

# NEONATOLOGY TODAY

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#### Neonatal Nurse Practitioners Symposium: Clinical Update and Review

Oct. 16-20, 2012; Clear Water Beach, FL USA  
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#### Third Port Said Neonatology Conference

Oct. 18-20, 2012; Port Said, Egypt  
[www.portsaidneogr.com](http://www.portsaidneogr.com)

#### Miami Neonatology 2012 - 36th Annual International Conference

Oct. 31-Nov. 3, 2012; Miami Beach, FL USA  
[pediatrics.med.miami.edu/neonatology/international-neonatal-conference](http://pediatrics.med.miami.edu/neonatology/international-neonatal-conference)

#### Contemporary Management of Neonatal Pulmonary Disorders Conference

Nov. 1-2, 2012; Tempe AZ USA  
[www.nalweb.com/cmnpdconference](http://www.nalweb.com/cmnpdconference)

#### 3rd International Congress of UENPS Congress

Nov. 14-17, 2012; Porto, Portugal  
[www.uenps2012.org/uenps](http://www.uenps2012.org/uenps)

#### Hot Topics in Neonatology Conference

Dec. 3-4, 2012; Washington, DC USA  
[www.hottopics.org](http://www.hottopics.org)

### NEONATOLOGY TODAY

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Neonatology Today (NT) is a monthly newsletter for Neonatologists and Perinatologists that provides timely news and information regarding the care of newborns and the diagnosis and treatment of premature and/or sick infants.

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## Red Reflex Examination in Neonates is Obligatory - Is it Justified?

By Shay Barak, MD; Elena Chulsky, MD; Maya Barak; Amir Kushnir, MD

### Abstract

Congenital Cataract (CC) and Congenital Glaucoma (CG), hereafter CC and CG, respectively are leading causes of preventable childhood blindness.<sup>1,2,3,4,5</sup> Not all congenital corneal opacities may be detected during routine physical examination, and if undetected in an infant, permanent visual impairment may develop. It is, therefore, very important to detect those conditions as soon as possible after birth and to begin appropriate medical or surgical therapy to reduce the risk of lifelong visual impairment.<sup>3,6,7,8</sup> Surgical treatment of the conditions of CC and CG is necessary within the first 6 weeks of life to insure optimal visual outcome. Currently, the American Academy of Pediatrics policy recommends red reflex assessment as a component of the eye evaluation in the neonatal period and during all subsequent routine health supervision visits.<sup>6,9,10</sup> Therefore, the first screening of red reflex should be performed as a routine examination before discharge from the neonatology department.

**Key words:** Congenital Cataract (CC), Congenital Glaucoma (CG), Red Reflex testing, Vision screening,

### Background

Congenital Cataract (CC) and Congenital Glaucoma (CG) are the leading causes of

preventable childhood blindness: the incidence is 1.2 to 6 cases per 10,000 and 1 case per 12,500 respectively. During routine physical examination of the infant which does not include the red reflex screening test, not all of the CC and CG cases may be detected. Undetected cases may lead to the development of permanent visual loss in the infant.<sup>11, 12, 13</sup> If undetected in an infant, permanent visual impairment may develop. It is, therefore, very

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***“Not all congenital corneal opacities may be detected during routine physical examination, and if undetected in an infant, permanent visual impairment may develop. It is, therefore, very important to detect those conditions as soon as possible after birth and to begin appropriate medical or surgical therapy to reduce the risk of lifelong visual impairment.<sup>3,6,7,8”</sup>***

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References: 1. Rubin LF, et al. *Journal of Perinatology* advance online publication, 14 July 2011; doi:10.1098/jp.2011.07. 2. Kaneko IN, et al. *Arterioscler Thromb Vasc Biol.* 2007;27:2555-2562. 3. Canfield LM, et al. *Eur J Nutr.* 2003;42:133-141. 4. Schweigert FJ, et al. *Eur J Nutr.* 2004;43:39-44. 5. Pastor S, et al. *Lipids.* 1990;25:159-165. 6. Jewell VC, et al. *Proc Nutr Soc.* 2001;60:171-178. 7. Connor SL, et al. *FASEB.* 2008;22:451-454.

important to detect these conditions within the first 3 months of life in order to begin appropriate medical or surgical therapy for optimal visual outcome, and also to allow genetic counseling advice and support to be offered to the parents at the earliest opportunity.<sup>1,6,8</sup>

In Baruch Padeh, Poria Medical Center, the red reflex examination is an imperative part of the physical examination carried out on all neonates before discharge from the neonatology department. This policy was adopted since January, 2003 following the American Academy of Pediatrics (AAP) recommendation in 2002 that all infants should have an examination of the red reflex of the eyes performed during the first 2 months of life by a pediatrician or other primary care clinician trained in this examination technique.<sup>9</sup>

A new policy of the AAP from 2008 recommends that the red reflex test be performed during the first month of life.

The purpose of this study is to confirm that early routine red reflex examination, carried out by neonatologists before discharge of the infant from the neonatology department is very effective in preventing a delay in the diagnosis of CC and CG cases.

### Objective and Method

This study is a retrospective review. Data was collected via a computerized diagnosis code search of the Baruch Padeh Poria Medical Center database. The hospital is located in the northern region of Israel and provides health care to an area population of 100,000, including approximately 3,000 birth rate per annum.

The review covered a 12 year period from 1997 until 2008 during which 31,850 babies were born. We divided our study population into two groups according to the two periods: Group 1 being the infants born before the routine red reflex examination policy statement of the AAP was adopted which covers from January 1, 1997 to December 31, 2002 and includes 15,080 neonates; Group 2 includes the infants born after the adoption of the routine red reflex examination policy statement covering the period from January 1, 2003 to December 31, 2008 and which included 16,770 neonates. We reviewed only the two conditions of CC and CG that require urgent medical or surgical intervention to prevent permanent visual impairment.

The red reflex examination was performed as it is well-described in the policy statement released by the American Academy of Pediatrics in May 2002: an ophthalmoscope is held close to the examiner's eye and focused on the neonate's pupil at a distance of 12 to 18 inches away from subject's eyes. To be considered normal, the red reflex of the 2 eyes should be symmetrical. Dark spots in the red reflex or the presence of a white reflex are all indications for referral to an ophthalmologist. The procedure was done by the physician using an ophthalmoscope while the nurse assisted by holding the baby. Before commencing

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***“A new policy of the AAP from 2008 recommends that the red reflex test be performed during the first month of life.”***

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Confidence Level:	95%
<b>Group 1</b>	
Base size:	15,080
Proportion:	0 (0%)
<b>Group 2</b>	
Base size:	16,770
Proportion:	5 (0.03%)
<b>Z Value:</b>	<b>1.686</b>
<b>1-Tail Confidence Level:</b>	<b>95.4% (Significant)</b>
<b>2-Tail Confidence Level:</b>	<b>90.8% (Not Significant)</b>

with the procedure the baby was given 1ml glucose 25% to make the examination more comfortable. The ophthalmoscope was set at a +5 lens and the baby was held at a distance of 20 cm. The first red reflex was checked by the resident during the first physical examination of the infant several hours after birth, and the second by the neonatologist during the routine physical examination before discharge at 48-72 hours of age. All cases of suspected refractive errors were referred to an ophthalmologist before discharge.

We compared the proportions of CC and CG cases between the two groups using the Z-test for two proportions (Table 1).

### Results

A total of 31,850 babies were born during the reviewed 12 year period from January 1, 1997 to December 31, 2008. There was no sig-

