



HIV Screening in Pregnancy

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Introduction

Primary care providers and other health care professionals who work with pregnant women in Nova Scotia are familiar with RCP's "Guidelines for Antenatal Laboratory Screening & Testing" (see RCP website <http://rcp.nshealth.ca> for additional copies). All of these recommendations for testing are based on evidence and best practice guidelines. While all of the tests are important for good prenatal health care and women should be informed about all of them, RCP and the Department of Health are currently placing additional emphasis on screening for infectious diseases in general, and HIV in particular. The focus of this article is on the recommendation for HIV screening in pregnancy and on the key elements of pre- and post-test counselling.

Screening Recommendations

About 25% of newborns will acquire HIV from an infected mother without medical intervention. Antenatal treatment of the mother, intrapartum antivirals and postpartum treatment of the baby for 6 weeks have reduced the risk of newborn infection to less than 1%² (unpublished data). Since 1998, RCP has recommended that all pregnant women be counselled and offered HIV screening as early in pregnancy as possible. The counselling is considered mandatory but women can decide whether or not to be tested (voluntary testing). This strategy is considered an 'opt in' approach. Another approach is the 'opt out' approach, in which HIV screening is part of 'routine' prenatal blood work unless

women decline screening after counselling. Thorough pre- and post-test counselling is required for either approach.¹ In Canada, both approaches are in use in various provinces. See CPS website for provincial strategies <http://www.cps.ca/english/statements/ID/CPS04-02.htm>.

Counselling

Pre and post-test counselling about the implications of a positive or negative HIV test, is a time consuming activity. Physicians and other health care professionals may find it difficult to find the time for this counselling, to the woman's or the caregiver's satisfaction, during a busy and relatively brief prenatal visit. Several local and multi-province studies have demonstrated that both counselling and screening for pregnant women are sub-optimal in Nova Scotia.²⁻⁴ It is not clear if the relatively low screening rates in Nova Scotia are due to this time constraint, or to such factors as inadequate knowledge that HIV antenatal screening is considered a standard of care or even refusal of women or families to participate in screening.

There are a number of resources to assist primary care providers and the public with information needed for pre- and post-test HIV counselling (contact www.cma.ca, www.cfpc.ca, or www.sogc.org). Most counselling resources list similar key information points. These points include: the rationale for HIV screening

(cont'd p. 2 & 3)

in pregnancy, a description of the risk factors for contracting HIV, a discussion of risk reduction strategies, the benefits of early diagnosis and treatment, and testing options available. In Nova Scotia, women can have nominal, non-nominal, or anonymous testing. At this time, anonymous testing is only offered through Planned Parenthood in Halifax (phone: 902-455-9656 or e-mail info@pphalifax.ca), although plans are underway to offer anonymous testing through the AIDS Coalition in Sydney as well.

One of the most compelling pieces of information for pregnant women is the significant benefit of early diagnosis and treatment, both for maternal and infant health. Current literature indicates that treatment with antiretroviral drugs can reduce vertical transmission from 25% to 2% or less.⁵⁻⁶ Women who decline screening early in pregnancy or disclose risk factors for contracting HIV, should be offered screening again later in pregnancy. For practical purposes, 24-28 weeks gestation is an ideal opportunity as other blood work is often ordered at that time. However, HIV screening can be done any time, including during labour. It is never "too late" to screen, although early detection is preferable for both fetal and maternal health. Women should also be informed that there is legislation mandating the reporting of a confirmed positive HIV test to the Department of Health. For those who test positive, their partners will also be identified and offered testing.

Anecdotally, primary care providers report a variety of responses to counselling. Some women readily accept testing and caregivers may be concerned that they have not carefully considered the ramifications of a positive test. Some women decline testing because they are confident that they are not at risk for HIV or had a negative test in a previous pregnancy and feel that their risk has not changed. Although the prevalence of HIV is low in Nova Scotia, some women who have tested positive did not know that

they had been exposed to HIV. The only way for individuals to know their HIV status definitively is to be tested.

Do pregnant women in Nova Scotia accept HIV screening?

In mid-2004 RCP added data points to the Nova Scotia Atlee Perinatal Database to assist with monitoring several of the antenatal screening tests for which uptake seems to be variable across the province.

Unfortunately, the data available are limited due to incomplete documentation. The table below describes the range of acceptance or refusal of HIV screening among pregnant women as well as the proportion of women for whom screening status is not known. Two District Health Authorities (DHAs) with relatively low proportions of missing data are shown to illustrate the variability in screening.

