The new method for scheduling the next appointment is in the tables contained in this protocol, along with prompts for scheduling of special testing.

Information, evidence, and citations supporting these recommendations follow in the Addendum.
The First Prenatal Visit:

Scheduling the first prenatal visit:
- the first prenatal visit should be scheduled at about 8 weeks gestation
  - if the patient is already likely past 8 weeks, schedule the next available New OB appointment
  - if the patient describes abnormal symptoms or high risk history, schedule the next available New OB appointment

- the first prenatal visit or New OB visit should be clearly labeled in EPIC and in the appointment information passed to StarPanel, so that the care team know this is a New OB visit

- the New OB visit should be scheduled with a resident/attending
  ****see advisory regarding High Risk identification and scheduling

- if the appointment is made by a person other than the patient due to language barriers, or there is obvious Limited English Proficiency, then the person scheduling the appointment needs to determine the patient’s native language, and make or arrange for a request to VUMC Interpreter Services Office to provide professional interpreter services at the time of the visit
  - For spoken language interpreters, please submit your request electronically (preferably 48 hours notice) by:
    - website: [https://www.mc.vanderbilt.edu/root/patientaffairs/interpretquest.php](https://www.mc.vanderbilt.edu/root/patientaffairs/interpretquest.php)
    - Interpretation Services: 936-0837
    - Request for On-Site Interpreter: 322-7378
    - Office of Patient Affairs: 322-6154
    - Language Line is an option that provides interpreters by phone 24 hrs/day
    - for services for the deaf and hard of hearing, please contact the League for the Deaf and Hard of Hearing at (615) 248-8828.

- notify the patient that she must appear about 10 minutes before her scheduled appointment; give her a number to call if she is delayed

Components of the first prenatal visit:

- the history will be entered into StarForm by all members of the care team, without duplication – data entry will be concurrent (while the patient is receiving care) so that all members of the care team can access the record, and we will be efficient
  - portions of the history-taking may be divided between different care team members

- the physical exam & assessment & plan will be entered into StarForm by all members of the care team – data entry will be as close to concurrent as possible and must be on the same day as the visit so that all members of the care team can access the complete record

- lab tests will be ordered by the clinicians and performed after the exam room visit is complete
-if an ultrasound is required (see addendum), then Urgent ultrasound could be done during the visit, but NonUrgent ultrasound should be scheduled (so that the clinician can stay on-time with other patient care)

-an important component of the first prenatal visit is education and counseling instruction regarding prevention interventions (folate, smoking cessation, substance abuse cessation, diet, exercise, etc)
- portions of the education and counseling may be divided between different care team members

-the clinician will instruct the staff regarding the next Return OB visit and scheduling special testing
- see Tables below for guidance about:
  - timing of the next visit and special testing
  - optimal provider for the next visit
- if there is Limited English Proficiency, then instruct the staff to arrange for a request to VUMC Interpreter Services Office to provide professional interpreter services at the time of the visit
- For spoken language interpreters, please submit your request electronically (preferably 48 hours notice) by:
  - website: https://www.mc.vanderbilt.edu/root/patientaffairs/interpretquest.php
  - Interpretation Services: 936-0837
  - Request for On-Site Interpreter: 322-7378
  - Office of Patient Affairs: 322-6154
  - Language Line is an option that provides interpreters by phone 24 hrs/day
- for services for the deaf and hard of hearing, please contact the League for the Deaf and Hard of Hearing at (615) 248-8828.

New OB First Prenatal Visit Table

<table>
<thead>
<tr>
<th>First Prenatal Visit at: (wks)</th>
<th>First Prenatal Visit is at: (wks)</th>
<th>Routine testing*</th>
<th>Schedule special genetic screening labs**</th>
<th>Schedule 2nd Tri US *** during:</th>
<th>Recommended Provider for the next visit</th>
<th>Reminder to think about need for Interpreter Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 12/6/7</td>
<td>6</td>
<td>Today 16th week</td>
<td>18th week</td>
<td>Continuity Resident or APN/CNM</td>
<td>**see HROB identification</td>
<td>Continuity Resident /Attending</td>
</tr>
<tr>
<td>13 - 16/6/7</td>
<td>5</td>
<td>Today 16th week</td>
<td>18th week</td>
<td>Continuity Resident /Attending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥17</td>
<td>4</td>
<td>Today ASAP</td>
<td>ASAP</td>
<td>Continuity Resident /Attending</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WPCC – Ambulatory Services - Evidence-Based Protocol and Policy
Prenatal visit pattern, content, and guidance for low-risk pregnancy patients in the TVC OB Clinic
April 27, 2006
## Return OB Prenatal Visit Table

