Communications And Information Exchange

The director of pathology-anatomy at Donetsk Oblast Trauma Hospital had a prolonged conversation through e-mail with colleagues at the Museum of Pathology-Anatomy (<http://www.pastination.com>) in Heidelberg, Germany, regarding collaboration in the preparation of laboratory specimens. As a result, the two institutions have signed an agreement to work together on preparing such specimens in the future.

In February, Professor A. K. Zhangabylov, the chief of the therapeutics faculty at Almaty First Aid Hospital, was able to contact Dr. A. Mithat Bozday from Ankara, Turkey to propose a collaborative research project. The two are now planning their research work and will be continuing to communicate by e-mail.

The chief physician at the Almaty Ambulance Station asked the information coordinator at the EMS Training Center, Erbulat Sisengaliev, to communicate by e-mail with other EMS providers from the NIS

and around the world in order to exchange information about how to create a computerized system for accepting emergency calls.

After partner institutions in Dubna received a humanitarian shipment of pharmaceuticals, Julia Muravievskaya, the information coordinator at the City Health Department, was able to find on the Internet the trade names that are familiar to staff as well as recommendations for their use. She then distributed this information to all of the recipient institutions in Dubna.

In January, the deputy chief physician for the general medicine department at Murmansk City Ambulance Hospital used e-mail to communicate with partner institutions in Oslo, Norway in order to obtain information on hospital administration and licensing.

Alexei Yevtifeev and his colleagues at Murmansk Regional Hospital are using the Internet to search for foreign medical equipment manufacturers so that they can contact them by e-mail or phone for help with complicated equipment repairs.

In March, Andrei Ureche and his colleagues at Republican Clinical Hospital in Chisinau, Moldova, participated in the ACCIS' 99 Webcast (on-line conference) on interventional cardiology. Colleagues also used information obtained from the Internet and Ovid to prepare slide presentations and articles for a republican seminar on cardiosurgery, attended by chief physicians from most hospitals in the region. Another colleague used the Cochrane Database of Systematic Reviews CD-ROM to find guidelines on the post-operative treatment of candidiasis and other infection complications.

Staff at the Kyrgyz State Medical Academy have been using e-mail communications and the Internet to accomplish a variety of tasks. They have been consulting with colleagues from the CEE and NIS--in particular, with the National Institute of Neurosurgery in Budapest, Hungary--in treating a patient with lymphoma of the spinal cord. The Foreign Languages Department has been able to purchase language-training CD-ROMs from the American Language Academy (<http://www.ala-usa.com>). Also, Professor O. Kasymov, the pro-rector of the Academy, was able to submit registration forms and an abstract by e-mail for an International Workshop on Physiology Teaching in Karachi, Pakistan, which he attended in March.

Students at the Tashkent Second State Medical Institute are using a special student section of the Russian Medical Server (<http://students.rusmedserv.com/>) to make contact with foreign medical students. Through e-mail correspondence, they are learning about medical education in other countries.

In January, physicians at City Hospital No. 2 in Vladivostok participated in the 6th on-line Conference on Retroviruses and Opportunistic Infection.

Health Policy Change and Medical Curriculum Reform

Vadim Dubrov and his colleagues at Pirogov First Municipal Hospital in Moscow have been using information about the residency program at Harvard Medical School found on its Web site to revise its training programs for residents. Based on comparisons between the different programs, Pirogov is now increasing its focus on teaching fundamentals to its residents.

In February, Olga Asatiany of the EMS Training Center in Tbilisi, found on the Internet the Disaster Management Central Resource page (<http://206.39.77.2/dmcr/dmrhome.html>). The site includes interactive triage cases, which the EMS Center has started using for its EMS training courses. In addition

to the on-line cases, the EMS Center has been using several of the LRC's interactive CD-ROMs for training, including ACLS Simulator, Adult Airway Management Principles and Techniques, and Essentials of Cardiac Rhythm Recognition.

Physicians at Riga Maternity Hospital are working together with International Relief Teams physicians from San Diego to prepare materials for seminars in obstetrics, gynecology and neonatology using the LRC. These seminars are conducted twice a year in order to help Latvian physicians, midwives, and nurses learn from the working experience of American colleagues. They have also been collecting information and research in order to prepare a protocol for the hospital to use for water birth, which the hospital will begin to offer as a service to expecting mothers.

