



# Perinatal Gazette

Newsletter of the Regional Perinatal Center  
Westchester Medical Center



Volume 1, Issue 1

February 2001

## Perinatal Care in the New Millennium

*What is the Regional Perinatal Center (RPC) at Westchester Medical Center?*

The RPC at WMC is a dynamic operation with many activities focused on improving care for mothers and infants within the Lower Hudson Valley Region. The centers of activity are the Antepartum, Labor & Delivery and Regional Neonatal Intensive Care Units at the Medical Center in Valhalla. Unique to WMC's Obstetric service is the fact that almost twice as many high-risk deliveries take place at WMC than at any other center in the region (17.7 vs. 9.4% - 1997). The RNICU offers a variety of services that are "state of the art" including high frequency and jet ventilation, nitric oxide therapy for both term and preterm infants (IRB project), and Extra Corporeal Membrane Oxygenation (ECMO) to be offered starting summer 2001.

Clinical research projects are also available to our patients and families admitted to the RNICU. These projects afford the patients opportunities to receive new therapies not available outside of a large academic

*continued on page 2*

## INSIDE THIS ISSUE

- 1 Perinatal Care in the New Millennium
- 1 A Statewide Initiative to Improve Perinatal Outcome
- 2 SPR Abstracts - 2001
- 3 State Perinatal Database Team  
*First Breaths*
- 4 Valentine's Day Recipe

## A Statewide Initiative to Improve Perinatal Outcome

*The NYS Department of Health (DOH) Perinatal Database System*

Toward achieving the goal of "improving mother and baby outcomes" in NYS, The DOH, in collaboration with the Perinatal Community has designed a database system through which data about perinatal care and maternal and neonatal outcomes from every hospital within the state will be entered, tracked and analyzed. This data will be used for quality improvement, public health surveillance, and health service planning throughout the state.

The data collection portion of the initiative has already been implemented in the upstate regions of Rochester, Buffalo, Syracuse and Albany. For our Greater New York Area (Downstate Region) the initial phase of the database is scheduled to be implemented in late spring, 2001. It will consist of data collection much like the existing electronic birth certificates and quality indicators. Prior to the roll out each institution will need to have in place the appropriate hardware and internet connections. Education for the personnel who will collect and input this data will be held just prior to the initiation of the system.

As the Regional Perinatal Center (RPC), WMC has developed a Perinatal Database Team dedicated and committed to working with the DOH to formulate an infrastructure for quality improvement and to enhance integration of the combined services of the regional hospitals. The SPDS Team will assist and support those hospitals and clinics that have designated WMC as their RPC with all phases of the program.

An introduction to the new system was presented at WMC on December 11, 2000 by Jaqueline Quade, Phd, Director of NYS Perinatal Database System and

*continued on page 3*

medical center.

In addition to caring for the acute needs of our patients there are many other services provided. These include regional transport via the STAT" Team, a Regional Perinatal Database Team, A Lactation Center, an active bereavement program, an ethics committee and follow-up programs with sites located in four easily accessible areas of the region.♥

For more information go to our web site at:

<http://www.nymc.edu/depthome/peds/neonatology/index.htm#education>:



### **First Breaths**

#### **The Preparation for Air Breathing**

The key to a positive neonatal outcome is the optimization of pregnancy, even if that pregnancy results in the delivery of a premature infant. While survival and the degree of respiratory distress are directly related to the immaturity of the infant, there are certain factors that play key roles in pulmonary development and that may influence the ability of the newborn to survive.

Certain factors such as race and sex are innate and may influence lung development. Black premature infants have less Respiratory Distress Syndrome (RDS) than whites and black females do best. Androgens present in developing males appear to delay lung maturation. Why racial differences result in inequalities in lung development is unknown.

Factors necessary to sustain normal pulmonary development include continued urine output, maintenance of intact membranes, as well as lack of cardiac, renal, gastrointestinal, neurological or neuromuscular abnormalities that might compromise the lung's ability to grow and develop. Recent WMC patients with congenital diaphragmatic hernia and multicystic kidney disease are prime examples.

