“They did a section...

- ...after a whiff of pit.”
- ...because it was 5 o’clock.”
- ...after one decel.”
- ...because she pushed for an hour and was exhausted.”
- ...because she didn’t want any pain.”
- ...because they get more.”
- ...because no one ever sues for doing a section, only for delaying one.”
The Path Of Least Resistance
Liability Surveys

ACOG 2012 Survey - Claim - 77.3%

23.8% reported increasing the number of cesarean deliveries, and 18.9% stopped offering and performing VBACs.

SMFM 2013 survey – Claim - 67%

45% reported increasing defensive medicine including increasing the number of cesarean deliveries, stopped offering TOLAC, more testing, ultrasounds
What We’re Up Against

Get a C-Section, Save a Vagina
Boomer Esiason apologizes for C-section comments

By Kelly Wallace, CNN
updated 10:37 AM EDT, Fri April 4, 2014
Use of labour induction and risk of cesarean delivery: a systematic review and meta-analysis
<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of trials</th>
<th>Relative risk (95% CI)</th>
<th>I² value, %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>157</td>
<td>0.88 (0.84–0.93)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Method of induction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxytocin</td>
<td>15</td>
<td>1.03 (0.83–1.28)</td>
<td>0.0</td>
</tr>
<tr>
<td>Prostaglandin E2</td>
<td>67</td>
<td>0.90 (0.84–0.96)</td>
<td>0.0</td>
</tr>
<tr>
<td>Membrane sweep</td>
<td>17</td>
<td>0.90 (0.74–1.10)</td>
<td>0.0</td>
</tr>
<tr>
<td>Alternative method*</td>
<td>8</td>
<td>0.66 (0.50–0.86)</td>
<td>60.7</td>
</tr>
<tr>
<td>Misoprostol</td>
<td>11</td>
<td>0.62 (0.48–0.81)</td>
<td>0.0</td>
</tr>
<tr>
<td>Relaxin</td>
<td>4</td>
<td>0.79 (0.42–1.50)</td>
<td>0.0</td>
</tr>
<tr>
<td>Mixed</td>
<td>17</td>
<td>0.81 (0.70–0.95)</td>
<td>0.0</td>
</tr>
<tr>
<td>Isosorbide mononitrate</td>
<td>3</td>
<td>1.03 (0.81–1.31)</td>
<td>0.0</td>
</tr>
<tr>
<td>Amniotomy and oxytocin</td>
<td>6</td>
<td>0.96 (0.72–1.29)</td>
<td>10.7</td>
</tr>
<tr>
<td>Mifepristone</td>
<td>4</td>
<td>0.93 (0.64–1.34)</td>
<td>0.0</td>
</tr>
<tr>
<td>Mechanical</td>
<td>4</td>
<td>1.01 (0.75–1.35)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Indication for induction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rupture of membranes before labour</td>
<td>30</td>
<td>0.95 (0.84–1.07)</td>
<td>0.0</td>
</tr>
<tr>
<td>Mixed (fetal, maternal, obstetric)</td>
<td>60</td>
<td>0.87 (0.81–0.95)</td>
<td>0.0</td>
</tr>
<tr>
<td>No medical indication</td>
<td>33</td>
<td>0.81 (0.70–0.93)</td>
<td>13.5</td>
</tr>
<tr>
<td>Post-dates pregnancy†</td>
<td>34</td>
<td>0.88 (0.80–0.96)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Gestational age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term (37–&lt; 42 wk)</td>
<td>113</td>
<td>0.87 (0.82–0.92)</td>
<td>0.0</td>
</tr>
<tr>
<td>Preterm (&lt; 37 wk)</td>
<td>26</td>
<td>1.00 (0.88–1.14)</td>
<td>0.7</td>
</tr>
<tr>
<td>Post-term (≥ 42 wk)</td>
<td>14</td>
<td>0.82 (0.69–0.99)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Definition of induction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical ripening</td>
<td>17</td>
<td>0.71 (0.58–0.86)</td>
<td>2.3</td>
</tr>
<tr>
<td>Induction of uterine contractions</td>
<td>22</td>
<td>1.01 (0.85–1.19)</td>
<td>0.0</td>
</tr>
<tr>
<td>Both</td>
<td>118</td>
<td>0.88 (0.84–0.93)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Cervical status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfavourable</td>
<td>98</td>
<td>0.87 (0.81–0.94)</td>
<td>1.4</td>
</tr>
<tr>
<td>Favourable</td>
<td>7</td>
<td>0.83 (0.60–1.14)</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Pregnancy risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>103</td>
<td>0.89 (0.84–0.94)</td>
<td>0.0</td>
</tr>
<tr>
<td>Low</td>
<td>54</td>
<td>0.84 (0.75–0.94)</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Parity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nulliparous</td>
<td>16</td>
<td>0.97 (0.81–1.17)</td>
<td>0.0</td>
</tr>
<tr>
<td>Parous</td>
<td>7</td>
<td>0.94 (0.77–1.13)</td>
<td>9.2</td>
</tr>
</tbody>
</table>
NTSV = Nulliparous Term Singleton Vertex

