Promoting Primary Vaginal Deliveries Initiative

Where We Are, Where We Are Going, and Managing the OP Baby

PROVIDE Collaborative Session Webinar

Partnering to Improve Health Care Quality for Mothers and Babies
Welcome!

- Please join by telephone to enter your Audio PIN on your phone or we will be unable to un-mute you for discussion.
- If you have a question, please enter it in the Question box or Raise your hand to be un-muted.
- This webinar is being recorded.
- Please provide feedback on our post-webinar survey.
Agenda
February 14, 2019

Announcements

Where we are Now – FPQC Data Team

What PROVIDE hospitals need – Guest panelists

Managing the OP Baby – Julie DeCesare, MD and Jessica Brumley, CNM, PhD

Q&A
Announcements: Upcoming Events

🔗 Labor Support Trainings:
🔗 Sarasota, FL: February 27, 2019
🔗 Hollywood, FL: March 28, 2019

🔗 FPQC 2019 Annual Conference: April 4-5!
🔗 Submit a poster!
🔗 Can be on a QI project in process or completed
🔗 Due Feb 28 – See FPQC.org conference site for info
New! Online Discussion Forums

Join our Maternal Health Discussion Group!

Visit us @theFPQC on Facebook and find our “Groups”

Direct link: https://www.facebook.com/groups/618131375299397/
Announcements: Data

Your Structural Measures (collected every 6 months) are due!

Link to the submission survey was sent via email to your data lead from data analyst Estefania Rubio
Recruiting New Hospitals!
NTSV Rates by Delivery Attendant

“Providing delivery attendant rates was the most important component in reducing our cesarean rates.” Elliott Main, CMQCC

- Provides quarterly NTSV cesarean rate by delivery attendant.
- Successfully updated 12 months of birth certificate data for 9 pilot hospitals.
- Department of Health offered to assist all PROVIDE hospitals.
- Stagger start interested hospitals over time.
Where We Are Now

PROVIDE Initiative-wide Data Report

Partnering to Improve Health Care Quality for Mothers and Babies
NTSV Cesarean Rates

Data Source: Birth Certificate

Provide Baseline ***

Provide-Wide

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INDUCTION CASE AUDIT

Data Source: NTSV Cesarean Audits
I-2: Percent of NTSV Cesarean Deliveries by Hospital with Induction that Met ACOG/SMFM Criteria

![Box plot showing the percentage of hospitals with NTSV Cesarean deliveries by quarter.]

- Baseline (n=27)
- Q1-18 (n=27)
- Q2-18 (n=26)
- Q3-18 (n=26)
- Q4-18 (n=26)

Max. Value: 75th Percentile
Median
25th Percentile
Min. Value
I-4: Percent of Cesarean Deliveries with Induction that Did Not Meet ACOG/SMFM Criteria by Cervical Dilatation

<table>
<thead>
<tr>
<th>% NTSV Cesareans</th>
<th>Baseline</th>
<th>Q1-18</th>
<th>Q2-18</th>
<th>Q3-18</th>
<th>Q4-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>38%</td>
<td>44%</td>
<td>51%</td>
<td>51%</td>
<td>48%</td>
</tr>
<tr>
<td>&lt;6 cm</td>
<td>40%</td>
<td>42%</td>
<td>30%</td>
<td>34%</td>
<td>35%</td>
</tr>
<tr>
<td>6-9 cm</td>
<td>11%</td>
<td>8%</td>
<td>6%</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>10 cm</td>
<td>7%</td>
<td>5%</td>
<td>10%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Met</td>
<td>40%</td>
<td>42%</td>
<td>30%</td>
<td>34%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Partnership to Improve Health Care Quality for Mothers and Babies
I-9: Percent of NTSV Cesarean Deliveries with Induction by Bishop Score at Time of Induction

