



# The Canadian Neonatal Network™

## NEWSLETTER

VOLUME 2 ISSUE 2

JUNE 2007

SPRING/SUMMER  
ISSUE

IN THIS  
ISSUE:

1  
NICE Workshop 2007

2  
Distinguished  
Neonatologist Award

3  
CNN 2006 Annual  
Report

4  
EPIC/PHSI

4  
Spotlight on Database  
Development Team

7  
CNN Database Update

8  
Abstractor's Corner



## NICE Workshop 2007

The Neonatal-Perinatal Interdisciplinary Enhancement (NICE) Team held its third annual meeting at Banff in February, in conjunction with the Western Perinatal Research Meeting. The goal of the NICE Team is to build capacity for quality of care research by establishing a common infrastructure to support interdisciplinary work of researchers, clinicians and decision-makers in quality improvement. There were over 30 participants from the Networks (CNN, CPN and CAPSNet) as well as members of international networks (ANZNN, ICONN and INC) who attended the NICE sessions held over two days.

The NICE meeting addressed issues of establishing governance, and setting protocols and policies for the Team. It was determined that requests for data access and research projects are required to proceed via application to the Steering Council, a governing body consisting of one elected delegate from each network. Integrating the networks will assist in the collaboration and development of research projects.

Several Canadian Neonatal Network™ (CNN) sessions were held at the NICE meeting. The CNN Database and Annual Report Committee examined the current definitions of data variables in the CNN Database, addressed how data is currently being reported and put forward suggestions for improving the quality and interpretation of the data, as well as recommendations for increasing user satisfaction with the CNN Annual Report. Several study proposals were presented at the CNN Re-

search Meeting, and we will be hearing updates on these proposals in the near future.

The International Collaboration of Neonatal Networks (ICONN) also held a research and business meeting. International network presentations included the Australia-New Zealand Neonatal Network, the European Neonatal Network (ENN)/ European Neonatal Statistics (ENS), and the International Neonatal Collaboration (INC)/ Sociedad Iberoamericana de Neonatología (SIBEN). Strategies for establishing a common minimal dataset among the networks were discussed, along with possible sources of funding. A neonatal-perinatal research foundation was put forward as one possibility to address lack of resources and to increase public awareness. The ICONN group also discussed various communication mechanisms to ensure research ideas are brought to the forefront.

In addition to these networks, several groups took the opportunity to engage researchers in their areas of interest. Both the Congenital Anomalies Network and the Midwifery Research Network held their first team meeting. The Programme for Global Pediatric Research engaged international researchers in a two-day intensive workshop to examine research protocols related to birth asphyxia, perinatal asphyxia and stillbirths in developing countries.

The productivity of the NICE Team meetings can directly be attributed to all the participants' efforts, valuable time and input!



## 2007 Distinguished Neonatologist Award

For information on  
CNN meetings,  
visit:  
[www.canadianneonatalnetwork.org](http://www.canadianneonatalnetwork.org)

For information on  
the CPS, visit:  
[www.cps.ca](http://www.cps.ca)

The Canadian Neonatal Network™ is proud to announce that Dr. Shoo K. Lee has been awarded the 2007 Distinguished Neonatologist Award, by the Canadian Pediatric Society. The Neonatal-Perinatal Section will celebrate in Dr. Lee's honour at an award dinner on Tuesday, June 26, 7:00pm EDT at the Fairmont Queen Elizabeth Hotel in Montréal.

Our CNN annual meetings are held in conjunction with the Canadian Pediatric Society (CPS) and this year it will be in Montréal, Québec from June 25-29.

For more information on the CNN meetings, please check the CNN website at [www.canadianneonatalnetwork.org](http://www.canadianneonatalnetwork.org) or email [Aireen.Wingert@capitalhealth.ca](mailto:Aireen.Wingert@capitalhealth.ca).

For more information on the Canadian Pediatric Society and the annual CPS conference, please visit [www.cps.ca](http://www.cps.ca).

