

**Data collection:** Complete form for 20 Nulliparous Term Singleton Vertex (NTSV) C-sections per month based on a random stratified sample – test using data from January – March 2020

**Insurance status:** ☐ Medicaid/Public ☐ Private ☐ Uninsured/Self pay **Maternal Age:** \_\_\_\_\_ **Delivery BMI:** \_\_\_\_\_  
**Race (check all that apply):** ☐ Black ☐ White ☐ Asian ☐ Other **Ethnicity:** ☐ Hispanic ☐ Not Hispanic ☐ Unknown/Declined \_\_\_\_\_

<b>C/S Category</b> <input type="checkbox"/> Failed Induction <input type="checkbox"/> Labor Dystocia <input type="checkbox"/> FHR Concerns  <b>Managed by:</b> <input type="checkbox"/> CNM <input type="checkbox"/> OB Hospitalist <input type="checkbox"/> Private	<b>Patient Status:</b> <input type="checkbox"/> Admitted already in labor <input type="checkbox"/> Induced <input type="checkbox"/> Augmented labor <input type="checkbox"/> Not in labor: spontaneous rupture of membranes <input type="checkbox"/> Previously admitted antepartum	<b>Oxytocin</b> <input type="checkbox"/> None utilized <input type="checkbox"/> Induction <input type="checkbox"/> Augmentation at _____ cm		<b>Membranes on Admission</b> <input type="checkbox"/> Intact <input type="checkbox"/> Ruptured	
		<b>Date/time:</b> _____ <input type="checkbox"/> <b>SROM</b> <input type="checkbox"/> <b>AROM</b>			
		<b>GA on admission</b> _____ weeks ____/7 days	<b>Date/Time &gt;=6cm</b> _____	<b>Date/Time Delivery</b> _____	

Bishops Score on Admission: Select one option per row.						
Column value:	0 points	1 points	2 points	3 points	0 points	Row Total (0-3)
Dilation:	<input type="checkbox"/> Closed	<input type="checkbox"/> 1-2 CM	<input type="checkbox"/> 3-4 CM	<input type="checkbox"/> >= 5CM	<input type="checkbox"/> Unknown	_____
Effacement	<input type="checkbox"/> 0-30%	<input type="checkbox"/> 31-50%	<input type="checkbox"/> 51-80%	<input type="checkbox"/> >= 80%	<input type="checkbox"/> Unknown	_____
Station:	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1,0	<input type="checkbox"/> +1,+2	<input type="checkbox"/> Unknown	_____
Consistency:	<input type="checkbox"/> Firm	<input type="checkbox"/> Medium	<input type="checkbox"/> Soft		<input type="checkbox"/> Unknown	_____
Position:	<input type="checkbox"/> Posterior	<input type="checkbox"/> Mid	<input type="checkbox"/> Anterior		<input type="checkbox"/> Unknown	_____
<b>Overall Total = Bishop Score (0-13)</b>						<div></div>

<b>Maternal Outcomes</b> Maternal admit to ICU <input type="checkbox"/> Yes <input type="checkbox"/> No Chorioamnionitis <input type="checkbox"/> Yes <input type="checkbox"/> No Hemorrhage 1000 mL+ in 24 hours <input type="checkbox"/> Yes <input type="checkbox"/> No Transfusion required? <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Neonatal Outcomes</b> Unexpected Newborn complications? (select all that apply) <input type="checkbox"/> Sepsis <input type="checkbox"/> HIE <input type="checkbox"/> ICH <input type="checkbox"/> Ventilator <input type="checkbox"/> transfer to additional acute care center <input type="checkbox"/> None 5 minute Apgar Score _____      Baby admit to NICU/SCN <input type="checkbox"/> Yes <input type="checkbox"/> No
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Reason for induction: ☐ elective ☐ hypertensive disorder ☐ post term/post dates ☐ other maternal indication ☐ fetal indication ☐ Other

