I. PURPOSE:

To provide routine prenatal care to all women who are pregnant or are considering pregnancy. Care will encompass preventive care, counseling, and screening for risks to maternal and fetal health. The goal of prenatal care is to facilitate birth of a healthy baby with minimal risk for the mother. Several key components will aid in this:

- Early and accurate estimation of gestational age and due date
- Identification of risks and potential complications
- Ongoing evaluation of health status for mother and fetus
- Anticipation of problems and interventions as indicated
- Patient education and communication

II. INCLUSION CRITERIA:

All patients presenting with a possibility of pregnancy should be evaluated promptly to facilitate early entry into prenatal care.

III. RESPONSIBILITY:

A. Obstetrics and Gynecology
B. Community Health Services

IV. GUIDELINE:

A. The initial visits to complete the prenatal assessment should take place in the first trimester, before 13 weeks from the last menstrual period (LMP). HEDIS measurement is 13 weeks.
   1. The obstetric intake: medical and obstetric history, physical exam, indicated laboratory/diagnostic studies, assessment, education and counseling. Please refer to the attached table, which outlines the standard elements of perinatal care.
   2. Early and accurate dating of the pregnancy: assist in prevention of unnecessary inductions and allow for accurate treatment of preterm labor.
   3. Folic acid supplementation: initiation is recommended as early as possible (ideally pre-conception). Folic acid has been shown to reduce the risk of neural tube defects.
   4. Promote continuity of care by utilizing suitable standardized documentation forms/databases (the Denver Health Antepartum record, pregnancy encounter record, etc.). Initiate documentation at

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intake for all pregnant patients. Documentation should include a problem list and updated throughout the pregnancy.

B. Ongoing Prenatal Care:
1. Prenatal care should be provided by a single provider whenever possible or group prenatal care visits appropriate to risk levels.
2. The frequency of visits is determined by the patient’s individual needs and risk factors. Visits should be scheduled to include screening tests associated with gestational age. The ACOG recognizes the following schedule for low risk women:
   a. <20 weeks: seen every 4-6 weeks with at least one visit at 14-16 weeks
   b. Weeks 21-30: seen every 4 weeks
   c. Weeks 30-35: every 2-3 weeks
   d. Weeks 36-delivery: weekly
3. High-risk women may need more frequent visits to monitor for changes in condition and status.
4. Visits should allow enough time to accomplish the following:
   - monitor the progression of the pregnancy
   - assess the well-being of the fetus and the mother and provide reassurance
   - provide education, recommend screening, and interventions
   - detect medical and psychosocial complications and develop interventions as indicated
5. Prenatal patients should be counseled on what screening tests are available, what the tests are for, possible risks to the mother and fetus, and the choices she will face once the results are obtained.
6. Screen mother for prenatal depression symptoms as well as adequate access to financial resources and emotional support.

C. Genetic Screening:
1. All women should be offered aneuploidy screening; those who meet criteria can be offered referral to genetics.
2. Other indications for genetic referral include:
   a. Fetal structural anomalies
   b. Ultrasound markers of aneuploidy
   c. History of previously affected pregnancy
   d. Couples with known translocations, chromosome inversions, or aneuploidy
   e. Women with a positive maternal serum screen should be offered prenatal diagnosis by amniocentesis or chorionic villus sampling (CVS)

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3. Other tests should be offered to pregnancies of specific ethnic backgrounds.
   a. Hemoglobinopathies:
      i. African, Mediterranean, Middle Eastern, East Indian, South American and Caribbean descent: risk for sickle cell anemia, β-thalassemia, or other hemoglobinopathies. These patients should be screened with both MCV and hemoglobin electrophoresis as indicated.
      ii. Southeast Asian descent: risk for alpha-thalassemia. These patients should be screened by evaluation of MCV. If MVC is <80fL, hemoglobin electrophoresis and ferritin should be offered. The combination of depressed MCV with normal electrophoresis and ferritin is consistent with alpha thalassemia.
      At present, all perinatal patients accessing perinatal care through DHMP or DH clinics are offered CF and Spinal Muscular Atrophy (SMA) screening. This can be done at intake or through referral to genetics.
   c. Tay-Sachs disease: Ashkenazi Jews, Cajuns, French Canadian in Easter Quebec women
4. Zika Virus: Denver Health will follow the current recommended guideline by the CDC for travel to an area with Zika virus transmission as well as recommendations for screening, testing, and management of pregnant returning travelers.
   a. Health care providers will ask about recent travel
   b. Refer to “Who needs Zika Testing Flowchart” for further care and recommendations.
   c. Additional information can be accessed through the CDC at www.cdc.gov/zika