## CPS 2007 CNN Meeting Schedule

<b>Monday, June 25</b>	8:00-10:00am	CNN Annual Meeting	<b>RICHELIEU ROOM</b>
	11:00-12:00	International Training Program in Neonatal-Perinatal Medicine	<b>ST. MAURICE ROOM</b>
<b>Wednesday, June 27</b>	7:00-10:00am	CNN Research Meeting + TELECONFERENCE	<b>GATINEAU ROOM</b>
<b>Thursday, June 28</b>	8:00-10:30am	CNN Database & Annual Report Committee Meeting	<b>HOCHELAGA 1 ROOM</b>
	1:00-4:00pm	EPIC/PHSI Meeting + TELECONFERENCE	<b>PÉRIBONKA ROOM</b>
<b>Friday, June 29</b>	8:00am-12:00	CNN Abstractors Meeting	<b>BERSIMIS ROOM</b>





## CNN 2006 Annual Report

The following sites will be included in the CNN 2006 Annual Report:

Children's and Women's Health Centre of BC  
 Victoria General Hospital  
 Royal Columbian Hospital  
 Foothills Medical Centre  
 Royal University Hospital  
 Reginal General Hospital  
 Winnipeg Health Sciences Centre  
 St. Boniface General Hospital  
 St. Joseph's Health Centre  
 Hamilton Health Sciences Centre  
 Hospital for Sick Children  
 Mount Sinai Hospital

Sunnybrook Health Sciences Centre  
 Kingston General Hospital  
 Hôpital Sainte-Justine  
 Centre Hospitalier Universitaire de Québec  
 Montréal Children's Hospital  
 Royal Victoria Hospital  
 Jewish General Hospital  
 IWK Health Centre  
 Moncton Hospital  
 Dr. Everett Chalmers Hospital  
 St. John Regional Hospital  
 Janeway Children's Hospital

Many sites were able to submit their data by the April 30 deadline. A few sites were given extensions to enter remaining patients and/or to correct error messages. Thank you to everyone for your efforts - it is much appreciated. We will begin integrating all the data during the last week of June. Analyses will start early July and is expected to be completed by the end of the month. The annual report will then be examined by the review committees with the aim to publish the CNN 2006 Annual Report by early September 2007. Stay tuned!



*We would like to thank the Site Investigators and CNN Data Abstractors for all their hard work!*

*Sincerely,  
 CNN Team*

*Merci*

For questions related to CNN or CNN Annual Reports, please contact:  
 Aireen.Wingert@capitalhealth.ca

### ◆ WHO Grant Awarded ◆

A two year World Health Organization/Canadian Institute of Health Research (WHO/CIHR) Grant has recently been awarded to Dr. Shoo Lee, Dr. Anthony Armson and their team of 22 highly talented and successful members from across the nation. The team members will be coming together to move forward on the strategic direction and implementation of the project.

The partnership between the WHO and Canada will move towards creating a network of focused information in regards to health and health services provided to mothers and their babies (i.e. identify trends in technology and areas of concern). The increase in health risks for both mother and baby will be one of the main focuses of the study, specifically the relationship between the types of delivery, the care received immediately after delivery and health outcomes for both mother and baby.

The various relationships will be compared among the provinces of Canada and between other countries. The information will enable us to improve and provide better care for mothers and their babies.

We look forward to the inter-provincial successes that will be forthcoming in the near future!

For more information on the WHO project, please contact Brenda Reid at  
 Brenda.Reid@capitalhealth.ca



## EVIDENCE of EPIC/PHSI!

There are now 24 sites across Canada participating in Evidence-based Practice Identification and Change (EPIC) / Partnerships in Health Systems Improvement (PHSI). EPIC/PHSI is an initiative to support and evaluate EPIC-style quality improvement efforts in NICUs nationwide.

