



PERINATAL PERSPECTIVES



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HYPERBILIRUBINEMIA: CMNRP GUIDELINE VS MOHLTC QUALITY-BASED PROCEDURE *WHAT DO I NEED TO KNOW?*

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AND MANAGEMENT COMMITTEE

1. What is the MOHLTC Hyperbilirubinemia Quality-Based Procedure?

The MOHLTC is changing the way hospitals are funded. There are a number of Quality-Based Procedures (QBP) in use in adult care. The first two for pediatrics are for tonsillectomy and hyperbilirubinemia. QBPs contain a pathway detailing best practice and elaboration around how to care for patients, along with the supporting evidence.

2. Should I use the MOHLTC QBP or the CMNRP guideline?

The MOHLTC will be evaluating the care provided by hospitals, and will be funding for hyperbilirubinemia screening and care based on their QBP. We were ahead of the curve regionally with the CMNRP guideline, but we all need to now adopt the new QBP. The CMNRP Hyperbilirubinemia Toolkit webpage (under Resources/Procedures & Guidelines) has been updated to include links to the QBP.

3. Is the Hyperbilirubinemia QBP pathway different from the CMNRP guideline?

They are similar, but there is one main difference in the screening steps (see below) and the QBP goes beyond screening to include best practice recommendations around treatment and community follow up.

4. What are the key differences that I should be aware of?

i) Population differences: The CMNRP guideline excluded patients with known isoimmunization and those with early jaundice. The QBP includes these babies and excludes those with major co-morbidities. While the care algorithm would be appropriate for patients with co-morbidities, their funding will be driven by other factors and they are excluded.

Program Partners

Almonte General Hospital
Brockville General Hospital
Consortium national de formation en santé (CNFS)
Children's Hospital of Eastern Ontario
Ottawa Public Health
Community Health Centres of Eastern Ontario
Cornwall Community Hospital
Eastern Ontario Health Unit
Faculties of Medicine and Health Sciences, University of Ottawa
Faculty of Health Sciences, Queen's University
Hastings and Prince Edward Counties Health Unit
Hawkesbury and District General Hospital
Hôpital Montfort
Kingston, Frontenac, Lennox and Addington Public Health (KFL&A)
Kingston General Hospital
Midwifery Practice Groups in Eastern and Southeastern Ontario
Pembroke Regional Hospital
Perth and Smiths Falls District Hospital
Queensway Carleton Hospital
Quinte Health Care
Renfrew County and District Health Unit
Renfrew Victoria Hospital
St. Mary's Home and the Young Single Parent Support Network
The Ottawa Hospital
Winchester District Memorial Hospital

Inside:

- *Hyperbilirubinemia: CMNRP guideline vs MOHLTC Quality-Based Procedure. What do I need to know? Pg. 1*



- ii) **Entry to the pathway:** The CMNRP guideline started at the time of universal newborn screening (NBS). There are 3 entries to the QBP: presence of maternal isoimmunization, visible jaundice prior to NBS and at time of NBS.
- iii) **Evaluation for phototherapy:** This step is earlier in the QBP and is the first step once a serum bilirubin level is obtained.
- iv) **Guidance for treatment:** If phototherapy is required, the bilirubin is plotted on the exchange transfusion curve (different from CMNRP) and then the algorithm contains detailed information about how to treat, when to retest, when to consult and when to discontinue treatment.
- v) **When treatment is not needed:** The QBP pathway next determines the need for and timing of follow up (done earlier in the CMNRP guideline). There is more detail in the QBP about what to include in follow up assessments.

5. Is transcutaneous bilirubin measurement included in the QBP?

The QBP does provide guidance for clinicians as to when this is appropriate and when a serum bilirubin is required.

6. What about community follow up?

The QBP contains guidance around community follow up but allows for different solutions depending on local resources. This will be the real challenge for institutions and communities in fully implementing the QBP.