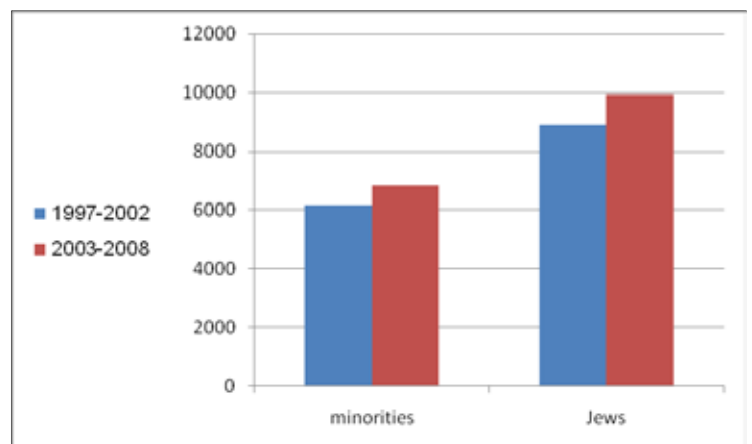


Figure 1. A comparison of the number of infants born during the two periods (1997 – 2002 and 2003 – 2008), admitted to our neonatal ward indicating ethnic distribution (Jews and minorities) showing no significant changes.



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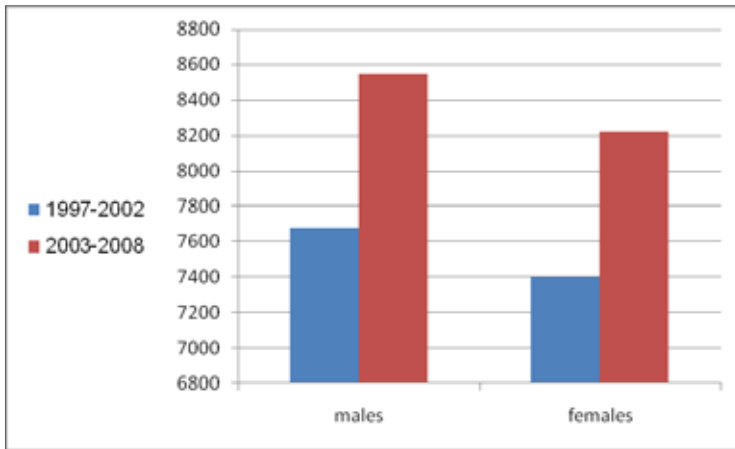


Figure 2. A comparison of the number of infants born during the two periods (1997 – 2002 and 2003 – 2008), admitted to our neonatal ward indicating males and females showing no significant changes.

nificant difference in demographic characteristics, gender and nationality between the two groups (Figures 1 and 2). There was a significant difference in birth rate between the two groups (Figure 3).

In the 6 year period from January 1, 1997 until December 31, 2002 prior to the adoption of the routine red reflex examination Policy, 15,080 babies were born, and no cases of CC or CG were diagnosed. However, in the 6 year period from January 1, 2003 until December 31, 2008, red rReflex was checked routinely on all 16,770 babies. CC was diagnosed in 5 babies and CG in 5 babies respectively. Thus, 0.03% of the babies were diagnosed with CC and CG during this period. The proportion of CC and CG cases in this period was significantly higher than in the first period ( $Z=1.68, P<0.05$ ) (Table 1). All cases were referred to ophthalmologists and confirmed, followed by surgical treatment.

### Conclusion

This study has shown the importance of a relatively easy and non time consuming test used in routine neonatal physical examination for the early diagnosis of Congenital Cataract (CC) and Congenital Glaucoma (CG). In most cases it is imperative that the diagnosis be made within the first month after birth in order for CC or CG to be treated and prevent childhood blindness. However, most parents are not able to notice abnormalities in their child's eyesight at that early age in order to raise concern and to have their baby examined by a specialist.

We perform the neonatal screening of red reflex twice; first by a resident physician several hours after birth and repeated by a neonatologist as part of the routine examination prior to hospital discharge. In spite of the stated opinion that the first examination done immediately after birth is difficult due to edema of the infant's eyelids, we are able to carry out this examination readily at birth. The requirements for the early screening are easily accessible in all departments: one requires an ophthalmoscope and a nurse to assist the physician during the examination; the examination should be carried out in a slightly darkened room with the baby held by the nurse or a parent; the physician shall hold the ophthalmoscope about 20 cm away from the eye with settings of +5 lens.