HIV Screening in Nova Scotia

	Range by DHA	Nova Scotia Total	DHA X	DHA Y
Screen Done	6.3% - 73.7%	3824 (46.1%)	49.7%	73.7%
Screen Declined	0.5% - 20.9%	268 (3.2%)	20.9%	13.6%
Unknown	12.7% - 93.7%	4201 (50.7%)	29.4%	12.7%

Nova Scotia Atlee Perinatal Database 2004-2005

During the first year of collecting this information, screening status was unknown for just over half of pregnant women. The RCP does not have any information about whether pre-test counselling occurred and, if it did, how this affected the acceptance of HIV screening. From the data we do have, it appears that acceptance of HIV screening is as high as 74% in some areas. The refusal rate is up to 21%, which is higher than anecdotal reports from primary

care providers would suggest. However, a significant portion of early prenatal care and discussions about screening may occur in areas where primary care providers and pregnant women themselves place less emphasis on HIV screening, or on screening for infectious diseases in general. Although it is difficult to draw firm conclusions with the high rate of missing data, two recent studies in Halifax in which records were searched and women were interviewed revealed similar rates of acceptance and refusal of HIV screening²⁻³. The RCP is currently working on ways to encourage comprehensive documentation and exploring other mechanisms for monitoring screening practices.

Conclusion

HIV screening should be presented to all pregnant women as a recommended part of prenatal care. Although it is recommended, women have the right to decline HIV screening or any laboratory test offered. Physicians and other care providers have an important role to play in stressing the importance of testing in preventing disease, in emphasizing that this is considered a standard of care for all women, and helping to allay concerns about confidentiality and any perceived stigma associated with accepting HIV screening. The woman's consent or refusal of HIV screening should be clearly documented on her record of care. Some facilities or practice groups also have a policy that requires written consent or refusal from the woman.

Pre-test counselling should address key points of information but need not be complex, although sufficient time must be allotted to answer any questions that arise. Some caregivers use information brochures as a helpful adjunct to face-to-face counselling. Primary care providers, public health staff, and all health professionals who work with childbearing women have an important role to play in emphasizing the importance of HIV screening during pregnancy.

References

- ¹ Federal/Provincial/Territorial Advisory Committee on AIDS (2002). Guiding Principles for the HIV Testing of Women During Pregnancy., Cat. No. H39-619/2002. Ottawa: Minister of Public Works and Government Services Canada.
- ² Côté, S.J. & Halperin, S. A. (2002). Compliance with recommendations for routine HIV screening during pregnancy in Halifax. *Paediatrics & Child Health*, 7(2), 81-84.
- ³ Downing, M., Youden, L., Halperin, B. A., Scott, H., Smith, B., & Halperin, S. A. Prenatal Screening for Human Immunodeficiency Virus in Nova Scotia: Survey of post-partum women and audit of current prenatal screening practices. (in press)
- ⁴ Leonard, L., Gahagan, J., Doherty, M., Hankins, C., Rehman, L. The experience of testing for HIV in pregnancy: Deviation from established Canadian principles of HIV testing? (2001). *Canadian Journal of Infectious Diseases*, 12 (Suppl B): 28.
- ⁵ McGowan, J. P., Crane, M., Wiznia, A., Blum, S. (1999). Combination antiretroviral therapy in human immunodeficiency virus-infected women. *Obstetrics & Gynecology*, 94, 641-646.
- ⁶ King SM; American Academy of Pediatrics Committee on Pediatric AIDS; American Academy of Pediatrics Infectious Diseases and Immunization Committee. Evaluation and treatment of the human immunodeficiency virus-1—exposed infant. *Pediatrics*. 2004 Aug;114(2):497-505.



Conferences

SOGC (Society of Obstetricians & Gynecologists of Canada) 62nd Annual Clinical Meeting will be held June 22nd-27th, 2006 in Vancouver, B.C. Please see the website at www.sogc.ca for further details.



The **Canadian Perinatal Programs Coalition** (CPPC) will be meeting on June 21, 2006 and the **Canadian Perinatal Database Committee** (CPDC) will be meeting on June 22, 2006 in Vancouver, BC in conjunction with the SOGC Annual Clinical Meeting. For further information please contact Marilyn Muise at marilyn.muise@iwk.nshealth.ca.