D. Additional Considerations:
1. Diabetic screening: See “Gestational Diabetes (GDM) guideline Diabetes Screening and Diagnosis - Pregnancy and the Postpartum Period for general information on GDM diagnosis in pregnancy and postpartum follow up testing for women with GDM.”
2. See “Management of Gestational Diabetes by Outpatient Maternity Care Providers.” For Ambulatory Care Services (ACS) maternity care providers offering care to women with GDM well controlled with diet or oral medications in the antepartum period please refer to this guideline for care details.
3. Tuberculosis (TB) Screening:
   a. The outpatient antenatal screening for TB is defined in “Denver Health Ambulatory Care Services Protocol for Latent TB infection (LTBI), Diagnosis and Management, Pediatric and Adult patients.”
   b. In the rare case where a pregnant woman with active TB or at high risk for active TB is

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admitted to the hospital, please refer to “Tuberculosis in Pregnancy.”
4. Group B Streptococcus (GBS) screening no earlier than 35 weeks. Refer to “Perinatal Group B Streptococcal Screening and Treatment.”
5. Human Immunodeficiency Virus (HIV) in pregnancy refer to “Peripartum HIV Testing and Treatment Infections in pregnancy.”
6. Prolonged pregnancy management refer to “Prolonged Pregnancy Management.”
7. Evaluation and diagnosis of women with anemia during pregnancy refer to “Evaluation, Diagnosis and Care of Women with Anemia during Pregnancy.”
8. For antepartum consultations in the outpatient and inpatient settings, providers refer to:

E. Vaccination:
   1. All pregnant women should be offered vaccination for influenza (in season) regardless of gestational age. There is no evidence that vaccination in the first trimester of pregnancy is unsafe.
   2. Tetanus-Diphtheria-Pertussis (Tdap) should be given to pregnant women in each pregnancy regardless time elapsed from last Tetanus (Td) or Tdap vaccine. Vaccine should ideally be administered between 27-36 weeks.
   3. Women noted to be Rubella-non immune of prenatal labs will be offered vaccination in the immediate postpartum interval while in hospital.

F. Postpartum Care:
   1. Postpartum care should be received 21-56 days after delivery to meet HEDIS requirements.
   2. Please refer to Attachment A which outlines the recommended elements of care in the postpartum period.
   3. Patients are encouraged to attend at least 2 visits in the 6 week postpartum period:
      a. 14 days (often with new infant for dual care)
      b. between 21-56 days (HEDIS standard) to complete care goals
   4. Other postpartum visits may be scheduled as indicated to follow up on high risk or other medical conditions (ex: surgical post-operative visit, blood pressure checks.)
   5. Ongoing breastfeeding support should be offered to all patients.
   6. Review need for pap testing as indicated per protocol.

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7. Screen mother for postpartum depression symptoms as well as adequate access to financial resources and emotional support.

V. Relevant Denver Health Policies and Procedures:

a. Women’s Care Genetics PSID# 1830224
b. Diabetes Screening and Diagnosis - Pregnancy and the Postpartum Period PSID# 1966823
c. Management of Gestational Diabetes by Outpatient Maternity Care Providers PSID# 2068843
d. Tuberculosis in Pregnancy PSID# 1803718
e. Latent Tuberculosis Infection Screening and Treatment PSID# 1784124
f. Perinatal Group B Streptococcal Screening and Treatment PSID# 1905413
g. Peripartum HIV Testing and Treatment PSID# 1811960
h. Prolonged Pregnancy Management PSID# 2358655
i. Evaluation, Diagnosis and Care of Women with Anemia during Pregnancy PSID# 1903908
j. Obstetrical Consultative and Referral Practices between the Departments of Family Medicine and Obstetrics and Gynecology—Outpatient PSID# 1883538
k. Obstetrical Consultative and Referral Practices between the Departments of Family Medicine and Obstetrics and Gynecology—Inpatient PSID# 1880520