**NOTE: the reported bishop score is only used when data to calculate the bishop score was not entered**
I-10: Percent of All NTSV Cesarean Deliveries by Hospital with Induction and a Bishop Score <8 with Cervical Ripening Agent Used
LABOR DYSTOCIA/Failure to Progress Audit
D-2: Percent of NTSV Cesarean Deliveries by Hospital with Dystocia that Met ACOG/SMFM Criteria

<table>
<thead>
<tr>
<th>% Hospitals</th>
<th>Baseline (n=17)</th>
<th>Q1-18 (n=17)</th>
<th>Q2-18 (n=17)</th>
<th>Q3-18 (n=17)</th>
<th>Q4-18 (n=16)</th>
</tr>
</thead>
</table>

Max. Value
75th Percentile
Median
25th Percentile
Min. Value
D-3: Percent of NTSV Cesarean Deliveries with Dystocia that Did Not Meet ACOG/SMFM Criteria by Cervical Dilatation

- Baseline
  - Unknown: 30%
  - <6 cm: 19%
  - 6-9 cm: 19%
  - 10 cm: 16%
  - Met: 31%

- Q1-18
  - Unknown: 35%
  - <6 cm: 14%
  - 6-9 cm: 13%
  - 10 cm: 14%
  - Met: 37%

- Q2-18
  - Unknown: 31%
  - <6 cm: 16%
  - 6-9 cm: 19%
  - 10 cm: 22%
  - Met: 34%

- Q3-18
  - Unknown: 33%
  - <6 cm: 30%
  - 6-9 cm: 22%
  - 10 cm: 30%
  - Met: 31%

- Q4-18
  - Unknown: 33%
  - <6 cm: 33%
  - 6-9 cm: 17%
  - 10 cm: 17%
  - Met: 32%

Partnering to Improve Health Care Quality for Mothers and Babies
FETAL HEART RATE CONCERN AUDIT
FHRC-1: Percent of NTSV Cesarean Deliveries by Hospital with Fetal Heart Rate Concerns that Met FPQC Criteria for Corrective Measures

![Box plot showing percent of NTSV Cesarean Deliveries by hospital with fetal heart rate concerns.](image)

- Max. Value
- 75th Percentile
- Median
- 25th Percentile
- Min. Value

**Axes:**
- Y-axis: % Hospitals
- X-axis: Baseline (n=9), Q1-18 (n=9), Q2-18 (n=9), Q3-18 (n=9), Q4-18 (N=9)
FHRC-2: Percent of Cesarean Deliveries with Fetal Heart Rate Concerns that Did Not Meet FPQC Criteria by Corrective Measure

Note: All other corrective measures require that basic measures be used
FHRC-2: Percent of Cesarean Deliveries with Fetal Heart Rate Concerns that Did Not Meet FPQC Criteria by Corrective Measure

Note: All other corrective measures require that basic measures be used
Structural Measures

27 hospital have submitted structural measures
We need them from all!

- Patient, Family & Staff Support
- Unit Policy and Procedure
- EHR Integration
- Multidisciplinary Case Reviews
- Staff Education

Submitted by hospital every 6 months
Structural Measures

🌟 Data collected through Qualtrix

🌟 Link to submit your data was sent to project and data leads

🌟 Please complete by February 28, 2018
Hospital progress assessment*

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing has been done</td>
<td>0</td>
</tr>
<tr>
<td>Planning has begun</td>
<td>3</td>
</tr>
<tr>
<td>Development activity, but no improvement</td>
<td>7</td>
</tr>
<tr>
<td>Changes tested, but no improvement</td>
<td>2</td>
</tr>
<tr>
<td>Modest improvement</td>
<td>6</td>
</tr>
<tr>
<td>Improvement</td>
<td>4</td>
</tr>
<tr>
<td>Significant Improvement</td>
<td>2</td>
</tr>
<tr>
<td>Sustainable improvement</td>
<td>2</td>
</tr>
<tr>
<td>Outstanding sustainable results</td>
<td>1</td>
</tr>
</tbody>
</table>