Date for Start of Induction (mm/dd/yyyy): _____			Time for Start of Induction (HH:mm): _____		
<b>Event</b>	<b>Dilation</b>	<b>Effacement</b>	<b>Station</b>	<b>Cervix Position</b>	<b>Cervix consistency</b>
<b>Last Exam before Delivery</b>	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown
Was Cervix 6 cm or greater at time of Cesarean? <input type="checkbox"/> If No, go to A. <input type="checkbox"/> If Yes, go to B. <input type="checkbox"/> Unknown			A. 1) If <6 cm, was oxytocin administered for at least 12-18 hours after membrane rupture before failed induction was diagnosed <input type="checkbox"/> Yes <input type="checkbox"/> No 2) Was longer duration of the latent phase allowed (up to 24 hours or longer) <input type="checkbox"/> Yes <input type="checkbox"/> No		
If Bishop score $\leq$ 8 at start of induction, was cervical ripening used? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Type of cervical ripening? _____			B. If $\geq$ 6cm, was there at least 4h with adequate uterine activity OR at least 6h with inadequate uterine activity and with oxytocin? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Completely dilated at time of Cesarean decision? <input type="checkbox"/> No <input type="checkbox"/> Yes If Yes $\rightarrow$			If yes, were there 3 hours or more of pushing (4 hours with epidural)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		

**LABOR DYSTOCIA/FAILURE TO PROGRESS** Sample of cases that are NTSV, were spontaneous labor and had a cesarean for labor dystocia/ failure to progress, excluding those with birth weight  $\geq 4250g$  **OR** with ICD-10 codes for: •Fetal heart rate concern •Medical indication for C-section

<b>Dilation at time of admission:</b> _____ <input type="checkbox"/> Unknown		Was Cervix 6 cm or greater at time of Cesarean? <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>		If Yes, please check the <u>one</u> reason for cesarean that applies: <input type="checkbox"/> Membranes ruptured and No cervical change x 4 hrs with Adequate Uterine activity (e.g., > 200 MVU) <input type="checkbox"/> Membranes ruptured, Oxytocin administered, and No cervical change x 6 hrs with Inadequate Uterine activity (e.g., < 200 MVU) <input type="checkbox"/> None of the above	
<b>Dilation at time of cesarean:</b> _____ <input type="checkbox"/> Unknown		Completely dilated at time of Cesarean decision? <input type="checkbox"/> No <input type="checkbox"/> Yes If Yes →		Were there 3 hours or more of pushing (4 hours with epidural)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	

**FETAL HEART RATE CONCERN/INDICATIONS** Sample of cases that are NTSV and had a cesarean for fetal heart rate (FHR) concern/indications, excluding those with birth weight  $\geq 4250g$  OR with ICD-10 codes for: •Labor arrest / CPD

<p><b>What was the FHR concern/indication? (Linked with specific corrective and evaluative measures)</b></p> <p><input type="checkbox"/> Antepartum testing results which precluded trial of labor</p> <p><input type="checkbox"/> Category III FHR tracing</p> <p><input type="checkbox"/> Category II FHR tracing (Were these specific types present?)</p> <p style="padding-left: 20px;"><input type="checkbox"/> Clinically significant variable decelerations</p> <p style="padding-left: 20px;"><input type="checkbox"/> Minimal/absent FHR variability without significant decelerations</p> <p style="padding-left: 20px;"><input type="checkbox"/> Late Decelerations</p> <p><input type="checkbox"/> Other concern:</p>	<p>Please check all corrective and evaluative measures used:</p> <p><input type="checkbox"/> Basic resuscitation measures such as: Maternal position change or maternal fluid bolus</p> <p><input type="checkbox"/> Reduced or stopped oxytocin or uterine stimulants</p> <p><input type="checkbox"/> Used Amnioinfusion with significant variable decelerations after other measures failed</p> <p><input type="checkbox"/> Elicited stimulation (scalp, vibroacoustic, or abdominal wall) with minimal or absent FHR variability</p> <p><input type="checkbox"/> None</p>
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<b>Other labor issues:</b> Did the mother have uterine tachysystole? <input type="checkbox"/> Yes <input type="checkbox"/> No	Corrected uterine tachysystole: decrease or discontinue uterine stimulants, fluid bolus, terbutaline or nitroglycerin and/or other? <input type="checkbox"/> Yes <input type="checkbox"/> No
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## ILPQC Promoting Vaginal Birth Initiative Data Form

**Data collection:** Complete form for 10 NTSV Vaginal births per month based on a random stratified sample – test using data from January – March 2020