Since our November 2006 training workshop, EPIC/PHSI sites have formed their teams, identified practice changes to focus on, and most have started implementing them. So far, fourteen practice changes have been submitted online with topics ranging from interventions to reduce nosocomial infection and bronchopulmonary dysplasia, to improving nutrition and patient safety.

Our new internal EPIC/PHSI website ([www.canadianneonatalnetwork.org/cnnportal](http://www.canadianneonatalnetwork.org/cnnportal)) features these online practice changes. Also found on our internal website, launched in April, are resources such as a discussion forum, systematic reviews and guidelines, and agendas/minutes of previous teleconferences.

We have held two series of 4-day teleconferences where EPIC/PHSI sites shared their Practice-Change forms, plus the successes or challenges they have faced while implementing the EPIC process. Our next Teleconference on June 28 is also a Meeting for those attending the annual Canadian Paediatrics Society conference in Montréal. Hope to see you there!

### UPCOMING EPIC/PHSI EVENTS

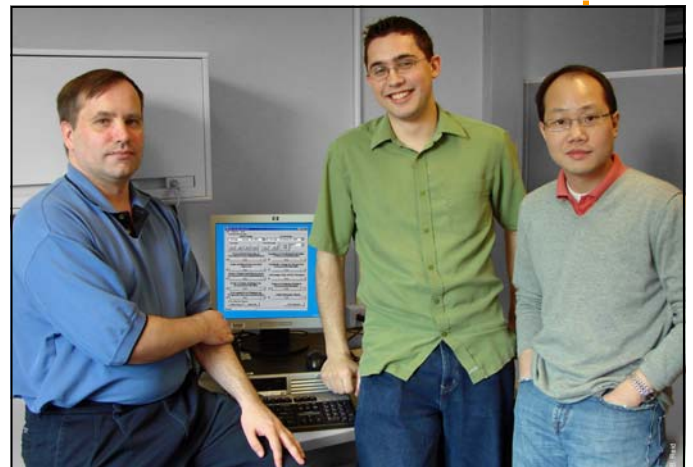
- **June 28, 2007 at 1-4 pm (Eastern Time), Teleconference/Meeting** during CPS in Montréal.
- **Sept 25, 26, 27 Teleconference** at 9 am, 9 am, and 10 am, respectively (Mountain Time).

### Spotlight on Database Development Team

The new tools provided to EPIC/PHSI sites, like the One Button Report and online Practice-Change Form, are the handiwork of our CNN Database Development Team. This team, led by Jack Yeung, is comprised of Brett Hardin and Jordan Uytterhagen.

Brett programmed the One Button Report with input from Dr. Khalid Aziz, Co-Chair of EPIC/PHSI. Brett also wrote the manual for One Button Report, and added extra features for data checking. Jordan developed the online Practice-Change Form and is most proud of a behind-the-scenes feature that exports the online forms to an Excel spreadsheet. This saves a lot of time for the EPIC/PHSI coordinator. And overseeing all these activities, and many more, is Jack – troubleshooter extraordinaire.

Although having a background in computing science is critical to their work, having keen detective skills helps when figuring out why their programs respond differently across the EPIC/PHSI sites. It doesn't usually take long, and the Team is always open to suggestions. "I'd like to hear some feedback on functionality and usability, and how to improve [these tools] in the future,"

