**TRIAL OF LABOR AFTER PREVIOUS CESAREAN DELIVERY (TOLAC; VBAC)**

<table>
<thead>
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<th>DEFINITION</th>
<th>A woman who is pregnant after having a prior Cesarean delivery or other relevant uterine surgery may seek to deliver her current pregnancy vaginally. Vaginal delivery may meet her desire and reduce newborn complications from excessive fluid in the lungs, but it is also associated with a slightly increased risk of uterine rupture. On the other hand, the risks of complications from Cesarean section increase with repeat procedures (placenta accreta, increased blood loss, infection risk, etc.). The bottom-line is successful TOLAC is safer than an elective repeat Cesarean section, but a failed TOLAC is riskier than repeat Cesarean Section. The key is to estimate a woman’s probability of achieving a successful TOLAC so that she is able to make an informed choice about her preferred route of delivery. It should be noted that not all hospitals and not all physicians/midwives offer TOLAC.</th>
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| SUBJECTIVE | Must include:  
1. Prior C-section or other uterine wall surgery (myomectomy, hysterotomy).  
2. Hospital with staff immediately available to provide emergency care.  
3. Documentation of transverse incision on uterus.  
4. Date and indication(s) for prior Cesarean delivery.  
5. Future fertility plans.  

Must exclude:  
1. History of vertical or T incision on uterus (consult with OB-GYN if T-incision made in past.).  
2. Other maternal or fetal condition(s) requiring Cesarean delivery in this pregnancy.  

May include:  
1. Prior vaginal delivery.  
2. History of prior vaginal birth after Cesarean delivery (VBAC). |
| OBJECTIVE | Must exclude indications for repeat elective C-section:  
1. Contracted pelvis.  
2. Malpositioned fetus.  
3. Large defect in hysterotomy scar seen on ultrasound in non-pregnant state.  
4. Placental insufficiency.  
5. Other fetal or maternal indication(s) for repeat Cesarean.  

May include near term estimate of fetal weight, number of fetuses, and fetal presentation. |
| LABORATORY | May include ultrasound evaluation of fetus and uterine scar. |
| ASSESSMENT | Pregnant woman who may be candidate for TOLAC. |
| PLAN | 1. Obtain operative records from prior Cesarean delivery or hysterectomy to determine uterine scar.  
a. If vertical incision, refer for repeat Cesarean delivery.  
b. If recent Cesarean delivery (done less than 18 months), refer to MD.  
c. If T-incision, refer to MD.  
d. If unable to obtain formal documentation, consult MD. History of indication for the prior C-delivery is often helpful in conjunction with an early ultrasound evaluation.  
2. If single low transverse incision, calculate woman’s predicted success for VBAC based on historical factors early in pregnancy using Figure 1 or other available prediction models.  
a. If patient has at least a 60% chance of successful vaginal delivery, offer TOLAC. If patient has less than 60% success predicted, but wants TOLAC, refer to MD.  
b. Explain risks and benefits (see Patient Education).  
c. If local protocols allow, consent interested eligible patient for opportunity to attempt TOLAC using local consent forms. Otherwise, refer to MD.  
d. Advise patient to go to hospital immediately if she experiences severe abdominal pain or as
**PLAN (Continued)**

3. Re-evaluate anticipated success with TOLAC near term (see Table 1). Consult with MD if probability of TOLAC success dips below 60%.

**PATIENT EDUCATION**

1. Advise patient that if she is successful in her trial of labor, her risks for serious complications (hemorrhage, infection, etc) are lower than if she had an elective repeat Cesarean delivery.
2. Inform the patient who is considering a TOLAC after one Cesarean delivery that her chance of uterine rupture is less than 1%. If she wants more information, offer the following facts:
   - Overall risk of uterine rupture is 325/100,000.
   - Risk of uterine rupture with TOLAC is 10 times higher than with repeat Cesarean delivery.
3. Uterine rupture can result in:
   a. 4-33% chance of needing emergency hysterectomy.
   b. 3% chance of fetal death at term.
4. Fetal mortality is very low in either situation, but is higher with TOLAC (50-130/100,000) versus with repeat Cesarean delivery (40/100,000).
5. Repeat Cesarean deliveries increase a woman’s risk of serious complications with future pregnancies (uterine rupture, placenta previa, placenta accreta, etc). Advise her that women with 2 prior Cesareans, have triple the risk of rupture (<3%).
6. If patient desires elective repeat Cesarean delivery, advise against another pregnancy for ≤1 year.

**REFER to MD**

1. All patients requiring or requesting elective repeat Cesarean delivery by 36 weeks.
2. All patients requesting TOLAC without documentation of uterine incision, those with low vertical incision, with multiple uterine incisions or with recent uterine surgery (less than 18 months).
3. Women who desire TOLAC but have risk factors for failure, such as obesity, fetal macrosomia, gestation greater than 40 weeks, twin gestation or less than 60% estimate of success.
4. Patients without access to facilities with staff immediately available to offer emergency care.
5. Patients requesting additional information.

**REFERENCES**

Figure 1
Predicting Successful TOLAC Early in Pregnancy

Most of the variables that have been found helpful in predicting a woman’s success with TOLAC are known early in pregnancy such as prior vaginal delivery, age, etc. There are several models that have been suggested. These models identify women who are likely to deliver vaginally, but many of the women with low scores may still succeed with TOLAC. At first prenatal visit, estimate of TOLAC success:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Score Points</th>
<th>Total Score</th>
<th>Chance of Successful TOLAC</th>
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<tbody>
<tr>
<td>Age under 40</td>
<td>2</td>
<td>3-5</td>
<td>49.1</td>
</tr>
<tr>
<td>Vaginal birth history</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before and after first Cesarean</td>
<td>4</td>
<td>4-6</td>
<td>66.7</td>
</tr>
<tr>
<td>After first Cesarean</td>
<td>2</td>
<td>5</td>
<td>77.0</td>
</tr>
<tr>
<td>Before first Cesarean</td>
<td>1</td>
<td>6</td>
<td>88.6</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>7</td>
<td>92.6</td>
</tr>
<tr>
<td>Reason other than FTP for 1st Cesarean</td>
<td>1</td>
<td>8-10</td>
<td>94.9</td>
</tr>
<tr>
<td>Cervical effacement at admission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater than 75%</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25%-75%</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>Less than 25%</td>
<td>0</td>
<td></td>
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<tr>
<td>Cervical dilation 4 cm or more</td>
<td>1</td>
<td></td>
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