Relevance to Population: UPMC Health Plan is dedicated to high-quality evidence based perinatal care of the membership of women of childbearing age, including the population at high risk. Perinatal care includes preconception care that identifies health and social risks that leads to poor pregnancy outcomes, low birth weight and infant mortality. The major goal of perinatal care is to ensure the birth of a healthy baby with minimal risk for the mother.

Population Covered by Guideline: All pregnant women.

Clinical Indicators Measured by UPMC Health Plan:
1. Screening for Timeliness of Prenatal Care. HEDIS®
2. Screening for Postpartum Care. HEDIS®

Definition: Care provided the pregnant woman in order to prevent complications and decrease the incidence of maternal and prenatal mortality.

Prenatal Care:
The current American Congress of Obstetricians and Gynecologists (ACOG) Guidelines for Perinatal Care, Seventh Edition October 2012 is available at http://www.acog.org/resources_and_publications/.

The following is a summary of the key clinical indicators of the guideline.

Office visits
• Frequency:
  o Advise office visit at 8-10 weeks of pregnancy (or earlier if the patient is at risk for ectopic pregnancy)
  o Every 4 weeks for first 28 weeks
  o Every 2 – 3 weeks until 36 weeks gestation.
  o Every week after 36 weeks gestation.
Frequency of visits is determined by individual needs and assessed risk factors.
  Goal: Coordination of care for detected medical and psychosocial risk factors.

First Prenatal Visit (8-10 weeks of pregnancy if first contact earlier)
• Assessment
  o Initial history and physical.
  o Family medical history.
  o Genetic history.
  o General exam to confirm pregnancy.
  o Complete needs assessment.
  o Preterm labor risk, education and prevention.
  o Assess for tobacco, alcohol, drug use.
  o Domestic violence screening.
  o Screen for depression (current or historical) using a standardized screening tool.
  o Prescriptions: prenatal vitamins and iron supplementation as necessary.
• Education and counseling
  o Scope of care provided in the office and anticipated schedule of visits.
  o Expected course of pregnancy.
  o Counseling regarding specific complications.
  o Discuss routine lab studies/testing.
  o Discuss genetic counseling and available prenatal diagnostic testing (invasive and non-invasive).
  o Discuss high risk conditions.
  o Education regarding: Labor and delivery, nutrition, exercise, working, air travel, routine dental care, tobacco use and smoke exposure, alcohol/drug consumption, over-the-counter medications, pets, etc.
  o Practices to promote health maintenance such as use of safety restraints including lap and shoulder belts.
  o Assess barriers to care (transportation, child care issues, work schedule).
- Encourage maternity program enrollment and prenatal classes.
- Encourage and provide influenza vaccination, regardless of the stage of pregnancy, during influenza season.

**Routine Laboratory/diagnostic studies**

- Blood type and screen.
- CBC for H&H.MCV.
- Platelet Count
- Hepatitis B surface antigen (HBsAg).
- Syphilis screening.
- Screening for gestational diabetes if at high risk (see section on gestational diabetes below).
- HIV testing unless they decline (opt-out approach). For women that decline the provider should address objections and strongly encourage HIV screening.
- Cervical Cancer Screening (if the patient is due).
- Urine C&S and urine dip for protein and glucose.

**Genetic and infectious disease testing and counseling**

- It is reasonable to offer Cystic fibrosis carrier screening to all couples regardless of ethnicity. Genetic counseling is recommended for individuals with a family history of cystic fibrosis or those found to be carriers. 11,14
- Hemoglobinopathy screening should be offered to individuals of African, Southeast Asian and Mediterranean descent. Couples at risk for having a child with sickle cell disease or thalassemia should be offered genetic counseling to review prenatal testing and reproduction options. 12,13
- Patients of Ashkenazi Jewish descent should be offered prenatal carrier screening for hereditary diseases common in this group.
- All pregnant women should be screened for chlamydia during the first prenatal visit. If positive, a test of cure should be offered to the patient four weeks after completing treatment and provide counseling to decrease risk of reinfection and refer partner for testing and treatment. Those women that are less than or equal to 25 years of age or at risk for chlamydia infection should be screened again during the third trimester. 2,9,15
- All pregnant women at risk for sexually transmitted diseases should be screened for gonorrhea at the initial prenatal visit. Risk factors include age less than 25, a previous infection, new or multiple sex partners, inconsistent condom use, commercial sex work and drug use. If positive, a test of cure should be offered to the patient four weeks after completing treatment and provide counseling to decrease risk of reinfection and refer partner for testing and treatment. Repeat screening is recommended during the third trimester of pregnancy. 9
- Rescreen for HIV in the third trimester for women at high risk of acquisition 19
- Rescreen for syphilis in women at high risk of acquisition 19