CPS (Canadian Pediatric Society) 83rd Annual Conference will be held June 13-17th, 2006 in St. John's, Nfld. Please see the website at www.cps.ca for further details.

Canadian Public Health Association (CPHA) 97th Annual Conference entitled "What Determines the Public's Health" will be held May 28-31, 2006 in Vancouver, BC. Please see the website at www.cpha.ca.

La Leche League Conference, will be held May 20, 2006, Saint John, NB. Contact cmtaylor@rogers.com or 506-848-9015.



The **AWHONN** (Association of Women's Health Obstetric, Neonatal Nurses) Annual Conference will be held June 24-28th, 2006 in Baltimore, MD. For further information please see the website at <http://www.awhonn.org/awhonn/>

Coding Connection

Irene Gagnon

Health Information Co-ordinator



Once again, we at RCP are very grateful to all the Health Records coders for their patience with us during our transition to Web Forms. From the feedback we've received, it sounds like everyone likes the functionality of the new forms.

The latest edition of the Nova Scotia Atlee Perinatal Database Coding Manual, 10th edition is hot off the press and you all should have received a copy. As you can see, there are quite a few additions to the manual and data entry screens beginning with January 2006 discharges. The additions are mainly focused on Adult diagnoses that we had previously captured.

These diagnoses did not fall into the admission category nor did they affect length of stay, therefore they were not being captured in the Atlee database. They are, however, very relevant to the provision of clinical care during a pregnancy so it was changed in our coding system. A copy of this version of the coding manual is available on our website in pdf format (<http://rcp.nshealth.ca>).

As well, our database conversion to the use of two coding systems (CIHI and RCP) is now up and running. Thank you for your patience in dealing with discrepancy reports during this time. It was a huge undertaking and time consuming for all of you to clear up the backlog and we are very appreciative of all the time and effort spent on this process. It should all go a bit smoother now that the backlog is completed.

Coding Questions

1) A mom has been using various drugs throughout her pregnancy and at birth it is noted that the baby is experiencing withdrawal from barbituate use as well as oxycontin, can I code more than one drug for this baby?

In Drug Withdrawal From Maternal Use (R067) you can choose more than one drug therefore you would code the withdrawal from both the barbituate and Oxycontin and everything entered will be accepted.

2) A mom was taking more than one drug and they are listed on the mom's and/or the baby's chart, but the chart does not indicate which drug the baby was withdrawing from. Do we code any drug, all drugs, or unknown?

In this scenario, it might be difficult to tell which of the drugs the baby is withdrawing from, so it would be beneficial to capture all the drugs the mother was taking that are noted in the chart. (**cont'd pg. 5**)

Please keep the questions coming as they are a very good learning experience for all of us at RCP as well as for those coding throughout the province.

Have a great spring

Irene

IT'S FLU SEASON!

Flu vaccination is safe to receive during pregnancy and when breastfeeding.



The Canadian National Advisory Committee on Immunization (NACI) recommends the following pregnant women be offered an influenza vaccination: all high-risk pregnant women, pregnant women who have chronic illnesses, or are health care workers or pregnant women who will deliver during the flu season and thus, be a household contact for the newborn. For detailed information about who should be vaccinated please see Table 1 on the NACI website: http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/05vol31/asc-dcc-6/table1_e.html.

Typically vaccinations for influenza occur pre-flu season (October-November) but depending on availability of the vaccine, it can be offered at any time during the flu season. The timing of the flu season varies and is dependent on timing and number of occurrences of the illness. It usually occurs between December/January and May/June of each year. Although available research does not currently support vaccination for all pregnant women, there is new information on the horizon that may suggest universal vaccination for pregnant women. We'll keep you posted. If you would like additional information please visit the NACI website at:

<http://www.phac-aspc.gc.ca/naci-ccni/> or the NS Department of Health website at: <http://www.gov.ns.ca/health/ocmoh/flu.htm>

Nova Scotia PreNatal Record Revisions

The final version of the Nova Scotia Prenatal Record is completed and ready to be tested. The provincial, multidisciplinary revisions committee is very excited about some of the

new features of the form which include integration of the antenatal screening and testing guidelines in chronological order with space for results, a comprehensive pregnancy dating segment, a full page visit log, a care plan, and a



series of five universal requisitions for prenatal blood work and Group B Strep screening.

The revisions have been undertaken with the goal of promoting comprehensive and timely prenatal care for all women in the province. We believe that many of the new features will assist primary care providers with the challenges of keeping up-to-date with the most recent guidelines and resources for prenatal care in Nova Scotia.

