NEIGHBORHOOD HEALTH PLAN OF RHODE ISLAND			
Section:	Preventive Care Guideline	**Subject:**	Prenatal Care
Effective:	January 14, 1999	**Updated:**	3/01, 1/03, 1/05, 1/07, 05/09

Rationale
Women who receive regular and early prenatal care have better pregnancy outcomes than women who have little or no prenatal care. Timely, high-quality prenatal care should have the following three basic components: (1) early and continuing risk assessment, (2) health promotion, and (3) medical and psychosocial interventions and follow-up. It can provide a vehicle for referrals to social or other medical services, and can help women and their families to create a positive and lasting bond with a health care provider and the health care system.

The Prenatal Care Team
A team approach is most suitable for the complexities of prenatal care. The typical team includes a physician or certified nurse practitioner or midwife, nurse, and nutritionist, and may also include a social worker and case manager. Obstetricians and/or Family Physicians with OB training may provide care. Nurse Practitioners specializing in women's health care and Certified Nurse Midwives are guided by a collaborative arrangement with the attending Obstetrician or Family Physician.

Schedule of Prenatal Visits
Ideally, a preconception visit will have occurred prior to initiation of pregnancy care. The initial prenatal care visit should occur within the first trimester, optimally at about 8-10 weeks gestation. A woman with an uncomplicated pregnancy should be examined every 4-6 weeks until 28 weeks gestation, every 2-4 weeks until 36 weeks, and weekly thereafter. Women with medical or social problems require closer surveillance.

Screening and Interventions

<u>Preconception visit</u>
The preconception visit is an opportunity for a woman to assess her physical and emotional "readiness" for pregnancy and for an identification of those conditions that could affect a future pregnancy or fetus and that may be amenable to intervention. All encounters by reproductive-age women with health care professionals should be considered as an opportunity for preconception care.

Screening at this visit should include:

- Maternal health risks (previous obstetric history including modifiable risk factors for preterm labor; current use of prescription and nonprescription drugs, herbal supplements, and vitamins;

work-related exposure; hereditary disorders and/or genetic risks; periodontal disease; hemoglobinopathies; risk for STDs and/or HIV, immunization status, smoking or alcohol/substance abuse, domestic abuse, nutrition)

- Height and Weight/BMI
- Blood pressure measurement
- History and physical exam, if due
- Cholesterol and HDL, per national guidelines
- Pap smear, per cytology screening guidelines
- Screening for STDs (chlamydia, gonorrhea) and HIV, as indicated
- Rubella/rubeola, varicella, hepatitis B screening for immunization status
- PPD screening of all high risk women (risk factors include poverty, drug use, HIV, new immigrants from tuberculosis endemic areas, exposure to proven and suspected tuberculosis)

Counseling and education should include:

- Nutrition and weight
- Smoking or substance use, if applicable
- Domestic abuse
- Exercise
- Sexual practices, risk for STDs, contraception if applicable
- Accurate recording of menstrual dates.

Interventions should include:

- Immunizations as required (pertussis/ tetanus/diphtheria booster, MMR, hepatitis B; and varicella
- Initiation of folic acid supplement 0.4mg/day
- Achieve/maintain good control of preexisting medical conditions (e.g. diabetes, hypertension)
- Alpha hydroxy- progesterone therapy for women with a prior history of pre-term delivery

<u>First Prenatal Visit (6-12 weeks)</u>

At this visit, an initial database is developed, including all the **screening listed at the preconception visit** (except cholesterol/HDL) if one has not occurred. **Additional screening** that should be done at this visit includes:

- History (including risk profiles) and physical (including height/weight/BMI and BP)
- Assessment of LMP and/or other dating criteria
- Hemoglobin
- ABO/Rh testing; Rh antibody screen
- Screening for syphilis (RPR); repeat screening for chlamydia and gonnorhea, if indicated
- Screening for Hepatitis B S antigen (HBsAg)

