Report on Medical Observations
Volzhsky, Russia 10/18-10/28

I initially became involved in trying to find some way to help Russians improve their obstetrical and neonatal care, after I spent in the mid-1990's about eight months in Volgograd, the former Stalingrad, in south central Russia. I was assigned as part of a USIA law teacher/student exchange with the Volgograd State University there. But I met a woman who taught law and social work and we had a number of talks about the sorry state of medicine in provincial Russia, and the problem of population decline. I also talked with another doctor friend, who was a cardiologist, about the state of medicine in provincial Russia and the alarming mortality rate among men.

When I returned to the US, I joined a small sister city nonprofit organization, headed by Marge Ramp, that was trying to help Russians in the area adjust to capitalism and to develop a civil society in the face of the collapse of the Soviet state. Others in the organization had received similar reports about Russian medicine, especially pediatric medicine. So in 1995 Dr. Morris Dixon, a pediatrician at University Hospitals, with Marge's encouragement, volunteered to travel Volgograd and to talk with physicians there about their problems. He came home with the recommendation that we could do something in a small way and he enlisted his colleague, Dr. John Moore, the head of neonatology at MetroHealth Medical Center, to start a program there. Dr. Moore went to Russia with a pediatric nurse in 1996 and reported back that the most promising medical center to work with there was the Volgograd Regional Perinatal Center, in Volzhsky, a city across the river from Volgograd. .

Since 1996 Dr. Moore has made two more trips to Volzhsky, sand has recruited an obstetrician at MetroHealth, Dr. Graham Ashmead, head of the fetal diagnostic center there, to accompany him. Dr. Ashmead, in turn, has plugged into other Metro physicians who are willing to help, but do not want to take out two weeks of vacation time to trek to Russia. Drs. Moore and Ashmead have also arranged to provide training for young Russian physicians from the area at the residence program at Metro. One of the big obstacles to this program has been language and now barriers to getting visas.

For our last trip in October of 2003, I accompanied these two doctors on another trip and we spent 10 days in

Volzhsky, Russia, a city of about 400,000 persons. Our host was again the Volgograd Regional Perinatal Clinical Center; an operation supported by the regional government. I organized the trip from the US side, made some brief remarks at the opening of the conference, oversaw the translation support the doctors received, and took notes of observations and my conversations with both our doctors and the Russian doctors..

The two doctors, each gave four lectures to an audience of some 140 obstetricians and neonatalogists throughout the region. The regional authorities had called for two representatives from each of the region's hospitals, whether regional or city, to attend. Eleven doctors from neighboring Kalmykia also attended. They stayed in local hotels near the city conference center, so that they could attend each lecture at the four-day conference.

Besides the two American doctors, various regional health officials, including the vice chairman of the regional health committee, and the region's head obstetrician, along with academics from the Volgograd Medical University, also spoke at the conference. Dr. Ashmead presented lectures on Prenatal Care, Prevention of Smoking During Pregnancy, Induction of Labor and Delivery, and Obstetric Hemorrhaging; Dr. John Moore, head of neonatalogy at Metro, presented lectures on the latest Resuscitation techniques, Respiratory Distress Syndrome, Intraventricular Hemorrhaging, and Fluids and Electrolytes. All but the last of these lectures were projected in Russian onto a large screen from a computer using Power Point. Dr. Moore presented his lecture on Fluids and Electrolytes as a black board talk, posing problem situations and asking the audience members for suggestions in treatment procedures.

In addition, two video lectures by Metro's Chief obstetrician, Dr. Leroy Dierker, on External Cephalic Versions and use of Steroids to Accelerate Fetal Lung maturity, and one on Anesthesia and analgesia during late labor and delivery by Metro's obstetrical anesthesiologist, Dr. John Fisgus, were played and projected onto the screen during the conference. All three of these had built in Russian translations.

