The Canadian Neonatal Network™

NEWSLETTER

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THE CANADIAN NEONATAL NETWORK™

CNN Research Subcommittees
CNN research involves a number of different areas, including clinical care, practice guidelines, quality improvement, health services and policy and education and training. As projects in these areas mature and expand, CNN needed to re-structure in order to provide effective vehicles for integrating research evidence into actual practice and policy change. The goal is to facilitate collaboration, avoid duplication of effort and improve effectiveness and efficiency of neonatal care across Canada, i.e. knowledge translation. The direct benefit to hospitals is to realize their contribution towards data collection for CNN, thereby maintaining support and participation in CNN activities and projects. It also provides opportunities for neonatal care professionals to participate in CNN activities and take on leadership roles.

To meet these objectives, the CNN is transforming from a purely research organization into one that encompasses other aspects of neonatal care. The structure of CNN has been re-organized into six (currently) research subcommittees: Clinical, Health Services, Education & Training, Database, Health Informatics and Randomized Clinical Trials. Membership on these subcommittees is voluntary and includes professionals from various disciplines. The CNN Steering Committee has appointed a Chair for each group to direct the group and lead its efforts. The CNN Steering Committee oversees all 6 groups and the CNN Director ensures coordination among the groups and helps integrate activities across the groups.

The subcommittees have been engaged in discussions about their group’s objectives and future plans. These are conducted via regularly scheduled teleconferences. The groups will be presenting an update at the CNN Annual Meeting (June 25-27) at CPS in Victoria, BC.

If you (or members of your unit) are interested in volunteering on one or more of the research subcommittees, please forward correspondence to Aireen.Wingert@capitalhealth.ca

CNN 2006 Annual Report – Revision
A memo was sent in early November notifying all Site Investigators and Abstractors of the errors we detected in the initial publication of the 2006 Annual Report. Members of the Steering Committee and Review Committee examined the report page by page, line by line, and provided valuable input for change. We are now working on finalizing the revised report. In addition to the report, we have clearly documented how analyses were conducted for each presentation. Both documents have been distributed to sites for independent review. We will be instituting this process henceforth for each year’s report prior to printing. For questions about the CNN Annual Report, please contact Aireen.Wingert@capitalhealth.ca
Steering Committee Election

An election was held in early October to fill three vacant positions on the CNN Steering Committee. We are pleased to announce that Drs Keith Barrington, Aaron Chiu, Jonathan Hellmann, and Bruno Piedboeuf have been elected to the CNN Steering Committee, for three-year terms.

Dr. Keith Barrington is a neonatologist who has held appointments at the University of Alberta (1988-1995), the University of California, San Diego (1995-1999) and McGill University (1999-present). He is director of the NICU at the Royal Victoria Hospital, Montréal, currently chair of the Fetus and Newborn Committee of the Canadian Paediatric Society and a professor of Pediatrics at McGill University. He is an active member of the Neonatal review group of the Cochrane collaboration and has published 8 systematic reviews, with their updates, as well as 70 other peer reviewed publications.

Dr. Aaron Chiu completed medical school at the University of Toronto, with residency and neonatal training at the Children’s Hospital of Eastern Ottawa (University of Ottawa). He has been on faculty in Neonatology at the University of Manitoba since 1998. He is involved in postgraduate education at the local and national level and is the vice-chair of the Neonatal-Perinatal Medicine Subspecialty Committee at the Royal College of Physicians and Surgeons of Canada. Dr. Chiu is active in local clinical research endeavours (from database research, surveys, to clinical trials) in addition to being a site investigator for numerous neonatal clinical trials.

Dr. Jonathan Hellmann is Professor of Pediatrics at the University of Toronto and Clinical Director of the NICU at the Hospital for Sick Children. He is a graduate of the University of Witwatersrand in Johannesburg, South Africa (1970); he did his neonatology fellowship at the Pennsylvania State University in Hershey, PA, USA, under Jeff Maisels, Nick Nelson and Robert Vannucci. He has been in the Division of Neonatology at the Hospital for Sick Children since 1983. He was an examiner of the Royal College in Pediatrics from 1997-2002; he obtained a Masters in Bioethics at the University of Toronto in 2006 and is on the teaching faculty at the Joint Centre for Bioethics in Toronto. He is the site director for the CNN at Sick Kids. His particular interests are in education and ethical issues in the newborn.