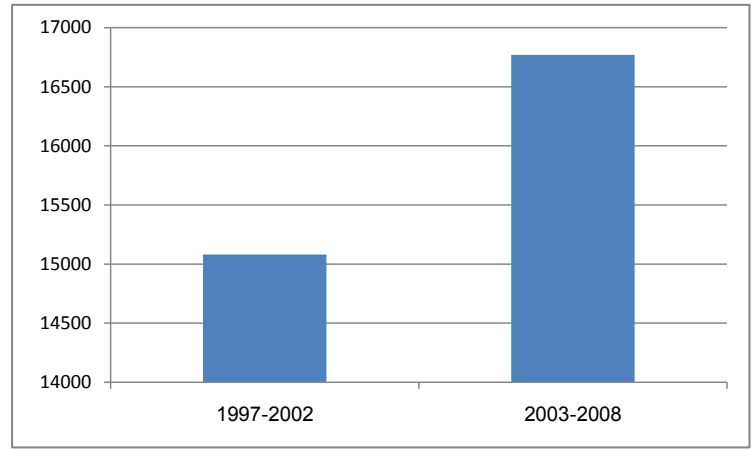


Figure 3. A comparison of the number of infants born during the two periods (1997 – 2002 and 2003 – 2008), admitted to our neonatal ward showing significant changes.

In the neonatal department of The Baruch Padeh Medical Center, all residents have been trained by the neonatologist to screen for red reflex in neonates. Each case which raises suspicion of any refractory error is referred to the ophthalmologist for confirmation.


Several cases of undetected CC and CG were reported in babies between 4 and 6 months of age in the period prior to the institution of our new policy of routine screening for red reflex. Thus, we decided to add this screening test as an integral part of the routine neonatal examination before discharge from the neonatal department.

It is our opinion that there is difficulty in diagnosing red reflex abnormalities in the community health clinics for several reasons which include the lack of family physicians' awareness with regards to the need and skill to perform the red reflex examination, and parent's misunderstanding of the importance of this examination. We thus, introduced the American Academy of Pediatrics policy statement of May, 2002 to ensure prevention of late diagnosis of CC and CG. However, the screening before discharge does not abolish the need for regular clinical ophthalmology examinations in the community.

We are confident that the first screening should be performed as a routine examination before discharge from the neonatology department in addition to routine health supervision so as to decrease undetected cases that help prevent childhood blindness due to untreated CC and CG.

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# Medical News, Products and Information

## Neonatal Echo Skills Launches Much Needed Free Web Resource for Neonatology Professionals Looking to Enhance Their Echo Knowledge Base and Skills

The Neonatal Echo Skills website ([www.neonatalechoskills.com](http://www.neonatalechoskills.com)) has recently gone live. The world neonatology community now has access to a free website that offers thorough and practical information on neonatal echo.



The launch of the site, which offers quick and easy access to essential information on neonatal echo, is part of its founder, Dr Alan Groves' ongoing efforts to enhance the quality and availability of echo education and information to neonatology professionals worldwide.

With a specific focus on practicality and pertinence to clinical practice, the site boasts a colourful and modern design and is divided into 7 sections: Background, Physics, Normal Structure, Abnormal Structure, Function, Resources and Parents.

Highlights of the site include:

- In depth sequential instructions on how to perform a structural echocardiogram

- An extensive video clip collection of normal and abnormal structural views, as well as functional assessment views
- A comprehensive learning resources page that includes links to pertinent guidelines, textbooks, DVDs, training courses and relevant papers and references.

Users of the site especially benefit from the fact that it has been personally put together by Dr Groves who has 12 years of experience in neonatal haemodynamics and functional echocardiography. He undertook his research degree under the supervision of Dr Jon Skinner at Auckland University, and for the past 4 years has been funded by the MRC to improve quantitative echo assessments in newborns. He is currently Head of Neonatal Cardiovascular Imaging within the Perinatal Imaging and Health Group at King's College London. Dr Groves says "As evidence mounts that functional echocardiography can enhance care in the NICU and PICU environments, we hope that our website will be a valuable (yet free!) learning resource."