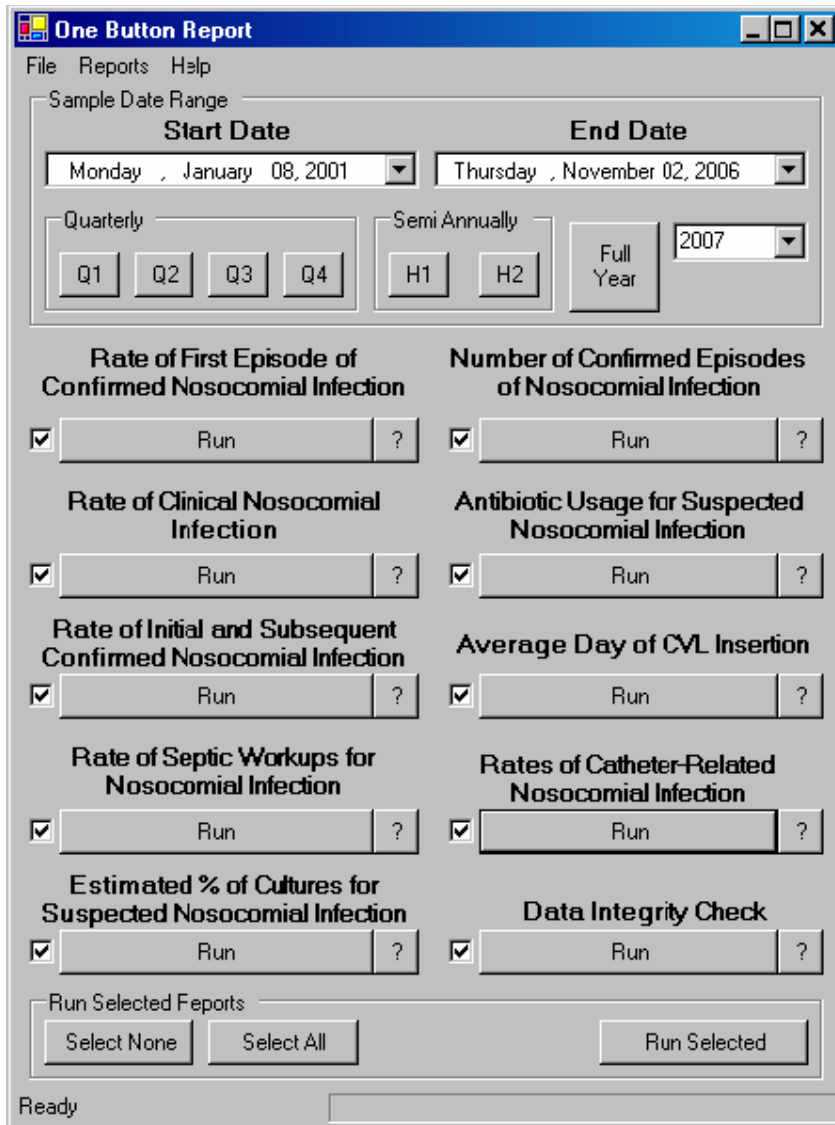


*CNN Database Development Team:  
Brett Hardin, Jordan Uytterhagen, and Jack Yeung*



## One Button Report Released

The long-anticipated One Button Report for Nosocomial Infections (NI) was released Friday, April 13<sup>th</sup> to lucky EPIC/PHSI and CNN members. This new program is a significant advance over the previous reporting tool as it is more stable, and provides 9 different reports (Rate of First NI Episode, Number of Confirmed NI Episodes, Clinical NI Rate, Antibiotic Usage, Rate of Initial/Subsequent NI, Average Day of Central Venous Line Insertion, Rate of Septic Workups for NI, Rates of Catheter-Related NI, and Estimated % Cultures for NI).



One Button Report will be a useful tool for sites to provide trends in NI associated with implementing Practice Changes. Site data (unverified) can be reported on quarterly, semi-annually, or annually, or with user-set time ranges. So, sites can easily run reports before and after a practice change to see if NI has been affected.

Later versions of One Button Report will include national rates of NI as benchmarks for comparison, trends over time, and other domains such as bronchopulmonary dysplasia.

*One Button Report menu*

### RECENT EPIC PUBLICATION

Stevens, B., S.K. Lee, M.P. Law, J. Yamada, and CNN EPIC Study Group. A qualitative examination of changing practice in Canadian neonatal intensive care units. *Journal of Evaluation in Clinical Practice* **13** (2007) 287–294.



## EPIC/PHSI PRACTICE-CHANGE FORMS NOW ONLINE

The Database Development Team has made the EPIC process even easier with the new online Practice-Change forms. These forms help sites plan their interventions and are a monitoring tool to record the rationale and status of new practice changes.