<table>
<thead>
<tr>
<th>If this Return OB Visit is at: (wks)</th>
<th>Then schedule next visit in:</th>
<th>Schedule special labs &amp; immunizations</th>
<th>Recommended Provider for the next visit</th>
<th>****see HROB identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 19 6/7</td>
<td>6 weeks</td>
<td>glucose intolerance screen; possible CBC, possible RPR, possible RhoGAM, possible TL papers</td>
<td>APN/CNM or General OB/GYN Resident /Attending</td>
<td></td>
</tr>
<tr>
<td>20 - 24 6/7</td>
<td>5 weeks</td>
<td>26-28 wks glucose intolerance screen; possible CBC, possible RPR, possible RhoGAM, possible TL papers</td>
<td>APN/CNM or General OB/GYN Resident /Attending</td>
<td></td>
</tr>
<tr>
<td>25 - 31 6/7</td>
<td>4 weeks</td>
<td>26-28 wks glucose intolerance screen; possible CBC, possible RPR, possible RhoGAM, possible TL papers</td>
<td>Continuity Resident or APN/CNM</td>
<td></td>
</tr>
<tr>
<td>32 - 34 6/7</td>
<td>3 weeks</td>
<td>35-37 wks GBS culture screen (unless prior +ve)</td>
<td>Continuity Resident or APN/CNM</td>
<td></td>
</tr>
<tr>
<td>35-37 6/7</td>
<td>10-14 days</td>
<td>today GBS culture screen (unless prior +ve), repeat Cesarean section booked at confirmed 39 weeks</td>
<td>Continuity Resident /Attending</td>
<td></td>
</tr>
<tr>
<td>38 - 39 6/7</td>
<td>7-10 days</td>
<td></td>
<td>Continuity Resident /Attending</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>5-8 days</td>
<td>41 weeks</td>
<td>Continuity Resident /Attending</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>plan induction</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reminder to think about Interpreter Services**
Addendum:

*Recommendation Regarding Routine Prenatal Screening Labs at First Visit
CBC (Hematocrit, hemoglobin)
UA (urinalysis)
Urine C&S (urine culture)
Blood group and Rh type
Antibody screen
Immunity to rubella determination
Syphilis screen
Hep B surface antigen
HIV antibody testing
Pap (as needed)

Special tests for patients at risk:
STD screening: Chlamydia and GC (Genprobe), exam for herpes and condyloma accuminata
TB skin test (Mantoux)

Indications for first trimester ultrasound to be ordered at first visit:
-LMP date is uncertain
-assessment of threatened abortion, to document fetal viability, or to identify retained products of conception, or prior to pregnancy termination
-suspected ectopic pregnancy, molar pregnancy, and suspected pelvic masses
NOTE: first trimester ultrasound is not recommended to routinely diagnose pregnancy, nor to date pregnancy when the LMP and physical examination are concordant.

**Recommendation Regarding Prenatal Genetic Screening Labs

**Routine screening:**
multiple serum marker (Triple Screen/Quad Screen) during 16th week:
(only for patient under 35, with no prior elevated risk factor for NTD or trisomy)

Note: use of 1st trimester screening protocol and/or combined 1st/2nd trimester screening also has supportive evidence and may be used for research, with informed patient, or anticipated future protocol to be developed based on recent research.
**Recommendation Regarding Prenatal Genetic Screening Labs, continued**