The Second Tashkent State Medical Institute recently signed a long-term agreement with several local technology companies (including "Rustam and Sukhrob Co.", "Infotex-XXI", "Ilk-Biznes", and "Nuron-DC") to plan for the implementation of information and computer technologies at the Institute. Under this agreement, they have jointly developed a training course on "Computers, the Internet, and Medicine" for undergraduate and graduate students and teachers at medical institutes. In March 1999, 108 graduate students and teachers at the Second Tashkent State Medical Institute received a certificate for completing the course. The course is also being offered at the First Tashkent State Medical Institute in May 1999.

Rimma Grigorieva, information coordinator at Clinical Hospital #122 in the name of Sokolov in St. Petersburg, has been downloading information from the Internet to help in revising the teaching program for students at the local Medical Institute who are being trained at the Hospital.

In February, Irina Ibraghimova of the Association of Educational Programs in Health Administration Resource Center prepared a list of resources on medical standards, guidelines and DRGs in different countries in preparation for a training course at the Moscow Medical Academy. In compiling the resources, Irina used the NLM's HealthSTAR database of health services technology, administration, and research, which is available through Ovid on-line.

Application of Information Technology, Telemedicine, and Database Information Systems

Horatiu Bocsă, who has previously developed a database for storing information on more than 2000 factory workers who are treated at the Hospital for Occupational Diseases in Cluj-Napoca, Romania, recently created a new database for the hospital's radiology department. The new database will allow staff in the department to save patient information, including chest X-ray data, electronically. Horatiu has also developed a new electronic patient form, which has saved the hospital's staff a great deal of time. Horatiu reports that the use of these forms, copies of which are kept on file as well as given to patients when they leave, has resulted in several positive impacts. The new patient records are much more legible and will hold up better over time. Using the forms, the hospital also expects to reap further benefits with a reduction in costs and lengths of stay.

The City Ambulance Hospital in Chisinau has won a grant from the Soros Foundation in Moldova that will allow them to begin development of a hospital information system. The hospital is planning to develop a system of databases that will track patient information.

Jarmila Potomkova of Palacky University in Olomouc, Czech Republic, prepared a curriculum on medical information technology for postgraduate students at the Palacky University School of Medicine. There will be 6 parallel groups of students to be trained during the summer term. The first session took place in February.

Evgenii Pustavalov of the Vladivostok EMS Training Center is working on developing a database to help in the registration and systematization of EMS services throughout the entire Primorski Krai region.

Tereze Veinberga, information coordinator at Riga Maternity Hospital, has developed a new computer network for the hospital. Working with a local company, "Interfeis", Dr. Veinberga developed a technical blueprint for the network and made arrangements with LatNet, their local Internet service provider, to connect the network to the Internet with a direct connection via satellite as of May 1. This was made possible, in part, by cooperating with a local medical equipment company that has agreed to share the costs of the direct Internet connection. In addition to broadening Internet access for staff, the new network will also be connected to a database containing information about which drugs are available for physicians to prescribe.

In January, the Institute of Public Health in Cluj-Napoca, Romania, received an additional four computers with CD-ROM drives from Luther College in Iowa. Claudiu Balanean and his colleagues at the Institute intend to create a peer-to-peer network in the Biostatistics Department.

Zviad Kirtava of the National Information Learning Center in Tbilisi received sponsorship from NASA to attend training on telemedicine applications from the University of Maryland in June 1999.

Useful Resources and Tips for Info Coordinators

Students, researchers, and teachers at the Tashkent Second State Medical Institute are regularly using several Russian-language medical Internet search engines to find Russian-language medical information. These sites include Yahoo (www.yahoo.ru), Rambler (www.rambler.ru), and Yandex (www.yandex.ru). Alonur Saidov, the information coordinator at the Institute, says that Yandex has been the most useful because users can search for medical information not only by key words, but also by subject area, by journal, and several other categories. The site has been particularly helpful for non-English-speaking staff who are using the LRC.

Larisa Shevtsova, information coordinator at Murmansk City Ambulance Hospital, has installed a software program called WebTranSite, which provides automatic translation of Web pages from English to Russian. The software, which works with Netscape Navigator as well as Internet Explorer, has been a great help to staff at the hospital seeking to access English-language information on the Internet. A shareware version of WebTranSite98 (which works for Windows95/98/NT) is available for download from several Web sites, including <http://www.listsoft.com>, <http://www.dux.ru>, and <http://www.promt.ru>.

Arijana Pavelic, information coordinator at Infectious Diseases Hospital in Zagreb is using a software program called ProCite to keep track of all articles published by hospital staff in international and domestic journals. To date, they have approximately 800 records, which can be searched by author, title, and key words.