By now having the Practice-Change form online sites can enter information anytime throughout their Plan, Do, Study, and Act (PDSA) cycle and obtain print-outs to discuss at QI meetings. And, if sites agree, the Practice-Change forms are uploaded on the EPIC/PHSI Internal website to share with other sites considering similar practice changes. These sites then have a model to work from, and a contact for further questions.

*“The web based design is definitely more efficient ... [and ...] will be a valuable record as we progress in evidence based practice.”*

Faye Hickey,  
Research  
Nurse Coordinator,  
Janeway  
Children’s  
Health Centre

### Canadian Neonatal Network™

*Evidence-based Practice Identification and Change / Partnerships for Health Systems Improvement*



#### EPIC/PHSI Practice-Change Form (condensed version)

1. Describe the OVERALL AIM of this Practice Change (e.g. reduce number of skin breaks).

2. Why was this Practice Change selected? RANK (1 to 5, most to least relevant) reasons for selecting practice change:

- \_\_\_ Patient Data (e.g. CNN data, Vermont Oxford data, QI data, Critical Incident)
- \_\_\_ Literature (e.g. EPIC/PHSI site, Conference, Article, Guidelines, Journal Club, Rounds).
- \_\_\_ Individual (e.g. EPIC/PHSI member, senior person indicated need, told to do it, felt correct).
- \_\_\_ Equipment (e.g. product changes, new equipment).
- \_\_\_ Other \_\_\_\_\_

3. Domain that is being targeted by this Practice Change (select one or more):

- Nosocomial infection
- Bronchopulmonary dysplasia
- Brain injury
- Nutrition/NEC
- Sensory (ROP/Hearing)
- Patient care/safety
- Other \_\_\_\_\_

	WHAT?	WHO?	WHEN?
AIM	What practice(s) do you want to change? (e.g. give surfactant within 30 min, new IV start policy, weekly review of “routine” blood work)	Who is taking ownership of this?	When was it decided to do this?
PLAN	What needs to be in place to do this?	Who needs to be engaged?	When will you start?
DO	What are you actually doing at the bedside/in the institution?	Who is responsible to make this happen?	When did you actually start?
STUDY	What outcome are you measuring? How are you measuring it?	Who evaluates the outcomes?	When will you complete the evaluation?
ACT	What did your results tell you to do next? If ACT is still in progress please provide details below.	Who needs to know (groups)?	When will you implement your findings?

4. Do you have any tips for implementing this PDSA?

5. Can we share this Practice-Change form with other sites by:

- password-protected website?  Yes  No
- e-mail, at site request  Yes  No

Questions? Contact EPIC/PHSI Coordinator [kym.schreiner@capitalhealth.ca](mailto:kym.schreiner@capitalhealth.ca)

EPIC/PHSI Practice-Change Form ([www.canadianneonatalnetwork.org/epicphsi.shtml](http://www.canadianneonatalnetwork.org/epicphsi.shtml))

Adapted from ©Institute for Health Improvement ([www.ihl.org/ihl](http://www.ihl.org/ihl))

Condensed version of the new online EPIC/PHSI Practice-Change Form



# CNN Database Update

## OBR

A local site reporting program “one button reports” has been created for the EPIC/PHSI project. It was released April 2007 with 9 pre-defined reports related to nosocomial infections. It will eventually extend to include bronchopulmonary dysplasia reports, and replace the existing “Report Agent” as the standard local site reporting program.

## EPIC I Integration

The 3 years data for EPIC I (which included all infants discharged by December 2005) have been error-checked and integration was completed in mid 2006. Analyses of the data are underway. Stay tuned for publications arising from the EPIC I study!

## INC - SIBEN

The Spanish version of the International Neonatal Collaboration (INC) has been distributed to institutions in Latin- and Ibero-America since late 2006, with over 50 copies released.

## Multi-User Module

A module allowing more than one individual to access and collect data at any one time has been implemented. Fine-tuning the process is ongoing and the final release of the module is expected later this year.