<b>Insurance status:</b> <input type="checkbox"/> Medicaid/Public <input type="checkbox"/> Private <input type="checkbox"/> Uninsured/Self pay		<b>Maternal Age:</b> _____		<b>Delivery BMI:</b> _____																																																		
<b>Race (check all that apply):</b> <input type="checkbox"/> Black <input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Other		<b>Ethnicity:</b> <input type="checkbox"/> Hispanic <input type="checkbox"/> Not Hispanic <input type="checkbox"/> Unknown/Declined																																																				
<b>Induction</b> <input type="checkbox"/> Yes <input type="checkbox"/> No  <b>Managed by:</b> <input type="checkbox"/> CNM <input type="checkbox"/> OB Hospitalist <input type="checkbox"/> Private	<b>Patient Status:</b> <input type="checkbox"/> Admitted already in labor <input type="checkbox"/> Induced <input type="checkbox"/> Augmented labor <input type="checkbox"/> Not in labor: spontaneous rupture of membranes <input type="checkbox"/> Previously admitted antepartum		<b>Oxytocin</b> <input type="checkbox"/> None utilized <input type="checkbox"/> Induction <input type="checkbox"/> Augmentation at _____ cm																																																			
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<b>Chorioamnionitis</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>DELIVERY OUTCOMES</b> <input type="checkbox"/> Hemorrhage 1000 mL+ in 24 hours <b>Transfusion required?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No																																																					
	<b>Maternal admit to ICU</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Laceration:</b> <input type="checkbox"/> 3 <sup>rd</sup> degree <input type="checkbox"/> 4 <sup>th</sup> degree		<b>Operative Delivery Type if used:</b> <input type="checkbox"/> Vacuum <input type="checkbox"/> Forceps <input type="checkbox"/> N/A																																																	
	<b>Baby admit to NICU/SCN</b> <input type="checkbox"/> Yes <input type="checkbox"/> No  <b>Unexpected Newborn complications?</b> (select all that apply) <input type="checkbox"/> Sepsis <input type="checkbox"/> HIE <input type="checkbox"/> ICH <input type="checkbox"/> Ventilator <input type="checkbox"/> transfer to additional acute care center																																																					
<b>5 minute Apgar Score</b> _____																																																						
<b>Pain Management</b> (select all that apply) <input type="checkbox"/> None <input type="checkbox"/> Hydrotherapy <input type="checkbox"/> IV/IM Opioids <input type="checkbox"/> Nitrous Oxide <input type="checkbox"/> Epidural																																																						
<b>Bishops Score on Admission: Select one option per row.</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Column value:</th> <th style="text-align: left;">0 points</th> <th style="text-align: left;">1 points</th> <th style="text-align: left;">2 points</th> <th style="text-align: left;">3 points</th> <th style="text-align: left;">0 points</th> <th style="text-align: left;">Row Total (0-3)</th> </tr> </thead> <tbody> <tr> <td>Dilation:</td> <td><input type="checkbox"/> Closed</td> <td><input type="checkbox"/> 1-2 CM</td> <td><input type="checkbox"/> 3-4 CM</td> <td><input type="checkbox"/> &gt;= 5CM</td> <td><input type="checkbox"/> Unknown</td> <td>_____</td> </tr> <tr> <td>Effacement</td> <td><input type="checkbox"/> 0-30%</td> <td><input type="checkbox"/> 31-50%</td> <td><input type="checkbox"/> 51-80%</td> <td><input type="checkbox"/> &gt;= 80%</td> <td><input type="checkbox"/> Unknown</td> <td>_____</td> </tr> <tr> <td>Station:</td> <td><input type="checkbox"/> -3</td> <td><input type="checkbox"/> -2</td> <td><input type="checkbox"/> -1,0</td> <td><input type="checkbox"/> +1,+2</td> <td><input type="checkbox"/> Unknown</td> <td>_____</td> </tr> <tr> <td>Consistency:</td> <td><input type="checkbox"/> Firm</td> <td><input type="checkbox"/> Medium</td> <td><input type="checkbox"/> Soft</td> <td></td> <td><input type="checkbox"/> Unknown</td> <td>_____</td> </tr> <tr> <td>Position:</td> <td><input type="checkbox"/> Posterior</td> <td><input type="checkbox"/> Mid</td> <td><input type="checkbox"/> Anterior</td> <td></td> <td><input type="checkbox"/> Unknown</td> <td>_____</td> </tr> <tr> <td colspan="6" style="text-align: right;"><b>Overall Total = Bishop Score (0-13)</b></td> <td style="border: 1px solid black; width: 50px; height: 20px;"></td> </tr> </tbody> </table>						Column value:	0 points	1 points	2 points	3 points	0 points	Row Total (0-3)	Dilation:	<input type="checkbox"/> Closed	<input type="checkbox"/> 1-2 CM	<input type="checkbox"/> 3-4 CM	<input type="checkbox"/> >= 5CM	<input type="checkbox"/> Unknown	_____	Effacement	<input type="checkbox"/> 0-30%	<input type="checkbox"/> 31-50%	<input type="checkbox"/> 51-80%	<input type="checkbox"/> >= 80%	<input type="checkbox"/> Unknown	_____	Station:	<input type="checkbox"/> -3	<input type="checkbox"/> -2	<input type="checkbox"/> -1,0	<input type="checkbox"/> +1,+2	<input type="checkbox"/> Unknown	_____	Consistency:	<input type="checkbox"/> Firm	<input type="checkbox"/> Medium	<input type="checkbox"/> Soft		<input type="checkbox"/> Unknown	_____	Position:	<input type="checkbox"/> Posterior	<input type="checkbox"/> Mid	<input type="checkbox"/> Anterior		<input type="checkbox"/> Unknown	_____	<b>Overall Total = Bishop Score (0-13)</b>						
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### NTSV C-Section Sampling Instructions