Neonatal Echo Skills is also launching a series of Echo Training Courses throughout Europe and North America. The first of which will be in London, UK in September 2012, date TBA; more details will follow on the website. The website can be viewed at [www.neonatalechoskills.com](http://www.neonatalechoskills.com).

## Retinopathy of Prematurity (ROP) is the Second Most Common Cause of Childhood Blindness in the US

Retinopathy of prematurity (ROP) is the second most common cause of childhood blindness in the United States, occurring in half of premature infants born earlier than or at 28 weeks gestational age. The condition is caused by abnormal blood vessel development in the retina of the eye. ROP risk increases with decreasing gestational age.

A study by researchers at Brigham and Women's Hospital (BWH) suggests that the antioxidant, rhSOD (recombinant human Cu/

Zn superoxide dismutase), reduces the risk of developing ROP in extremely low gestational age newborns.

The post-hoc analysis study was published online on June 15, 2012 in *Neonatology*.

Researchers looked at a subset of data from a previous multicenter trial that randomized 302 preterm infants to receive either rhSOD or placebo for prevention of bronchopulmonary dysplasia (a chronic lung condition that affects newborn babies). Researchers analyzed the data looking specifically at the incidence and severity of ROP in extremely low gestational age newborns.

Within the entire cohort, there were no significant differences in ROP in newborns given placebo versus those given rhSOD. However, those born earlier than 26 weeks (72 babies) had a 22% reduction in ROP. The abnormality was reduced by 53% for babies born earlier than 25 weeks (24 babies).

"Even though strides have been made in developing interventions to stop ROP from progressing to blindness, there are currently no therapies available for ROP prevention," said Richard Parad, MD, BWH Department of Newborn Medicine, lead study author. "There is a large need for the preventive approach that rhSOD could potentially provide."

The researchers note that while looking at ROP was not the primary outcome for which the prior study was designed, this post-hoc analysis was carefully re-focused on the tiniest babies with the highest ROP risk based on recent advances in the understanding of how ROP develops and on evidence from prior studies of other antioxidants that suggested such agents might interfere with development of ROP.

In light of the findings, the researchers stress that further studies are required to confirm their observations.

This research was supported by Biotechnology General Corporation (now Savient Phar-



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maceuticals). rhSOD is currently owned by Ferring Pharmaceuticals.

Brigham and Women's Hospital (BWH) is a 793-bed nonprofit teaching affiliate of Harvard Medical School and a founding member of Partners HealthCare, an integrated health care delivery network. BWH is the home of the Carl J. and Ruth Shapiro Cardiovascular Center, the most advanced center of its kind. BWH is committed to excellence in patient care with expertise in virtually every specialty of medicine and surgery. The BWH medical preeminence dates back to 1832, and today that rich history in clinical care is coupled with its national leadership in quality improvement and patient safety initiatives and its dedication to educating and training the next generation of health care professionals. Through investigation and discovery conducted at its Biomedical Research Institute (BRI), [www.brighamandwomens.org/research](http://www.brighamandwomens.org/research), BWH is an international leader in basic, clinical and translational research on human diseases, involving more than 900 physician-investigators and biomedical scientists and faculty supported by more than \$537 M in funding. BWH is also home to major landmark epidemiologic population studies, including the Nurses' and Physicians' Health Studies and the Women's Health Initiative.

For more information about BWH, please visit [www.brighamandwomens.org](http://www.brighamandwomens.org).

### California Physicians Unprepared for Electronic Health Record Regulations

Electronic health records (EHRs) are used widely by California physicians, but many of their systems are not designed to meet new federal standards aimed at improving the quality of health care, according to a report from UCSF researchers.

While 71% of California physicians have an EHR system, only 30% have one with the functionalities needed to achieve "meaningful use" requirements from the Centers for Medicare and Medicaid Services' (CMS), the team reports. These requirements include, for example, the ability to communicate electronically with other health care providers, such as pharmacies, labs, other clinicians, and hospitals, to whom physicians refer patients.

