

**Clinical Practice Guidelines  
for Prenatal Laboratory Screening and Testing**



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Revised by: OBS/GYN Primary Care Ad Hoc Clinical Practice Guidelines Committee

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This has been updated from the June 2011 Reproductive Care Programs document for the purpose of decanting uncomplicated prenatal care to primary care practitioners. It was endorsed by PMAC on April 16, 2015 and by ELT on April 28, 2015.

See updates on page 18 for Varicella based on CPHO recommendations (June 2, 2015).

## Guidelines for Prenatal Laboratory Screening and Testing

These guidelines represent a summary of current practice and recommendations for laboratory screening and testing in the prenatal period. As physician and NP resources, SOGC guidelines are available to all for free online. Online resources and information for patient care resources can be found at [www.pregnancy.sogc.ca](http://www.pregnancy.sogc.ca). For information on Health PEI laboratory testing and requisitions go to <http://www.healthpei.ca/laboratoryservices>

### Preconception/First Prenatal Visit

#### Offer diagnostic / screening tests:

Test/Assessment	Time	Comments
Hemoglobin/CBC and auto diff  (green lab requisition)	Recommend at first prenatal visit.  Repeat at approximately 28 weeks with gestational diabetes screening.	Screening for both iron deficiency anemia and hemoglobinopathy. If CBC is abnormal, investigate for iron deficiency anemia (ferritin) and hemoglobinopathy (Hb electrophoresis). CBC allows measurement of platelets which may be useful information later in pregnancy.  <b>SOGC #218 - Carrier Screening for Thalassemia and Hemoglobinopathies in Canada</b> , Oct. 2008 <a href="http://www.sogc.org/guidelines/documents/gui218CPG0810.pdf">http://www.sogc.org/guidelines/documents/gui218CPG0810.pdf</a>
Hepatitis B surface antigen (HBsAg)  (blue microbiology requisition)	Recommend at preconception or first prenatal visit.  Consider rescreening later if high risk.	Screening for guiding investigation of mother regarding liver function and care of the newborn- vaccination at birth. PHAC Canadian STI Guidelines at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/index-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/index-eng.php</a>  Hepatitis B information at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-7-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-7-eng.php</a> NOTE: If mother is positive, inform Chief Public Health Office  For basic information see: Hepatitis B – Get the Facts Public Health Agency of Canada <a href="http://www.phac-aspc.gc.ca/hcai-iamss/bbp-pts/hepatitis/hep_b-eng.php">http://www.phac-aspc.gc.ca/hcai-iamss/bbp-pts/hepatitis/hep_b-eng.php</a>

Test/Assessment	Time	Comments
Rubella antibody titre (Rubella IgG)  (blue microbiology requisition)	Recommend to do it on everyone who is not certain of their immune status.  At preconception or first prenatal visit	In all women for baseline in early pregnancy if exposed and non-immune, and to guide recommendation regarding postpartum vaccination for prevention in subsequent pregnancy. Counsel seronegative women about the risks associated with exposure during pregnancy. Vaccinate susceptible women postpartum  <b>SOGC # 203 - Rubella in Pregnancy</b> , Feb. 2008 <a href="http://www.sogc.org/guidelines/documents/guiJOGC203CPG0802.pdf">http://www.sogc.org/guidelines/documents/guiJOGC203CPG0802.pdf</a>
Hepatitis C testing  (HCV on blue microbiology requisition)	Recommend screening to women with risk factors.	Risk factors: <ul style="list-style-type: none"> <li>• injection drug use (even once)</li> <li>• hemodialysis</li> <li>• persistent elevated AST</li> <li>• recipient of blood products or organs before 1992 or clotting factors before 1988</li> <li>• exposure to blood of high risk individual</li> <li>• prison inmates</li> <li>• HIV positive</li> <li>• tattoos not carried out in properly regulated premises</li> </ul> <p>The Canadian Pediatric Society (CPS) suggests considering giving HBV vaccine, starting in the first month of life, to children born to HCV-infected mothers. Current information indicates that breastfeeding should not be discouraged in women who are HCV positive. However, the unequivocal safety of breastfeeding has not been established. Women who develop cracked or bleeding nipples should stop breastfeeding and resume when nipples are healed.</p> <p>See PHAC Canadian STI Guidelines for Hepatitis C testing at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-6-4-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-6-4-eng.php</a></p>