**Goals:**

- Improve the timeliness of prenatal care.
- Prenatal care within the first trimester or within 42 days of enrollment.
- Provide education and recommended screening and intervention.
- Monitor progression of pregnancy.
- Assess the well-being of the woman and her fetus.
- Early detection and intervention of high risk factors.
- Complete 80% of expected prenatal visits. (ACOG recommends 14 visits).
- Decrease the incidence of smoking during pregnancy.
- Improve the frequency of appropriate testing during pregnancy.

**Gestational Diabetes (GDM) Risk**

Patients with the following risk factors should be screening for gestational diabetes at the first prenatal visit:

- Pre-pregnancy BMI ≥ 30 kg/m. 3,7
- Personal history of GDM.
- Known impaired glucose metabolism

Recent research by the Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) has suggested that using a one-step screening method, instead of the two-step method described above, results in more accurate identification of women with GDM. The study also emphasized that universal screening is the best method to improve diagnosis results. The
International Association of Diabetes and Pregnancy Study Groups (IADPSG) and the American Diabetes Association (ADA) are currently working with U.S. obstetrical organizations to consider adopting diagnostic criteria recommended by the HAPO study. A diagnosis of “Overt Diabetes” is also under consideration for high risk women who meet the criteria for GDM prior to 24 weeks gestation. ACOG currently does not endorse a change to a one-step screening for gestational diabetes.

Subsequent Prenatal Visits

- Every visit
  - Vital signs.
  - Weight (height/weight/BMI – initial visit).
  - Fetal assessment from 10th week.
  - Uterine size for progressive growth and consistency with EDD.
  - Domestic violence screening.
  - Assessment of tobacco use and smoke exposure.
  - Urine dip for protein and glucose.

- 11–14 weeks
  - Pelvic exam if fetal heart tones (FHT) not heard with amplification.
  - Breastfeeding has well documented short- and long-term medical and neurodevelopmental advantages for infants. As such, breastfeeding should be strongly encouraged during prenatal care as the best choice for feeding. Patients should be offered breastfeeding educational material and classes during pregnancy and provided resources for assistance after delivery.
  - Review laboratory data. Offer iron supplementation for patients with anemia.
  - Offer screening tests for aneuploidy.
    - All pregnant women, regardless of age, should be counseled about non-invasive and invasive prenatal diagnostic testing for aneuploidy with a discussion of the risks and benefits of each.
    - Women found to have increased risk for aneuploidy with non-invasive screening should be offered genetic counseling and the option of chorionic villus sampling (CVS) or second trimester amniocentesis.
  - If previous low transverse cesarean delivery, discuss the risks, benefits, and alternatives to a trial of labor after cesarean as well as the risks and benefits of repeat cesarean delivery.
    - In the absence of medical indications, labor should not be induced prior to 39 weeks gestation. Such early-term deliveries (37-38 6/7 weeks gestation) are associated with higher morbidity and mortality rates when compared to neonates and infants delivered between 39 weeks and 40 weeks of gestation.

- 15-20 weeks
  - Offer anatomic survey ultrasound to be completed at 18-20 weeks.
  - Offer screening test for aneuploidy with a serum Multiple Marker Screen if the patient did not have first trimester screening (invasive or non-invasive) for aneuploidy. This also incorporates neural tube defect (NTD) screening.
    - Screening and invasive diagnostic testing for aneuploidy should be available to all women who present for prenatal care before 20 weeks of gestation regardless of maternal age.
    - Offer genetic counseling and the option of second trimester amniocentesis to women found to have increased risk for aneuploidy with screening.
  - Offer neural tube defect screening (MSAFP) to women who elect first trimester screening or invasive testing for aneuploidy.
  - Review signs and symptoms of pre-term labor (PTL).
  - Review results of MSAFP/Multiple Marker screen and ultrasound if not already done.

- 24–28 weeks
  - Screening for gestational diabetes.
  - Select baby’s medical provider.
  - Discuss normal fetal movement.
Discuss prenatal classes
- Discuss post-partum contraception. If applicable, patient should sign Medicaid consent for sterilization at this gestational age.

