

Neonatal Intensive
Care Unit (NICU)

Research Column

Updates

Research Newsletter



Volume 5, Issue 7



September 30, 2009

Research Capacity Building



If you are interested in having your research highlighted or have an event that you want featured, please contact Research Capacity Building for assistance.



In this Issue

3 – 4 NICU History

5 NICU Research Summary for 2008

6 Research Column

7 North and Central Island Meet and Greet Update

8 Second Annual VIHA Research Day Update

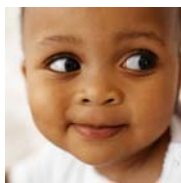
9 - 10 Upcoming Events

To subscribe/unsubscribe to the newsletter or to suggest a feature or highlight your own research, please contact:

*Research Capacity Building
Research & Academic Development
cap_building@viha.ca*

NICU HISTORY

Formerly known as the Special Care Nursery (SCN)



It's 1969 and 30-week-old twins have arrived in the Royal Jubilee Hospital. Due to their early entrance into the world, the twins have been placed on ventilators to ease their work of breathing and to give them a better chance at survival.

The staff is working hard to meet the changing demands of the twins. Their questions revolve around appropriate oxygenation, how often to change the breathing tubes, and what is the safest way to secure it.

As each day passes, the staff continues to evaluate the twins, assessing the effect of their care and the outcome of the twin's development. When progress was not being made, strategies were changed with the hopes that a new direction would improve their condition.

While NICU worked through the challenges that were faced with the 30-week-old twins, they unconsciously laid the foundation for the early work of research in the unit. With minimal experience at the time, questions were continuously being asked with answers needing to be delivered immediately.

The NICU was on the road to rapid change.

From the 1970s to the present, NICU has evolved into Vancouver Island's primary neonatal hospital. Today, the NICU has 22 beds that see approximately 500 patients a year with varying levels of care.

In order to aid navigation of the countless changes that the unit was going through, a multidisciplinary team was formed to guide, communicate, and discuss all aspects within the NICU. When research began to carve out its place in the NICU, the multidisciplinary team took on the added job of filtering, updating, and reporting the results of the multitude of clinical trials that were coming through the unit.

(continued on next page)

NICU HISTORY (continued)

To ensure that the unit continued to pursue national and international standards, the Director of the unit, Dr. Harrison, along with Dr. Tan-Dy, and Dr. Taylor, had no less than 8 clinical trials running through the NICU in 2008. The trials were a mixed bag of industry sponsored and academically driven trials, including some 'home-grown' research.

But the feasibility of adding research tasks to the staff's daily demands of routine care must always be weighed. Throughout the years, the staff have been introduced to numerous clinical trials including one that was characterized as one of the larger changes seen in NICU back in 1999 – BLES: bovine lipid extract surfactant (a pulmonary surfactant used for the treatment of premature infants suffering from Respiratory Distress Syndrome). With BLES, along with multiple other trials, the staff began to integrate research into their daily routines as the importance of research to the care of their patients became evident. After speaking with Dr. Cherrie Tan-Dy, she has observed that the staff embraces change along with evidence-based research due to the unit's involvement in clinical trials throughout the years.

Since the 1970s the NICU has hit the ground running when it comes to research. Out of necessity, the staff had to learn on the job more effective procedures and techniques to improve the outcome of their patients with little more than trial and error as their guide. But, as the years passed formal trials entered the NICU and began to shape the direction of NICU's protocols and atmosphere. Today, the unit has successfully integrated clinical trials into their daily operation, maintaining the NICU at a national and international standard.

A special thanks to Drs. Adele Harrison and Cherrie Tan-Dy; Kathleen MacKinnon, RN; Susan Wadsworth, RN; and Dr. Connie Harris, Perinatal Clinical Pharmacist, for their contribution to this article.

**“When we strive to become better than we are, everything
around us becomes better too.”**

Paulo Coelho

The Alchemist: A Fable About Following Your Dream, Page: 158

NICU RESEARCH SUMMARY FOR 2008

MIPS: Methamphetamine in Pregnancy and Other Substances

Follow-up study from birth to 1 year of age of infants exposed to methamphetamines in pregnancy. Funded by Queen Alexandra Foundation. 14 infants (30%) have been recruited. Investigators: Connie Harris PharmD, Dr. Cherrie Tan-Dy, Corinne Duhlberg PhD, Phyllis Hollinger OT.

FSAT: Fir Square Assessment Tool

Reviewing reliability, validity, and ease of use of the Fir Square Assessment Tool against the current model for neonatal substance withdrawal in a community hospital setting. Funded by Queen Alexandra Foundation. Investigators: Lenora Marcellus, Kim Kearns, Dr. Cherrie Tan-Dy, Connie Harris PharmD, Kathleen Mackinnon CNL. Data collection: Susan Wadsworth.