7. How will CMNRP help?

If you've been using the CMNRP Hyperbilirubinemia Guideline, it will be quite easy to convert to the QBP with minor changes in your practice. The biggest challenge will be the follow up after discharge. CMNRP is prepared to reactivate its Jaundice Working Group to help. We need to know what our partners would find useful, at the regional level, as you move to implement this QBP. Please send your questions and suggestions as to what we can do regionally to:

Pat O'Flaherty, Neonatal Nurse Practitioner
poflaherty@cmnrp.ca



Collaboration between CMNRP and the Southwestern Ontario Maternal, Newborn, Child and Youth Network

3 options to participate: In person (by videoconference), live (by webcast) or archived sessions

Visit the CMNRP website for **The Learning Café (TLC)** sessions schedule and resources:

http://www.cmnrp.ca/en/cmnrp/The_Learning_Caf_p553.html



Got topics to suggest or initiatives to share?
Please contact Christina Cantin at ccantin@cmnrp.ca





BREASTFEEDING

CMNRP is pleased to support regional partners in their breastfeeding best-practices journey. To learn more about regional support and provincial breastfeeding initiatives, please visit the CMNRP website (www.cmnrp.ca) under Resources / Breastfeeding.

New resources



Breastfeeding Your Baby Magnet (guidelines for nursing mothers)

Best Start Resource Centre in collaboration with the BFI Strategy for Ontario, Revised 2009

This downloadable breastfeeding magnet (13 cm by 18 cm) has been translated into various languages. The magnet is a helpful teaching aid for all working with pregnant and new mothers. It is a good reminder for mothers on how to assess their infant's breastfeeding effectiveness through the first three weeks. Colourful graphics and photographs with minimal text provide an at-a-glance look that new parents find particularly helpful. This resource is available at <http://beststart.org/resources/breastfeeding/index.html>



Telehealth Ontario 24/7 Breastfeeding Supports

Expectant and breastfeeding moms now have 24-hour access to registered nurses with training in breastfeeding and lactation support, as well as lactation experts through a telephone advisory service provided by Telehealth Ontario. To learn more about the supports that are available, dial 1-866-797-0000 or TTY: 1-866-797-0007



Bilingual Online Ontario Breastfeeding Services Directory

Best Start Resource Centre

This directory at www.ontariobreastfeeds.ca can help service providers connect mothers with local breastfeeding supports and services. Mothers can search directly for what is available in their area or for specific services such as peer-support, drop-in groups or clinics with professional (e.g. lactation consultant).



Baby-Friendly Initiative in Canada Status Report – 2014 Update

Breastfeeding Committee for Canada (2014)

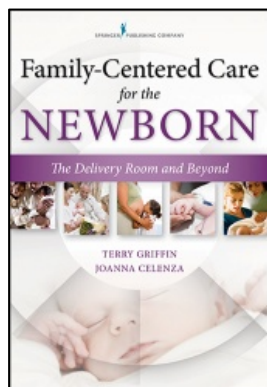
As the context and progress of the WHO/UNICEF Baby-Friendly Initiative (BFI) continues to evolve in Canada, the need to update the status of implementation was identified. The objectives of this report are:

- To describe the state of BFI implementation in Canada in order to document progress to date.
- Inform public health policy and program planners across Canada on the development of evidence-based strategies and initiatives.
- To describe the current state of BFI in Canada and highlight BFI accomplishments, key initiatives across the provinces/territories as well as highlight emerging BFI activities.