Drs. Moore and Ashmead also made rounds with the staff of he Perinatal Center. Through the efforts of director of the Perinatal Center, Dr. Mikhail Kirichenko, and the assistant director, Alexander Bukhtin, the two American doctors also had extensive conversations with members of

the staff from the director on down. They also met with the chairman and vice-chairman of the Regional Health Committee, Dr. Evgenny Anishshenko and Dr. Vladimir Lomovsky, with the Chief Regional Obstetrician, Dr. Alexander Raevsky, and with the Vice Chancellor for International Affairs at the Volgograd Medical University, Dr. Alexander Spasov. In the meeting with the Chairman of the regional medical committee Dr. Moore made three recommendations:

a) Inauguration of a program to educate sexually active women to quit smoking because of potential harm to their infants;
b) Use of progesterone injections weekly or progesterone suppositories daily from 20 weeks to 34 weeks for mothers at risk of premature delivery;
c) for second-time mothers where there has been a previous history of Rh incompatiblity with the infant, use of RhoGham, not only within 72 hours of delivery, but also at 26 weeks of pregnancy.

A follow up letter along with medical articles on issues relating to progesterone and Rho Gham have been sent to the regional medical representatives. Dr. Ashmead's translated lecture on Prevention of Smoking and excerpts of the WHO Framework convention on Tobacco were also included along with Dr. Ashmead's lecture on Prenatal Care. Unfortunately, most or our Russian colleagues smoked, although not in our presence, and along with social drinking, must necessarily set a bad example to expectant mothers.

Below is a summary of the observations and impressions these doctors made from these rounds and conversations.

In one area Russia is considerably ahead of the US. This is in the encouragement of mothers to breast feed their babies. In the Volgograd region, the rate of mothers who breast-feed is more than 99%. At Metro the rate of beast feeding is about 50% although it may be somewhat higher at hospitals that serve more affluent patients. The Perinatal Center, designated by the World Health Organization, as a baby friendly facility, has undertaken along with regional officials a very successful program to encourage local mothers to breast-feed.

The attitude of the physicians, especially at the Perinatal Center was also open and positive. Most of the physicians were eager to learn new approaches and

techniques, were candid about their problems and the shortcomings in Russian medicine and eager to correct matters where they could. As an example, Elena Zhavaronkova, one of the young obstetricians who spent several months at Metro two years ago, learned from Dr. Leroy Dierker how to perform an external cephalic version. Since returning to Russia, she has performed 39 of these procedures and 31 have been successful, a very successful record.

In another instance, a young physician at the Center confided to me that the head of the neonatal Intensive Care Unit or NICU was not open to new ideas and new approaches. At the end of our visit, the second in command at the center mentioned that the NICU unit needed some changes and he was working to persuade Dr. Kirichenko, the center’s head, of this.

But major deficiencies do exist, some resulting from economic circumstances, some resulting from structural and organizational circumstances, and some perhaps from lack of understanding.

A major problem is the salary for physicians working in public health centers and hospitals in the region where the vast majority of Russians are treated. Doctors’ salaries range from $75 per month to $175 per month, hardly enough to live on even with a spouse who contributes to family expenses. This compares with a salary of more than $700 per month for lower court judges, now appointed by the president. As a consequence, many doctors hold second jobs: the Center’s second in command, Alexander Bukhtin, operates a private bus/taxi service, our most capable translator, Timur Azhibekov, works as a sales representative for the largest Russian pharmaceutical company, Nizhpharm. Obviously, holding a second job detracts from enhancing professional skill and knowledge, and for those who do not hold second jobs, many are very discouraged in any event and lack initiative in their work.

Related to physician salaries is the budgetary limit of 400 rubles per day ($14.30) for patients. As a result patients must usually buy their own medicines, and often cannot afford this. Lab tests and other procedures may prove prohibitively expensive.

Physicians’ compensation and daily expense allowance, all funded by the local government, result in a two-tier system of care. Those who can afford to pay more receive priority and special attention while those who cannot, receive the care of the lowest common denominator. At another level, the low compensation compounds the problem

of private pharmaceutical companies influencing, to their advantage, the independent judgment of physicians. While the problem is a major one in the US, it must necessarily be more acute in Russia. In the US pharmaceutical companies often sponsor seminars for doctors at expensive resorts, and send free samples to doctors to push onto their patients. I noticed that at our conference in Russia, the Russian pharmaceutical company, Nizhpharm, which contributed to defray the costs of the conference, enjoyed a prominent play in the program, and was afforded time during the lunch break to promote its products.