Recent evidence suggests that certain infections may accelerate lung development. This apparently occurs through the stimulation of growth factors which increase the maturity of the surfactant apparatus and prepare the lungs for air-breathing prematurely.

### **SPR ABSTRACTS 2001**

- Inhaled Nitric Oxide (iNO) does not amplify the Pulmonary Proinflammatory Response in Premature Infants - **Minerva M. Rasalan, M.D.**
- Caspase Inhibitor (CI) and Interleukin-10 (IL10) Inhibit the Accelerated Apoptotic Response to Hyperoxia in the Presence of Proinflammatory Cytokines - **Deepika Kakker, M.D.**
- A "Kinder-Gentler Approach" in the NICU and its Effect on Short-term Outcome and on 12 month Neurodevelopment - **Mostafa S. Hassan, M.D.**
- Successful Dexamethasone (DEX) Treatment for BPD? A One-Tiered, Tapering Short Course to Prevent Metabolic and Cardiovascular Side Effects - **Manuel H. Decastro, M.D.**
- The History of Jaundice through Nelson's Textbook of Pediatrics - **Sergio G. Golombeck, M.D.**
- Steroid Treatment for BPD in ELBW Premature Neonates Suppresses Neutrophil Oxidative Burst - **Magdy Ahmad, M.D.**
- Lower Phagocytic Functions, Oxidative Burst and Absolute Neutrophil counts in Preterm, Non-Neutropenic Small for Gestational Age (SGA) Neonates - **Magdy Ahmad, M.D.**
- Tools of the Trade: Using "High-Tech" Cytogenetic and Molecular Techniques to FISH for Chromosomal Abnormalities in Challenging Clinical Care - **Patricia A. Galvin-Parton, M.D.**
- Homocystinuria Masquerading as Recurrent Attacks of Pancreatitis - **Patricia A. Galvin-Parton, M.D.**
- Cytochrome C Oxidase (COX) Deficiency due to Mutations in SCO2, a COX Assembly Gene: Presentation in a Neonate with Fatal Cardioencephalomyopathy - **Minerva M. Rasalan, M.D.**
- Bacterial Symbiosis: A Possible Environmental Influence on Postnatal Maturation of the Autonomic Nervous System - **Ravi Mishra, M.D.**
- Association of Fulminant NEC with Elective PRBC Booster Transfusions in Stable Growing Premature Neonates - **Pradeep V. Mally, M.D.**

## ***Congratulations!!!***

To Dr. Gary & Nancy Satou  
on the arrival of their beautiful  
little girl Nicole Moorea  
born Friday, December 29, 2000  
6lbs. 3 Oz  
Mom & Dad, Baby & Big Brother  
Ryan are all doing Great!

Infections may also have devastating effects on the premature infant due to the lack of maturity of the immune system.

Medications given to the mother may improve the survival of premature infants. Maternal steroid administration has been found to improve the outcome of premature infants if given at least 12 hours, but not greater than 7 days, prior to delivery. The exact mechanisms of action are not fully understood but induction of the surfactant apparatus has been implicated. Beta 2 agents (such as some of the bronchodilators used for maternal asthma) have also been demonstrated to stimulate lung development. In addition, thyroid releasing hormone (TRH) may also improve lung maturation in humans. There are other factors that may interfere with lung development. Certain proinflammatory mediators may predispose the newborn to chronic lung disease.