SOFI: Step-wise Oral Feeding in Infants

Quality improvement cycle approach to the introduction of a novel oral feeding schedule for premature infants in NICU. Investigators: Dr. Adele Harrison, Lenora Marcellus, Kathleen MacKinnon, and Phyllis Hollinger.

OLIVIA: Offering Less Intensive Ventilation in Infants 28-32 weeks

A multicentre randomized controlled trial to investigate the impact of respiratory support with CPAP versus mechanical ventilation in premature infants with respiratory distress syndrome. Start date 2009. Site Investigators: Dr. Cherrie Tan-Dy. Site Co-ordinator: Susan Wadsworth RN.

Canadian Neonatal Network and MICare

As a member of the Canadian Neonatal network we have the opportunity to monitor our outcome data against other tertiary care centres across the country. Data is collected on all infants admitted to our NICU for over 24 hours. (Data collection: Susan Wadsworth). As one of the smaller NICUs in Canada, minimal changes in individual outcomes can have profound effects on the overall results. The Canadian Neonatal Network (CNN) data analysis is being refined each year, and although still not perfect, validity is improving. It is important that we strive towards improvement, and as such will be joining the CIHR – Team grant MICare (Maternal –Infant Care) project, starting in 30 hospitals across Canada in 2009. The purpose of the overall MICare study is to obtain a better understanding of how different care practices and risks affect long-term outcomes of preterm infants and how improved methods of knowledge translation can enhance quality of care.

The MICare study is comprised of 5 projects. Project 1 is the formation of a Canadian Neonatal Follow-Up Network, allowing us to compare our follow-up data with outcomes across Canada. Project 2 is the development of a virtual research community that will allow investigators and clinicians to collaborate online. Project 3 builds on previous research to develop and evaluate a model for quality improvement and knowledge translation (EPIQ-II), focusing on 6 areas of potential morbidity. Project 4 will develop and validate indicators of quality of care that can both monitor outcomes and guide continuous quality improvement efforts. In Project 5 prognostic tools will be developed for preterm birth outcomes to provide updated information for family counseling and decision making.

RESEARCH COLUMN

Literature Reviews

This month's research column is devoted to literature reviews.

Prior to conducting a research study, it is advisable to conduct a literature review. Yes, they are time consuming, but they are a necessary step in the research process. In fact, they are so important that a literature review is a mandatory component of any research proposal or ethics application.

By examining current and past literature related to your area of research you can:

- Avoid errors made in similar research;
- Identify gaps in knowledge;
- Obtain information for the purpose of comparing/contrasting your findings;
- Review methodologies; and
- When applicable, review instruments/tools.

The first step in the literature review is to conduct a literature search. By searching key words in a variety of search engines, you can identify those articles that will be most relevant to your research area. These are the articles that you will want to obtain and that will be used to form the basis of your literature review. Prior to conducting a literature search, however, you should contact your VIHA librarian to give you assistance. Librarians are, among other things, trained experts in literature searches and, time permitting, will conduct the literature search for you.

When searching the literature, you may come across articles that are systematic reviews. Systematic reviews involve a systematic search of related papers within a given time period. Generally, articles are scored based on a set of methodological criteria, and those meeting a specified cut-off are then evaluated for strengths and weakness.

The findings from the papers are also summarized to identify gaps in knowledge. Systematic reviews are rich sources of information for a set time period. However, it should be noted that not all reviews are systematic in the true sense of a 'systematic review'.

Once you have your articles in hand, you must read each one and describe the findings in a literature review. Do not simply summarize each of the articles. The purpose of the literature review is to synthesize the current state of knowledge in the area and make the argument that your study is necessary and important.

There is no simple formula for reading the articles and writing the review. Everyone acquires their own method through trial and error. Some people can just read the articles and write. Others will need to summarize each article prior to writing. Still others may just read portions (i.e., abstract and conclusions) of various papers (primarily those with lots of writing/research experience). One strategy is to identify well-written papers and see how the literature reviews are structured. Literature reviews tend to vary across disciplines so if your literature review is for a journal article, be sure to examine sample articles in the journal where you will be submitting.

Writing a concise and logical literature review is not easy or quick. However, a well written literature review can be used for the research proposal, ethics application and subsequent journal articles. In other words, it will be worth the time and effort in the long run.

Happy researching ☺,
Diane
Research Facilitator
Diane.Bomans@viha.ca

NORTH & CENTRAL ISLAND MEET & GREET'S

Making A Needed Connection

At the end of August 2009, the Research Capacity Building team went on the road to meet with researchers from VIHA, community organizations, and local colleges/universities in Port McNeill, Campbell River, and Nanaimo. Our hopes were to build a much needed bond with our North and Central Island colleagues to minimize our geographical separation.