Test/Assessment	Time	Comments
		<p><b>CPS- Vertical transmission of hepatitis C virus: Current knowledge and issues</b> ID No. 08-05 <a href="http://www.cps.ca/english/statements/ID/id08-05.htm">http://www.cps.ca/english/statements/ID/id08-05.htm</a>  Posted July 2008; reaffirmed Feb 1, 2014 at <a href="http://www.cps.ca/documents/statements-by-date/P125">www.cps.ca/documents/statements-by-date/P125</a></p>
<p>Syphilis screen  (blue microbiology requisition)</p>	<p>Recommend in every pregnancy  At preconception or first prenatal visit.  Repeat screening at 28-32 weeks &amp; again at delivery for women at high risk.</p>	<p>Risk factors include:</p> <ul style="list-style-type: none"> <li>• Those who have had sexual contact with a known case of syphilis</li> <li>• MSM (men who have sex with men)</li> <li>• Sex workers</li> <li>• Those with street involvement/homeless</li> <li>• Injection drug users</li> <li>• Those with multiple sexual partners</li> <li>• Those with a history of syphilis, HIV and other STIs</li> <li>• Those originating from or having sex with an individual from a country with a high prevalence of syphilis; it should be noted that screening for syphilis (using a non-treponemal test) is routinely performed in all immigration applicants to Canada who are older than 15 years</li> <li>• Sexual partners of any of the above.</li> </ul> <p>Screening for diagnosis and treatment/ prevention/ follow up of treatment. See PHAC Canadian STI Guidelines at for syphilis at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-10-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-10-eng.php</a></p>
<p>Blood group and Rh type, antibody screen  (white Blood Transfusion Service Requisition - Prenatal)</p>	<p>Recommend in every pregnancy within the first trimester and again at 28 weeks in Rh negative women</p>	<p>Screening to prevent hemolytic disease of the newborn (e.g. from rhesus isoimmunization). Lab testing results from Canadian Blood Services will indicate when subsequent testing is necessary.</p> <p>See Guidelines for Perinatal Antibody Screening and Rho(D) Immune Globulin (WinRho®SDF Liquid) Administration Rh Program of NS revised December 2011 at <a href="http://rcp.nshealth.ca/rh">http://rcp.nshealth.ca/rh</a></p>

Test/Assessment	Time	Comments
Urinalysis  (urinalysis requisition)	Recommend screening for asymptomatic bacteriuria. Urine culture or urinalysis followed by culture if urinalysis positive.  At first prenatal visit and in each trimester with known history of recurrent UTI, renal disease, anomaly (i.e., single kidney)	Pregnant women with symptomatic or asymptomatic bacteriuria are at significantly increased risk of preterm delivery and having a low birth weight infant.  A follow-up culture for test of cure a week after completion of therapy and monthly follow-up until completion of the pregnancy are recommended.  <b>SOGC #276 Management of Group B Streptococcal Bacteriuria in Pregnancy, May 2012</b> <a href="http://sogc.org/guidelines/management-of-group-b-streptococcal-bacteriuria-in-pregnancy/">http://sogc.org/guidelines/management-of-group-b-streptococcal-bacteriuria-in-pregnancy/</a>
Cervical cytology  (Pap Test requisition)	PEI Guidelines – screen as usual protocol. NOT if less than 21 years of age or recently done.	PEI Guidelines – screen as usual protocol. NOT if less than 21 years of age or recently done. PEI Pap Guidelines at 1-888-561-2233 or at <a href="http://www.gov.pe.ca/photos/original/hpei_papguide.pdf">http://www.gov.pe.ca/photos/original/hpei_papguide.pdf</a>
Chlamydia screening and Gonorrhea screening  (blue microbiology requisition)	Recommend screening to all at first prenatal visit  Rescreen in third trimester if positive or at high risk for re-infection.	PHAC Canadian STI Guidelines for Chlamydia at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-2-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-2-eng.php</a>  A diagnosis of N. gonorrhoeae is strongly associated with co-infection of C. trachomatis. Treatment for both STIs is recommended when N. gonorrhoeae is diagnosed unless testing for C. trachomatis is negative. PHAC Canadian STI Guidelines for Gonorrhea at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-6-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-6-eng.php</a>

Test/Assessment	Time	Comments
	In pregnant women a test of cure in both partners is recommended.	Information also available through an App
HIV Human Immunodeficiency Virus Serologic Testing  (blue microbiology requisition for HIV/Ag)	Recommend offering HIV counseling and testing at first prenatal visit  If results are negative and woman is at ongoing risk, consider offering a repeat test later in pregnancy.	All pregnant women should be offered testing with appropriate counseling and informed consent; testing is voluntary. Provincial laboratories can accommodate both nominal testing (sample labelled with identifying information) and non-nominal testing (sample identified by a numeric code or initials). Screening for HIV to guide care and prevention of fetal transfer. Breastfeeding should be avoided or abstinence of breastfeeding for women who are HIV positive.  <b>SOGC #310 Guidelines for the Care of Pregnant Women Living with HIV and Interventions to Reduce Perinatal Transmission</b> , August 2014 at <a href="http://sogc.org/guidelines/guidelines-care-pregnant-women-living-hiv-interventions-reduce-perinatal-transmission-executive-summary/">http://sogc.org/guidelines/guidelines-care-pregnant-women-living-hiv-interventions-reduce-perinatal-transmission-executive-summary/</a>  PHAC Canadian STI Guidelines for HIV at <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-8-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-8-eng.php</a>  Public Education Pamphlet: <a href="http://www.sogc.org/health/pregnancy-hiv_e.asp">http://www.sogc.org/health/pregnancy-hiv_e.asp</a>
Gestational Diabetes Screen(GDS)  OGTT or Fasting Blood Glucose	Recommend screening all. (Note: this is controversial and population dependent)	If multiple risk factors for GDM are present, screen during the first trimester of pregnancy and reassess during subsequent trimesters. Women with multiple risk factors should be screened during the first trimester. Risk factors include: <ul style="list-style-type: none"> <li>• previous diagnosis of GDM or delivery of a macrosomic infant</li> <li>• member of a high-risk population(Aboriginal, Hispanic, South Asian, Asian, African)</li> <li>• age ≥35 years</li> </ul>