- ~30% of births
- ~20-25% cesarean delivery rate
- ~35% have non clinical factors leading to cesarean
- Beginning in January 2014, The Joint Commission will require all hospitals with 1,100 or more births per year to report on this measure.
Primary Cesarean Rate in Women with No Previous Cesarean


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Indications For Primary Cesarean Delivery (2011)

Fig. 3. Indications for primary cesarean delivery. (Data from Barber EL, Lundsberg LS, Belanger K, Pettker CM, Funai EF, Illuzzi JL. Indications contributing to the increasing cesarean delivery rate. Obstet Gynecol 2011;118:29–38.)
“the results of these reports, along with published cost-effectiveness data, do not support prophylactic cesarean delivery for suspected fetal macrosomia.”

“...shoulder dystocia also occurs unpredictably in infants of normal birth weight.”
Even In Brazil!

WE ARE ALL ADELIR
The Elephants In The Room
Three Elephants

• The need for change
• The threat of liability
• The use of time
Why Change is Challenging

The 6 “P”s:

• Patient
• Patterns
• Pillow
• Plaintiff
• Paycheck
• Probabilities / Personal experience
Preventing the First Cesarean Delivery
Summary of a Joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop

Catherine Y. Spong, MD, Vincenzo Berghella, MD, Katharine D. Wenstrom, MD, Brian M. Mercer, MD, and George R. Saade, MD

Cesarean Deliveries, Outcomes, and Opportunities for Change in California: Toward a Public Agenda for Maternity Care Safety and Quality

A CMQCC White Paper

Elliott Main, MD, Christine Morton, PhD
David Hopkins, PhD, Giovanna Giuliani, MBA, MPH
Kathryn Melso, MS and Jeffrey Gould, MD, MPH

CMQCC
CALIFORNIA MATERNAL QUALITY CARE COLLABORATIVE

December 2011
Safe Prevention of the Primary Cesarean Delivery
Avoid The First Section

- Elective inductions with an unfavorable cervix
- Adequate trial of labor – latent phase sections
- Is it really “fetal distress”? (Managing Category II tracings)
- Adopt newer approaches to the second stage
- OB Hospitalists
- Present balanced risks and benefits for elective primary sections
- Management of breeches – versions
- Management of multiples
- 1:1 support in labor (partner, experienced doula, CNM)
- (VBAC approaches)
No Elective Inductions With An Unfavorable Cervix
“Doctor, what’s my Bishop Score?”
Pelvic Exam Prior to Oxytocin

