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INTERNATIONAL CHILDREN'S HEART FOUNDATION



Together, "Helping Heal the World, One Heart at a Time"

Kemerovo, Siberia, Russia

November 2010

Medical Mission Trip November 6 ~ 20

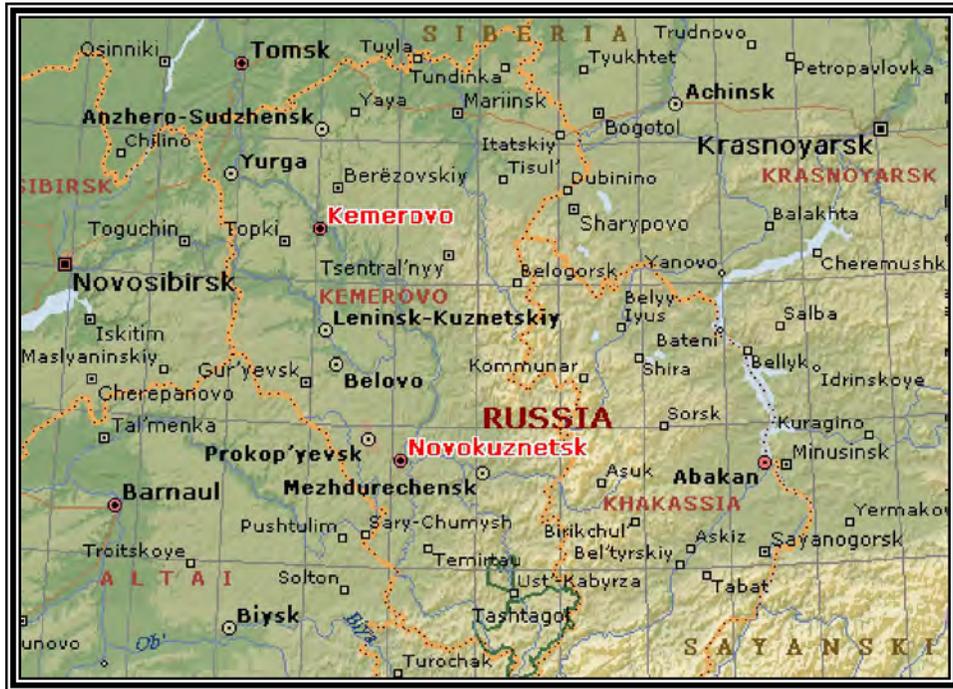
The International Children's Heart Foundation made its fifth medical mission trip to the Kemerovo Center of Cardiology on November 6 ~ 20. The team, led by Cardiovascular Surgeon Dr. William Novick, consisted of one anesthesiologist, one perfusionist, one OR nurse, one intensivist, one respiratory therapist, four PICU nurses and one nurse intern. The team came from two different countries, all joining together for one cause -- to save the lives of children with congenital heart defects.



During our team's visit to the Kemerovo Center of Cardiology, 15 children received operations that would not have been possible without the support of our sponsors. Additionally, our volunteer doctors, nurses and technicians worked along side the local staff teaching them the latest techniques in taking care of children with congenital heart defects.

The International Children's Heart Foundation extends its sincere thanks to Russian Gift of Life, USA for helping make this trip possible and for providing hope to 15 children and their families. The parents of the children that benefited from these operations were extremely happy and appreciative of the "gift of life" that their children had received.

Kemerovo, Siberia, Russia



The city is located 2,164 miles east of Moscow. It is an important industrial city developed during Soviet times with important chemical, fertilizer, and manufacturing industries and is linked to western Russia by a branch of the Trans-Siberian Railway. Since the disintegration of the Soviet Union, the city's industries have experienced a severe decline, creating high levels of unemployment.

Over 3 million people live here, mostly in large cities. In fact, Kemerovo Region is a very urbanized part of Russia, with about 87% of the population residing in cities. Kemerovo Region is also known as Kuzbass - from "Kuznetsk basin" - the name of the largest coal deposit on earth, which is located here. Siberia is a very large area stretching from the Ural Mountains on the west to the Pacific Ocean on the east. All of Europe could fit inside of Siberia several times over. It is a part of Russia, the largest country in the world.