Test/Assessment	Time	Comments
		<ul style="list-style-type: none"> <li>• BMI <math>\geq 30</math> kg/m<sup>2</sup></li> <li>• PCOS</li> <li>• acanthosis nigricans, and</li> <li>• corticosteroid use.</li> </ul> <p>Gestational Diabetes Screen (GDS): a 50-g glucose load (tritol) followed by a 1hPG, given at any time of day.</p> <p><b>Diabetes and Pregnancy, Canadian Journal of Diabetes 2013</b>  <a href="http://guidelines.diabetes.ca/executivesummary/ch36">http://guidelines.diabetes.ca/executivesummary/ch36</a></p> <p>NS Guidelines, July 2013 Vol 23, No1 at  <a href="http://diabetescare.nshealth.ca/sites/default/files/files/Preg%26DMGuidelines2014.pdf">http://diabetescare.nshealth.ca/sites/default/files/files/Preg%26DMGuidelines2014.pdf</a></p>
<p>Ultrasound (FATC referral form)</p>	<p>First trimester, NS FATC referral document for MST</p> <p>2<sup>nd</sup> trimester at 18-20 week screening</p>	<p>For chorionicity when twins or multiples are suspected. Recommend a 1<sup>st</sup> trimester ultrasound if uncertain LMP or irregular cycles. Plus or minus nuchal translucency as MST is not applicable for multiple gestations (FATC).</p> <p>Early pregnancy review ultrasound (EPR) at 11-13<sup>6/7</sup> weeks – women <math>\geq 35</math> years of age at EDB or with specific risk factors</p> <p><b>SOGC #304 Joint SOGC/CAR Policy Statement on Non-medical Use of Fetal Ultrasound</b> - Published February 2014 at <a href="http://sogc.org/guidelines/joint-sogccar-policy-statement-non-medical-use-fetal-ultrasound/">http://sogc.org/guidelines/joint-sogccar-policy-statement-non-medical-use-fetal-ultrasound/</a></p> <p><b>SOGC #260 Ultrasound in Twin Pregnancies</b> June 2011 at <a href="http://sogc.org/guidelines/ultrasound-in-twin-pregnancies/">http://sogc.org/guidelines/ultrasound-in-twin-pregnancies/</a></p> <p><b>SOGC #303 Ultrasound in Determining Gestational Age</b> February 2014 at <a href="http://sogc.org/guidelines/determination-gestational-age-ultrasound/">http://sogc.org/guidelines/determination-gestational-age-ultrasound/</a></p>



Test/Assessment	Time	Comments
		<p><b>SOGC#277 Counselling Considerations for Prenatal Genetic Screening Committee Opinion</b>, May 2012 at <a href="http://sogc.org/guidelines/counselling-considerations-for-prenatal-genetic-screening/">http://sogc.org/guidelines/counselling-considerations-for-prenatal-genetic-screening/</a></p> <p><b>SOGC #261 Guidelines for prenatal screening for fetal aneuploidy in singleton pregnancies</b>, July 2011 at <a href="http://sogc.org/guidelines/prenatal-screening-for-fetal-aneuploidy-in-singleton-pregnancies-replaces-187-february-2007/">http://sogc.org/guidelines/prenatal-screening-for-fetal-aneuploidy-in-singleton-pregnancies-replaces-187-february-2007/</a></p> <p><b>SOGC #262 Guidelines for prenatal screening for and diagnosis of aneuploidy in twin pregnancies</b>, July 2011 at <a href="http://sogc.org/guidelines/prenatal-screening-for-and-diagnosis-of-aneuploidy-in-twin-pregnancies-replaces-187-february-2007/">http://sogc.org/guidelines/prenatal-screening-for-and-diagnosis-of-aneuploidy-in-twin-pregnancies-replaces-187-february-2007/</a></p>
T-ACE  (questionnaire)	Recommended for all	<p>Universal screening for alcohol consumption should be done periodically for all pregnant women and women of child-bearing age. Ideally, at-risk drinking could be identified before pregnancy, allowing for change. (II-2B)</p> <ol style="list-style-type: none"> <li>1. There is evidence that alcohol consumption in pregnancy can cause fetal harm.(II-2) There is insufficient evidence regarding fetal safety or harm at low levels of alcohol consumption in pregnancy. (III)</li> <li>2. There is insufficient evidence to define any threshold for low-level drinking in pregnancy. (III)</li> <li>3. Abstinence is the prudent choice for a woman who is or might become pregnant. (III)</li> <li>4. Intensive culture-, gender-, and family-appropriate interventions need to be available and accessible for women with problematic drinking and/or alcohol dependence. (II-2)</li> </ol> <p><b>SOGC #245 Alcohol Use and Pregnancy Consensus Clinical Guidelines</b> August 2011 at <a href="http://sogc.org/guidelines/alcohol-use-and-pregnancy-consensus-clinical-guidelines/">http://sogc.org/guidelines/alcohol-use-and-pregnancy-consensus-clinical-guidelines/</a></p>