Bishop Score > 8 = spontaneous labor

<table>
<thead>
<tr>
<th>Score</th>
<th>Dilatation</th>
<th>Effacement</th>
<th>Station</th>
<th>Firmness</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0-30%</td>
<td>-3</td>
<td>Firm</td>
<td>Post</td>
</tr>
<tr>
<td>1</td>
<td>1-2</td>
<td>40-50</td>
<td>-2</td>
<td>Med</td>
<td>Mid</td>
</tr>
<tr>
<td>2</td>
<td>3-4</td>
<td>60-80</td>
<td>-1,0</td>
<td>Soft</td>
<td>Ant</td>
</tr>
<tr>
<td>3</td>
<td>5-6</td>
<td>90-100</td>
<td>+1, +2, 3</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Bishop Score < 8:
- Longer labor (2-4 hours)
- Higher cost

- 2-2.5 > chance of cesarean
Cesarean Section Rate (%) vs. Cervical Dilatation at the time of Induction (cm)

Nulliparous
Multiparous

Clark, AJOG, Feb, 2009
Nulliparous Cesarean Rate

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>With Cervical Ripening</td>
<td>47.1 %</td>
</tr>
<tr>
<td>Without Cervical Ripening</td>
<td>26.9 %</td>
</tr>
</tbody>
</table>
Choosing Wisely is an initiative of the ABIM Foundation to help physicians and patients engage in conversations about the overuse of tests and treatments and support physicians and patients make smart and effective care choices.
Choosing Wisely

An initiative of the ABIM Foundation

The American College of Obstetricians and Gynecologists

Five Things Physicians and Patients Should Question

1. Don't schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks 0 days gestational age.
   Delivery prior to 39 weeks 0 days has been shown to be associated with an increased risk of learning disabilities and a potential increase in morbidity and mortality. There are clear medical indications for delivery prior to 39 weeks 0 days based on maternal and/or fetal conditions. A mature fetal lung test, in the absence of appropriate clinical criteria, is not an indication for delivery.

2. Don't schedule elective, non-medically indicated inductions of labor between 39 weeks 0 days and 41 weeks 0 days unless the cervix is deemed favorable.
   Ideally, labor should start on its own initiative whenever possible. Higher Cesarean delivery rates result from inductions of labor when the cervix is unfavorable. Health care practitioners should discuss the risks and benefits with their patients before considering inductions of labor without medical indications.

3. Don't perform routine annual cervical cytology screening (Pap tests) in women 30–65 years of age.
   In average-risk women, annual cervical cytology screening has been shown to offer no advantage over screening performed at 3-year intervals. However, a well-woman visit should occur annually for patients with their health care practitioner to discuss concerns and problems, and have appropriate screening with consideration of a pelvic examination.

4. Don't treat patients who have mild dysplasia of less than two years in duration.
   Mild dysplasia (Cervical Intropithelial Neoplasia (CIN 1)) is associated with the presence of the human papillomavirus (HPV), which does not require treatment in average-risk women. Most women with CIN 1 on biopsy have a transient HPV infection that will usually clear in less than 12 months and, therefore, does not require treatment.

5. Don't screen for ovarian cancer in asymptomatic women at average risk.
   In population studies, there is only fair evidence that screening of asymptomatic women with serum CA-125 level and/or transvaginal ultrasound can detect ovarian cancer at an earlier stage than it can be detected in the absence of screening. Because of the low prevalence of ovarian cancer and the invasive nature of the interventions required after a positive screening test, the potential harms of screening outweigh the potential benefits.
Choosing Wisely®

1. Don’t schedule elective, non-medically indicated inductions of labor or cesarean deliveries before 39 weeks 0 days gestational age.
   Delivery prior to 39 weeks 0 days has been shown to be associated with an increased risk of learning disabilities and a potential increase in morbidity and mortality. There are clear medical indications for delivery prior to 39 weeks 0 days based on maternal and/or fetal conditions. A mature fetal lung test, in the absence of appropriate clinical criteria, is not an indication for delivery.