The form will be piloted in three test sites around the province (Bridgewater, Yarmouth and Halifax). The Obstetrical Clinic at the South Shore Regional Hospital in Bridgewater and the Perinatal Clinic at the IWK Health Centre are confirmed to start testing immediately. Within a couple of months we will integrate the feedback received from the test sites and begin inservicing Primary Maternity Care Providers around the province on the new forms.

Look for inservicing dates in your area later this spring. Please feel free to call with any questions or to receive **a sample of the new Nova Scotia Prenatal Record.**

Contact: Ronda Smith

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A Woman's Story.....
 My Road to
 Breastfeeding
 (Post breast reduction
 surgery)
 by Amy Ward

I decided to have a breast reduction at the early age of twenty-one. At that time, I carefully weighed the pros and cons. Pro--being able to feel normal and live pain free. Con--I had a 50/50 chance of not being able to breastfeed. For me, breastfeeding is an intrinsic, essential part of being a mom.

Years later, I was expecting my first child. My body was going through a myriad of changes; one being that my breasts were beginning to grow. I had a glimmer of hope that this was a positive sign. I was also encouraged by the fact that I was able to express colostrum. I had read somewhere that you could try to express colostrum to test the functioning of your breasts. To my great surprise, I discovered that I indeed was able to produce and express something.

When my son was born, I was fortunate enough to have him latch on in the recovery room (post emergency C-section). He was sucking vigorously, and we were a great team. By day two, his weight was on a slow but steady decline. The lactation consultant talked with my spouse and I on the finer points of breastfeeding--the necessity of a good latch, as well as preparing yourself and the baby to attain greater success. I expressed concern that perhaps my milk supply was not sufficient. I was informed that some women's milk does not "come in" until later. By day four, we were supplementing breastfeeding with formula. I was devastated. Post partum blues and high expectations do not mix well.

We were sent home with breastfeeding and supplementary formula at the end of day five. A public health nurse visited us at home two days later. My spouse and I explained my desire

to breastfeed. I was blessed with a very supportive spouse. He realized how important breastfeeding our son was to me, and worked to attain that. Our son continued to gain and lose weight intermittently over the next ten days.

Our Public Health nurse provided wonderful support and information for us to make an educated informed decision. Some of the literature provided us with information on how to increase my milk supply, through a combination of traditional and conventional therapies. My son began a slow, steady weight gain.

Even though I found the therapies less effective over time, I was still determined to breastfeed. I received another medication (Domperidone) from my doctor and my son's weight gain was steady and growing. Now he is an active, healthy 12-month-old.

I was handed a challenge. I was lucky enough to have the support of my spouse, my public health nurse and my family doctor. I am proud of myself for not giving up or giving in. Some days were tough. I was and am blessed to be able to have the special bond that you achieve when you breastfeed. My advice? It is a special time that you can give yourself and your baby. If breastfeeding is important to you, take that time. Find the support you need from your doctor, lactation consultant, public health nurse, but most importantly your spouse---and enjoy!

**REMINDER--- Vitamin D
 Supplementation for Breastfed Babies**

Health Canada recommends a daily supplement of 400 IU for breastfed babies from birth until they have at least 400 IU daily in their diets from other dietary sources. Please see the website for more details:
http://www.hc-sc.gc.ca/fn-an/nutrition/child-enfant/infant-nourisson/vita_d_qa-qr_e.html

DID YOU KNOW?

There's a "critical period" for fetal/neonatal visual and auditory development.

The concept of a "critical period" is based on a biological fact that there is a period of time when external stimulation results in changes in the location and relationship of neurons in the cortex. There is a critical period in human visual development, as well as auditory development.



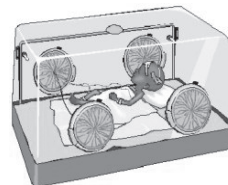
Dr. Stanley Graven has studied how the Neonatal Intensive Care Unit (NICU) environment impacts development for premature neonates. Dr. Graven visited the IWK Health Centre in November 2005 to share his work.