Test/Assessment	Time	Comments
		<p><b>SOGC- Alcohol Use and Pregnancy Consensus Clinical Guidelines</b> Vol. 32, No. 8, Aug. 2010 Supplement 3 <a href="http://www.sogc.org/guidelines/documents/gui245CPG1008E.pdf">http://www.sogc.org/guidelines/documents/gui245CPG1008E.pdf</a></p> <p><b>SOGC #256 Substance Use in Pregnancy</b> April 2011 at <a href="http://www.sogc.org/guidelines/documents/gui256CPG1104E.pdf">http://www.sogc.org/guidelines/documents/gui256CPG1104E.pdf</a></p>
<b>The following test may be carried out as clinical judgment dictates:</b>		
<p>Thyroid Stimulating Hormone</p> <p>(green laboratory requisition TSH)</p>	<p>Offer to all women (Note: this is controversial)</p>	<p>TSH levels may be elevated in pregnancy (&lt;3.5). Subnormal levels in early pregnancy have been associated with damage to fetal intellectual development</p> <p><b>**Risk factors for thyroid disease</b> are: history (hx) hypo/hyper thyroid disease, PPT, thyroid lobectomy; family history of thyroid disease; goiter; thyroid antibodies(when known); symptoms/signs of under/over function -anemia, elev. cholesterol, hyponatremia; type I diabetes; other autoimmune disorders; hx infertility; prev. therapeutic head or neck irradiation; hx miscarriage/ preterm delivery</p> <p><b>J Clin Endocrinol Metab, August 2012, 97(8):2543–2565</b> and found at <a href="http://press.endocrine.org/doi/pdf/10.1210/jc.2011-2803">http://press.endocrine.org/doi/pdf/10.1210/jc.2011-2803</a></p>
<p>Other investigations: such as Toxoplasmosis, parvovirus B19 serology (B19, IgG and IgM), mumps, cytomegalovirus</p>	<p>Routine screening for Toxoplasmosis, parvovirus B19, mumps and CMV is not recommended.</p> <p>Offer serology testing to women exposed to</p>	<p><b>SOGC #316 Parvovirus B19 Infection in Pregnancy.</b> December 2014 at <a href="http://sogc.org/guidelines/parvovirus-b19-infection-pregnancy/">http://sogc.org/guidelines/parvovirus-b19-infection-pregnancy/</a></p> <p><b>SOGC #253 Genetic Considerations for a Woman’s Pre-conception Evaluation</b> January 2011 at <a href="http://www.sogc.org/guidelines/documents/gui253CO1101E.pdf">http://www.sogc.org/guidelines/documents/gui253CO1101E.pdf</a></p> <p><b>SOGC #240 Cytomegalovirus Infection in Pregnancy</b> April 2010 at <a href="http://www.sogc.org/guidelines/documents/gui240CPG1004E.pdf">http://www.sogc.org/guidelines/documents/gui240CPG1004E.pdf</a></p>

Test/Assessment	Time	Comments
(CMV) and Varicella	or with symptoms of parvovirus B19, mumps, CMV or Varicella to determine prior immunity (IgG) or current infection (IgM)	<p><b>SOGC#236 Immunization in Pregnancy</b> Nov. 2009 at <a href="http://www.sogc.org/guidelines/documents/gui236CPG0911.pdf">http://www.sogc.org/guidelines/documents/gui236CPG0911.pdf</a></p> <p><b>SOGC #274 Management of Varicella Infection (Chickenpox) in Pregnancy</b> March 2011 at <a href="http://sogc.org/guidelines/management-of-varicella-infection-chickenpox-in-pregnancy/">http://sogc.org/guidelines/management-of-varicella-infection-chickenpox-in-pregnancy/</a></p> <p><b>Health Canada - Safe Food Handling For Pregnant Women</b> at <a href="http://healthy Canadians.gc.ca/eating-nutrition/safety-salubrite/pregnant-enceintes-eng.php">http://healthy Canadians.gc.ca/eating-nutrition/safety-salubrite/pregnant-enceintes-eng.php</a></p>