<table>
<thead>
<tr>
<th>Risk-Specific Genetic Screening</th>
<th>Disease</th>
<th>Carrier frequency</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashkenazi Jews</td>
<td>Cystic Fibrosis</td>
<td>1 in 25 to 30</td>
<td>Molecular diagnostic testing: standardized screening panel of 25 common mutations of the CFTR gene</td>
</tr>
<tr>
<td></td>
<td>Canavan's disease†</td>
<td>1 in 40</td>
<td>Molecular diagnostic testing (not available in all centers)</td>
</tr>
<tr>
<td></td>
<td>Tay-Sachs disease†</td>
<td>1 in 20 to 30</td>
<td>Serum hexosaminidase-A levels in men and nonpregnant women; WBC hexosaminidase-A levels in pregnant women; Molecular diagnostic testing is available in some centers.</td>
</tr>
<tr>
<td></td>
<td>Gaucher’s, and Niemann-Pick disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasians (European descent)</td>
<td>Cystic fibrosis</td>
<td>1 in 25 to 30</td>
<td>Molecular diagnostic testing: standardized screening panel of 25 common mutations of the CFTR gene</td>
</tr>
<tr>
<td>Cajuns and French Canadians in Eastern Quebec</td>
<td>Tay-Sachs disease†</td>
<td>1 in 20 to 30</td>
<td>Serum hexosaminidase-A levels in men and nonpregnant women; WBC hexosaminidase-A levels in pregnant women; Molecular diagnostic testing is available in some centers.</td>
</tr>
<tr>
<td>Africans and African-Americans</td>
<td>α- and β-thalassemia</td>
<td>1 in 10 to 75</td>
<td>If MCV is low, hemoglobin electrophoresis, ferritin levels, and RBC morphology. DNA analysis may be required to detect a-thalassemia carriers.</td>
</tr>
<tr>
<td></td>
<td>Sickle cell anemia (hemoglobinopathy)</td>
<td>1 in 11</td>
<td>Hemoglobin electrophoresis to detect hemoglobin S</td>
</tr>
<tr>
<td>East Indians Hispanics Mediterraneans Middle Easterners Southeast Asians (esp. Thailand group)</td>
<td>α- and β-thalassemia</td>
<td>1 in 10 to 75</td>
<td>If MCV is low, hemoglobin electrophoresis, ferritin levels, and RBC morphology. DNA analysis may be required to detect a-thalassemia carriers.</td>
</tr>
<tr>
<td>Family History</td>
<td>Specific to history</td>
<td>Specific to genetic risk</td>
<td>(examples: fragile X, Duchenne muscular dystrophy, Y- chromosome disorders, mental retardation)</td>
</tr>
</tbody>
</table>

†-If only one partner is in a high-risk group, he or she can be screened first during the preconception period. If the woman is already pregnant, both partners should be screened simultaneously.
***Recommendation Regarding 2nd Trimester Ultrasound
-fetal anatomic scan, primarily to screen for fetal anomalies,
secondarily to permit early detection of twins and multiples
-to be performed during the 18th week of gestation

****Recommendation Regarding Prenatal Visit High Risk Identification

Medical History and Conditions Criteria for Scheduling New Patients into
High Risk OB Clinic or Referral of Current Patients to Maternal-Fetal Medicine

- Cystic Fibrosis (maternal)
- Diabetes: <specialty clinic - Eskind>
  - pre-existing (Class B, C, D, F, R, T, H)
  - gestational, requiring medications (Class A2)
- Fetal anomalies
- Heart disease (congenital and rheumatic, cyanotic, prior AMI, aortic stenosis,
  Pulmonary hypertension, Marfan syndrome, prosthetic valve,
  AHA/NYHC Class II or greater; excluding mitral valve prolapse)
- Hemoglobinopathies (sickle cell disease, SC, S-Thal)
- HIV+/AIDS <specialty clinic – OC3>
- Hypertension:
  - uncontrolled
  - chronic HPT with renal and/or heart disease
- Lupus or other significant autoimmune disease
- Multiple pregnancy
  - monozygotic twins
  - triplets or higher multiples
- PKU (maternal)
- Pulmonary disease
  - asthma: severe (multiple hospitalizations)
  - obstructive or restrictive, severe (COPD)
- Renal disease
- Isoimmunization (Rh or other)
- Seizure disorder, uncontrolled
- Thrombophilia
- Thyroid disease, severe
- Transplant (prior organ transplant)
**Antenatal visit scheduling and content**