English and French copies of the report are available on the Breastfeeding Committee for Canada website (<http://breastfeedingcanada.ca/BFI.aspx>)



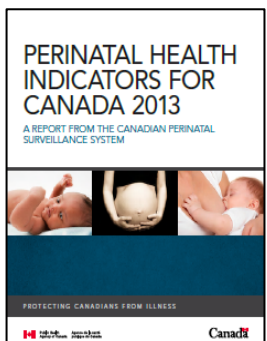
RESOURCES



Family-centered care for the newborn. The delivery room and beyond

Authors: Terry Griffin, MS, APN, NNP-BC & Joanna Celenza, MA, MBA (2014)

This book is a comprehensive guide to family-centered care for healthy, ill, or preterm newborns. It guides health care professionals in creating, supporting, and advancing a culture that values partnerships with families. The book is full of practical suggestions, strategies for effectively communicating with families, and best practices for health professionals who wish to develop partnerships with families before and after child-birth. It is based on four guiding principles that include treating people with dignity and respect, providing information in ways that are useful and affirming, welcoming family participation in care and decision-making at a level chosen by the family, and collaborating with families at the bedside and beyond. This resource is available for purchase at <http://www.springerpub.com/product/9780826169136#.U2eMWqji-8d>



Perinatal health indicators for Canada 2013: A report of the Canadian Perinatal Surveillance System

Public Health Agency of Canada (2013)

This document was produced by the Canadian Perinatal Surveillance System (CPSS) to provide updated data on key perinatal health indicators and provide information on major maternal, fetal and infant health determinants and outcomes in Canada. Detailed data tables for all indicators are included as appendices. To obtain a copy of the report, please contact the Canadian Perinatal Surveillance System (CPSS-SCSP@phac-aspc.gc.ca).

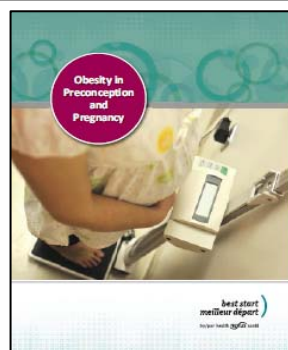


Nutrition for healthy term infants - Recommendations from six to 24 months

Joint statement of Health Canada, Canadian Paediatric Society, Dietitians of Canada, and Breastfeeding Committee for Canada (2014)

This statement provides health professionals with evidence-informed principles and recommendations for infant nutrition from six to 24 months of age. The Joint Working Group encourages health professionals to use this statement to develop practical feeding guidelines for parents and caregivers in Canada, and to promote the communication of accurate and consistent messages. This resource is available in print and PDF format at

<http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/recom-6-24-months-6-24-mois-eng.php>



Obesity in preconception and pregnancy

Best Start Resource Centre (2014)

This report provides current information about the prevalence of, risk factors for, and implications of obesity in the preconception and perinatal periods in Ontario. Additional information is presented concerning approaches that have been effective in addressing obesity in the preconception and prenatal periods. Evidence-based practices are limited at this time and additional research is needed. The report is available in print and PDF format at <http://www.beststart.org/resources/preconception/index.html>

**INTERESTING ARTICLES**

Kobler, K. (2014) Leaning in and holding on: Team support with unexpected death. *MCN, American Journal of Maternal Child Nursing*, 39(3), 148-154.

Abstract: Integral to the care of medically fragile infants and children is the sobering reality that not all will survive. Supporting children and families through the dying process requires knowledge, skill, compassion, and a willingness to be present to the suffering of others. As healthcare professionals journey with a dying child, they experience an ongoing dual nature of their own grief, shifting between focusing on the loss at hand or avoiding the loss and refocusing their attention elsewhere. This internal conflict may be potenti-ated with the sudden, unexpected death of a patient, which affords little time for caregivers to process their own experience of the loss. When an unanticipated death occurs, a palpable grief ripples through the entire unit, impacting caregivers, the bereaved parents, and other patients and families. Such an event holds the potential for either team disorganization or growth. This article presents a case study of one unit's re-sponse to the unexpected death of a long-term patient, which caused caregivers to lean in to support each other. Using a case study approach, the author identifies strategies to best guide teams when death occurs without warning, and provides ideas for co-creating ritual to honor relationship in the midst of tragedy.