## Time Sensitive Prenatal Care

**Integrated Maternal Serum Testing (IMST):** These are blood tests that measure naturally occurring substances that are produced by all pregnancies. They are offered to all women. The **first is completed between 9-13<sup>+6</sup> weeks gestation. Second trimester testing must be performed in conjunction with first trimester testing for IMST between 15-20<sup>+6</sup> weeks gestation.** Note: This is the recommended test, it performs better. FATC produces the referral forms and an accompanying document for health care providers.

**Standard Second Trimester Maternal Serum Testing (MST):** offer only if the patient missed the First Trimester

**Integrated Prenatal Test:** This test is the same as above but also includes the EPR in the integration.

**Early Pregnancy Review (EPR):** Women with specific risk factors and all women over age 35 years at their EDD should be offered an early pregnancy review in the Fetal Assessment and Treatment Centre (FATC) at the IWK Health Centre. An EPR is an ultrasound that reviews viability, dates, and early development and assesses for fetal abnormalities through specific markers, particularly a nuchal translucency. This review is best if used in conjunction with the maternal serum test for assessment of risk for Trisomy 21.

Test/Assessment	Time	Comments
<b>9- 13<sup>+6</sup> weeks</b>		
Maternal Serum Testing (MST) 9 - 13 <sup>+6</sup> weeks	Offer to all regardless of age 9 - 13 <sup>+6</sup> weeks	1 <sup>st</sup> trimester maternal serum testing should be offered to all women regardless of age. NOTE: 2 <sup>nd</sup> trimester testing must be performed in conjunction with 1 <sup>st</sup> trimester testing for an integrated screen (IMST).
Early Pregnancy Review (EPR) 11-13 <sup>+6</sup> weeks	Offer to women with specific risk factors and all women over age 35 years at their EDB	An EPR is an ultrasound that reviews viability, dates, early development and assesses for fetal abnormalities through specific markers, particularly a nuchal translucency. This review is best if used in conjunction with the maternal serum screen test for assessment of risk for Trisomy 21. This ultrasound is performed at the IWK Health Centre in the Fetal Assessment and Treatment Centre (FATC: 1-902-470-6654). (Note: Any MFM group can perform this – Moncton, Saint John, Fredericton, etc.)

Test/Assessment	Time	Comments
		Risk Factors: <ol style="list-style-type: none"> <li>1. Maternal age &gt; 35 at EDD</li> <li>2. Multiple gestation</li> <li>3. Known parental risk factor for fetal chromosomal abnormality</li> <li>4. Prior pregnancy affected with chromosomal, anatomic or syndromic abnormality</li> <li>5. Teratogenic risk by infection of class D drug Maternal disease linked to fetal abnormality (i.e. Insulin-dependent diabetes; epilepsy; etc.)</li> <li>6. IVF pregnancy</li> <li>7. Increased risk for fetal abnormality through known family or parental risk factors (i.e. CF, PKD)</li> <li>8. Screen Positive First Trimester MST.</li> </ol>
<b>15 - 20<sup>+6</sup> weeks</b>		
Maternal Serum Testing (MST) 15 - 20 <sup>+6</sup> weeks (optimal timing 16 -18 weeks)	2 <sup>nd</sup> trimester screening - Offer to all regardless of age	Second Part of IMST. Offer Standard Second Trimester if patient missed the First Trimester MST
<b>18-21 weeks</b>		
Ultrasound 18 -21 weeks	Offer to all	Should include fetal biometry, amniotic fluid volume, placentation, anatomical review for anomalies and markers for fetal aneuploidy.  SOGC #223 Content of a complete routine second trimester obstetrical ultrasound examination and report March 2009 at <a href="http://sogc.org/guidelines/content-of-a-complete-routine-second-trimester-obstetrical-ultrasound-examination-and-report-replaces-103-may-2001/">http://sogc.org/guidelines/content-of-a-complete-routine-second-trimester-obstetrical-ultrasound-examination-and-report-replaces-103-may-2001/</a>
Prenatal Psychosocial Assessment	Offer to all at 16 - 20 weeks gestation	“Ask Me! Identifying Stressors for Pregnant Women” and/or “Prenatal Psychosocial Health Assessment Tool”. Screening tools available from the PEI Reproductive Care Program. <a href="http://www.gov.pe.ca/go/repcare">http://www.gov.pe.ca/go/repcare</a> - Health Professional Resources