Number of hospitals (n=27)

*Preliminary results
Structural Measures

- Up-to-date labor guidelines, policies and procedures that includes a unit-standard approach for:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods to assess, interpret, and respond - abnormal FH</td>
<td>93%</td>
</tr>
<tr>
<td>Freedom of movement</td>
<td>67%</td>
</tr>
<tr>
<td>Criteria for active labor admission and triage mgmt.</td>
<td>59%</td>
</tr>
<tr>
<td>Providing labor support</td>
<td>59%</td>
</tr>
<tr>
<td>Algorithms to recognize and treat dystocia</td>
<td>44%</td>
</tr>
<tr>
<td>Management protocols for labor challenges</td>
<td>41%</td>
</tr>
</tbody>
</table>

*Preliminary results*
Provider education and training techniques that develop knowledge and skills on approaches which maximize the likelihood of vaginal birth, including:

- Assessment of FHR status: 74%
- Pain Management: 67%
- Methods to promote labor progress: 63%
- Labor support: 55%
- Assessment of labor and admission criteria: 48%
- Shared decision making: 37%
- Breech version; instrumental, or twin delivery: 33%

*Preliminary results*
Structural Measures

- **37%** of hospitals have OB specific resources and protocols to support patients, family, and staff through an unexpected/traumatic event.

- **51%** of hospitals have established a process to perform **multidisciplinary case reviews**.

- **41%** have **met** in the last 6 months and conducted multidisciplinary case reviews.

- Only **15%** of providers and **30%** of nurses have completed an education program on the ACOG/SMFM labor management guidelines.
Moving Forward

Decreasing cesarean rates requires multiple pressure points

Data help inform where to allocate resources and efforts
Panelists:
- Carol Lawrence, Lee Health
- Mary Holloway, AdventHealth Orlando
- Laura Daly, Jackson Memorial Hospital

What Hospitals Need
Management of the Occiput Posterior Fetus in Labor

Jessica Brumley CNM, PhD
Julie DeCesare MD
Risks of Occiput Posterior

- Longer labor
- Maternal fatigue
- Increased need for psychological support
- Surgical deliveries
- Perineal lacerations
Signs of Malposition:

- Mother might have back labor (but she might not)
- First stage may be prolonged/stalled
- Internal check indicates fetal head position such as swollen cervix especially if more on one side
- Visual inspection of the abdomen may reveal a dip in the front instead of a rounded gravid abdomen.
- Ultrasound if available is the gold standard in diagnosis of Occiput Posterior
Incidence of OP

- At onset of labor 15-32%
- OP at birth: 5.5% overall
  - 7% for primips; 4% for multips
  - 13% with epidural; 3.3% without epidural
Epidurals and Malposition

While there is no evidence that epidurals cause malposition, women with epidurals are up to 4 times more likely to have an OP fetus than women without an epidural.

Women with OP fetus are 2 - 6 times more likely to have a cesarean.

Avoid malposition:
- avoid routine early amniotomy
- position changes in 1st and 2nd stage every 20 minutes
Epidurals Have Pros and Cons

• If she doesn’t move, can her pelvis rotate? Can baby descend?
• How is it affecting labor hormones?

• Epidurals may lead to:
  • Increased Pitocin usage
  • Prolonged 1st and 2nd stage
  • Increased vacuum, forceps, cesarean section
Using Epidural Wisely

1. Wait until true Active Labor
   a. Use other comfort techniques until 5-6 cm

1. Change position every half hour or so
   a. Use the “Rollover” and/or Peanut Ball
Approaches to Limit Intervention During Labor and Birth (Things to avoid)

- Data suggest that in women with normally progressing labor and no evidence of fetal compromise, routine amniotomy is not necessary.
- The widespread use of continuous electronic fetal heart-rate monitoring has not improved outcomes when used for women with low-risk pregnancies.
- Women in spontaneously progressing labor may not require routine continuous infusion of intravenous fluids. For most women, no one position needs to be mandated nor proscribed.
- Obstetrician–gynecologists and other obstetric care providers should be familiar with and consider using low-interventional approaches for the intrapartum management of low-risk women in spontaneous labor.
Movement in Labor

• Women who are upright during first stage have shorter labors, and are less likely to have an epidural, less likely to have a cesarean (Cochrane Review: Lawrence et al 2013).