Dr. Bruno Piedboeuf completed clinical training at the University of Montreal (Hôpital Sainte-Justine) and 3 years of research fellowship in molecular biology of the lung at Rochester, New York. He has been Staff Neonatologist at Laval University and Centre Hospitalier Universitaire de Québec since 1993. He was appointed Chief and Chair of the Pediatric Department in November 2003. His major research interest is the biology of the lung development both at the fundamental and clinical levels. He is also involved in several multicenter clinical studies with his colleagues in obstetrics. In the past 5 years, he has collaborated with Francine Lefebvre (University of Montreal) in the creation of a consortium to follow the extreme premature babies in the province of Quebec. He strongly believes that future major progress in neonatology will be related to healthcare practice. The CNN offers a unique opportunity to explore the practices in neonatology and to make Canada a leader in clinical research.
We would like to thank Dr. Alexander Allen, Dr. Gerarda Cronin and Dr. John Van Aerde for their valuable contributions during their term on the CNN Steering Committee. Sincere thanks to all the nominees who stood for election, and to the sites who took the time to vote. We look forward to a productive year!

CNN Annual Meeting

We will be holding our CNN Annual Meeting concurrently (June 25-27) with the Canadian Pediatric Society Conference (June 24-28) in Victoria, British Columbia at The Fairmont Empress Hotel. We will be hosting a number of sessions including our Annual General Meeting, Research Meetings, EPIQ/PHSI, many more.

Website Update

The CNN website is currently undergoing construction and we expect the new site to be rolled out in early May. The website will don a fresh new look and incorporate features such as automatic password retrieval for members’ login. In the meantime, we have enabled continued access to the old website at www.canadianneonatalnetwork.org. Please feel free to contact the CNN Coordinator for information or questions pertaining to CNN and its activities. We thank you for your patience during this time, and look forward to your input on the new site!
Updates from 2007.....

Although we are well into 2008, our updates for the later portion of 2007 are a testament of good things to come and the hard work of the Database Development Team. Here’s a glimpse of some of our successes;

The web site of the WHO Global Data System on Maternal and Perinatal Health has been implemented and released in October 2007.

Implementation of the Portuguese version of International Neonatal Collaboration (INC) database has been started. The database will be a new addition to the INC database family which already has a Spanish version in use. Portuguese speaking regions in Latin-America will be able to implement the Portuguese version in their institutions to become part of SIBEN INC.

A software bug was fixed within the multi-user module. Many sites had experienced this programming error, which causes some records to lock resulting in users being denied access. We have separately released the corrections to sites which experienced the problem.

Cape Breton Regional Hospital in Nova Scotia has started to use CNN database as of late September, 2007.

Automation of selected CNN annual report presentations has also been started at the end of last year. Currently, this process is being implemented and experimented with Microsoft SQLServer Reporting Services. Expected to finish in Summer 2008, these automated report presentations will aid the production of the CNN annual reports later this year as well as in future years.

Moving forward in 2008...

As follow-up to the pilot of "on-going data checking" process last year, a monthly data checking process has been implemented, and started in January for both CNN data and INC data. Each month, at the data coordinating centre, we will check any data submitted during the previous month and provide reports to the sites which have submitted the data. The goal of this process is to provide more frequent feedback to sites about the data collected, and to replace our previous annual data checking process.
The “CNN Unique Identifier” has been under discussions since the end of last year. The unique identifier system will allow CNN to keep track of the admission-readmissions, as well as transfers of patients, between different network hospitals by using only one identification number to represent the same patient. The unique identifier system is scheduled to be ready for early 2008.

Please welcome the latest additions to the IT team; Hoang Le who has been working hard on various reports for CNN and Griselda Pecku who is continuously helping on INC data check. We are pleased to have these resourceful team members join us!

Besides the database screens, Spanish and Portuguese versions of OBR (One Button Reports) are also being developed. Our SIBEN INC sites will be the main users of these versions. For all versions of OBR, more reports will be implemented. Our immediate goal is to migrate all reports in our current "ReportAgent" software into OBR so that database users can enjoy the advantage of “one single software one single mechanism” to create reports for similar to patient-based data abstraction, a patient-based organization of data will enhance our workflow and results in our analysis process. We have started to reorganize 3 years of data for EPIC I (which includes all infants discharged by December 2005) to create a patient-based EPIC I dataset. We are looking forward to this new analysis-friendly dataset, and look forward to planning the same type of dataset for the CNN data in order to improve the upcoming CNN Unique Identifier.

The data abstraction of CNN has been "admission-based" in previous years. To further enhance the organization of data, a patient-based data abstraction is suggested. To migrate from admission-based to patient-based abstraction, modifications of the screens and the backend data at local sites are required. We'll minimize the changes in order to make the migration smooth. The work towards patient-based abstraction will begin in the second half of 2008. More details to follow!
International Networks

**INC**
The International Neonatal Collaboration (INC) is a group of multi-disciplinary researchers who collaborate on research issues related to neonatal care. INC includes members from District 8 of the American Academy of Pediatrics and from Latin-American countries. The mission of INC is to facilitate and support the researchers who conduct, leading multi-disciplinary, collaborative research dedicated to the improvement of neonatal-perinatal health and health care internationally. INC maintains a standardized neonatal intensive care unit (NICU) database which provides a unique opportunity for researchers to participate in collaborative projects on a national and international scale.