VI. REFERENCES:


HRSA. Women's Preventive Services Guidelines. www.hrsa.gov/womensguidelines/


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VII. ATTACHMENTS
Attachment A: Low Risk OB Patient Schedule for Antenatal and Postpartum Care
Attachment B: Zika Information
### Initial Visit: OB INTAKE BY RN

<table>
<thead>
<tr>
<th>Physical Exam</th>
<th>Tests</th>
<th>Tasks</th>
<th>Counseling/Education</th>
</tr>
</thead>
</table>
| **BP**        | Intake Labs Include:  
- Urinalysis and Urine Culture  
- CBC  
- Prenatal Type and Screen  
- Rubella IgG  
- HBsAg  
- HIV  
- Syphilis EIA  
- A1C  
- Quantiferon or PPD if indicated | 1. Start Antepartum Record:  
- medical, obstetrical & family history  
- review of systems  
- weight gain grid | Follow EMR/DH OB education sheet as applicable and adjust accordingly to chief concerns of the patient |
| **Height**    |   | 2. Risk assessment as per AP record  
- infection history  
- genetic evaluation  
- preterm birth risk  
- substance use | 1. Encourage Prenatal Vitamins, including iron (if known anemia) |
| **Pre-pregnant Weight** |   | 3. Psychosocial Evaluation:  
- Family  
- Job  
- School  
- Financial  
- Living conditions  
- Support System  
- Domestic abuse screening  
- Acceptance of pregnancy, etc  
- Refer to appropriate social service as indicated | 2. Teaching:  
- Clinic orientation  
- Breastfeeding  
- Basic information on pregnancy  
- Nutrition and weight  
- Warning signs and where to seek emergency care  
- Substance abuse and tobacco |
| **Size of Uterus** |   | 4. Order routine ultrasound (completed between 18-20 weeks) | 3. Institute Maternal Teaching Summary |
| **Document fetal heart tones if applicable (typically after 10 weeks)** |   | 5. Nutrition Review: special attention to nausea and vomiting, weight loss, and diet to help with morning sickness | 4. Hand out trimester packets and give information on:  
- Prenatal classes  
- Teen-parent program  
- Food supplements  
- WIC  
- Medicaid and other programs as appropriate |
| **First Trimester Screen or Genetics evaluation between 11-14 weeks gestation or Triple test if patient did not do 1st trimester test** |   | 6. Refer to genetic counseling if 35 years or older at term, or if positive for other factors and interested in genetic testing | |
| **Further glucose tolerance if initial A1C is elevated** |   | 7. Td booster or TDAP and Influenza vaccine per electronic vaccination tracking system | |
| **Offer Triple test (15-21 weeks) if the patient did not receive a first trimester screen** |   | | |
| **See above OB intake by RN for any that still need to be completed** |   | | |