Upon the conclusion of our trip, we gained valuable insight into (1) the unique settings the researchers in the northern communities must work within compared to the central and south regions, (2) the aboriginal communities and its elders involvement in research, and (3) the value of sitting down face to face.

The Research Capacity Building Team would like to thank all of the participants who attended the meet and greets. The turnout that was seen is a great testament to your commitment to the growth of the research on Vancouver Island.



VIHA'S 2ND ANNUAL RESEARCH DAY

A GREAT SUCCESS!

Research Capacity Building welcomed close to 100 attendees and presenters to share and learn about research throughout Vancouver Island and the province.

The atmosphere was highly charged with the anticipation of the scheduled day's events and from the feedback received a majority walked away with a new found energy for research.

Here are some of the comments that we had received about the day:

"As a result of attending workshops on research I am learning to appreciate the rationale of research."

"Research invigorates the clinical practice."

"I would like to see more topics around ethics and role of leadership in transformational change. Great Day!!"

"I think this day was very well organized and extremely informative. Very inspiring to take back to all those staff and educators that could not attend."

"Great event!! Lots of people with great experience and lots of opportunities to network made this very worthwhile."

Research Capacity Building would like to thank all of the presenters and attendees for coming out and supporting our research culture. We look forward to seeing you all next year!



RESEARCH CAPACITY BUILDING EVENTS

Research Rounds



Research Rounds:

Topic: “Maternal post-partum thoughts of harm related to the newborn”

Presenter: Dr. Nichole Fairbrother

Time & Place: Thursday October 29th, 0800 – 0900
EMP Boardroom (EMP 188), RJH

Topic: “Improving the Accuracy of Survival Prediction in Palliative Care Patients using the Palliative Performance Scale (PPS)”

Presenter: Dr. Michael Downing

Time & Place: Thursday November 26th, 0800 – 0900
EMP Boardroom (EMP 188), RJH

Topic: “New Research on Medical Communication”

Presenter: Sara Healing & Christine Tomori

Time & Place: Thursday January 21st, 0800 – 0900
MP HW340, RJH

Topic: “Strategies for Recruiting & Retaining Community Health Workers at VIHA”

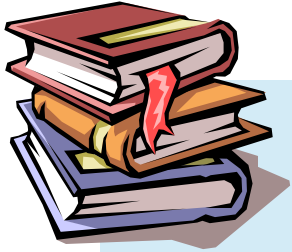
Presenter: Zena Sharman

Time & Place: Thursday February 18th, 0800 – 0900
MP HW340, RJH

All Research Rounds can be video-linked to any VIHA location, please let us know ASAP if there are any requests; contact us at Lynn.Cummings@viha.ca

RESEARCH CAPACITY BUILDING EVENTS

Workshops



Research Skills Workshops:

Research Basics

November 17th, 2009: 2:00 – 4:00pm
RJH – Woodward Room with V/C to NRGH
**if other sites would like to join, please contact
Lynn.Cummings@viha.ca ASAP**

Literature Searching & Library Services

January 19th, 2010: 11:00 – 12:00pm RJH – Woodward Room
January 21st, 2010: 11:00 – 12:00pm NRGH – G235
January 22nd, 2010: 11:00 – 12:00pm VGH – Lecture Hall

Grant Proposal Writing

February 19th, 2010: 1:00 – 4:00pm
RJH – Woodward Room with V/C to NRGH
**if other sites would like to join, please contact
Lynn.Cummings@viha.ca ASAP**

Research Ethics

March 12th, 2010: 1:00 – 4:00pm
RJH – Woodward Room with V/C to NRGH
**if other sites would like to join, please contact
Lynn.Cummings@viha.ca ASAP**

To register please contact lad@viha.ca or phone
250 519-6950

UPCOMING EVENTS

October 2009

SoCRA Certification Exam

October 2, 2009
Queen Alexandra Centre for Children's
Health
Victoria, BC

ADHD Health & Lifestyle: Practical Research-Based Information for the Medical Practitioner

October 17-18, 2009
Montreal, QC

16th Annual Canadian Conference on International Health (CCIH)

October 25-28, 2009
Ottawa, ON

November 2009

OPHA (Ontario Public Health) 2009 Annual Conference

November 1-4, 2009
Toronto, ON

Human Factor Perspectives on Safety Conference

November 30, 2009
Vancouver, BC

March 2010

World Congress for Psychiatric Nurses: Building Global Connections in Psychiatric Nursing

March 18-20, 2010
Vancouver, BC

April 2010

Alberta Respiratory Disease Symposium 2010

April 8, 2010
Banff, AB

June 2010

Primary Care: Mental Health Issues with a focus on Drugs and Behavior

June 27, 2010
Vancouver, BC

*To subscribe/unsubscribe to the
newsletter or to suggest a feature or
highlight your own research, please
contact:*

*Ami Bitschy
Research Capacity Building
Research & Academic Development
cap_building@viha.ca*