- Screening for Hepatitis C if at risk (hx of IV or cocaine drug abuse, needle-sharing, hx of blood or clotting factor transfusion prior to 1992, multiple sexual partners)
- HIV test – woman should be notified that HIV testing is part of the routine panel of prenatal tests unless she declines (opt-out testing); if a patient declines an HIV test, this should be documented in the medical record. A second HIV test should be done in the third trimester (at <36 weeks).
- Urine culture
- Glucose testing, if morbidly obese or with history of GDM in previous pregnancies; an FPG ≥ 125 mg/dl or a casual plasma glucose ≥200 mg/dl meets the threshold for the diagnosis of diabetes and needs to be confirmed on a subsequent day unless unequivocal symptoms of hyperglycemia are present. Consider early 50-gm glucose load test if history suggestive of glucose intolerance or prior gestational diabetes
- Screening for domestic abuse
- Risk of postpartum depression; referral for counseling for those at high risk
- Families from religious or ethnic backgrounds at increased risk for autosomal recessive disorders including Tay-Sachs (Jewish, French-Canadian), Sickle Cell Anemia (African-American, Hispanic), Thalassemia (Asian, Mediterranean) should receive appropriate testing.
- Offer cystic fibrosis testing

Counseling and education should include:

- Assessment of school attendance, if applicable
- Upcoming prenatal visit schedule and assessments/interventions
- Encouragement of breastfeeding
- Physiology of pregnancy and course of care; warning signs of miscarriage and ectopic pregnancy
- Nutrition, with initiation of folate supplementation if not previously prescribed;
- Assessment for cigarette use; discussion of smoking cessation, if applicable
- Assessment for alcohol/substance abuse; referral for treatment if warranted
- Referral as needed for women experiencing domestic violence
- Discussion of fetal aneuploidy screening

Influenza immunization – women who will be pregnant during the influenza season should be vaccinated.

Genetic Counseling and/or consultation with a Maternal Fetal Medicine specialist should be offered at the preconception or first prenatal visit to all women at increased risk of bearing a child with genetic abnormalities, including but not limited to the following:

- Maternal age at least 35 at EDC
- Previous child with birth defects or inheritable disorders

- History of repeated miscarriage, stillbirth, or neonatal death of unknown cause
- Family history of either prospective parent with known/suspected chromosomal or congenital abnormality or mental retardation
- History of exposure to teratogen
- Consanguine couples
- Families with a history of autosomal recessive disorders, or with known carriers of Tay-Sachs, Sickle Cell Anemia, or Thalassemia
- Families with multifactorial conditions such as neural tube defects, cleft lip or palate, congenital heart disease
- Families with known/suspected autosomal recessive disorders (cystic fibrosis), autosomal dominant disorders or X-linked recessive disorders (hemophilia, Duchennes' muscular dystrophy)

Follow-up visits

Each follow-up visit should include a general assessment of maternal and fetal well-being and ongoing assessment of maternal risk factors.

Specific screening at each visit should include:

- Weight; refer for nutritional education as required and/or to WIC program
- Blood pressure at every visit; proceed with further evaluation if blood pressure is persistently elevated (>140/90)
- Fetal heart tones, after 12 weeks
- Fundal height, after 14 weeks

Counseling and education should be continued for those issues identified at preconception or first prenatal visit, such as smoking cessation or substance abuse, and should also include

- Promotion and support of healthy behaviors (such as appropriate exercise, STD prevention)
- Breastfeeding
- Plans for postpartum contraception
- General knowledge of pregnancy and parenting; discussion of support systems and plans for assistance after delivery
- Information about fetal growth
- Information about and assessment of fetal movement
- Information on proposed care
- How to identify and manage signs of possible preterm labor, beginning at 22 weeks
- Screening for domestic abuse

Genetic Counseling

All women presenting for care prior to 20-22 weeks gestation should be offered maternal serum screening for birth defects (AFP plus, AFP quad, Triple screen, etc), according to guidelines and dating of the pregnancy. Maternal serum screening is not necessary if amniocentesis is planned. Consultation with a maternal/fetal medicine specialist should be offered to women at risk of bearing a child with genetic abnormalities, including the following:

- Abnormal maternal serum screening for birth defects
- Known/suspected isoimmunization
- Abnormal Level I ultrasound
- Infection during current pregnancy with rubella, varicella, parvovirus, toxoplasmosis, cytomegalovirus

Specific Mid-and Late Trimester Screening

At 24-28 weeks gestation:

- Gestational diabetes mellitus - oral 50gm glucose load followed by a plasma glucose determination one hour later. The patient need not be fasting. Abnormal results (>130-140mg/dl) require further evaluation with full 100gm 3-hour GTT performed in the fasting state
- Anemia - repeat hemoglobin and hematocrit, with iron supplementation prescribed if Hgb<10 or Hct<30.
- Rh factor: in Rh negative patients, repeat antibody at 28 weeks and administer Rhogam.
- Repeat opt-out HIV testing during the 3rd trimester is recommended by the CDC for women in R.I. and Massachusetts between ages of 15-45, regardless of other risk factors.

At 35-37 weeks gestation:

- Screening for Group B Strep (GBS) - prenatal screening for anogenital GBS is done at 35-37 weeks gestation. Intrapartum antibiotic prophylaxis is recommended for
    - women identified as GBS carriers by this screening
    - women with GBS isolated from the urine in any concentration during their current pregnancy (prenatal culture-based screening at 35-37 weeks is not needed for women with GBS bacteriuria)
    - women who have previously given birth to an infant with invasive GBS disease (prenatal screening not needed for these women)
    - women with preterm labor or rupture of membranes prior to 37 weeks' gestation.

Preparation for Labor, Delivery, and Parenting

Referral to a qualified Childbirth Education class, to help women prepare for a positive labor and delivery experience, should be considered and documented. Pregnancy is also a time for emotional and physical preparation for parenting. Guidance by a medical professional can be most helpful, and should include:

- Choosing a suitable pediatrician or family physician

- Information, encouragement, and ongoing support for breastfeeding
- Plans for postpartum contraception
- Parent and infant safety, including car seats, seat belts, and general infant safety issues.

Post Partum Follow-up

After delivery care should take place between 21-46 days following delivery
This visit should include: (but not limited to)

- Contraceptive Counseling
- Physical exam (including pelvic)
- Pap smear
- GC & Chlamydia
- Assess rubella status and immunize if needed
- Breast feeding discussion (if appropriate)
- Depression Screening

Health Plan Role

The goal of NHPRI's *Bright Start* prenatal care program is to promote healthy pregnancies and healthy newborns. We do this by sending educational information to all pregnant women on our plan. If an individual member is identified as having an at risk pregnancy, that individual is enrolled in the case management Bright Start program. The Bright Start case management program provides appropriate medical and social interventions for these members as well as makes referrals for needed resources.

Referral for Specialty Care

The following conditions should be referred, at least once, to either to a tertiary care center or perinatologist with expertise in managing high-risk pregnancies:

- HIV + with AIDS
- Isoimmunization with documented two-fold rise in titer, or a titer > 1:16
- Sickle cell disease or other sickle hemoglobinopathies (excluding sickle trait)
- Pre-existing diabetes
- Renal failure
- Known serious congenital anomaly
- Lupus or antiphospholipid antibody syndrome
- Twin gestation or more
- Monoamniotic twins
- Cardiac Disease, New York Heart Association class III or IV
- Behavioral Health/ Substance abuse issues

The following conditions should be considered for consultation with an Obstetrician or Family Physician who has expertise in management of high-risk pregnancy conditions:

- Preexisting hypertension or PIH
- Renal disease
- Thrombophlebitis or history of thrombosis
- Polyhydramnios/oligohydramnios
- Gestational diabetes
- Previous pre-term or SGA baby
- IUGR
- History of PROM
- Cardiac disease, New York Heart Association class I or II
- Seizure disorder
- Any severe medical problem

This consideration should take the form of case review by the attending obstetrician or family physician.

References

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