

Using the Internet to Develop Life-saving Neonatal Protocols

When staff at the Kutaisi Women's Wellness Center (WWC) and Maternity Hospital #2 observed a steady increase in rates of neonatal mortality caused by central nervous system damage resulting from asphyxia, Dr. Nino Berdzuli immediately turned to the Internet. Berdzuli, a 27-year-old obstetrician/gynecologist and the information coordinator of AIHA's Kutaisi/Atlanta partnership,



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Nino Berdzuli (seated) performs a diagnostic procedure on a patient at the Kutaisi WWC.

knows the value of evidence-based protocols; she has been working on adapting them for use in Georgia since 1996 when she was introduced to the concept while training at Grady Hospital and Emory University as a member of the now-graduated Tbilisi/Atlanta partnership.

"When I returned from my partnership exchanges to Atlanta, I always presented what I had learned to my colleagues. They were very enthusiastic, asking me dozens of questions about how gynecological conditions are managed by physicians in the United States," says Berdzuli who, in addition to working full-time at the WWC, also consults at Maternity Hospital #2. One of her most rewarding experiences, Berdzuli notes, was sharing this new information with her mother, who is also an ob/gyn at the hospital. "My mother was the first person I spoke to after

returning from the exchanges, the first person with whom I shared all of my impressions about what I had seen and learned, so I guess you could say she was my guinea pig," she says with a wry smile.

"I soon came to believe that the neonatal resuscitation protocols we had been using here were really obsolete. So were the guidelines for neonatal and perinatal services in general," she continues, explaining that physicians in Georgia are often forced to use outdated methods of treatment simply because they do not have access to more recent research that would allow them to make changes. "After doing some Internet research using MEDLINE and several other information sources, I analyzed protocols commonly used for neonatal resuscitation and determined that the ones we were using were indeed less effective and more expensive. Some of the medications we used were completely unnecessary," Berdzuli notes, stating that, for years, doctors had been taught to use these drugs even though no clinical research she ever found proved they were effective. "In fact, the protocols were especially weak in their guidance for delivery room care when proper assessment and management of newborns with any type of disorder that may cause damage to the central nervous system is crucial."

So the young physician, along with neonatologist Maya Shengali and other colleagues, set to work adapting a series of guidelines for use in various situations—cases of hypoxia, asphyxia, and cardiac distress, for example—that require neonatal resuscitation. The physicians and nurses who work in the delivery wards all received training in the new guidelines. Some sessions were facilitated by staff from the Tbilisi NRTC, while others were conducted by Berdzuli. "I had been trained in these techniques in Atlanta, so it was simply a matter of passing along the knowledge and skills I had acquired there," she says.

Following on the heels of her success with the new neonatal guidelines, Berdzuli also helped put into practice new protocols

When newborns experience difficulty breathing on their own, the knowledge of medical personnel involved in the birthing process can make a critical difference. But, even skilled specialists can falter when the protocols set up to assist them as they work to save their tiny patients reflect outdated or unsubstantiated research. Evidence-based clinical practice is at the core of AIHA's Neonatal Resuscitation Program and this story describes how one doctor from Kutaisi, Georgia, used her partnership's Learning Resource Center (LRC) to develop new guidelines based on the most up-to-date information for delivery room procedures available on the Internet; the story of a neonatologist who uses the new protocols every day is on the other side.

for diagnosing and treating cervical cancer and human papillomavirus (HPV). "I used the resources of the LRC to obtain the most recent information on screening and managing these conditions then collaborated with colleagues to create appropriate guidelines for use at the WWC," she explains, noting that the training she received through AIHA's Information and Communication Technology Program enabled her to cull the most relevant and effective guidelines from the thousands available online.

"Many of the protocols that have their roots in the old Soviet system may very well be effective, but the problem is that there is no reliable evidence-based research that backs them up," Berdzuli concludes. "With the amount of medical information available today—there are more than two million articles in 100 biomedical journals available on the Internet, for example—it is crucial to understand which studies are reputable. This is especially true for clinicians practicing in the NIS countries where the funding available for healthcare is so very limited. I can only say that I am proud to play a part in bringing high-quality and cost-effective medical care to people in my own country."

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