The critical period in visual development is initiated with the first visual exposure after birth.¹ This critical period in visual development occurs primarily during the first five or six months after birth. During this time, the infant develops the neuron relationships that allow it to perceive lines and shapes in subsequent life. It is called a critical period because the movement of the neurons cannot occur after this critical period is passed. The critical period can be delayed by being reared in a dark environment. The auditory critical period begins at or around 32 weeks gestations (about eight weeks before birth).² It continues in the first and probably into the second year of life. The most important periods are the earlier months when the auditory stimuli are out of sequence or when their intensity is inappropriate for the stage of development. The exact time of the onset of the critical period in premature (or preterm) infants is not known. This raises serious concerns for chemosensory, auditory and visual development in premature infant settings in the NICU because many of the stimuli are either at inappropriate levels or out of sequence for the normal development processes.

There is no evidence that premature birth accelerates or alters the sequence of development for the fetus. There continues to be a sequence in the sensory developmental processes with smell and taste preceding auditory development, which in turn precedes visual development.

Light is a source of energy and capable of producing injury under a variety of circumstances. The eye is designed to receive light and can tolerate fairly intense light for brief periods, but the eye also needs periods of very reduced light for retinal regeneration. This means that lighting cycles in a nursery must be controlled to provide periods for the infant's retinal regeneration.

Most NICU units have large banks of overhead lights that produce high levels of illumination and are difficult to control. Through the use of focused lighting and dimmer controls, it is possible to individualize the light levels for each infant according to their stage of development.



Many NICU units are very noisy places and infants are exposed to constant high levels of background noise. This exposure can interfere with development of frequency discrimination.

Anything that generates unnecessary noise in the NICU should be minimized. The use of sound-absorbing materials, silent alarms and vibrating paging systems would be beneficial.

References

1. Graven, S. N. (2004). Early neurosensory visual development of the fetus and newborn. *Clinical Perinatology*, 31 (2), 199-216.
2. Graven, S. N. (2000). Sound and the Developing Infant in the NICU: Conclusions and Recommendations for Care. *Journal of Perinatology*, 20(8), S88-S93.

Hot Topics!



Care providers in the Guysborough-Antigonish Strait Health Authority (GASHA) are doing some innovative work. They have developed and will soon be piloting a Prenatal and Child Health Passport booklet. This booklet is parent-owned and has information on prenatal care, labour and delivery and the early postpartum period as well as information on immunizations, infant development and infant growth. It provides families a forum for organizing their child's health and an overview of health care services in GASHA. The primary objective of this initiative is to enhance communication between care providers and promote a seamless continuum of care. There are a number of areas in the booklet that allow care providers and/or parents to document aspects of their child's health. This project is funded by the Primary Health Care Transition Fund.



For more information about this initiative please contact Terry Penny at tpenny@gasha.nshealth.ca.

REMINDER--Management of Post Partum Hemorrhage (PPH)

Ergot is no longer available from the manufacturer, therefore the first line drug treatment remains oxytocin and the second line treatment is Hemabate. Some sites may choose to use misoprostol for management of PPH. Please see the SOGC guideline for more information: <http://sogc.medical.org/guidelines/pdf/ps136.pdf>

UPDATE: Infant Feeding Assessment Tool(s) Working Group

The Infant Feeding Assessment Working Group (IFnAT) is a multi-disciplinary group with provincial representation which has been working on a standardized infant feeding documentation record. During the impact analysis of the Postpartum/Postnatal Guidelines, care providers in the community and in hospital, stated that standardized information and documentation is needed for infant feeding.

In the first phase, the working group developed rough drafts for breastfeeding and formula feeding. The second phase of the work involved representatives from the group travelling throughout the province to meet with care providers (nurses, nutritionists, physicians etc.) from Public Health and in hospitals offering delivery services to discuss this initiative and to gather feedback on the drafts. The second phase of the work has been completed, the feedback has been compiled and changes have been made to the records. The new infant feeding records are now in final development phase and will be launched at a few pilot sites throughout the province in the coming months. This will provide us with more information from care providers and from families as well. Once the pilot is complete, the final product will be launched province-wide. Thank you to all who attended the presentations and provided the working group with valuable feedback.

Breastfeeding Variables in the Atlee Database

The information we collect regarding breastfeeding has changed as of January 2006. We no longer capture feeding type at discharge. Please contact RCP if additional information is required.

RCP Education Sessions

If you have clinical topics of interest and you would like more information please contact Ronda Smith at (902) 470-7154 or Annette Ryan at (902) 470-6619 to set up education sessions in your area.

To submit articles or photos for the next newsletter please contact Annette Ryan at (902) 470-6619 or Annette.ryan@iwk.nshealth.ca by June 30, 2006