**ICONN**
The International Collaboration of Neonatal-perinatal Networks (ICONN) is a group of networks aimed at improving health and health care for infants and their families through international collaboration. ICONN will establish a framework for this collaboration and the dissemination of knowledge among national neonatal networks, beginning with the formation of a common minimal dataset and definitions. They will examine opportunities for collaborative research projects and funding.

**SIBEN**
The Sociedad Iberoamericana de Neonatologia (SIBEN) is a non-profit organization aimed at improving quality of life of newborns and their families in the Iberoamerican population. SIBEN is led by president elect Dr Augusto Sola, a prominent neonatologist and current Director of Neonatal Research and Academic Affairs at Morristown Memorial Hospital in New Jersey. SIBEN and INC have the common objective of promoting and conducting neonatal-perinatal research which lead to improvements in health and quality of health care. To this end, SIBEN and INC have executed a Memorandum of Understanding to establish their collaborative relationship.

**Interesting Facts . . . .**

- Over 36000 Level-3 NICU admissions have been reported to CNN between 2003 and 2006!
- Since 2005 annual admission records reported to CNN have nearly doubled from 6000 to almost 12,000.
- To date, over 100 centers of CNN, INC, and SIBEN are using the same standardized database originally created by CNN!
- INC is now active in over 45 cities across 13 countries in North, Central and South America!
International Projects & News

We were delighted to have Dr. Patricia Mena visit Alberta in early February. Dr. Mena graduated as a medical doctor at Universidad de Chile (1977) Pediatrician at Pontificia Universidad Catolica de Chile where she is currently Associate Professor. Her areas of interest are neonatal nutrition and metabolism, medical teaching, leadership development, human resource development, and collaborative research. She has had numerous national and international publications and lectures around the world. She is a member of the National Neonatal Committee of the Ministry of Health in Chile and Scientific Director of Neonatal del Cono Sur (NEOCOSUR), the South American Neonatal Network. Dr Mena was an invited guest speaker at the 2008 Western Perinatal Research Meeting (Banff, Alberta) and at the iCARE International Speaker Series where she presented on “Neonatal View of South America’s Extreme South”.

On October 5, 2007, Dr. Shoo Lee was awarded the Premier Member of Honor by the Sociedad Iberoamericana de Neonatologia (SIBEN) in recognition of his many contributions to newborn care in Latin America and around the world.

World Health Organization Global Survey Update

The World Health Organization is conducting a Global Survey on Maternal and Perinatal Health with over 54 countries participating in the survey. Canada’s commitment to the survey is nation wide and includes 8 provinces, with a total of 96 sites being involved.

In the process of participating in the WHO global survey, the team has taken the opportunity to move towards creating a national database on maternal and perinatal health. The database will ideally standardize the current variables that are being collected across Canada as well as fulfill all of the WHO survey requirements. Data collection for the survey will begin on April 1st.

China International Training Program

The China International Training Program is now in it’s fifth successful year of international training. The program has had 38 students participate with representation from 17 Chinese provinces. To date a total of 71 instructors have also participated in the program, with representation from across North America as well as Australia.

- British Columbia—11 instructors
- Saskatchewan—3
- Ontario—27
- Nova Scotia—7
- United States—3
- Alberta—11
- Manitoba—4
- Quebec—1
- Newfoundland/Labrador—3
- Australia—1

*Congratulations to Liu Jiangqin a fellow in the China Training Program who recently received a STIHR Graduate Studentship from the Maternal Fetal Medicine STIHR which is funded by CIHR.*

Check out the new WHO-Canada’s Global Survey Team Website!http://www.icareabouthealth.ca/who/
A QI group by any other name would not spell as sweet. (apologies to W. Shakespeare)

NEW WEBSITE
Who is a member of EPIQ?
What is the One Button Report?
Where can you chat with other members online?
When are EPIQ sites meeting next?
Why do an Evidence Review?
How can you submit online Practice Changes?

All of this information, plus various tools, are found on our new Member website.
To get an individual login ID please ask your Site Contact to send your name and e-mail address to kym.schreiner@capitalhealth.ca.

We are particularly proud of our new Discussion Forum where sites can share questions and answers, and provide feedback on our new EPIQ Evidence Reviews.

Check it out! www.EPIQ.ca

UPCOMING MEETING:
- EPIQ workshop at CPS in Victoria, B.C.
  2:00-6:00 pm Pacific Time Thursday June 26, 2008

NEW WEBSITE
We are now EPIQ! The EPIC/PHSI and older EPIC monikers have been exchanged for a shorter name to emphasize our QI efforts and – bonus – to give us a simpler web address: www.EPIQ.ca!
EPIQ sites are now focusing on over twenty “hot topic” Evidence Reviews for the NICU. Based on the International Liaison Committee on Resuscitation 2010 worksheet (see http://www.americanheart.org/presenter.jhtml?identifier=3052119), these Reviews are especially useful in helping summarize the evidence and making recommendations on topics where systematic reviews and randomized controlled trials are not available. To assist sites in completing Reviews, a training video “EPIQ Tips for Evaluating Evidence: a stepwise guide” was developed and distributed by the EPIQ team.

Submitted Reviews are now posted on our Member website where members can also provide feedback via our online Discussion Forum. Review authors then have the opportunity to reply or edit their reviews.

Reviews are arriving regularly. Here are some of the exciting reviews in so far!

1. “Should patients be pre-oxygenated prior to suctioning in the neonatal and pediatric population” [review by Hospital for Sick Children: McClelland L, Mills K]
2. “Should saline instillation be used when suctioning pediatrics and neonates?” [review by Hospital for Sick Children: McClelland L]
3. “Can permissive hypercapnia safely reduce the incidence of BPD” [review by Hôpital Sainte-Justine: Mohamed I, Mercanti I, Mandeville, J, Lachance C]
4. “Optimum skin antisepsis for invasive procedures” [review by Kingston General Hospital: Connelly R]
5. “Does the use of CPAP for resuscitation or initial respiratory support reduce the need for assisted ventilation (endotracheal intubation and IMV) or use of surfactant in the preterm infant <= 32 weeks gestation?” [review by Foothills Medical Centre: Yee WH, Scotland J, Pham Y, Finch R]
6. “In neonates, do central venous catheters (CVCs) as compared to peripheral cannulae (IV) increase the rate of pericardial effusion or cardiac tamponade?” [review by British Columbia Children’s Hospital: Synnes AR, Buchanan L, Deshpande A]

Summary of Evidence
Evidence Supporting Clinical Question

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<thead>
<tr>
<th>Good (most on list)</th>
<th>Fair (some on list)</th>
<th>Poor (few on list)</th>
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<tbody>
<tr>
<td>See last page for list of Quality Items</td>
<td>Randomized Controlled Trials (or meta-analyses of RCT’s)</td>
<td>Studies using concurrent controls non-randomized (or meta-analyses of such studies)</td>
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<td>Studies without a control group (e.g. case series)</td>
<td>Studies not directly related to the specific patient population (e.g. different patient population, animal models, mechanical models)</td>
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<td>Level of evidence</td>
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THE CANADIAN NEONATAL NETWORK™
Welcome to the Abstractor’s Corner! This section is devoted to questions, answers and comments from abstractors in recent months. Our goal is to build a unified abstractors team across Canada by maintaining open lines of communication and support.

**QUESTIONS**

A question re: a blood culture--two organisms isolated "Coagulase Negative Staphylococcus species" and "Bacillus species, not B. cereus". How do I code the second one and which Staph coag neg do I use? Both were considered to be contaminants--subsequent culture was negative.

*Please score the Coag Neg Staph as "Staph Coagulase Negative (CONS )"; the Bacillus species not B. cereus may be scored as Gram Positive Rods (PRO)*

How do we code (or do we code?) the following:

1. Pierre Robin sequence
   • Please score as 'other anomalies of mouth'
2. Thanatophoric dysplasia type 1 (dwarfism)
   • Please score under Congenital Anomalies: 'Congenital malformation syndromes affecting multiple systems' Type 'Other'
3. Leukemoid reaction
   • Please score as "other blood disorder" and put a comment indicating leukemoid reaction
4. A baby who is outborn and transferred to our center via the parents (in car seat/ parents car). How do we code the transport sheet "team personnel"?
   • It would be ideal to try and capture this in Transport since baby was outborn - just fill in the date, distance, and time. I believe you would not have the other details
5. How do we code betamethasone given to mom 46 hours before delivery and another dose given 22 hours before delivery?
   • This meets the criteria in the manual for a 'Complete' dose of antenatal corticosteroids (one dose 24 hrs/more prior AND one dose 7 days/less prior to delivery).

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**Edmonton Contact Information**

Congratulations to Aireen Wingert who will be leaving on maternity leave effective June 27th! During her absence Cassandra Deyne will be taking over all aspects of the CNN coordination. As of May 15th all CNN correspondence can be directed to Cassandra. Tel. (780) 492-1231 cassandra.deyne@capitalhealth.ca

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