The goal is to review a sample of 20 NTSV C-section record per month, at least 5 of which were failed induction, 5 of which were labor dystocia/failure to progress, 5 of which were FHR concerns/indications.

1. Systematically select **5 records** per month of NTSV C-sections due to failed induction. First, divide the total number of NTSV C-sections due to **failed induction** occurring at your facility in a given month by 5 and then select every nth chart where 'n' is the result of that division.

**Example:** If your hospital has 18 NTSV C-sections due to failed induction in a month, then  $18 \div 5 = 3.6$  and you will select every NTSV C-sections due to failed induction for that month.

2. Systematically select **5 records** per month of NTSV C-sections due to labor dystocia/failure to progress. First, divide the total number of NTSV C-sections due to **labor dystocia/failure to progress** occurring at your facility in a given month by 5 and then select every nth chart where 'n' is the result of that division. If you have less than 5 records in this category, select all records in this category for your sample and see additional instructions in step 4.
3. Systematically select **5 records** per month of NTSV C-sections due to FHR concerns/indications. First, divide the total number of NTSV C-sections due to **FHR concerns/indications** occurring at your facility in a given month by 5 and then select every nth chart where 'n' is the result of that division. If you have less than 5 records in this category, select all records in this category for your sample and see additional instructions in step 4.
4. Systematically select **5 records** per month of NTSV C-sections. If you didn't have at least 5 records for failed induction, labor dystocia/failure to progress, or FHR concern/indications, select additional records here to reach 20. First, divide the total number of NTSV C-sections occurring at your facility in a given month by 5 (or the number of remaining records you need to get to 20) and then select every nth chart where 'n' is the result of that division. If you have less than 5 records in this category, select all records in this category for your sample and see additional instructions in step 4.

If you have less than 20 NTSV C-Sections, select all records for your sample.

### NTSV C-Section Sampling Instructions

The goal is to review a sample of 10 NTSV Vaginal births per month.

1. Systematically select **10 records** per month of NTSV vaginal births. First, divide the total number of NTSV vaginal births occurring at your facility in a given month by 10 and then select every nth chart where 'n' is the result of that division.

**Example:** If your hospital has 52 NTSV vaginal births in a month, then  $52 \div 10 = 5.2$  and you will select every 5 NTSV vaginal births for that month.

### How to Calculate a Bishop Score:

Cervical Exam	Points				SUBSCORE
	0	1	2	3	
Dilation	Closed	1-2 cm	3-4 cm	$\geq 5$ cm	
Effacement	0-30%	31-50%	51-80%	$\geq 80\%$	
Station	-3	-2	-1, 0	+1, +2	
Consistency	Firm	Medium	Soft		
Position	Posterior	Mid	Anterior		
Bishop's Score =					

## Definitions and Clinical Criteria

**NTSV** = ≥37 weeks, parity 0, single gestation pregnancy, vertex fetal presentation

**CS Category** = If the cesarean delivery has fetal heart rate concerns requiring delivery, then label “FHR Concerns.” If not and had an induction, then “Induction.” If neither of these and had labor dystocia, then “Labor Dystocia.” Otherwise, mark the form as “Other.”

**Induction of labor** = Initiation of uterine contractions by medical and/or surgical means. These medications and/or interventions are given BEFORE labor begins.