### OB Physical

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</table>
| **BP**        | UA dipstick if indicated or per guideline  
- Pap smear per guidelines in algorithm  
- GC cultures  
- Chlamydia test if >6 months since last negative (except teens)  
- Further glucose tolerance if initial A1C is elevated  
- Offer Triple test (15-21 weeks) if the patient did not receive a first trimester screen | 1. Review AP record, symptoms, interval history | 1. Breastfeeding |
| **Weight**    |   | 2. Risk Assessment:  
- initiate OB check list as indicated | 2. If the patient has had a prior cesarean-section, request operative report and counsel about repeat section vs. Trial of labor after cesarean (TOLAC) or vaginal birth after cesarean (VBAC) |
<p>| <strong>Complete Pelvic Exam</strong> |   | 3. Schedule routine US for 18-20 weeks | |
| <strong>See above OB intake by RN for any that still need to be completed</strong> |   | 4. Routine screening for bacterial vaginosis is not recommended, symptomatic women should be evaluated and treated | |</p>
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<thead>
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<tbody>
<tr>
<td>BP, Weight</td>
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<tr>
<td>Routine Prenatal Care:</td>
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<tr>
<td>- Fetal heart tones</td>
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<tr>
<td>- Fundal height</td>
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<tr>
<td>- Uterine size</td>
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<tr>
<td>Urine testing per protocol</td>
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<tr>
<td>Repeat CBC if initial HCT &lt;35%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Hour Glucose tolerance screen per guideline</td>
<td></td>
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<tr>
<td>Triple test by 21 weeks if the patient did not receive a first trimester screen</td>
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<tr>
<td>1. Routine prenatal care:</td>
<td></td>
<td></td>
<td>1. Discuss symptoms &amp; signs of preterm labor</td>
</tr>
<tr>
<td>interval history, FHT, fundal height, update risk assessment, etc.</td>
<td></td>
<td></td>
<td>2. Discuss fetal movement</td>
</tr>
<tr>
<td>2. Schedule routine US if not already done</td>
<td></td>
<td></td>
<td>3. Discuss prenatal classes</td>
</tr>
<tr>
<td>3. Gestational diabetes screening per guideline</td>
<td></td>
<td></td>
<td>4. Birth control options including long acting reversible contraception and sterilization</td>
</tr>
<tr>
<td>4. Genetics referral for all at-risk or interested patients if not already done</td>
<td></td>
<td></td>
<td>5. Breastfeeding counseling</td>
</tr>
</tbody>
</table>

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<tr>
<td>- Uterine size</td>
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<tr>
<td>Urine testing if indicated</td>
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</tr>
<tr>
<td>1 Hour Glucose tolerance screen per guideline if not already done</td>
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<td></td>
</tr>
<tr>
<td>Rh negative: repeat antibody screen and give Rh immunoglobulin</td>
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</tr>
<tr>
<td>1. Routine prenatal care:</td>
<td></td>
<td></td>
<td>1. Pre-term labor symptoms and signs</td>
</tr>
<tr>
<td>2. Diabetes screen per guideline</td>
<td></td>
<td></td>
<td>2. Discuss fetal movement counts</td>
</tr>
<tr>
<td>3. If abnormal 1 hour GTT or abnormal early 3 hour GTT on initial screen, repeat 3 hour GTT</td>
<td></td>
<td></td>
<td>3. Discuss all appropriate forms of contraception and give handout, including long acting reversible contraception and sterilization</td>
</tr>
<tr>
<td>4. Give Rh immunoglobulin at 28-30 weeks to un-sensitized Rh-negative patients</td>
<td></td>
<td></td>
<td>4. If patient desires postpartum bilateral tubal ligation have her sign Medicaid papers (Med-178) between 26 and 32 weeks</td>
</tr>
<tr>
<td>5. Give Tdap vaccine after 27 weeks</td>
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## 32-35 Week Visit

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</thead>
<tbody>
<tr>
<td>BP Weight</td>
<td>Urine testing if indicated</td>
<td>1. Routine prenatal care</td>
<td>1. Discuss and educate on forms of contraception</td>
</tr>
<tr>
<td>Routine Prenatal Care:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fetal heart tones</td>
<td>Repeat CBC if HCT &lt;35% at prior screening</td>
<td>2. If abnormal 1 hour GTT or abnormal early 3 hour GTT on initial screen, repeat 3 hour GTT</td>
<td>2. If the patient desires postpartum bilateral tubal ligation, have them sign the Medicaid papers (Med 178)</td>
</tr>
<tr>
<td>- Fundal height</td>
<td>HCT if initial CBC normal</td>
<td></td>
<td>3. Breastfeeding counseling</td>
</tr>
<tr>
<td>- Uterine size</td>
<td>3 hour glucose tolerance test</td>
<td></td>
<td>4. Discuss signs and symptoms of preterm labor, ruptured membranes, and adequacy of fetal movement</td>
</tr>
<tr>
<td></td>
<td>GBS cultures 35-37 weeks</td>
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<tr>
<td></td>
<td>GC culture and/or chlamydia test if positive during pregnancy</td>
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## 36-39 Week Visit