## New Data Checking

We have implemented a pilot of an “on-going data checking” process to replace the annual data checking process at the Coordinating Centre. The goal is to decrease the time in providing feedback to sites once a completed record has been uploaded to the Centre. This began with 2006 data and the process will be refined with a detailed mechanism this August.

## 10 Years of CNN Data

Over the last ten years of data collection, the database has transpired over 4 versions. The set of data collected has also been revised over time. At the beginning of 2007, we began to reformat and integrate all data from 1996-2005. The integrated datasets are still undergoing refinement. This will allow researchers to examine trends in mortality, morbidity and major outcomes.

Database Questions?  
Jack.Yeung@capitalhealth.ca





# Abstractor's Corner

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 patient was intubated just long enough to receive Bles - and then was back on CPAP. Do I score this as a vent day or CPAP day?

*For NTISS, please score CPAP as well as Vent and score surfactant and intubation. For Discharge screen, the one day the baby was on both resp supports would only count for the highest form (Vent here). For example if this schedule reflected the baby's resp status for the duration of NICU stay:*

*Day 1 CPAP*

*Days on Vent = 1*

*Day 2 CPAP and Vent*

*Days on CPAP = 2*

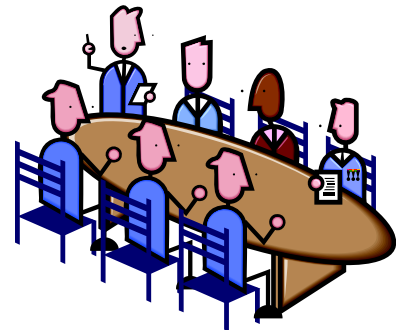
*Day 3 CPAP*

- One more question on the calendar year/babies to enter still scenario. Is it admitted in January, February, March that you work on or discharged in those months?

*There's usually confusion around this area - the criteria is: For the entire year 2005, those admitted between January 1, 2005 and December 31, 2005 AND discharged by March 31, 2006 are eligible.*

- What do we do with study drugs when the drug type is unknown? For example with our RAIN Trial, I know one drug is a narcotic but I don't know which one it truly is. We have not scored any of them in CNN as you previously indicated.

*We need to bring this to the attention of the Database and Annual Report Committee for discussion and a decision.*



**Abstractors Meeting at CPS**

Several teleconferences were held in May to review database issues, concerns and suggestions. The next set of teleconferences will likely be scheduled for July and September. Further discussions will take place at the Abstractors Meeting at CPS in Montréal (June 29, 0800-1200). Minutes of the meeting will be distributed to everyone.



Questions/Comments/Suggestions?  
Aireen.Wingert@capitalhealth.ca

## Edmonton Contact Information



### **CNN Director: Dr Shoo K. Lee**

### **CNN Coordinator**

Aireen Wingert  
Aireen.Wingert@capitalhealth.ca  
Tel: (780) 492-4877

### **CNN/EPIC Database Programmer Team Lead**

Jack Yeung  
Jack.Yeung@capitalhealth.ca  
Tel: (780) 492-4267

CNN Website:

[www.canadianneonatalnetwork.org](http://www.canadianneonatalnetwork.org)

### **EPIC/PHSI Coordinator**

Kym Schreiner  
Kym.Schreiner@capitalhealth.ca  
Tel: (780) 492-3859

### **WHO Project Coordinator**

Brenda Reid  
Brenda.Reid@capitalhealth.ca  
Tel: (780) 492-3750

The CNN Coordinating Centre is located at the Integrated Centre for Care Advancement through Research (iCARE).

More information on iCARE can be found at:  
[www.iCAREabouthealth.ca](http://www.iCAREabouthealth.ca)

### **iCARE Address:**

Integrated Centre for Care Advancement through Research  
3rd Floor Environmental Engineering Building  
112 St & 87 Ave.  
University of Alberta  
Edmonton, AB T6G 2M8