Another problem arises from the jurisdiction of city and regional clinics. Because the city hospitals and the Regional Perinatal Center report to different supervisors who are beholden to political superiors in different parties, there is little cooperation between the obstetrical and neonatal units of the city hospitals and the Perinatal Center. The present governor of the region is a communist whereas the mayor is a member of Putin's, United Russia party. Regional elections are scheduled for the fall of 2004 and it is likely there will be a complete change of supervisory personnel at the regional level.

In October when we were in Russia, the nearby Volzhsky City Hospital was shut down for a month for disinfecting and cleaning, and the Perinatal Center was taking the overflow. Even so, according to Dr. Moore, the NICU and other pediatric units could have handled double the number of patients. So low salaries appear to be accompanied by underutilization of professional personnel.

The lack of cooperation between regional and city hospitals is most acute in the supply of pediatric surgeons. The Perinatal Center does not have resort to a qualified pediatric surgeon even though pediatric surgeons work at the Volzhsky City hospital, just across the yard. During Dr. Moore's visit, an infant with a perforated bowel died for lack of surgery. In the US surgical repair of a bowel perforation is almost 100% successful. Another infant was diagnosed with a diaphragmatic hernia, which must be repaired with surgery, as it is otherwise fatal. The Perinatal Center is working to contract with a surgeon at Hospital No. 7, but this hospital is at least an hour's drive away and nothing is yet in place.

Another deficiency is the lack of prompt and reliable lab support. As a result amniocentesis is simply not performed, not only for determining genetic defects, but also for determining if steroids are needed to accelerate lung maturity. With the center's blood gas machine

inoperable, and without lab support, many times doctors have simply to make guesses about diagnosis and treatment. Dr. Kirichenko hopes that in the next year's election, at least one candidate will promise the center to buy a blood gas machine in exchange for political support.

Still another problem arises from the fact that all procedures are prescribed from the top down. For instance, Misoprostol, is a relatively inexpensive drug that has been found to be effective as a first line of defense against obstetric hemorrhaging. But the Ministry of Health, apparently for the reason that there is a risk of premature delivery from taking this drug, has banned it from use in Russia. This leaves obstetricians with primarily high-risk surgical techniques for reducing obstetric hemorrhaging.

In another example, the Ministry of Health has for many years prescribed a therapy called laser therapy to cleanse the blood of infection. As a result, laser therapy is universally accepted as a recommended therapy, and almost every hospital and medical or prophylactic center is equipped with at least one $500 laser machine with a pointer attached to it by a chord. The pointer emits a red light, when the machine is operating, and a technician places the pointer so that the red light is focused on a vein in the arm and the therapy is applied for 20—30 minutes several times a day.

While this therapy may have a placebo effect, its efficacy is unproven. The Russian approach of direction from an all-knowing central authority contrasts with the US approach of a medical or lab facility testing a procedure against a control group for an extensive period and comparing the results of the tested group with the control group, and then publishing the results.

Still another obstacle to creative effort arises from the Russian tradition of holding the head of a department or unit personally accountable for a disaster regardless of negligence or fault. Two years ago a nurse returned from vacation as a carrier of salmonella. She infected some of the infants, and the Sanitary Commission shut down the center for six weeks while it was decontaminated. While some of the infants were very sick, none died of infection and Dr. Kirichenko's career survived. But he spent over a month in the Volzhsky City hospital for treatment of heart problems as a result of this investigation.

Three years ago about midnight the safety forces received a tip that a bomb had been placed in the Perinatal Center. Dr. Kirichenko immediately came and ordered all lights turned off and curtains drawn, so that patients

would not panic, as fire trucks and police cars surrounded the center Nothing happened but if something had happened, Dr. Kirichenko wanted to be blown up at his station or as he put it, someone would have cut his throat. This fear of punishment, harkens back to the frightful period of Stalin’s Russia, and must have an inhibiting effect on exercise of initiative and risk taking.

