

#### PRECONCEPTION CARE

#### **DEFINITION**

Preconception care consists of identification of the conditions that could affect a future pregnancy but may be ameliorated by early intervention.

### ASSESSMENT AND COUNSELING

- General physical exam, including vital signs, height and weight
- Counseling regarding family planning and pregnancy spacing
- Family history
- · Genetic history, both maternal and paternal
- Medical, surgical, pulmonary and neurologic history
- Substance use, including tobacco, alcohol and illicit drugs
- Domestic abuse and violence
- Nutrition
- Environmental and occupational exposures
- Immunity and immunization status
- Risk factors for Sexually Transmitted Diseases (STDs)
- Obstetric history
- Gynecological history
- Assessment of socioeconomic, educational and cultural contexts

#### POTENTIAL SCREENING TESTS

- Screening for STDs, including Human Immunodeficiency Virus (HIV)
- Testing to assess proven etiologies of recurrent pregnancy loss
- Testing for maternal diseases based on medical or reproductive history
- Mantoux skin test with purified protein derivative for tuberculosis
- Screening as follows for genetic disorders based on racial and ethnic background:
  - Sickle Hemoglobinopathies for African-Americans
  - Beta-thalassemia for African-Americans and patients of Mediterranean or



Southeast Asian descent

- Alpha-thalassemia for African-Americans and patients of Asian descent, especially those from Thailand
- Tay-Sachs disease for French-Canadians and patients of Ashkenazi Jewish or Cajun descent
- Gaucher's, Canavan and Niemann-Pick disease for patients of Ashkenazi
   Jewish descent
- Cystic Fibrosis (CF) for Caucasians of European and Ashkenazi Jewish descent
- Screening for thyroid-stimulating hormone
- Screening for other genetic disorders on the basis of family history (e.g., CF, fragile X syndrome for family history of nonspecific predominantly male-affected mental retardation, Duchenne muscular dystrophy)

## ADDITIONAL COUNSELING

- Exercise
- Reducing weight before pregnancy if obese
- Increasing weight before pregnancy if underweight
- Preventing HIV infection
- Determining the time of conception by an accurate menstrual history
- Abstaining from tobacco, alcohol and illicit drug use before and during pregnancy
- Consuming folic acid 0.4 mg per day while attempting pregnancy and during the first trimester of pregnancy for prevention of neural tube defects
- Maintaining good control on any pre-existing medical condition (e.g., diabetes, hypertension, systemic lupus erythematosus, asthma, seizures, thyroid disorders and inflammatory bowel disease)
- Avoiding food faddism



### **ROUTINE PRENATAL CARE VISIT**

#### **DEFINITION**

Routine prenatal care visits should take into consideration the medical, nutritional, psychosocial and educational needs of the patient and her family and should be periodically re-evaluated and revised in accordance with the progress of the pregnancy.

## **INITIAL PRENATAL CARE VISIT**

During the gestational time period, the initial patient visit should include all content covered in the preconception visit stated above.

### Additional evaluation should include:

- A patient questionnaire with personal health history, exposures affecting health, family history and psychosocial screening
- Pelvic examination
- Assessment of the cervix, uterus size, adnexa and clinical impression of the adequacy of the pelvis
- Assessment of the gestational age by last menstrual period, clinical exam and/or ultrasound prior to 18–20 weeks
- Papanicolaou smear and culture for gonorrhea and chlamydial infection
- Blood studies, including blood type, Rh and antibody screen, hemoglobin and hematocrit; and serologic tests for hepatitis B, rubella, syphilis, and HIV if the patient consents
- Glucose screen for Gestational Diabetes Mellitus (GDM) if risk factors are met (e.g., obesity, family medical history, prior pregnancy with GDM or suspected diabetes, complications, macrosomia or prior intrauterine fetal demise)
- Urine for protein, glucose and culture for asymptomatic bacteriuria
- Tests specific to the patient's ethnic background or family history as appropriate (e.g., hemoglobin electrophoresis to check for sickle cell or



thalassemia trait and carrier testing for other inherited disorders, such as Tay-Sachs and CF) if not done preconceptionally

- Repeat risk assessment for obstetrical outcomes such as preterm birth, low birth weight and pre-eclampsia
- Review of medication use and concurrent medical conditions

## FOLLOW-UP PRENATAL CARE VISITS

The purpose of each visit is to assess maternal and fetal well-being. Recommended time periods, laboratory evaluations and nutritional assessments are as follows:

- Prenatal visits every four weeks until 28 weeks gestation, then every two to three weeks, then weekly until delivery. (Note: scheduling should be individualized — visit frequency is determined by the nature and severity of problems encountered.)
- Patient weight, blood pressure, presence or absence of edema, urine dipstick to check protein and glucose levels should be measured or assessed upon each visit.
- Height of the uterine fundus should be measured, fetal heart tone should be recorded and the patient should be asked about the perception of fetal movement. Usually the fetal heart rate can be auscultated by 12 weeks with a Doptone, and fetal movement is apparent by 20 weeks. After the patient reports quickening, she should be asked about fetal movement, contractions, leakage of fluid or vaginal bleeding.
- The patient should receive a first trimester screening
- Patients in their second trimester should be offered Maternal Serum Alpha-Fetoprotein Screening (MSAFP) if first trimester screening was done or multiple marker screening was not performed during the first trimester for risk assessment, trisomies and open neural tube defects.
- At 28 weeks, the patient should receive a glucose screen for gestational



diabetes, assays for hemoglobin and hematocrit, and negative unsensitized Rh immunoglobulin (RhoGAM).

- Consider third trimester screening for HIV in opt-out fashion in high-risk patients or according to state requirements.
- At 35–37 weeks, a vaginal and rectal culture can be obtained for Group B
   Streptococcus and should be obtained for GC and chlamydia when patients continue to be at risk.
- At 36 weeks, Venereal Disease Research Laboratory (VDRL) testing should be repeated for patients at risk.
- Iron and folic acid supplementation is advised.

### PRENATAL LABS AND TESTING

# FIRST TRIMESTER/INITIAL LAB TESTING

- Blood type
- D (Rh) type
- Antibody screening
- Hematocrit (Hct)/Hemoglobin (Hgb)
- Rubella
- VDRL
- Urine culture/screen
- Hepatitis B surface antigen
- HIV counseling and testing according to state regulations
- Hgb electrophoresis (optional)
- Purified Protein Derivative test (optional)
- Chlamydia testing according to state regulations
- Gonorrhea testing according to state regulations
- Genetic screening tests (optional)
- One-hour Glucose Tolerance Test (GTT) if risk factors present



### SECOND TRIMESTER TESTING

# 8-18 WEEKS (WHEN INDICATED OR ELECTED)

- Ultrasound Maternal serum AFP/Multiple Markers (ideally at 16–19 weeks)
- Amniocentesis
- · Chorionic villus dampling
- Karotype
- Amniotic fluid

### THIRD TRIMESTER TESTING

# 24-28 WEEKS (WHEN INDICATED)

- Hct/Hgb (recommended)
- Diabetes screening (one-hour GTT)
- Four-hour GTT if screening abnormal
- D (Rh) antibody screen, as indicated
- Anti-D Immune Globulin given at 28 weeks, as indicated

# 32-36 WEEKS (WHEN INDICATED)

- Hct/Hgb
- Ultrasound
- VDRL
- Gonorrhea
- Chlamydia
- Group B Strep (35–37 weeks)
- HIV testing according to state regulations

## PRENATAL PLANS AND EDUCATION

#### FIRST TRIMESTER

- HIV and other routine prenatal tests
- Anticipated course of prenatal care
- Nutritional weight counseling



- Toxoplasmosis precautions
- Sexual activity
- Exercise
- Environmental work hazards
- Travel
- Tobacco (ask, advise, assess, assist and arrange)
- Alcohol
- Illicit drugs
- Use of any over-the-counter medication, including supplements, vitamins and herbs
- Indications for ultrasound
- Domestic violence
- Seat belt use
- Childbirth classes/facilities

#### **SECOND TRIMESTER**

- Signs and symptoms of preterm labor
- Abnormal laboratory values
- Influenza vaccine
- Selecting a pediatrician
- Postpartum family planning and/or sterilization

### THIRD TRIMESTER

- Anesthesia and/or analgesia in labor
- Fetal movement monitoring
- Labor signs
- · Vaginal birth after Cesarean counseling
- Signs and symptoms pre-eclampsia
- Circumcision



- Post-term counseling
- Breast or bottle feeding
- Postpartum depression
- Car seats for newborn
- Family Medical Leave Act and/or disability

# PRENATAL RECORD AND DOCUMENTATION

The content of the preconception assessment, prenatal care assessments and follow-up assessments must be documented in a well-organized prenatal record. The antepartum record of the American College of Obstetrics and Gynecologists provides the template for documentation and the patients' medical history questionnaire. All above-described content can be documented in an appropriate format. Use of this nationally recognized record or an equivalent version is required unless the obstetrical provider can provide evidence of an alternative record that captures all required information and education content.

### REFERENCE AND RESEARCH MATERIALS

- American Academy of Pediatrics, Guidelines for Perinatal Care, Sixth Edition.
- The American College of Obstetricians and Gynecologists, Antepartum Care, Chapter 4.