• When you walk or move around in labor, your uterus, a muscle, works more efficiently (Roberts, Mendez-Bauer, & Wodell, 1983).
Why Movement Helps Promote Labor Progress

• Changing position frequently moves the bones of the pelvis to help the baby find the best fit through your birth canal, while upright positions use gravity to help bring the baby down (Simkin & Ancheta, 2005).

• When labor slows, a change in position often will help you “find your rhythm” again.

• If your baby is in a posterior position (with the back of the baby's head toward your spine), getting on your hands and knees helps the baby rotate and decreases back pain (Stremler et al., 2005).
Positions that Promote Physiologic Labor/Descent

- Hands and knees or child’s pose
- Standing/walking
- Leaning over
- Swaying the hips (labor dance, figure 8’s)
- Open-pelvis positions on birth ball or toilet
- Lunging
- Exaggerated SIMS
- Using a peanut ball
Birth Ball

- Birth balls are a nice comfort for laboring mothers and can be used sitting or leaning.

- The traditional round ball allows the mother more pelvis rotation and moving the hips in a figure-eight position is helpful for comfort and fetal rotation.
Evidence on Birth Balls

- Promotes spinal flexion
- Increases the utero-spinal angle
- Allows for upright movement without exhausting the legs
- Reduces pain and pain perception
- Increases pelvic inlet and outlet
- Facilitates OP rotation
- Shorter 1st and 2nd stage duration

Sizing for Birth Balls

Ideally, your knees should be lower than your hips or at a 90 degree angle, *not higher* than your hips.

As a general rule: If you're up to 5ft 8in in height, it's best to get a 65cm \textbf{ball}. If you're 5ft 9in or taller then it's best to get a 75cm \textbf{ball}. 
Peanut Ball

• Decreased length of labor

• Decreased CS rate in patients with epidurals

Evidence on Upright Birth

- Available space in the pelvis can be increased by 28-30%.
- **Contraction**s can be more effective.
- 23% less likely to need medical assistance.
- Baby is 54% less likely to become distressed.
- **Shorter labour** & 29% reduction in emergency C-section.
- 21% reduction in episiotomy rates.
- Reduced need for epidural.

Heard of the CUB?

www.the-cub-usa.com
Rotating a Suspected Malposition Baby
Malpositioned Baby Rotation

- The “Miles Circuit” is a series of three positions (Child’s Pose, Exaggerated Simms (usually on left side), & Lunge) that are done in 30 minute intervals for a 90 minute sequence.
- This can be done carefully with an epidural. The Miles Circuit can be utilized to alleviate back pain and to help facilitate turning a malpositioned baby.
Rotating a Baby in Second Stage
Rotation of ROP to OA

Mother is supine & Baby is ROP

Position changed to right sidelying for 30 mins
Pushing Positions (*without* epidural)

5. Sidelying (Sims Lateral) with Open Pelvis

Good position to encourage rest between pushing when needed. Also facilitates rotation when **malposition** is diagnosed. If ROP, woman should lay on right side. If LOP, woman should lay on left side.
Rotation of ROP to OA

Baby turns to ROT

Position changed to Hands & Knees for final rotation to OA
Education Resources for Nurses

- Labor Progress Handbook (Penny Simkin)
- SpinningBabies.com
- FPQC.org → Current Projects → PROVIDE → Tool Box Resources
- See Labor Dystocia and Patient Education
WHAT ELSE IS CAN A CLINICIAN DO?
What to do with Persistent OP?