Antenatal visits allow for the management of pregnancy, detection and treatment of complications and promotion of good health. Historic standard prenatal visit frequency results in 11-15 visits per patient, depending on gestation age at first visit and at delivery. There is a lack of strong evidence that the content, frequency and timing of visits in currently recommended prenatal programs are effective. *(Quality of Evidence – low, Strength of Evidence – uncertain benefits vs. harms/costs)*

A reduction in the number of antenatal care visits with or without an increased emphasis on the content of the visits could be implemented without any increase in adverse biological maternal and perinatal outcomes. *(Quality of Evidence – moderate, Strength of Evidence – trade offs between benefits and harms/costs)*

Women can report less satisfaction with reduced visits. Lower costs for the mothers and providers could be achieved. Women appeared to be slightly more satisfied with midwife/general practitioner care compared with obstetrician/gynecologist led shared care, while clinical effectiveness of the two models was similar. Ten randomized trials involving over 57,000 pregnant women considered to be low risk were included in a systematic review of standard schedule of visits versus a reduction in the number to 8-9 visits. Seven trials evaluated the number of antenatal clinic visits, and three trials evaluated the type of care provider. Four was the minimum number of visits tested in the largest trial.

The suggestions contained herein are only intended for the low-risk pregnancy – patients with complicated or high risk pregnancies might require additional visits or more frequent visits. Exclusions would include the classification of the pregnancy as high risk. (See Addendum)

Visit reduction to an average of 10 from an average of 13 equates to a 23% reduction in the demand for ROB appointment times, which should alleviate a great deal of the strain on appointments, as well as allowing for improved content of appointment and time with the patient, due to reduced patient volume per clinic session – this is achieved with no negative impact on quality of care.

**Ultrasound for fetal assessment in early pregnancy**

Routine ultrasound in early pregnancy enables better gestational age assessment with associated reduced rates of induction of labor for post-term pregnancy (OR 0.61, 95% CI 0.52-0.72); earlier detection of multiple pregnancies, (twins undiagnosed at 26 weeks, OR 0.08, 95% CI 0.04-0.16); and earlier detection of clinically unsuspected fetal malformation at a time when termination of pregnancy is possible. There were no differences detected for substantive clinical outcomes such as perinatal mortality (OR 0.86, 95% CI 0.67-1.12). *(Quality of Evidence – moderate, Strength of Evidence – benefits outweigh harms/costs)*

First trimester ultrasound is recommended for assessment of threatened abortion, to document fetal viability, or to identify retained products of conception, or prior to pregnancy termination. *(Quality of Evidence – moderate, Strength of Evidence – benefits outweigh harms/costs)*

First trimester ultrasound is not recommended to routinely diagnose pregnancy, nor to date pregnancy when the last normal menstrual period and physical examination...
are concordant. (Quality of Evidence – moderate, Strength of Evidence – trade offs between benefits and harms/costs)

First trimester ultrasound is indicated when the last menstrual period date is uncertain (Quality of Evidence – strong, Strength of Evidence – benefits outweigh harms/costs)

First trimester ultrasound is recommended for suspected ectopic pregnancy, molar pregnancy, and suspected pelvic masses. (Quality of Evidence – moderate, Strength of Evidence – benefits outweigh harms/costs) xii

**Routine ultrasound in the second trimester**

A single ultrasound examination in the second trimester is recommended in women without clinical indications. Although there has been no statistically significant effect of screening on live births or Apgar scores, screening results in early detection of twins, decreased rates of induction, and increased rates of abortion for fetal abnormalities. (Quality of Evidence – moderate, Strength of Evidence – benefits outweigh harms/costs) xiii, xiv

This ultrasound exam is scheduled during the 18th week of gestation (common practice in Obstetrics, confirmed with VUMC Radiology as appropriate). This timing represents a compromise between the value of an early reassuring study, the value of an early study identifying an anomaly, and the value of increased development and confidence in assessment at later gestation. By timing the ultrasound in the 18th week, we allow time for repeat assessment, time for counseling, and time for a patient and family to consider all of their options. There is research to support earlier screening tests, and research to support transvaginal screening at an earlier gestation (12-13 weeks), followed by a more detailed exam of the developed fetus at 22 weeks. xv

---


xvi Timor-Tritsch IE. As technology evolves, so should its application: Shortcomings of the 18-week anatomy scan. J Ultrasound Med 2006; 25:423-8