Test/Assessment	Time	Comments
		<p><b>SOGC #245 Alcohol Use and Pregnancy Consensus Clinical Guidelines</b> August 2011 at <a href="http://sogc.org/guidelines/alcohol-use-and-pregnancy-consensus-clinical-guidelines/">http://sogc.org/guidelines/alcohol-use-and-pregnancy-consensus-clinical-guidelines/</a></p> <p><b>SOGC #256 Substance Use in Pregnancy</b> April 2011 at <a href="http://www.sogc.org/guidelines/documents/gui256CPG1104E.pdf">http://www.sogc.org/guidelines/documents/gui256CPG1104E.pdf</a></p>
<b>24 - 28 weeks</b>		
Repeat hemoglobin/CBC (coordinate with other lab tests)	24-28 weeks Recommended for all	Recognition of anemia. Recommendations re diet and or vitamin supplements as indicated.
Gestational Diabetes (glucose) screen	Recommended for all including those at risk whose initial screen for GDM was negative	The 2013 CDA guidelines have eliminated the diagnosis of IGT of pregnancy, such that if one value is met or exceeded on the 75-g OGTT, GDM is diagnosed. In contrast to IADPSG, the new CDA guidelines have increased their cutoffs to $\geq 11.1$ for the diagnosis of GDM on the 50-g glucose challenge test (GCT) and $\geq 9.0$ for the 2-hour plasma glucose on the 75-g OGTT.  <a href="http://diabetescare.nshealth.ca/sites/default/files/files/NewsletterJuly2013.pdf">http://diabetescare.nshealth.ca/sites/default/files/files/NewsletterJuly2013.pdf</a>
Repeat the Antibody Screen	24-28 weeks	To determine the presence of antibodies. Many women with antibodies identified during pregnancy are Rh positive. Implications for fetal and neonatal health warrant repeating the antibody screen in these women (coordinate with other lab tests if possible). <b>Rh Program of NS</b> <a href="http://rcp.nshealth.ca/rh">http://rcp.nshealth.ca/rh</a>
Repeat the Antibody Screen	26- 28 weeks – Within 2 weeks <b>BEFORE</b> giving WinRho® SDF Liquid	Rh negative women require Rho(D) Immune Globulin at 28 weeks gestation unless the partner’s Rh status is definitely negative. If the partner is Rh positive or has an unknown Rh status, an antibody screen should be done prior to administration of Immune Globulin. Women who develop antibodies associated with Hemolytic Disease of the Newborn (HDN) need careful follow-up. See Rh Program of NS guidelines for Rho(D) Immune Globulin recommendations related to testing and management. [coordinate with other

Test/Assessment	Time	Comments
	Rho(D) Immune Globulin 300mg dose	lab tests if possible] <b>Rh Program of NS</b> <a href="http://rcp.nshealth.ca/rh">http://rcp.nshealth.ca/rh</a>  28 weeks for all unsensitized Rh negative women  With informed consent (blood product)
<b>28 - 32 weeks</b>		
Assess Fetal Movement	Beginning at 26 - 32 weeks	Healthy women <i>without</i> risk factors for adverse perinatal outcomes should be aware of the significance of fetal movements in the third trimester and perform a fetal movement count if they perceive decreased movements.  Recommend daily fetal movement counting starting at 26 weeks to 32 weeks in all pregnancies <i>with risk factors</i> for adverse outcomes.  Recommend that women who do not perceive six movements in an interval of two hours seek further antenatal testing as soon as possible.  <b>SOGC #197 Fetal Health Surveillance: Antepartum and Intrapartum Consensus Guideline-</b> September 2007 Supplement 4 <a href="http://sogc.org/guidelines/fetal-health-surveillance-antepartum-and-intrapartum-consensus-guideline/">http://sogc.org/guidelines/fetal-health-surveillance-antepartum-and-intrapartum-consensus-guideline/</a>
<b>Offer to some women:</b>		
HIV Counselling and Screening and repeat STI screening, including syphilis serology in conjunction with	27 - 32 weeks	If HIV was not discussed, completed or was declined during the first prenatal visit and for women who are known to be at high risk for contracting HIV. This is an opportunity for primary care providers to counsel women about HIV testing.  Repeat STI testing for women known to be at high risk.  <b>SOGC #310 Guidelines for the Care of Pregnant Women Living With HIV and</b>