**Augmentation of labor** = Augmentation of labor occurs AFTER spontaneous labor has started or spontaneous rupture of membranes. Stimulation of uterine contractions to increase their frequency and/or strength following the onset of labor. Please see definition of labor in previous entry.

**Medical or Maternal Indication for Cesarean** (chart review exclusion criteria, or “Other”) include:

1. Maternal or fetal hemorrhage
2. Hypertensive emergencies not responding to treatment
3. Abnormalities of placenta or umbilical cord
4. Fetal or maternal conditions that obstruct the pelvis
5. Active HSV lesions or HIV viral load >1000copies/ml
6. Other maternal medical indications (cardiac, neurological, orthopedic, pulmonary, malignancy, previous uterine surgery) that preclude vaginal delivery
7. Fetal malpresentation

**Chorioamnionitis:** (ACOG CO #712): Maternal fever (intrapartum temperature >100.4°F or >38.0°C) x2 over 30min accompanied with at least one additional clinical risk factor:

- Maternal leukocytosis (total blood leukocyte count >15,000 cells/μL) in the absence of corticosteroids
- Fetal tachycardia (Fetal heart rate baseline above 160bpm)
- Maternal Purulent Discharge

**Uterine Tachysystole:** Was tachysystole used in the chart or was terbutaline used?

**Unexpected Newborn Complications:** The questions identifies the percentage of infants with unexpected newborn complications among full-term newborns with no preexisting conditions (no premies, multiple gestations, birth defects, or other fetal conditions). Please review [Joint Commission website](#) for a full list.

- Sepsis, HIE, ICH, Ventilator, Transfer to another acute care center, etc.

This information is also reported to Joint Commission through PC-06 as a combination of ICD-10 diagnosis and procedure codes and neonatal Length of Stay (LOS) is used to categorize complications.

Primary Indication for NTSV Cesarean	Consistency with ACOG/SMFM Guidelines	Reference
<b>Induction</b>	<p>Chart Review: looking for Yes answers to the following (a no answer would indicate inconsistency with the ACOG guidelines):</p> <ul style="list-style-type: none"> <li>If &lt;6cm dilated, were there at least 12-18 hours of oxytocin after rupture of membranes before failed induction was diagnosed AND allowed longer duration of the latent phase (up to 24 hours or longer)</li> <li>If 6-10cm dilated, was there at least 4h with adequate uterine activity or at least 6h with inadequate uterine activity and with oxytocin? (identical to the question for Labor arrest/CPD below)</li> <li>If completely dilated, was there 3h or more of active pushing (4h with epidural)?</li> </ul>	ACOG/SMFM criteria (Ob Gyn 2014; 123:693–711) CMQCC
<b>Labor Dystocia/Failure to Progress</b>	<p>Chart Review: looking for Yes answers to the following (a no answer would indicate inconsistency with the ACOG guidelines):</p> <ul style="list-style-type: none"> <li>If &lt;6cm dilated, automatic fallout</li> <li>If 6-10cm dilated, was there at least 4h with adequate uterine activity or at least 6h with inadequate uterine activity and with oxytocin?</li> <li>If completely dilated, was there 3h or more of active pushing (4h with epidural)?</li> </ul>	ACOG/SMFM criteria (Ob Gyn 2014;123:693–711) -CMQCC
<b>Fetal Heart Rate Concern</b>	<p>Cesarean deliveries performed for “fetal heart rate concern” using listed resuscitation techniques listed below based on the ACOG/SMFM Guidelines:</p> <ul style="list-style-type: none"> <li>Antepartum testing which preclude labor: no techniques required.</li> <li>All Cat. II and III FHR concerns should use some techniques listed under “any intrauterine resuscitation efforts.”</li> <li>Category Cat. II FHR concerns should also use additional techniques if the following: <ul style="list-style-type: none"> <li>Receiving oxytocin—reduced or stopped oxytocin</li> <li>Clinically significant variable decelerations—possibly Amnioinfusion (not required)</li> <li>Minimal/absent variability—elicited stimulation if no significant decelerations</li> <li>Uterine tachysystole—any combination listed to correct</li> </ul> </li> </ul>	Spong et al (Ob Gyn 2012; 120:1181-93) Clark et al (AJOG 2013; 209:89-97) ACOG/SMFM criteria (Ob Gyn 2014; 123:693–711) CMQCC FPQC