There are an estimated 250 to 270 children with congenital heart defects that need open-heart surgery each year in Kemerovo. Only about 60 to 80 children receive the surgery they need. The Division of Pediatric and Congenital Heart Disease was established in Kemerovo four years ago and the surgeons have been performing open heart surgery on children over 12 months of age only and none with complex disease. But a large number of children with congenital heart disease need to be operated on during the first year of life or they will die. Children who need surgery emergently are being transported to other centers far away. Due to transportation problems and the critical condition of the children, many do not survive.

Katya Alexeeva



Katya is a 5 month old with transposition of the great arteries (TGA), multiple ventricular septal defects (VSD), double outlet right ventricle (DORV) and pulmonary stenosis (PS). TGA is a heart defect that occurs when the large vessels that take blood away from the heart to the lungs, or to the body, are improperly connected. VSD is one of the most common congenital heart defects and is basically a hole in the heart. In most cases, surgery may be delayed for one to four years; however, if there are multiple holes, early surgical intervention is encouraged.

In DORV, the aorta rises from the right ventricle (the chamber that pumps blood to the lungs), instead of the left ventricle (the normal pumping chamber to the body). PS occurs when abnormalities of the pulmonary valve lead to narrowing (stenosis) and obstruction of blood flow between the right ventricle and the pulmonary artery.



On November 12, Katya received her operation and is expected to fully recover!

Michael Sirtsev



Twelve year old Michael (pictured above with PICU nurse and ICHF volunteer, Lindsay Jenkins) was diagnosed with aortic stenosis (AS). Aortic stenosis is where the aortic valve or the vessel above the aortic valve is narrowed. This reduces oxygenated blood flow to the body and overworks the left ventricle. The prevalence of aortic stenosis is increasing. Since this disease carries with it considerable morbidity and mortality, both with large personal and economical impact, aortic stenosis is a major health problem. It occurs in approximately 4 to 6 children born with congenital heart disease. Congenital aortic stenosis occurs three times more often in boys than in girls.

Michael received his operation on November 17 and is recovering well. Most children who have had an aortic stenosis surgical repair will live healthy lives. Activity levels, appetite and growth should eventually return to normal.

Thanks to our sponsors and team members, Michael now has a second chance to live a normal life.

Alexi Gutov



Alexi is a 4 month old who was diagnosed with pulmonary atresia (PA), along with VSD and 'MAPCAs' (major aorto-pulmonary collateral arteries). This defect is a form of tetralogy of Fallot (TOF) in which there is complete obstruction of the pulmonary artery, resulting in total diversion of blood from the right ventricle into the aorta. Survival depends on the presence of a number of naturally occurring connecting blood vessels between the aorta and the pulmonary arteries in the lungs which are called 'collaterals' or 'MAPCAs'. The 'collaterals' are usually several in number and carry blood to different parts of the lung circulation.



Alexi, pictured here with his mother, received a very successful right thoracotomy and a Gore-Tex shunt on November 12. A full recovery is expected.

Alexander Larionov

Age: 1 month

Diagnosis: TGA

Date of Operation: November 16

Procedure: Arterial Switch



Daria Nesterov



Seven month old Daria was diagnosed with ventricular septal defect (VSD), pulmonary stenosis (PS) and secundum atrial septal defect (ASD). ASD is an opening or a hole in the wall (septum) between the two upper chambers (atria) of the heart. There are 3 major types of atrial septal defects:

- ✓ Secundum
- ✓ Ostium Primum
- ✓ Sinus Venosus

Secundum ASD is caused when part of the atrial septum fails to close completely while the heart is developing. Because of this, an opening develops between the atria. This is the most common atrial septal defect, affecting 80% of all cases.

Because of the generosity of our sponsors and volunteer team members, Daria's heart defects were repaired on November 10 and she is expected to fully recover.