On his first day of rounds Dr. Moore saw five infants. I will mention two of them. The first baby was still being ventilated, and Dr. Moore recommended that this be discontinued. A decision on this was partly guess work, because the Center did not have an operating blood gas machine anymore, only a pulsometer that could measure oxygen levels, but not carbon dioxide levels.

A second infant had been ventilated for 25 days and still had an endotracheal tube. Dr. Moore recommended immediate tube removal. The infant’s throat was infected when the tube was removed. Steroids to accelerate lung maturity could not be used while the infection lasted and Dr. Moore recommended treatment with antibiotics.

Dr. Ashmead viewed four ultrasound sonographs on his first day of rounds. I will mention two of them. One ultrasound indicated a diagnosis of bilateral pleura effusions. The fetal heart looked normal but there were severe bilateral fluids. An amniocentesis could not be performed to check chromosomes because the hospital did not have a lab. Dr. Ashmead wanted to recommend checking the maternal fluid for parvovirus or cytomegal virus. The fetus, if anemic, may have profited from a chordiocentesis, but this was beyond the Center’s capabilities. The mother denied having a viral infection. Unless the mother had parvo- virus, Dr. Ashmead predicted the infant would die at birth.

Another was a new case and the fetus was 28 weeks old. The ultrasound revealed a diaphragmatic hernia (the small bowel rises on the left side and compresses the lung and pushes the heart to the right side). The Russian physicians, who had made a correct diagnosis, wanted to induce immediately and try to operate. Dr Ashmead recommended waiting five more days although the prognosis for fatality is nearly 100%. In the US 60-80% of these cases can be saved through surgery after delivery.

Overall, Dr. Ashmead tried to stress the importance of keeping detailed records, but he felt he was not getting through on this. The writer had given Dr. Kirichenko copies of the ACOG standard record keeping form translated

into Russian. But Dr. Kirichenko advised that he was obliged to use the form prescribed by the Ministry of Health and did not need the ACOG form.

On his last day Dr. Ashmead also made rounds. He saw about ten expectant mothers. Patients are not referred to the center until they are 26 weeks pregnant, resulting in an inability to monitor the pregnancy from the beginning. One mother was singled out as diabetic, but Dr. Ashmead felt that the diabetes was very mild. A second was indicated with a heart problem, but again she reported she could climb a flight of stairs without getting out of breath, and Dr. Ashmead felt her problem was also extremely mild. The other mothers all seemed healthy and normal. Some were in rooms with two beds, some in rooms with six beds. They were all lying on their beds with little activity going on. None of them appeared to be smokers although we did see a few expectant mothers smoking outside the building.

We both wondered why they were at the center at all, except for problems in transportation. Dr. Kirichenko indicated that he hoped to obtain sufficient funds to make the place more like a health spa for expectant mothers with facilities available for activities.

At the Medical University we were shown a room with ten computers connected to the Internet via cable. These had been financed by USAID through a partnership with the University of Arkansas hospital. According to Dr. Spasov, this partnership is to promote family medicine and to address the rising TB problem in the area. Of the ten computers five were in use by students, all looking at Russian medical sites, and five were idle although there are more than three thousand students here. Dr. Moore had recommended students learn to read English as part of their curriculum and that they be encouraged to read medical sites in English, the language in which the bulk of the world's medical literature is written. Again, this proposal appeared to go nowhere.

Clearly, progress has been made since 1995. Infant and maternal mortality rates have decreased markedly, and the Russians seem much more open to new approaches developed in the West. This is perhaps enhanced by the extended and stable relationship we have had with this medical center. But just as clearly significant problems remain, some caused by economic circumstances, some by cultural attitudes, some by language barriers, some by structural issues respecting the organization of their government and its hospital funding. While I have in the

past been critical of the American medical system, I came home with a renewed respect and indeed admiration for the dedication and professionalism of at least some American physicians.