GTA/SOON OBS Network QUIPs Project

Avoiding the first Cesarean section for *Failure to Progress* in Labouring Nulliparous Women (Robson Group 1 and 2a)

Amanda Cipolla
Trillium Health Partners
Background

- Top 3 indications for the first CS:
  - arrest of labour (34%)
  - non-reassuring fetal heart rate (23%)
  - malpresentation (17%)

Amanda Cipolla

- Coordinated local QIPS project to address this
- Hoping to engage other sites as wider SOON initiative
Project overview

- **Project Aim**: reduce primary CS in laboring nulliparous patients for “failure to progress”
- **Population**: Robson 1 and 2a

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nullipara, singleton cephalic, ≥ 37 weeks, spontaneous labour</td>
</tr>
<tr>
<td>2</td>
<td>Nullipara, singleton cephalic, ≥ 37 weeks</td>
</tr>
<tr>
<td></td>
<td>A: Induced</td>
</tr>
</tbody>
</table>
Intervention

1) Education: updating on Normal Progress of Labour
   • Friedman Curve (outdated)
   • Three new initiatives that should inform management of normal nulliparous labour
     • Consortium on Safe Labor
     • ACOG
     • Ontario Quality Based Practice

2) Audit and Feedback
   • Home hospital CS rates compared to other similar sites
   • Individual CS rates by OB compared to others
Friedman: Traditional nulliparous labour curve

- Active phase at 3cm
Consortium on Safe Labour:

Contemporary Patterns of Spontaneous Labor With Normal Neonatal Outcomes

Jun Zhang, Ph.D., M.D., Helain J. Landy, M.D., D. Ware Branch, M.D., Ronald Burkman, M.D., Shoshana Haberman, M.D., Ph.D., Kimberly D. Gregory, M.D., M.P.H., Christos G. Hatjis, M.D., Mildred M. Ramirez, M.D., Jennifer L. Bailit, M.D., M.P.H., Victor H. Gonzalez-Quintero, M.D., M.P.H., Judith U. Hibbard, M.D., Matthew K. Hoffman, M.D., M.P.H., Michelle Komicsarenk, M.D., Lee A. Learman, M.D., Ph.D., Paul Van Veldhuisen, Ph.D., James Troendle, Ph.D., and Uma M. Reddy, M.D., M.P.H., for the Consortium on Safe Labor

- 62,415 singleton, term spontaneous labor, vertex
- Delivered vaginally with normal outcome
The new active phase > 5-6cm

Fig. 2. Average labor curves by parity in singleton term pregnancies with spontaneous onset of labor, vaginal delivery, and normal neonatal outcomes. P0, nulliparous women; P1, women of parity 1; P2+, women of parity 2 or higher.

Number 1  •  March 2014  
(Reaffirmed 2016)

Safe Prevention of the Primary Cesarean Delivery
Table 3. Recommendations for the Safe Prevention of the Primary Cesarean Delivery

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Grade of Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First stage of labor</strong></td>
<td></td>
</tr>
<tr>
<td>A prolonged latent phase (e.g., greater than 20 hours in nulliparous women and greater than 14 hours in multiparous women) should not be an indication for cesarean delivery.</td>
<td>1B Strong recommendation, moderate quality evidence</td>
</tr>
<tr>
<td>Slow but progressive labor in the first stage of labor should not be an indication for cesarean delivery.</td>
<td>1B Strong recommendation, moderate quality evidence</td>
</tr>
<tr>
<td>Cervical dilation of 6 cm should be considered the threshold for the active phase of most women in labor. Thus, before 6 cm of dilation is achieved, standards of active phase progress should not be applied.</td>
<td>1B Strong recommendation, moderate quality evidence</td>
</tr>
<tr>
<td>Cesarean delivery for active phase arrest in the first stage of labor should be reserved for women at or beyond 6 cm of dilation with ruptured membranes who fail to progress despite 4 hours of adequate uterine activity, or at least 6 hours of oxytocin administration with inadequate uterine activity and no cervical change.</td>
<td>1B Strong recommendation, moderate quality evidence</td>
</tr>
</tbody>
</table>
### 3 Ontario QBP Indicators

#### 8.1 Evaluation Metrics for the Low Risk Birth QBP

The Low Risk Birth QBP Expert Panel recommends three outcome indicators that should be measured within the QBP low risk target population, order to evaluate this QBP. These indicators include:

<table>
<thead>
<tr>
<th>Evaluation Metric</th>
<th>Domain</th>
<th>Relevance</th>
<th>Rationale</th>
<th>Feasibility/ Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rate of vaginal delivery and Caesarean section delivery</td>
<td>Effectiveness</td>
<td>Administrators, Clinicians, MOHLTC, LHINs</td>
<td>To measure if the QBP clinical care pathway is promoting increased vaginal birth within the QBP target population</td>
<td>Data readily available in BORN Ontario</td>
</tr>
<tr>
<td>2 Rate of admission to a special care nursery or transfer to other hospital</td>
<td>Effectiveness</td>
<td>Administrators, Clinicians, MOHLTC, LHINs</td>
<td>To measure if appropriate care is provided</td>
<td>Data readily available in BORN Ontario</td>
</tr>
<tr>
<td>3 Rate of Caesarean section delivery for women with non-progressive first stage of labour with a dilatation of &lt;6cm</td>
<td>Effectiveness</td>
<td>Administrators, Clinicians, MOHLTC, LHINs</td>
<td>To measure if appropriate care is provided</td>
<td>Data not readily available</td>
</tr>
</tbody>
</table>

Recommendations for management of labour for “low risk” birth
Evidence-Based Strategies for Reducing Cesarean Section Rates: A Meta-Analysis

Nils Chaillet, PhD, and Alexandre Dumont, MD, PhD

- Audit and feedback alone reduced CS rates by 13%
- Addition of at least one other strategy reduced rates by 27%, eg:
  - Education on guidelines
  - Payment reform
- No difference in perinatal/neonatal mortality or morbidity, maternal morbidity, NICU admission
AUDIT OF HOSPITAL PRACTICE

Home Hospital CS rates accessible in BORN

- Eg. Overall c/s rate and by Robson Groups (eg. 1-5)
AUDIT OF PERSONAL PRACTICE

Data:
1) Robson 1, 2a CS rates for each OB
2) % CS done for “arrest of labour” or “failure to progress”

NOT obtainable through BORN
-Electronic OB documentation (eg OBTV)
Figure 2. Anonymized individual rates of caesarean deliveries, expressed as a percentage of the total number of labouring deliveries, by physician at CVH.
Figure 1. Anonymized individual rates of caesarean deliveries for failure to progress, expressed as a percentage of the total number of caesarean deliveries, by physician at CVH.
• Anonymous individual data
  • C/S rate total
  • FTP rate

• Personal stats for OB “B”

• Reminder of QBP recommendations