1. Is delivery indicated at this time?
2. Is vaginal delivery contraindicated?
3. What is the true position of the fetal head?
4. Should rotation be considered before vaginal delivery?
5. If rotating, which method is preferred?
Fig. 4

Suggested approach to arrest of descent in the second stage with persistent occiput posterior.

Barth, William H.
doi: 10.1097/AOG.0000000000000647

Persistent Occiput Posterior

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<table>
<thead>
<tr>
<th>Pelvic inlet</th>
<th>Gynecoid</th>
<th>Anthropoid</th>
<th>Android</th>
<th>Platypelloid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Widest transverse diameter of inlet</td>
<td>12 cm</td>
<td>&lt; 12 cm</td>
<td>12 cm</td>
<td>12 cm</td>
</tr>
<tr>
<td>Anteroposterior diameter of inlet</td>
<td>11 cm</td>
<td>&gt; 12 cm</td>
<td>11 cm</td>
<td>10 cm</td>
</tr>
<tr>
<td>Forepelvis</td>
<td>Wide</td>
<td>Divergent</td>
<td>Narrow</td>
<td>Straight</td>
</tr>
<tr>
<td>Pelvic midcavity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side walls</td>
<td>Straight</td>
<td>Narrow</td>
<td>Convergent</td>
<td>Wide</td>
</tr>
<tr>
<td>Sacrosciatic notch</td>
<td>Medium</td>
<td>Backward</td>
<td>Narrow</td>
<td>Forward</td>
</tr>
<tr>
<td>Inclination of sacrum</td>
<td>Medium</td>
<td>Wide</td>
<td>Forward (lower third)</td>
<td>Narrow</td>
</tr>
<tr>
<td>Ischial spines</td>
<td>Not prominent</td>
<td>Not prominent</td>
<td>Not prominent</td>
<td>Not prominent</td>
</tr>
<tr>
<td>Pelvic outlet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subpubic arch</td>
<td>Wide</td>
<td>Medium</td>
<td>Narrow</td>
<td>Wide</td>
</tr>
<tr>
<td>Transverse diameter of outlet</td>
<td>10 cm</td>
<td>10 cm</td>
<td>&lt; 10 cm</td>
<td>10 cm</td>
</tr>
</tbody>
</table>
Points to consider…

- Successful rotation after the onset of the second stage of labor is more likely to be successful if it is performed before arrest occurs. Manual rotation can convert 90% of OP or transverse arrest situations to OA.

- Manual rotation is more successful in multiparous women and young women.

- Rotation is important if there is a need for a fast delivery and/or if there is minimal or slow descent after a trial of pushing.
Techniques to Rotate the Vertex

• 3 finger approach
• Whole hand
• Operative approach
3 Finger Method of Rotation
Persistent Occiput Posterior

Barth, William H.
doi: 10.1097/AOG.0000000000000647
Whole Hand Method of Rotation
Risks to Rotation

• Manual rotation performed prior to instrumental birth is associated with little or no increase in risk to the pregnant woman or to the fetus.

• Gentle traction is key- Don’t force it!
What about Operative Vaginal Delivery?

• Rotational forceps generally not done
• OP Vacuum and Forceps can be performed
  • Some advocate placement of forceps upside down to facilitate delivery
  • Traction angle must be straight down with robust perineal support
• Increased incidence of higher order lacerations (3rd and 4th)
Additional Reading

Persistent Occiput Posterior
Barth, William H. Jr MD
Obstetrics & Gynecology: March 2015 - Volume 125 - Issue 3 - p 695–709
doi: 10.1097/AOG.0000000000000647
If you have a question, please enter it in the Question box or Raise your hand to be un-muted.
We can only unmute you if you have dialed your Audio PIN (shown on the GoToWebinar side bar).
THANK YOU!

Archived webinars, Resources, and Tools can be found online at

https://health.usf.edu/publichealth/chiles/fpqc/provide

Technical Assistance:
FPQC@health.usf.edu

Partnering to Improve Health Care Quality
for Mothers and Babies