Medicare payments to physicians will be reduced in 2015 if they do not meet these requirements.

The report, available online at [www.chcf.org/publications/2012/06/meaningful-use-ehrs-physicians](http://www.chcf.org/publications/2012/06/meaningful-use-ehrs-physicians), summarizes findings from a 2011 survey conducted by UCSF, in collaboration with the California Medical Board, for the California HealthCare Foundation and the California Department of Health Care Services.

EHRs capture patients' health information, such as medical history, allergies, laboratory test results, radiology images, and payment, in an electronic form that enables clinicians and other providers to access and share the information across medical specialties or facilities. Exchanging electronic records among physician practices and between physician practices and hospitals can improve coordination of care because all providers can have access to the same information.

"We found that physicians are more likely to have electronic health records with functions that support individual patient visits rather than functions that support overall quality improvement," said lead author Janet M. Coffman, PhD, Assistant Professor at the UCSF Philip R. Lee Institute for Health Policy Studies and UCSF Department of Family and Community Medicine.

For example, Coffman said that 61% of physicians have EHRs that enable them to record clinical notes electronically but only 45% have the capacity to generate routine reports of quality indicators, such as the percentage of patients with diabetes who receive recommended lab tests, foot exams, and eye exams.

The research team also found that the size of a physician's practice is the strongest predictor of having an EHR. Physicians who practice in Kaiser Permanente, other large medical groups, the Department of Veteran Affairs, or the military are much more likely to have EHRs than physicians in smaller practices.

Federal regulations identify three categories of objectives aimed at achieving meaningful use of the technology: core objectives, such as the collection of basic medical information; menu objectives, such as submitting electronic immunization data to immunization registries; and electronic reporting on the

quality of care. In 2011 and 2012, clinicians are required to report three quality measures: blood pressure, tobacco status, and adult weight status, as well as three additional clinical quality measures of the clinician's choice.

To further increase the adoption and use of electronic health records, the federal government will provide incentive payments to hospitals and providers that achieve meaningful use of the technology.

The Health Information Technology for Economic and Clinical Health (HITECH) Act incentive payments could total up to \$27 billion over 10 years, or as much as \$44,000 (through Medicare) and \$63,750 (through Medicaid, called Medi-Cal in California) per clinician. This funding also will provide the basis for the creation of a nationwide network of EHRs.

"The Medicare and Medicaid incentive payments will provide valuable resources to physician practices that do not yet have EHRs that will meet meaningful use standards," said Coffman. "Medicaid payments especially are important since we found that community health centers, rural health clinics, and other practices that primarily serve Medicaid beneficiaries and uninsured persons are less likely to have EHRs. Many of these practices are struggling to keep their doors open. Medicaid incentive payments give these practices an opportunity to purchase EHRs."

When fully implemented, EHRs can improve care in a variety of ways, said Coffman. "Reminder systems can alert physicians and other health professionals when patients are due for screening tests, and electronic prescribing systems can incorporate alerts to warn providers if they attempt to prescribe a non-standard dose of a medication or a medication to which a patient is allergic," she said.

For the report, a questionnaire was sent to 10,353 physicians with MD degree license renewals that were due to the California Medical Board between June 1<sup>st</sup> and July 31<sup>st</sup>, 2011. The questionnaire asked physicians if they had an EHR at their main practice location, and assessed eight of the 15 core objectives and four of the 10 menu ob-

## Contemporary Management of Neonatal Pulmonary Disorders Conference

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jectives that CMS established for meaningful use of EHRs.

The survey was limited to the 7,931 physicians in the sample who reported that they practiced in California and provided at least one hour of patient care per week; 5,384 of these physicians (68%) completed the survey.

Co-authors are Kevin Grumbach, MD, Chair of the UCSF Department of Family and Community Medicine; Margaret Fix, MPH, Research Associate at the UCSF Philip R. Lee Institute for Health Policy Studies; Leon Trainer, programmer/analyst at the UCSF Philip R. Lee Institute for Health Policy Studies; and Andrew B. Bindman, MD, Professor at the UCSF Philip R. Lee Institute for Health Policy Studies and UCSF Department of Medicine.