• 27-36 weeks
  - Tdap should be administered during each pregnancy, irrespective of patient’s prior history of receiving. Optimal timing is between 27 and 36 weeks gestation to maximize maternal antibody response and passive antibody transfer levels in the newborn. Discuss with the patient that other adults who will be around her newborn, such as husbands, grandparents, older siblings, and babysitters, should also be vaccinated.²⁰,²¹

• 28 weeks
  - Repeat type and screen if Rh negative, H&H.
  - Administer Rh-immune globulin if Rh (-) and indirect Coombs (-).
  - Confirm and document name of baby’s medical provider.
  - Discuss cord blood banking to allow a pregnant woman to make an informed decision on whether to participate in a public or private umbilical cord blood banking program. (Per PA House Bill 874).

• 32 – 34 weeks
  - Repeat testing for women at risk for sexually transmitted disease, including RPR, HIV, gonorrhea and chlamydia.²,³
  - Discuss Group B Strep screening and management protocol.

• 36 weeks
  - Determine fetal position.
  - Group B Strep screen. Screening not needed if treatment in labor is indicated based on other risk factors such as group B strep bacteria during any trimester of the current pregnancy or previous infant with invasive GBS disease.
  - Discuss the risks and benefits of HSV prophylaxis in women with a history of genital herpes.
  - Labor education: latent phase of labor, rupture of membranes (ROM), active labor management, analgesia in labor.

• 38 weeks
  - Review labor education; discuss again contraception, with an emphasis on the benefits of long-acting reversible contraception such as IUDs and implants.

• > 41 weeks
  - Baseline non-stress test (NST) or contraction stress test (CST), ultrasonography (US), biophysical profile (BPP) or a combination of these tests.
  - Discuss labor induction > 41 weeks.

Postpartum Care
• Postpartum vaccine
  - Women (including women who are breastfeeding) who have not received a dose of Tdap previously should receive Tdap immediately after delivery and before discharge from the hospital. If Tdap can’t be administered before discharge, it should be administered as soon as feasible. Additionally, other family members and direct care caregivers should receive Tdap as recommended (sustained efforts at cocooning).⁶,²⁰,²¹

• Postpartum visit
  - On or between 21 days and 56 days after delivery
    - Pelvic exam and /or weight, BP, breast, and abdomen exam.
    - Screen for postpartum depression. Refer for intervention if indicated.
    - Screen for domestic violence.
    - Discuss sexual activity and contraception with an emphasis on the benefits of long-acting reversible contraception.
    - Review nutrition and exercise.
    - Discuss method of feeding (breast or bottle).
Women with GDM should be screened for diabetes 6-12 weeks postpartum and should be followed up with subsequent screening for the development of diabetes or pre-diabetes.

**Goal:** Return to optimal maternal health and recovery post pregnancy

**Clinical practice guidelines** are designed to assist clinicians by providing a framework for the evaluation and treatment of patients. The prenatal clinical practice guideline is based on the most current recommendations from the American College of Obstetricians and Gynecologists in addition to the scientific evidence sources referenced below. The current ACOG guideline for the management of prenatal and postpartum care is available at [http://www.acog.org/resources_and_publications/](http://www.acog.org/resources_and_publications/)

**Additional Resources for UPMC Health Plan Members**

**My Health Advice Line** is staffed by experienced Registered Nurses and is available 24/7 to provide telephonic support to members. Call 1-866-918-1591.

**Health Management** programs provide intensive case management for members with specific chronic illnesses or conditions. The programs are built upon best practices and accepted clinical guidelines and include:

- Maternity Program - *UPMC for a New Beginning* (1-866-463-1462 - Select the option for the Maternity Program)
- Diabetes
- Respiratory
  - Asthma
  - COPD
- Behavioral Health
  - Depression
- Cardiovascular
  - Heart failure
  - Coronary artery disease

Members and providers can obtain additional information about the Health Management programs by calling **1-866-778-6073.**

**Additional Health Condition Management Programs include:**

- Hypertension
- Hyperlipidemia
- Low Back Pain
- ESRD
- Wound Care
- Oncology
- Rare & Chronic Conditions
- Attention Deficit/Hyperactivity Disorder (ADHD)
- Anxiety Disorders
- Substance Abuse

**Online** interactive preventive health programs and resources are available in partnership with WebMD at [www.upmchealthplan.com](http://www.upmchealthplan.com)

- *MyHealth Ready to Quit™*
• MyHealth Step Up to Wellness™
• MyHealth Eating Well™
• MyHealth Weigh to Wellness™
• MyHealth Less Stress™
• MyHealth OnLine Emotional Health Program™

Scientific Evidence Sources:


