SPDS Update

In preparation for the implementation of the SPDS on January 1, 2004 a satellite teleconference for training purposes was provided on December 16th. Twenty-two participants attended the conference that took place from 10:00 to 12:00 noon at WMC. The conference was simultaneously telecast at Phelps Memorial Hospital and Orange County Community College. Staff at hospitals involved in the birth certificate completion process as well as local birth registrar personnel attended. The teleconference was necessary in order to facilitate the transition to the Web-EBC and other modules of the SPDS. All infants born January 1, 2004 will need to be entered via the Web-EBC. The Genesis system will no longer be accessible (it will remain accessible for a short time in 2004 to finish up entering any babies born in 2003).

For technical questions or problems please call Eileen Shields at (518) 474-3368; for questions related to the EBC call the Regional Perinatal Center at (914) 493-8590. The DOH team at WMC will forward your question to the appropriate personnel.

Donna Z. Dozor, R.N., M.S.
NICU Database Manager
Westchester Medical Center

Fetal Nuchal Translucency and Chromosomal Defects

Perinatal detection of Chromosomal Anomalies

Figure 1  Fetus with subcutaneous collection of fluid at the back of the neck. Image kindly provided by Dr. Eva Pijlert, University of Amsterdam

Figure 2  Ultrasound picture of a 12-week fetus with trisomy 21, demonstrating increased nuchal translucency thickness

Down syndrome is the most common chromosomal abnormality among live-borns and proved the most sonographically elusive syndrome of all the autosomal trisomic syndromes. Traditionally, 80% of fetuses born with Down syndrome were born to women younger than age 35. Although the individual risk of a younger mother for a fetus affected with Down syndrome is lower than that of an older mother, so many younger mothers represent the obstetric population that the majority of fetuses with Down syndrome occur among the younger age group.

Continues on page 3
Lactation Support at Westchester Medical Center

Westchester Medical Center (WMC) is committed to excellence, the provision of world-class medicine and supporting the goals of Healthy People 2010, American Academy of Pediatrics (AAP) and World Health Organization (WHO). One initiative of Healthy People 2010 is for 75% of women in the United States to initiate breastfeeding and for 50% continue breastfeeding for 6 months. The AAP recommends breastfeeding for nearly all infants, that they be exclusively breastfed for 6 months and continue to receive breast milk for 1 year. The WHO recommends that a child breastfeeding for at least 2 years.

Mothers, babies, families and society benefit from breastfeeding. There are over 100 reasons to breastfeed. Some of the benefits for mothers are decreased risk of post partum hemorrhage, ovarian and premenopausal breast cancer, osteoporosis, and iron deficiency anemia. They generally lose weight faster and experience optimal child spacing. Babies who are breastfed are generally healthier. They have a decreased risk for ear, lower respiratory and urinary infections, viral gastroenteritis, SIDS, juvenile diabetes mellitus, juvenile rheumatoid arthritis, childhood cancers, eczema, tooth decay, obesity, hospitalizations, crohn’s disease, multiple sclerosis, and celiac disease. Premature newborns are one sixth to one tenth less likely to develop necrotizing enterocolitis.

In the United States families spend $2 billion a year on human milk substitutes. It cost an additional $1.3 billion dollars to cover sick child visits and prescriptions for respiratory infections, ear infections, and diarrhea in non-breastfed infants during the first year. Private and government insurers spend a minimum of 3.6 billion a year to treat medical conditions and diseases that are preventable by breastfeeding. Preparation of formula and related apparatus require use of our natural resources and produce waste.

In keeping with these initiatives for the United States, WMC has designated a full time position to an International Board Certified Lactation Consultant (IBCLC).

My name is Rhonda Valdes-Greene and I have recently filled this position. In the first six-months of having a full-time lactation consultant at WMC the breast milk feeding rate has gone from 35% (April 2003) to 75% (Sept 2003) in the NICU and WBN. I am a registered professional nurse and have worked for 15 years on our high-risk obstetric and newborn nursery unit. During those years, I had the opportunity to assist many mothers and babies to breastfeed. Along with this experience I have continued my education formally at Dominican College where I received a Bachelor of Science degree in Nursing. I hold certifications as a Maternal-Newborn Nurse and IBCLC. For the past 2 plus years, I practiced full time as Lactation Consultant at one of our affiliate hospitals, Saint John’s Riverside Hospital.

Rhonda Valdes-Greene
Lactation Consultant
Phone: (914) 493-7575
Beeper: (914) 493-2525 #(1343)

References:
3. Dorfman D, Breastfeeding in a Globalized World, for World Breastfeeding Week: (http://www.ilca.org)
5. Coalition for Improving Maternity Services, Breastfeeding is Priceless No Substitute for Human Milk, (http://www.motherfriendly.org/)
6. Dorfman D, Breastfeeding in a Globalized World, for World Breastfeeding Week: (http://www.ilca.org)

Happenings:
A big Thank you to the Cambridge Knitting Circle, a group of residents at Cambridge on the Hudson, an independent living retirement community located in Ossining, NY. They donated 3 dozen hats that were beautifully knitted by there loving hands.

Happy New Year to all of you and your families…

From,
Your friends at Westchester Medical Center Neonatal Unit

I am pleased to announce the launch of the Greater New York Chapter Website http://www.marchofdimes.com/greaternewyork
Just a sneak peak at what you can find on the website, please see below

PERINATAL STATISTICS: AN AVERAGE WEEK IN OUR STATE

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More Perinatal Statistics

March of Dimes
Saving babies, together
In 1866, Langdon Down reported that the skin of individuals with trisomy 21 (Down syndrome) appears to be too large for their body. In the 1990s, it was realized that the excess skin of individuals with Down's syndrome could be visualized by ultrasonography as increased nuchal translucency (NT) in the first 3 months of intrauterine life. Fetal nuchal translucency thickness at the 11-14 weeks has been combined with maternal age to provide an effective method of screening for trisomy 21; for an invasive testing rate of 5%, about 75% of trisomic pregnancies can be identified. When maternal serum free-β human chorionic gonadotropin (β-hCG) and pregnancy-associated plasma protein-A (PAPP-A) at 11-14 weeks are also taken into account, the detection rate of chromosomal defects is about 90%.

The results of the tests along with parents' past and family history, can indicate whether a woman should have further testing and/or chorionic villus sampling (CVS), in which small samples of cells are taken from the placenta to test for chromosomal birth defects. This test is helpful because it can diagnose chromosomal anomalies very early in pregnancy allowing the parents to have a choice as well as being able to plan for the pregnancy.

In addition to its role in the assessment of risk for trisomy 21, increased nuchal translucency thickness can also identify a high proportion of other chromosomal abnormalities and is associated with major defects of the heart and great arteries, and a wide range of skeletal dysplasias and genetic syndromes. Possible mechanisms for increased NT include cardiac failure, venous congestion in the head and neck due to superior mediastinal compression, altered composition of the extra cellular matrix, abnormal or delayed development of the lymphatic system, failure of lymphatic drainage due to impaired fetal movements, fetal anemia or congenital infection.

Other benefits of the 11-14 week scan include confirmation that the fetus is alive, accurate dating of the pregnancy, early diagnosis of major fetal defects, and the detection of multiple pregnancies. The early scan also provides reliable identification of chorionicity, which is the main determinant of outcome in multiple pregnancies.

Over the past decade and presently in almost all of the practices, second trimester (15-20 weeks) serum screening along with second trimester ultrasound have been used to screen pregnant women for chromosomal anomalies. However, as mentioned, recent reports of screening in the first trimester has proven to be successful in screening for chromosomal anomalies as early as 11-14 weeks.

Health care professionals or individuals who may have questions regarding fetal ultrasound, first or second trimester perinatal testing are encouraged to call the division of Maternal Fetal Medicine at 914-594-4360.

Fereshteh Boozarjomehri, MD, FACOG
Associate Professor of Clinical OB/GYN
Division of Maternal Fetal Medicine
Phone: 914-594-4360
Email: boozarjomehri@wcmc.com

Continued from page 1

Little Miracle: Under 2 pounds to 22 pounds in 1 Year!

The following story about Jake reveals a parents' perspective on the NICU 'roller coaster' that extremely premature newborns face. Please read on to learn more about Jake.

“All the planning in the world can’t help a mother and father prepare for a premature birth of their own child. After many months of infertility, some early scares in the first trimester and a much needed vacation in Jamaica, our son, Jake decided it was time to come into this world, ready or not, 3½ months early. Thankfully, we returned home from Jamaica before he decided it was time to break his water (at his older brother’s birthday party no less). After a very long day and a half of worry at Nyack Hospital, we were transported by ambulance to Westchester Medical Center. Jake was lucky enough to stay inside the womb for 5 additional days which allowed doctors at Westchester Medical Center to administer the very important steroids that would help his lungs mature and antibiotics. When labor began on August 23, 2002, a full 14 weeks before it was supposed to begin, there was no stopping Jake from being born. Every question imaginable goes through a parent’s mind at this stage and we all think we’re unique in this situation. Jake was born at 1 pound 15 ounces. This was our child lying in the incubator with a tube down his throat helping him breathe, central lines coming out of his belly button, IVs for antibiotics, more IVs for blood transfusions and 2 days after he was born a chest tube was inserted to remove excess air because his left lung quite literally blew a hole in it.

Throughout Jake’s 13-week stay in the NICU he endured a PDA, a chest tube for a hole in his lung, numerous bacterial and fungal infections, air in his bowel area which we thought immediately was NEC (thankfully I was not), stage 1 of ROP and too many to count blood transfusions. Even through all this there wasn’t a chance that we were going to give up on Jake, because it was obvious he was unwilling to give up on himself. He was dubbed “feisty” in the NICU because of how much he moved around and how he drove the doctors nuts by extibating himself almost daily.

The first time we held him will never be forgotten. We tried not to worry about whether he was too cold, or whether the tube was situated properly, and never for a second did we take our eyes off the monitors. Those incessant beeps that you hear in your sleep even when you go home are nerve-racking. There wasn’t a day in those 13 weeks that we didn’t go to visit Jake at the hospital. Even if it was just to stare at him for hours, to hold his tiny little hand, to cradle his bottom, or to whisper softly that we loved him was invaluable we feel in his unbelievable recovery. We were shocked at the beginning at the seeming coldness of the doctors and the matter of fact way in which everyone in the NICU handled the babies. This was our child for goodness sakes.

Continues on page 4
Continued from page 3

After the shock wore off we came to realize and be grateful for the fact that if they didn’t act that way they would not have been able to take care of our Jake in the most professional way possible, which is exactly what he needed.

Today, 13 months later, Jake weighs over 22 pounds, crawls after his big brother, is trying to climb over the safety gates, has been discharged from occupational therapy, and is the sweetest little boy that any parents could wish for!

Thank you to Westchester Medical Center, all the attending Neonatologists (Drs Golombeck and Alpan, a special thank you for your honesty, sometimes bluntness, and obvious love for our child—even though you’re not supposed to do that) and the NICU nurses (Claire, Nicole, Sandy, and Marichu—your open hearts and understanding with our constant visits and questions will never be forgotten). Nancy, your rounds to check up on us and to see how Jake was doing, even though we know that was your job, was and always will be remembered. It continues to be impossible to thank everyone at the NICU at Westchester Medical Center for the gift we have been given that is our little boy.

We look forward to many more reunions at NICU and we wish everyone…. doctors, nurses and all the premature babies born or about to born… the very best there is!”

State Perinatal Database Team &
Perinatal Gazette Editorial Board

Edmund LaGamma, M.D., Director Newborn Medicine
(914) 493-8558 (edmund_lagamma@nymc.edu)

Chaur- Dong (C.D.) Hsu, M.D., M.P.H., Director OB/GYN
(914) 594-4360 (mailto:chaur-dong_hsu@nymc.edu)

Heather L. Brumberg, M.D., M.P.H., Neonatal Epidemiologist
(914) 493-8491 (mailto:heather_brumberg@nymc.edu)

Susan Marchwinski, R.N., C., M.S., SPDS Coordinator
(914) 493-8590 (mailto:marchwinskisa@wcmc.com)

Donna Dozor, R.N., M.S. Neonatal Data Collection
(914) 493-8309 (mailto:dozord@wcmc.com)

Nancy Satou, R.N. Maternal Data Collection & Editor
(914) 493-8346 (mailto:satoun@wcmc.com)

We are interested in providing you with a newsletter that is relevant and of interest to you. Please contact us with perinatal topics you would like to see addressed. For a copy of our newsletter or to be placed on our mailing list contact us by phone or e-mail. Please see below the NYMC neonatal web site address to locate other issues of The Perinatal Gazette:

http://www.nymc.edu/neonatology

Children’s Hospital at Westchester Medical Center
95 Grasslands Road
Valhalla, New York 10595
Phone: 914-493-8590  Fax: 914-493-1493
E-mail: dozord@wcmc.com  satoun@wcmc.com
marchwinskisa@wcmc.com

ADDRESS CORRECTION REQUESTED