Test/Assessment	Time	Comments
other blood work		<b>Interventions to Reduce Perinatal Transmission</b> , August 2014 at <a href="http://sogc.org/guidelines/guidelines-care-pregnant-women-living-hiv-interventions-reduce-perinatal-transmission-executive-summary/">http://sogc.org/guidelines/guidelines-care-pregnant-women-living-hiv-interventions-reduce-perinatal-transmission-executive-summary/</a>
<b>35-37 weeks</b>		
<b>All pregnant women should be offered the following:</b>		
Group B Streptococcus (GBS) Screen	Should be completed between 35-37 weeks	<p>Women who agree to screening should have a culture done from a single swab first to the vagina, then to the rectal area.</p> <ul style="list-style-type: none"> <li>• If the woman has a known allergy to penicillin, SOGC recommends noting this on the requisition and requesting sensitivity testing for clindamycin and erythromycin.</li> <li>• Since GBS colonization status can change, the SOGC recommends repeating the GBS culture after 5 weeks. Some clinicians may decide to delay vcollecting the GBS swab until 36 weeks so the results will be valid until 41 weeks. <b>If a woman goes in to labour and her culture is &gt; 5 weeks old, her GBS status should be considered unknown.</b></li> </ul> <p><b>SOGC #298 The Prevention of Early-Onset Neonatal Group B Streptococcal Disease</b> Oct 2013 at <a href="http://sogc.org/guidelines/prevention-early-onset-neonatal-group-b-streptococcal-disease-replaces-149-sept-2004/">http://sogc.org/guidelines/prevention-early-onset-neonatal-group-b-streptococcal-disease-replaces-149-sept-2004/</a></p>
<b>41+0 to 42+0 weeks</b>		
<b>Post Term Management</b>		
Biophysical profile or Non-Stress Test (NST) and amniotic fluid volume measurement	41+0 to 41+2 weeks	<b>SOGC #296 – Guidelines for the Induction of Labour</b> September 2013 at <a href="http://sogc.org/guidelines/induction-labour-replaces-107-aug-2001/">http://sogc.org/guidelines/induction-labour-replaces-107-aug-2001/</a>



Test/Assessment	Time	Comments
<b>Appropriate under specific circumstances</b>		
<b>Routine screening is not recommended for the following tests but they are available and appropriate under specific circumstances:</b>		
Genetic Screening		<p>Reasons for genetic screening may include:</p> <ul style="list-style-type: none"> <li>• Individuals with a family history of a disorder who are concerned that they will develop the disorder or pass on the condition to their children</li> <li>• Couples with a child, or a family history of children, with serious problems in growth, development or health</li> <li>• Intending parents who are first cousins or other close blood relatives</li> <li>• Couples who have a fetal abnormality detected during pregnancy</li> <li>• Couples who have concerns about exposure to some chemical or environmental agent, which might cause birth defects</li> <li>• Women who have had three or more miscarriages or babies who died in infancy</li> <li>• Couples who would like testing or more information about genetic conditions that occur frequently in their ethnic group</li> <li>• Asymptomatic individuals who know of a disease in their family and are interested in having genetic testing to find out if they will develop the condition</li> <li>• People with a family history of cancer where there tends to be similar cancer types, a number of affected individuals, and young ages of onset</li> </ul> <p>Note: the following patients are seen through the Fetal Assessment &amp; Treatment Centre at the IWK Health Centre for assessment and care. For more information regarding this please call (902) 470-6654.</p> <ul style="list-style-type: none"> <li>• Women in their mid-30's or older who are pregnant or planning pregnancies</li> <li>• Women who have had a positive result on a prenatal maternal serum screening test</li> </ul> <p>If you have questions about the appropriateness of a referral, you may ask to speak to the Genetic Counsellor on triage at (902) 470-8754. Further information and the referral form are available on the Maritime Medical Genetics website at <a href="http://iwk.nshealth.ca">http://iwk.nshealth.ca</a></p>

Test/Assessment	Time	Comments
		click on Care Services then M, choose Maritime Medical Genetics Service or call (902) 470-8754. A genetic counsellor is available Monday to Friday 8:30-4:30 pm. The referral form is available on the website.
Hypertension Screening	Blood Pressure is tested at every appointment	<b>SOGC #307 Diagnosis, Evaluation, and Management of the Hypertensive Disorders of Pregnancy: Executive Summary</b> May 2014 at <a href="http://sogc.org/guidelines/diagnosis-evaluation-management-hypertensive-disorders-pregnancy-executive-summary/">http://sogc.org/guidelines/diagnosis-evaluation-management-hypertensive-disorders-pregnancy-executive-summary/</a>
Immunization in Pregnancy (Influenza and Pertussis)		<b>SOGC #236 Immunization in pregnancy</b> November 2009 at <a href="http://sogc.org/guidelines/immunization-in-pregnancy-replaces-220-dec-2008/">http://sogc.org/guidelines/immunization-in-pregnancy-replaces-220-dec-2008/</a>
Chicken Pox (Varicella zoster)	Varicella serology (if no history of infection, two doses of vaccine, or positive serology indicating immunity). <i>Those who are non-immune require postpartum vaccination.</i>	<b>SOGC #274 Management of Varicella Infection (Chickenpox) in Pregnancy</b> March 2012 at <a href="http://sogc.org/guidelines/management-of-varicella-infection-chickenpox-in-pregnancy/">http://sogc.org/guidelines/management-of-varicella-infection-chickenpox-in-pregnancy/</a>
Erythema Infectiosum (Fifth Disease or Slapped Cheek Syndrome) [caused by Parvovirus B19]	Screening of asymptomatic women who are not aware of possible exposure is <b>NOT</b> recommended	<b>SOGC #316 Parvovirus B19 Infection in Pregnancy</b> December 2014 at <a href="http://sogc.org/guidelines/parvovirus-b19-infection-pregnancy/">http://sogc.org/guidelines/parvovirus-b19-infection-pregnancy/</a>