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   Ideally, labor should start on its own initiative whenever possible. Higher cesarean delivery rates result from inductions of labor when the cervix is unfavorable. Health care practitioners should discuss the risks and benefits with their patients before considering inductions of labor without medical indications.
Adequate Trial Of Labor
2 Hours, No Progress, Do A Section
CONCLUSION: “The active phase of labor may not start until 5 cm of cervical dilation in multiparas and even later in nulliparas. A 2-hour threshold for diagnosing labor arrest may be too short before 6 cm of dilation, whereas a 4-hour limit may be too long after 6 cm.” (Zhang, et al., Obstet Gynecol 2010;115:705–10)
Is the rate of progress the same for induced and spontaneous labors?

No. This retrospective cohort study found a significantly longer latent phase when labor was induced, compared with spontaneous labor.


When augmented labors are added to the equation, the sum likely represents half of all labors were induced in the United States.
Induced Labor

Fig. 1. Average labor curves stratified by parity and type of labor onset. Harper. Normal Labor in Induction. Obstet Gynecol 2012.
MFMU Network: Failed Induction

“...it is reasonable to avoid deeming labor induction failure in the latent phase until oxytocin has been administered for at least 12 hours after membrane rupture.”

(Obstetrics and Gynecology 2011;117:267-72)
Six is the new Four

<table>
<thead>
<tr>
<th>Labor outcomes with active phase of labor defined at 4cm versus 6cm cervical dilation</th>
<th>C-section rate Active phase 4cm</th>
<th>C-section rate Active phase 6cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nulliparous</td>
<td>44.5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Multiparous</td>
<td>43.3%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Obese nulliparas</td>
<td>58.4%</td>
<td>13.6%</td>
</tr>
</tbody>
</table>

Is It Really Fetal Distress?
Liability Issues

- Incidence of CP unchanged despite increased rate
- New recognized hazards of multiple cesareans
- EFM has not decreased the # of cesareans
- The elephant in the room – liability
  - Continued problems with experts
  - Delay in recognition of compromised fetus and performance of cesarean once recognized is a common allegation
  - Rare to sue for doing a section
Intrapartum management of category II fetal heart rate tracings: towards standardization of care

Steven L. Clark, MD; Michael P. Nageotte, MD; Thomas J. Garite, MD; Roger K. Freeman, MD; David A. Miller, MD; Kathleen R. Simpson, RN, PhD; Michael A. Belfort, MD, PhD; Gary A. Dildy, MD; Julian T. Parer, MD; Richard L. Berkowitz, MD; Mary D’Alton, MD; Dwight J. Rouse, MD; Larry C. Gilstrap, MD; Anthony M. Vintzileos, MD; J. Peter van Dorsten, MD; Frank H. Boehm, MD; Lisa A. Miller, CNM, JD; Gary D. V. Hankins, MD
The Basic Question:

• What is the likelihood of the fetus developing significant acidemia prior to delivery?

• Moderate variability or accelerations = absent fetal acidemia at the point of observation

• 16 footnotes – must be read
  – E.g., Treat minimal to absent variability as one entity.
EDUCATION

The case for an electronic fetal heart rate monitoring credentialing examination

Richard L. Berkowitz, MD; Mary E. D’Alton, MD; James D. Goldberg, MD; Dan F. O’Keeffe, MD; Jean Spitz, MPH; Richard Depp, MD; Michael P. Nageotte, MD
Managing Category II Tracings (Clark, et. al., 2013)

Moderate variability or accelerations

Yes  No

Significant decelerations with ≥50% of contractions for 1 hour

Yes  No

Significant decelerations with ≥50% of contractions for 30 minutes

Yes  No

Latent Phase
- Normal labor progress
  - No
    - Cesarean
  - Yes
    - Active Phase

Active Phase
- Normal progress
  - No
    - Observe
  - Yes
    - Second Stage

Second Stage
- Normal progress
  - No
    - Cesarean or OVD
  - Yes
    - Observe

Observe for 1 hour
- Persistent pattern
  - Yes
    - Cesarean or OVD
  - No
    - Manage per algorithm
Got An App For That!

Category II Management Algorithm
brought to you by
PeriGen®

Disclaimer

My patient is in category II

When Category II patterns exist, the FHR algorithm should be applied every 30 minutes.