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<tr>
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<th>Tasks</th>
<th>Counseling/Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP Weight Check presenting part</td>
<td>Urine testing if indicated</td>
<td>1. Routine Prenatal Care</td>
<td>1. Discuss and provide education regarding:</td>
</tr>
<tr>
<td>Routine Prenatal Care:</td>
<td></td>
<td>2. Check presenting part, if breech- refer to WCC at 37 weeks to confirm position and discuss External Cephalic Version, vaginal breech delivery or cesarean section delivery</td>
<td>- labor signs</td>
</tr>
<tr>
<td>- Fetal heart tones</td>
<td>GBS if not done</td>
<td>3. Cervical exam and membrane sweeping may decrease need for induction but is NOT recommended prior to 39 weeks</td>
<td>- ruptured membranes</td>
</tr>
<tr>
<td>- Fundal height</td>
<td></td>
<td></td>
<td>- adequacy of fetal movements</td>
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<tr>
<td>- Uterine size</td>
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<td></td>
<td>2. Analgesia: give patient a handout and provide discussion on pain management in labor</td>
</tr>
<tr>
<td>Cervical Exam</td>
<td></td>
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<td>3. Breast-feeding information and education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. If repeat cesarean section is indicated, enter electronic referral to Women’s care clinic</td>
<td>4. Infant Care</td>
</tr>
<tr>
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<td></td>
<td>5. Review need for postpartum care and discuss postpartum depression</td>
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</table>
### 40-42 Week Visit

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<tbody>
<tr>
<td>BP</td>
<td>Urine testing if indicated</td>
<td>1. Prolonged Pregnancy Management Guidelines; refer to WCC for NST</td>
<td>1. Discuss and provide education regarding:</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td>2. Continuous weekly clinic appointments until delivered or referred for induction</td>
<td>- adequacy of fetal movements</td>
</tr>
<tr>
<td>Routine Prenatal Care:</td>
<td></td>
<td></td>
<td>- labor signs</td>
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<tr>
<td>- Fetal heart tones</td>
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<td>- ruptured membranes</td>
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<tr>
<td>- Fundal height</td>
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<td>- Uterine size</td>
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### Postpartum Visit: occurs 21-56 days after delivery **meets HEDIS standard**

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</thead>
<tbody>
<tr>
<td>BP</td>
<td>Urine testing per protocol</td>
<td>1. Family planning RN visit if birth if birth control method is uncertain at discharge</td>
<td>1. Postpartum depression risks/signs/treatment</td>
</tr>
<tr>
<td>Weight</td>
<td>HCT if low (&lt;35) during pregnancy or after delivery</td>
<td>2. Use Postpartum form</td>
<td>2. Pelvic rest for 4-6 weeks postpartum</td>
</tr>
<tr>
<td>Routine Prenatal Care:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fetal heart tones</td>
<td>Pap smear per pap guidelines</td>
<td>3. Review method of contraception and give supplies or prescriptions to patient</td>
<td>3. Family planning/contraception</td>
</tr>
<tr>
<td>- Fundal height</td>
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<tr>
<td>- Uterine size</td>
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**rash, fever, conjunctivitis, arthralgias**

Positive travel form?
- NO: You're done!
- YES: Did part of travel occur prior to 30 weeks gestation?
  - NO: You're done!
  - YES: SYMPTOMATIC vs. ASYMPOTOMATIC
    - SYMPTOMATIC: Patient had onset of ≥ 2 acute symptoms** during last 7 days?
      - OFFER TESTING (CDC will select correct test to do)
    - ASYMPOTOMATIC: OR symptoms began > 7 days ago?
      - Return from travel < 2 weeks ago?
        - Return from travel 2-12 weeks ago?
          - Return from travel > 12 weeks ago?
            - Offer testing in 2-10 weeks
              - OFFER TESTING (CDC will select correct test to do)
            - You're done!