The study was completed under the auspices of the California Medicaid Research Institute and supported by funds from the State of California Department of Health Care Services, Office of Health Information Technology and the California HealthCare Foundation.

UCSF is a leading university dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care.

### New Insight into Placental Growth and Healthy Pregnancy

Scientists at the Babraham Institute have gained a new understanding of how the growth of the placenta is regulated before birth, which has important implications for a healthy pregnancy. The research, published June 10<sup>th</sup> in the journal, *Nature Cell Biology*, shows that the controlled release of a specific molecule, called miR-675, slows down growth of the placenta before birth.

RNA molecules are best known as the intermediary between the cell's DNA and the making of proteins necessary for cell function. However, there are also many RNA molecules with functions other than encoding proteins. Babraham Institute scientists are involved in researching the role of these noncoding RNAs, including microRNAs (a

type of short noncoding RNA molecule) which are important for regulating cell development and function.

The noncoding RNA H19 is one of the most abundant RNA molecules found in mammals, but until now its function was unknown. This study, in collaboration with academics in France, the USA and Belgium, is the first to show that a microRNA called miR-675 is 'cut out' and released from the longer H19 RNA in the placenta and that this limits placental growth.

Dr Andrew Keniry from the Babraham Institute, who is lead author explained, "The function of the H19 noncoding RNA has proven elusive for many years. We have shown that it appears to act as an inert molecule used to store the functional miR-675 until it is required by the cell to slow placental growth. This is a very exciting finding and reveals a new purpose for noncoding RNA. It is also intriguing that the release of miR-675 is controlled by a stress-response protein, suggesting this may be a mechanism the developing embryo can use to regulate its growth in the womb."

Professor Wolf Reik, senior author of the paper and a Group Leader at the Babraham Institute, which receives strategic funding from the Biotechnology and Biological Sciences Research Council (BBSRC) said, "It's interesting to see how the growth of the placenta can be regulated in this flexible way before birth. Perhaps there are environmental signals and influences from the mother's diet on the growth of the placenta and hence the healthy baby. It's also fascinating how an RNA that is so abundant in the cell can be a quick-release reservoir of a growth regulating small RNA, and this may be generally important for how cell growth is regulated by the environment."

The National Institute of Standards and Technology (NIST) has released a guide to help improve the design of electronic health records for pediatric patients so that the design focus is on the users—the doctors, nurses and other clinicians who treat children.

While hospitals and medical practices are accelerating their adoption of electronic health records, these records systems often are not ideal for supporting children's health care needs. Young patients' physiology is different from adults—and varies widely over the course of their growing years. Tasks that

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- Sean P. Elliott, MD
- Haresh Kirpalani, MD
- Jonathan M. Klein, MD
- Satyan Lakshminrusimha, MD
- Lawrence Lilien, MD
- Tonse N. K. Raju, MD
- Heidi Dalton, MD, FCCM, FAAP
- Peggy Pearson, MD
- Robert Puntel, MD
- Brigham C. Willis, MD

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- Timing of Clamping of the Umbilical Cord
- Neonatal Resuscitation: Science Behind the Guidelines
- Non-Invasive Strategies of Ventilation: The Current Evidence
- Choosing a Ventilator: Available Modes, Controls, and Graphics
- Which is the Best Surfactant?
- iNO in Premature Infants: The NIH Consensus Statement
- Blood Transfusion in Preterms: What is the Evidence-Based thing to do?
- Panel Discussion: Ask the Faculty
- Management of Hypoxic Respiratory Failure
- ECMO: "The Times They Are A-Changin'"
- Complications and Errors in Management of ECLS
- Congenital Diaphragmatic Hernia: Assessment, Management, and Outcome
- Does Ventilator Associated Pneumonia or Chorioamnionitis Contribute to Bronchopulmonary Dysplasia
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are routine in larger bodies can be complex in smaller ones, and pediatric patients typically cannot communicate as fully as adults.

These and other challenges can create additional physical and mental demands on the professionals who treat children, and affect the way they interact with an electronic health record. This makes the selection and arrangement of information displays, definition of "normal" ranges and thresholds for alerts in pediatric electronic health records more challenging to design and implement than those created for adults.

The new NIST guide was developed with the help of experts in pediatrics, human factor engineering, usability and informatics (which brings together information science, computer science and health care). The guide was peer-reviewed by both human factors experts and clinicians as well as other professionals in leading pediatric health care organizations in the United States and Canada.

The document offers technical guidance to help the designers of pediatric electronic health records create systems that can be used as intended, efficiently and effectively. Its recommendations include adopting a user-centered design approach that is informed by scientific knowledge of how people think, act, and coordinate to accomplish their goals. It also focuses on critical user interactions—those that can potentially lead to errors, workarounds, or adverse events that can harm patients.

A Human Factors Guide to Enhance EHR Usability of Critical User Interactions when Supporting Pediatric Patient Care (NISTIR 7865) is available at [www.nist.gov/manuscript-publication-search.cfm?pub\\_id=911520](http://www.nist.gov/manuscript-publication-search.cfm?pub_id=911520).

### Mayo Clinic Contest Spurs Research on Health Care Social Media Applications

The Mayo Clinic Center for Social Media announced a research contest encouraging measurement and validation of the application of social media tools to improve health care, promote health and fight disease.

The contest, held in conjunction with the annual member meeting of *Mayo's Social Media Health Network*, Oct. 18–19, 2012, seeks submission of research-based abstracts and case studies demonstrating benefits of social media throughout the health care ecosystem.

"When Mayo Clinic's leaders established our Center for Social Media two years ago this

month, they gave us a broad mandate to identify beneficial applications of social media in health care," says Farris Timimi, MD, Medical Director for the center. "They also encouraged us to collaborate with others in health care to disseminate best practices through our Social Media Health Network. We hope this research-based contest and the scientific session at our member meeting will help catalyze measurement of social media interventions and sharing of findings."

The Social Media Health Network member meeting caps social media week at Mayo Clinic, which begins with Mayo's two-day Social Media Residency and includes its annual Social Media Summit, produced in collaboration with Ragan Communications. A panel will evaluate submissions for scientific merit, with qualified abstracts to be displayed and discussed in a poster session at the beginning of the member meeting.

Authors of the three highest-ranking abstracts will receive complimentary admission to both the summit and the member meeting and will present their findings orally at a plenary session.

Organizers have designated 15 categories for submissions, such as projects related to administrative efficiency, improving clinical practice, facilitating scientific research and clinical trials, staff engagement and public health. The contest rules and abstract submission form with a complete category list are available on the Center for Social Media website <http://socialmedia.mayoclinic.org/2012/07/10/social-media-scientific-session-call-for-abstracts/>.

"We are excited to have reached this point where we can help demonstrate the practical benefits of social media in health care," says Dr. Timimi. "We believe bringing scientific rigor to the evaluation of social media interventions will encourage more widespread adoption of these tools in clinical practice, education and research."

Established in July 2010, the Mayo Clinic Center for Social Media exists to lead the social media revolution in health care.

The Mayo Clinic is the first and largest integrated, not-for-profit group practice in the world. Doctors from every medical specialty work together to care for patients, joined by common systems and a philosophy of "the needs of the patient come first." More than 3,700 physicians, scientists and researchers, and 50,100 allied health staff work at Mayo Clinic, which has campuses in Rochester, Minn.; Jacksonville, Fla.; and Scottsdale/Phoenix, Ariz.; and community-based pro-

viders in more than 70 locations in southern Minnesota, western Wisconsin and northeast Iowa. These locations treat more than half a million people each year.

For information about research and education, visit [www.mayo.edu](http://www.mayo.edu).

## NEONATOLOGY TODAY

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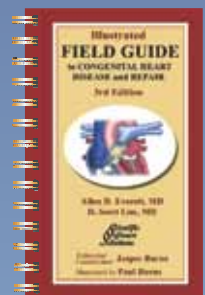
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