Adapted from
Intrapartum management of category II fetal heart rate tracings: towards standardization of care.


ncbi.nlm.nih.gov/pubmed/23628263

© 2014, PeriGen, Inc.
Second Stage Issues

• Length of the second stage: it is not just 2 hours any more
• To push or not to push: laboring down
• Coached or uncoached pushing
• Open or closed glottis pushing
• Avoiding “fixin’ to deliver” traps
Fig. 6. The effect of the duration of the first and second stages of labor on infant mortality.
ACOG: Indications For Operative Vaginal Delivery

- No indication for operative vaginal delivery is absolute. The following indications apply when the fetal head is engaged and the cervix is fully dilated.
- Prolonged second stage:
  - **Nulliparous women:** lack of continuing progress for 3 hours with regional anesthesia, or 2 hours without regional anesthesia
  - **Multiparous women:** lack of continuing progress for 2 hours with regional anesthesia, or 1 hour without regional anesthesia
  - Suspicion of immediate or potential fetal compromise.
  - Shortening of the second stage for maternal benefit.”
“The Way We Have Always Done It”

- “It won’t come out without pushing”
- “Pushing will make it come out faster”
- “Decelerations are “normal” in the second stage”
- “The worse the decelerations, the more she needs to push”
- “Shorter means better in the second stage”

(E. Knox)
LABORING DOWN:  (Hansen & Clark, 1996)

“There are no benefits to immediate and coached pushing during the second stage when the woman doesn’t feel the urge to push.”
Rethinking the Definition of the Second Stage

**Passive Descent:**
With adequate contractions, rotation, alignment, and descent to +1 or more will occur.

**Active Pushing:**
With activation of the Ferguson reflex, oxytocin secretion occurs, and there is an increasing need to bear down and push the baby out.
Optimal Second Stage Management

- Standard of care during 2nd stage is the same as during 1st stage
- Aggressive, coached closed-glottis pushing is avoided until urge is present
- Allow laboring down for women with epidurals
- Management based on fetal status
- Oxytocin is maintained at rate to simulate a physiologic second stage
- Discontinue oxytocin for non reassuring pattern
- Arbitrary time frames are not used
- Only indicated operative deliveries
• There is insufficient evidence to evaluate fully the benefits and risks of cesarean delivery on maternal request as compared to planned vaginal delivery...

• Any decision to perform a cesarean delivery on maternal request should be carefully individualized and consistent with ethical principles.

• Given that the risks of placenta previa and accreta rise with each cesarean delivery, cesarean delivery on maternal request is not recommended for women desiring several children.

• Cesarean delivery on maternal request should not be performed prior to 39 weeks of gestation...

• Maternal request for cesarean delivery should not be motivated by unavailability of effective pain management. Efforts must be made to assure availability of pain management services for all women.
Table 1: Risk of Placenta Accreta and Hysterectomy by Number of Cesarean Deliveries Compared With the First Cesarean Delivery

<table>
<thead>
<tr>
<th>Cesarean Delivery</th>
<th>Placenta Accreta [n (%)]</th>
<th>Odds Ratio (95% CI)</th>
<th>Hysterectomy [n (%)]</th>
<th>Odds Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First*</td>
<td>15 (0.2)</td>
<td>---</td>
<td>40 (0.7)</td>
<td>---</td>
</tr>
<tr>
<td>Second</td>
<td>49 (0.3)</td>
<td>1.3 (0.7–2.3)</td>
<td>67 (0.4)</td>
<td>0.7 (0.4–0.97)</td>
</tr>
<tr>
<td>Third</td>
<td>36 (0.6)</td>
<td>2.4 (1.3–4.3)</td>
<td>57 (0.9)</td>
<td>1.4 (0.9–2.1)</td>
</tr>
<tr>
<td>Fourth</td>
<td>31 (2.1)</td>
<td>9.0 (4.8–16.7)</td>
<td>35 (2.4)</td>
<td>3.8 (2.4–6.0)</td>
</tr>
<tr>
<td>Fifth</td>
<td>6 (2.3)</td>
<td>9.8 (3.8–25.5)</td>
<td>9 (3.5)</td>
<td>5.6 (2.7–11.6)</td>
</tr>
<tr>
<td>Six or more</td>
<td>6 (6.7)</td>
<td>29.8 (11.3–78.7)</td>
<td>8 (9.0)</td>
<td>15.2 (6.9–33.5)</td>
</tr>
</tbody>
</table>
Breeches and Versions