Test/Assessment	Time	Comments
Herpes	Routine prenatal screening by culture is <b>NOT</b> indicated for those with a positive history	SOGC #208 <b>Guidelines for the Management of Herpes Simplex Virus in Pregnancy</b> June 2008 at <a href="http://www.sogc.org/guidelines/documents/gui208CPg0806.pdf">http://www.sogc.org/guidelines/documents/gui208CPg0806.pdf</a>
Rubeola	Universal screening is <b>NOT</b> necessary	<p>If a pregnant woman has been exposed to measles and her immunity status is in doubt, she should be tested for measles antibodies. Immune globulin is recommended within six days of the last exposure to measles if the woman is immunocompromised or if measles immune status is unknown/questionable and measles IgG serology is either negative or can't be obtained before six days from the last exposure. Immune globulin is not recommended if the woman was born before 1970, has had documented natural measles, or has had two doses of vaccine a minimum of one month apart.</p> <p>Ig is not indicated for household or other close contacts who have received 1 dose of vaccine at 12 months of age or older unless they are immunocompromised.</p> <p><b>SOGC #236 Immunization in pregnancy</b> November 2009 at <a href="http://sogc.org/guidelines/immunization-in-pregnancy-replaces-220-dec-2008/">http://sogc.org/guidelines/immunization-in-pregnancy-replaces-220-dec-2008/</a></p>
Toxoplasmosis	Universal screening is <b>NOT</b> necessary. Education regarding risks at preconception and/or first pregnancy visit is appropriate.	<p><b>SOGC #285 Toxoplasmosis in Pregnancy: Prevention, Screening, and Treatment</b> January 2013 at <a href="http://sogc.org/guidelines/toxoplasmosis-in-pregnancy-prevention-screening-and-treatment/">http://sogc.org/guidelines/toxoplasmosis-in-pregnancy-prevention-screening-and-treatment/</a></p> <p>Motherisk Update Canadian Family Physician Vol 52: Jan. 2006 <a href="http://www.cfp.ca/content/52/1/29.full.pdf">http://www.cfp.ca/content/52/1/29.full.pdf</a></p> <p>Health Canada information at <a href="http://healthycanadians.gc.ca/eating-nutrition/safety-salubrite/pregnant-enceintes-eng.php">http://healthycanadians.gc.ca/eating-nutrition/safety-salubrite/pregnant-enceintes-eng.php</a></p>

Test/Assessment	Time	Comments
Listeriosis		<p><b>Safe Food Handling For Pregnant Women</b>  <a href="http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/pregnant-women-femmes-enceintes-eng.php">http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/pregnant-women-femmes-enceintes-eng.php</a></p> <p>For information on prevention, diagnosis and treatment, see SOGC at  <a href="http://www.sogc.org/spotlight/listeria_e.asp">http://www.sogc.org/spotlight/listeria_e.asp</a></p>
Cytomegalovirus (CMV)		<p><b>SOGC #240 Cytomegalovirus Infection in Pregnancy</b> April 2010 at  <a href="http://www.sogc.org/guidelines/documents/gui240CPG1004E.pdf">http://www.sogc.org/guidelines/documents/gui240CPG1004E.pdf</a></p>
Bacterial Vaginosis	Universal screening is <b>NOT</b> necessary.	<p>SOGC March 2015 JOGC page 266 and at  <b>SOGC #320 Vulvovaginitis: Screening for and Management of Trichomoniasis, Vulvovaginal Candidiasis, and Bacterial Vaginosis</b> March 2015 at  <a href="http://sogc.org/guidelines/vulvovaginitis-screening-management-trichomoniasis-vulvovaginal-candidiasis-bacterial-vaginosis-replaces-211-august-2008/">http://sogc.org/guidelines/vulvovaginitis-screening-management-trichomoniasis-vulvovaginal-candidiasis-bacterial-vaginosis-replaces-211-august-2008/</a></p>
Human Teratology		<p><b>SOG #199 Principles of Human Teratology: Drug, Chemical and Infectious Exposure</b> Nov. 2007 at <a href="http://www.sogc.org/guidelines/documents/guiJOGC199CPG0711.pdf">http://www.sogc.org/guidelines/documents/guiJOGC199CPG0711.pdf</a></p>