Henry, L., & Hayman, R. (2014). Ankyloglossia and its impact on breastfeeding. *Nursing for Women's Health*, 18(2), 122-129. DOI: 10.1111/1751-486X.12108

Abstract: This article contrasts two very different experiences of one mother breastfeeding her two sons to demonstrate the potential impact of ankyloglossia on breastfeeding. When too restrictive, ankyloglossia, also known as tongue-tie, can cause the newborn to ineffectively suckle at the breast. Breastfeeding difficul-ties can occur, such as long feedings or damaged nipples. When nurses, lactation consultants and other providers recognize this situation, they can refer women for further care and treatment, which can ulti-mately lead to breastfeeding success.

Beebe, K. R. (2014). Hypnotherapy for labor and birth. *Nursing for Women's Health*, 18(1), 48-59.

Abstract: Hypnotherapy is an integrative mind-body technique with therapeutic potential in various health care applications, including labor and birth. Evaluating the efficacy of this modality in controlled studies can be difficult, because of methodologic challenges, such as obtaining adequate sample sizes and standardizing experimental conditions. Women using hypnosis techniques for childbirth in hospital settings may face barriers related to caregiver resistance, caregiver understanding and education or institutional policies. The potential anxiolytic and analgesic effects of clinical hypnosis for childbirth merit further study. Nurses caring for women during labor and birth can increase their knowledge and skills with strategies for supporting hypnotherapeutic techniques.

Mattew, B. (2014). Using a social networking tool for blended learning in staff training: Sharing experience from practice. *Journal of Neonatal Nursing*, 20(3), 20-94.

Abstract: Advances in neonatal care has improved survival rates for critically ill and premature babies. This means that neonatal nurses are required to be proficient in a range of skills necessary to care for these babies. Adequate knowledge including clinical and critical decision making skills is key to provide this care to a high standard. This article addresses the use of blended learning with social networking as the online learning tool in planning and implementing an induction programme for newly recruited nurses. It also looks at the benefits, challenges and safety issues of using social networking as an educational strategy.

**INTERESTING ARTICLES (CONTINUED)**

Allen, U. D., Robinson, J. L., & Canadian Paediatric Society, Infectious Diseases and Immunization Committee (2014). Prevention and management of neonatal herpes simplex virus infections. *Paediatrics & Child Health, 19(4), 201-206.*

Abstract: Human herpes simplex virus (HSV) infection in neonates can result in devastating outcomes, including mortality and significant morbidity. All infants are potentially at risk for neonatal HSV infection. This position statement reviews epidemiology, transmission and risk factors, with a focus on intrapartum infection. It considers diagnosis and prognosis according to infection category, along with testing modalities and limitations. Recommendations for managing newborns known to have been exposed intrapartum to HSV are based on expert opinion because a randomized trial to compare management options is not feasible. Guidance is provided for the empirical management of infants with suspected clinical sepsis, including those who do not respond to antibacterial therapy. The present statement replaces a 2006 position statement by the Canadian Paediatric Society.

Whyte, R. K., Jefferies, A. L., & Canadian Paediatric Society, Fetus and Newborn Committee (2014). Red blood transfusion in newborn infants. *Paediatrics & Child Health, 19(4), 213-217.*

Abstract: Red blood cell transfusion is an important and frequent component of neonatal intensive care. The present position statement addresses the methods and indications for red blood cell transfusion of the newborn, based on a review of the current literature. The most frequent indications for blood transfusion in the newborn are the acute treatment of perinatal hemorrhagic shock and the recurrent correction of anemia of prematurity. Perinatal hemorrhagic shock requires immediate treatment with large quantities of red blood cells; the effects of massive transfusion on other blood components must be considered. Some guidelines are now available from clinical trials investigating transfusion in anemia of prematurity; however, considerable uncertainty remains. There is weak evidence that cognitive impairment may be more severe at follow-up in extremely low birth weight infants transfused at lower hemoglobin thresholds; therefore, these thresholds should be maintained by transfusion therapy. Although the risks of transfusion have declined considerably in recent years, they can be minimized further by carefully restricting neonatal blood sampling.

