Maria Fareri Children's Hospital at Westchester Medical Center welcomed the launch of the March of Dimes NICU Family Support Center on September 15, 2010. The Center was made possible by the generous donation of the Cramer family, who committed funding for the start-up and sustainability of the Center for the next 8 years. Depicted are the Cramers; Doug and wife Erica, with daughters Jessica and Rachel as they cut the ribbon during the Center's launch event. The event, held in the Naomi and Isaac Kaplan Family Regional Neonatal Intensive Care Unit (NICU) preceded the hospital's 28th Graduation Reunion Party.

Maria Fareri Children's Hospital has been a long-standing partner of the Northern Metro Division of the March of Dimes. In fact, the hospital's Chief of Newborn Medicine and Director of the Regional Neonatal Center, Edmund F. La Gamma, MD, is a former March of Dimes Volunteer of the Year. Dr. LaGamma sits on the Division's board and program services committee and has facilitated the hospital's $10,000 March for Babies sponsorship for the last 3 years.

The Center in the NICU at Maria Fareri is the fourth in the state of New York and among 42 that provide online and print resources and comfort to families in Level II and III NICUs across the country.

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.

Please visit http://www.worldclassmedicine.com/RPC

The Regional Perinatal Center

Maria Fareri Children's Hospital at Westchester Medical Center

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9th Annual Regional Perinatal Conference

The 9th Annual Hudson Valley Regional Perinatal Forum (RPF) conference: “Preventing Late Preterm Births and Unnecessary Cesarean Deliveries: How to Reach the Public Using Social Health Marketing” hosted by The Regional Perinatal Center (RPC) at Maria Fareri Children's Hospital/Westchester Medical Center (WMC), the Lower Hudson Valley and Maternal Infant Services Perinatal Network. Over 260 non-medically indicated inductions and c-sections and the affects on women and infants. The conference was held at the Marriott Westchase in Tarrytown and was attended by 265 health, medical and human services professionals from the seven county Hudson Valley Region.

Edmund LaGamma, M.D., Chief, Division of Newborn Medicine at Maria Fareri Children's Hospital at WMC presented “A Review of Hudson Valley Regional Cesarean Rates and the Impact of Cesarean Sections on Premterm and Late Preterm Newborns.” Dr. LaGamma highlighted parallels between rising cesarean rates and the average gestation for a term pregnancy shifting from 40 weeks to 39 weeks in 2003. He pointed out a change in belief among medical providers and consumers that late preterm deliveries (36-38 6/7 wks.) were safe for mothers and newborns. Dr. LaGamma stated that “the cesarean rate is linked to the increases in late preterm births over the last 10 to 15 years.” To improve perinatal health outcomes, Dr. LaGamma emphasized the need for continued education of men and women of childbearing age regarding lifestyle choices that contribute to preterm births (e.g. smoking, drug abuse, and unamnored stress)—and health care providers the consequences of choosing early delivery with no clear medical indication.

The Growing Burden of Clostridium Difficile Infection

Raji Senguttuvan, MD, Manjana Parvez, MD

Clostridium Difficile (C.Dif) is a spore forming, obligatory anaerobic, gram positive bacillus and one of the 120 species in the genus Clostridium. It is very ubiquitous and is acquired from the environment through faecal-oral transmission. The spores are acid resistant and can transverse the stomach, colonizing the colon. C. Diff overgrowth is facilitated when the intestinal flora is disrupted by antibiotic therapy, Hospitals, nursing homes and child care centers are major reservoirs. There are 22 different toxin producing types with some toxotypes being more virulent than others. Clostridium species are pathogenic in a wide variety of mammals. Incidence and severity of disease varies according to host species, age, environmental density of spores, toxin type, antibiotic use and other factors.

C. Diff was first isolated in the stool of healthy newborns in 1935. In 1978 it was identified as the primary cause of antibiotic associated pseudo-membranous colitis (PMC). The clinical manifestations are called Clostridium Difficile Infection (CDI). But C. Diff can cause a spectrum of clinical presentations from asymptomatic colonization to severe diarrhea, PMC, toxic megacolon, colonic perforation and death. There are a number of virulence factors which contribute to adherence and colonization, including flagellar proteins, surface layer proteins, and surface-exposed adhesions proteins.

The disease manifestations in humans are related to the action of 2 toxins: Toxin A and Toxin B (TcdA, TcdB). The genes for the 2 toxins are encoded on a pathogenicity locus (PaLoc) along with negative and positive regulators of their expression, PaLoc is carried by pathogenic strains. Toxin A binds to carbohydrate structures (particularly Gal-1, 3-Gal-1, 4-GalNAc) that are present on a diverse range of molecules including both Ig and non-Ig components of human milk. Toxin B receptors have not been identified; only speculation what they might be. Toxins A and B disrupt cell signaling by inactivating small GTP-binding proteins, which include Rac, Trk, and CDC42. By glycosylating small GTPases, TcdA and TcdB cause actin condensation and cell death. TcdA elicits effects primarily within the intestinal epithelium, while TcdB has a broader cell tropism.

In adults, symptoms of CDI include watery diarrhea with 15-30 bowel movements per day, abdominal cramps, lower quadrant abdominal pain (~22%), low grade fever (~28%), leukocytosis (~50%) and low albumin. Gross blood in the stool is rare. The traditional risk factors for CDI include admission to ICU, age >60 years, current antibiotic therapy, current immunosuppressive therapy, death without clear medical indication or little consideration of the consequences.

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Howard Blanchette, MD, Chief, OB at WMC provided a compelling discussion of the effects of cesarean delivery have on women in his presentation “The Rising Cesarean Delivery Rate in America – What are the Consequences?” Dr. Blanchette stressed that cesarean deliveries are being performed too frequently—stating that maternal morbidity and mortality rates rise with each subsequent cesarean surgery. Citing several published studies, Dr. Blanchette added that the most effective way to deter non-medically indicated (elective) cesarean sections is to inform women and their family members of the effects of repeat cesarean deliveries on their future reproductive health. Dr. Blanchette strongly suggested a change in practice among many modern obstetricians from “once a section always a section” to “once a section, always a TOLAC, [Trail of Labor, After Cesarean].”

Stephanie Sosnowski, ICCE, CLC; Deputy Director, Maternal-Infant Services Network, Orange, Sullivan and Ulster Counties, Inc; Chair of the New York Statewide Breastfeeding Coalition & Hudson Valley Regional Perinatal Forum Breastfeeding Committee presented, “A Call to Action: Improving Breastfeeding Initiation and Duration in the Hudson Valley.” Ms. Sosnowski discussed public health initiatives in support of breastfeeding such as the NYS Department of Health’s Breastfeeding Promotion Initiatives, CDC’s Breastfeeding: A National Public Health Priority Statement, the Academy of Breastfeeding Medicine’s Policy Recommendations, and the Joint Commission’s latest definition of exclusive breastfeeding.

Keynote speaker Alan Andreasen, PhD, MS, Professor of Marketing, Georgetown University, McDonough School of Business, began by saying “Sixty to seventy percent of maternal issues are due to behavioral challenges and every program that deals with behavior has to tackle the behavioral problem.” Professor Andreasen added that influencing change demands focus—”not only on the target population in need of change—but also the decision-makers who influence action. Decision-makers may include government regulators and legislators, school and human service administrators, and financial partners.

Dr. Andreasen noted that the private sector spends billions of marketing dollars to get consumers to make behavioral changes. Two of the greatest challenges facing the public health sector are convincing consumers to get the public to make public behavioral changes and 1: understanding what the public believes is necessary to enable making these changes and 2: bringing social pressure to bear on those who believe behavioral issues are due to the public’s behavior. The afternoon Keynote speaker; Julia Kish-Doto, PhD, presenting the issue. The afternoon Keynote speaker; Julia Kish-Doto, PhD, presented on the issue. The afternoon Keynote speaker; Julia Kish-Doto, PhD, presented the issue.