Just what is it that causes premature labor? While there may be many causes, the effect is an augmented inflammatory response in the fetus. This may have profound effects in the fetus from a devastating impact on the central nervous system to an increased incidence of chronic lung disease (CLD) (formerly known as bronchopulmonary dysplasia). A series of fellows, including Drs. Kakkera and Rasalan, have demonstrated that certain pro-inflammatory mediators such as interleukin-8, -6 and -1 beta, may be detected in tracheal aspirates obtained within the first few days of life in premature infants who progress to CLD.♥

**Lance Parton, M.D.**

*This column entitled "First Breaths" will be a forum for discussing neonatal respiratory issues such as; optimal strategies for delivery room resuscitation, goals of initial ventilator management, differences between the new surfactant formulations, optimizing oxygenation and ventilation with the new ventilators, deciding when ventilation strategies have failed and qualifies for ECMO, qualifying for postnatal steroids, and other respiratory matters relevant to the premature or sick neonate. If you would like a specific topic addressed, please e-mail (Lparton@go.com).*

Martha Wojtowycz, Phd, Director, Research and Administration, Institute for Maternal and Child Health at Upstate University. A thorough overview of the SPDS was given describing its core components and its functions and capabilities along with an outline of the technical infrastructure of the system which addressed system design and hardware requirements. It gave those persons attending the afternoon session a practical, hands-on walk through of the expanded EBC workbook that will be used and allowed for very specific technical questions to be answered on the spot.

The SPDS Team will be mailing the hardware requirements out to the hospital directors of information services in the near future followed by information regarding the date and location of the hands-on training session provided by the NYS DOH. This training session is anticipated to occur approximately 2 weeks prior to initiation of the database system and is slated for sometime in late spring.

If you have any questions regarding this initiative please feel free to contact any member of the SPDS Team listed below.♥

**State Perinatal Database Team**

Edmund LaGamma, M.D., Director Newborn Medicine

(914) 493-8558 ([edmund\\_lagamma@nymc.edu](mailto:edmund_lagamma@nymc.edu))

Nergesh Tejani, M.D., Director Maternal-Fetal Medicine

(914) 347-4139 ([tejani@msn.com](mailto:tejani@msn.com))

Susan Marchwinski, R.N.,C. , Coordinator

(914) 493-8590 ([marchwinskisa@wcmc.com](mailto:marchwinskisa@wcmc.com))

Donna Dozor, R.N., M.S. Neonatal Data Collection

(914) 493-8309 ([dozord@wcmc.com](mailto:dozord@wcmc.com))

Nancy Satou R.N. Maternal Data Collection

(914) 493-8346 ([satoun@wcmc.com](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.*

*(See above)*

## VALENTINE'S DAY CAKE RECIPE

1/2-cup (1 stick) butter

1 1/2-Cup sugar

2 eggs

1-tsp. vanilla extract

1-cup buttermilk or sour milk

2 tbsp. red food coloring

2 cups all purpose flour

1/3 cup Hershey's Cocoa

1 tsp. salt

1 1/2 tsp. baking soda

1 tbsp. white vinegar

1 can ready to spread vanilla frosting

DIRECTIONS: Heat oven to 350° F.

Grease & flour 13x9 inch baking pan.

In large bowl beat butter & sugar.

Add eggs & vanilla, beat well.

Mix buttermilk & red food coloring.

Stir together flour, cocoa & salt.

Alternately add red buttermilk

& dry ingredients to butter & sugar

mixture until thoroughly blended.

Bake 30-35 minutes or until wooden

toothpick inserted in center comes

out clean.

Cool completely in pan on wire rack. Remove from pan when cool. Frost. Sprinkle with valentine colored sprinkles or chocolate chips.

**Enjoy!**

Children's Hospital at Westchester Medical Center

95 Grasslands Road

Valhalla, New York 10595

Phone: 914-493-8590

Fax: 914-493-1488

E-mail: [dozord@wcmc.com](mailto:dozord@wcmc.com), [satoun@wcmc.com](mailto:satoun@wcmc.com),  
[marchwinskisa@wcmc.com](mailto:marchwinskisa@wcmc.com)

BULK RATE

US POSTAGE

PAID

PERMIT NO.

98765

ADDRESS CORRECTION REQUESTED

Mailing Address

Street Number and Name

City, State 98765-4321