Al Faleh, K., & Anabrees, J. (2014). Probiotics for prevention of necrotizing enterocolitis in preterm infants. *Cochrane Database of Systematic Reviews 2014, Issue 4. Art. No.: CD005496. doi: 10.1002/14651858.CD005496.pub4*

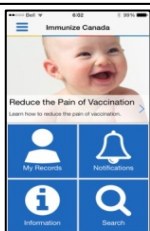
Abstract: Necrotizing enterocolitis (NEC) is a serious disease that affects the bowel of premature infants in the first few weeks of life. Although the cause of NEC is not entirely known, milk feeding and bacterial growth play a role. Probiotics (dietary supplements containing potentially beneficial bacteria or yeast) have been used to prevent NEC. This review found that the use of probiotics reduces the occurrence of NEC and death in premature infants born weighing less than 1500 grams. There is insufficient data with regard to the benefits and potential adverse effects in the most at risk infants weighing less than 1000 grams at birth.



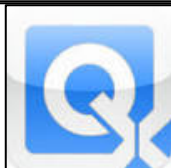
The 2014 Best Start Resource Centre Annual Conference took place February 26-28, 2014. For access to the post conference coverage (includes YouTube videos of 3 sessions, photos and PDF copies of some of the speakers' presentations or handouts), go to <http://www.beststart.org/events/2014/bsannualconf14/webcov/index.htm>



CHECK OUT THESE APPS!



ImmunizeCA is a secure app which allows people to store, manage and easily access their immunization information, as well as receive reminders about vaccine updates based on their provincial/territorial vaccine schedules. This free app is available through the *iTunes app store* and *Google Play*.



Calculate app is a next-generation clinical calculator and decision support tool, freely available to the medical community. This app is focused on highlighting tools which are actually useful in clinical practice and serve to impact diagnosis, treatment or determining prognosis. This app is available through the *iTunes app store* and *Google Play*.



Pedi-STAT app is a rapid reference for RNs, paramedics, physicians and other healthcare professionals caring for pediatric patients in the emergency or critical care environment. With just a few taps, users have access to all the necessary data to care for a pediatric patient in the emergent setting, including weight-based and age specific medication dosages and equipment sizes. This free app is available through the *iTunes app store* and *Google Play*.



Prevent Group B Strep App for Obstetric and Neonatal Providers is a stand-alone application that provides patient-specific and scenario-specific guidance consistent with the 2010 Guidelines for the Prevention of Perinatal GBS. The app generates customized guidelines based on user input of patient characteristics. This free app is available through the *iTunes app store* and *Google Play*. A Web-based version of this tool is available at <http://www2a.cdc.gov/vaccines/m/gbs3/gbsped.html>.

Roger's House Bereavement Program: Perinatal Loss Support Group

The Parent Perinatal Loss Bereavement Support Group is available to parents who have lost a child to stillbirth (over 20 weeks gestation) or live birth, up to the first 28 days of life.



For more information, please contact Carol Chevalier BSW RSW at 613-523-6300 x622 or at cchevalier@cheo.on.ca

Skin-to-Skin Contact Poster available for purchase



To view posters and for order information, please see CMNRP's website (www.cmnrp.ca) under Resources.



RESEARCH IN THE REGION



Check out the CMNRP research webpage
(http://www.cmnrp.ca/site/cmnrp/Research_p4027.html)
to learn more about perinatal research in the region.

Here are some of the latest postings to the webpage:

Regional Research Projects

- **Benefits and Effectiveness of Support offered Through a Breastfeeding Clinic Study**
Contact: Dr. Thierry Lacaze, tlacaze@cheo.on.ca
- **Transmasculine Individuals' Experiences with Pregnancy, Birthing, and Feeding Their Newborns: A Qualitative Study**
Contact: Joy Noel-Weiss or Trevor MacDonald - tmacdon3@uottawa.ca
- **Sucrose Practices for Pain in Neonates (SPiN): Determining the Minimally Effective Dose of Sucrose for Procedural Pain in Infants**
Contact: Denise Harrison, dharrison@cheo.on.ca

Graduate Student Research

- **The Online Sharing of Human Milk: A Content Analysis**
Contact: Alicia Papanicolaou, a.papanicolaou@queensu.ca

Congratulations to our regional colleagues for their recent publications!