Patient List

Name	Age	Date of Operation	Procedure
Alexander Alexandrov	15 years	November 11	Removal of Sternal Suture Wire & Irrigation
Ivan Ardishev	14 days	November 9	Modified BT Shunt
Daria Caracach	1 month	November 9	Modified BT Shunt
Katya Alexeeva	5 months	November 12	Glenn Shunt, Atrial Septectomy & PA Banding
Alexi Gutov	4 months	November 12	Right Thoracotomy
Alexander Larionov	1 month	November 16	Arterial Switch
Igor Merinchikov	4 months	November 11	Modified BT Shunt
Akoulov Michael	8 months	November 13	Glenn Shunt
Daria Nestevovia	7 months	November 10	ASD/VSD Closure & Pulmonary Valvotomy
Victoria Novogilova	5 months	November 19	Modified BT Shunt
Ilya Romanchenko	4 months	November 10	TOF Repair
Danil Sheludko	6 months	November 15	Glenn Shunt
Michael Sirtsev	12 years	November 17	Ross Procedure
Nikita Sterbenev	8 months	November 18	RVOT Resection
Roman Vedjaschkin	13 years	November 15	VSD/ASD Closure



LOCAL STAFF MEMBER SPOTLIGHT

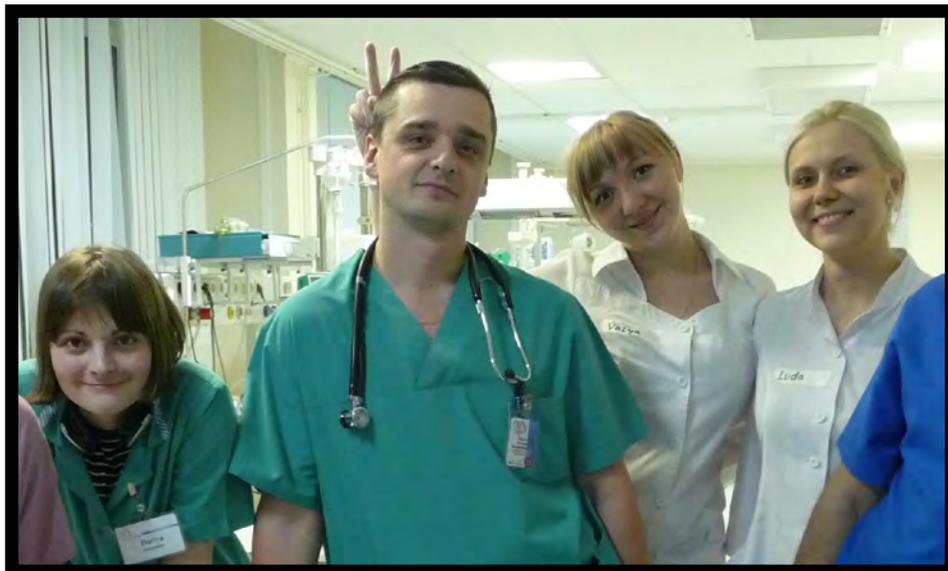
Local surgeon, Oleg Chistuchin (right) with Frank Molloy, ICHF clinical educator



Local OR nurses, Olga Raich and Yulia Ganeeva, with ICHF medical volunteer, Pavel Shauchenka



Group photo of local staff members



Medical Team

Name	Position	Origin
William M. Novick	Surgeon	United States
John Hudson	Perfusionist	United States
Nelson Varas	Anesthesiologist	United States
Pavel Shauchenka	Intensivist	Belarus
Martina Pavanic	OR Nurse	United States
Tess Hunt	Respiratory Therapist	United States
Frank Molloy	PICU Nurse	United States
Marilyn Rossi	PICU Nurse	United States
Kristen Dill	PICU Nurse	United States
Lindsay Jenkins	PICU Nurse	United States
Catherine Heringer	Nurse Intern	United States





1750 Madison Avenue, Suite 500
Memphis, TN 38104
Phone: (901)869-4243
Fax: (901)432-4243
Website: www.babyheart.org