Fell, D. B., Sprague, A. E., Grimshaw, J. M., Yasseen A. S., Coyle, D., Dunn, S. I., Perkins, S. L., Peterson, W. E., Johnson, M., Bunting, P. S., & Walker, M. C. (2014). **Evaluation of the impact of fetal fibronectin test implementation on hospital admissions for preterm labour in Ontario: A multiple baseline time-series design.** *International Journal of Obstetrics & Gynaecology*, 121(4), 438-446.

Rodger, M. A., Walker, M. C., Smith, G. N., Wells, P. S., Ramsay, T., Langlois, N. J., ... Wen, S. W. (2014). **Is thrombophilia associated with placenta-mediated pregnancy complications? A prospective cohort study.** *Journal of Thrombosis and Haemostasis*, 12(4), 469-478.

Persaud, N., Chin, J., & Walker, M. (2014). **Should Doxylamine-Pyridoxine be used for nausea and vomiting of pregnancy?** *Journal of Obstetrics and Gynaecology Canada*, 36(4), 343-348.

Wong, J., Shah, P. S., Yoon, E. W., Yee, W., Lee, S., & Dow, K. (2014). **Inotrope use among extremely preterm infants in Canadian neonatal intensive care units: Variation and outcomes.** *American Journal of Perinatology*, [Epub ahead of print] doi: 10.1055/s-0034-1371703



TEST YOUR KNOWLEDGE!

1. Which of the following statement(s) is/are true regarding the clinical implications of altered maternal physiology during pregnancy?

- a) A pregnant woman lying flat on her back has a higher cardiac output.
- b) In blood volume depletion during massive obstetric hemorrhage, hypotension occurs early before the pulse rises.
- c) The peak expiratory flow rate is a reliable measure of asthma control in a pregnant woman as it is not altered by pregnancy.
- d) Pregnant women with pre-existing diabetes require higher doses of insulin.

2. Which of the following statements is not true about health outcomes related to depression during pregnancy?

- a) It confers an increased risk of postpartum depression.
- b) It confers an increased risk of lactation failure or shortened duration.
- c) It increases the risk of preterm birth.
- d) It is associated with ovarian cancer.

3. Which of the following is/are true about conducting a twin delivery?

- a) It can be safely carried out in a delivery room if both are vertex presentation.
- b) Both twins can be monitored by intermittent auscultation.
- c) Epidural may be useful in allowing anesthesia for operative delivery of the second twin.
- d) A high rate of vaginal birth occurs for the first and caesarean birth for the second.
- e) It may require the use of oxytocin after delivery of the first twin.

4. A term infant is born via normal spontaneous vaginal delivery. He is noted to be cyanotic when quiet but pinks up when he is crying. What is the most likely diagnosis for this infant?

- a) Choanal atresia
- b) Pierre Robin syndrome
- c) Congenital cardiac disease
- d) Respiratory distress syndrome

Check out our website for the answers!
www.cmnrp.ca under Resources/Publications/Newsletter

CONTACT US

Champlain Maternal Newborn Regional Program (CMNRP)

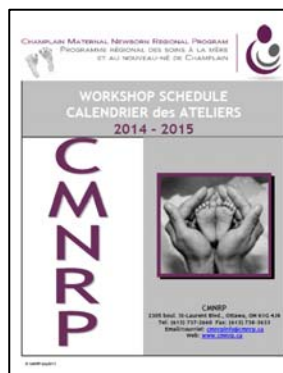
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CMNRP'S WORKSHOP SCHEDULE



Coming to your inbox
this summer!