• Mode of term singleton breech delivery. ACOG Committee Opinion No. 340:
  – “The decision regarding the mode of delivery should depend on the experience of the health care provider. Cesarean delivery will be the preferred mode of delivery for most physicians because of the diminishing expertise in vaginal breech delivery.”
  – “Obstetricians should offer and perform external cephalic version whenever possible.”

• Review of literature
  – Overall success rate of 63.3 percent, with a range of 48 to 77 percent.
  – Overall complication rates have ranged from about 1 to 2 percent
Multiple Pregnancy

“...with the first twin in the cephalic presentation, planned cesarean delivery did not significantly decrease or increase the risk of fetal or neonatal death or serious neonatal morbidity, as compared with planned vaginal delivery.”
Labor Support: ???

- Birth. 2008 Jun;35(2):92-7
  - The doula group had a significantly lower cesarean delivery rate than the control group (13.4% vs 25.0%, p = 0.002)

  - There were no significant differences in cesarean delivery rates, which were 12.5% in the continuous care group and 12.6% in the usual care group, nor in other maternal or neonatal events during labor, delivery, or the hospital stay.
  - "To me, the clear message is if you are serious about wanting to reduce or at least not increase your cesarean delivery rates, don't count on one-to-one support by nurses as the only answer..."
## Hospitalists May Make a Difference

<table>
<thead>
<tr>
<th>Variable</th>
<th>No laborist (n = 1830)</th>
<th>Community laborist (n = 1722)</th>
<th>Full-time laborist (n = 2654)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesarean delivery(^a)</td>
<td>717 (39.2%)</td>
<td>666 (38.7%)</td>
<td>882 (33.2%)</td>
</tr>
<tr>
<td>Gestational age, wk(^b)</td>
<td>39.15 ± 1.04</td>
<td>39.08 ± 1.01</td>
<td>39.16 ± 0.93</td>
</tr>
<tr>
<td>Maternal age, y</td>
<td>22.9 ± 6.4</td>
<td>22.7 ± 5.3</td>
<td>22.8 ± 6.2</td>
</tr>
<tr>
<td>Delivering physician age, y</td>
<td>47.7 ± 9.2</td>
<td>47.5 ± 9.9</td>
<td>50.5 ± 9.8</td>
</tr>
<tr>
<td>Induction of labor(^a)</td>
<td>623 (34.0%)</td>
<td>719 (41.8%)</td>
<td>1109 (41.8%)</td>
</tr>
<tr>
<td>1-min Apgar(^c)</td>
<td>8.26 ± 1.16</td>
<td>8.16 ± 1.11</td>
<td>8.30 ± 1.02</td>
</tr>
<tr>
<td>5-min Apgar</td>
<td>8.93 ± 0.43</td>
<td>8.91 ± 0.40</td>
<td>8.94 ± 0.41</td>
</tr>
<tr>
<td>Birthweight, g</td>
<td>3284.2 ± 432.8</td>
<td>3275.2 ± 428.3</td>
<td>3285.1 ± 432.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>72 (3.9%)</td>
<td>54 (3.1%)</td>
<td>86 (3.2%)</td>
</tr>
<tr>
<td>Maternal weight, lb(^c)</td>
<td>176.8 ± 37.8</td>
<td>178.9 ± 37.8</td>
<td>180.7 ± 39.6</td>
</tr>
<tr>
<td>Race(^d)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>592 (32.4%)</td>
<td>550 (31.9%)</td>
<td>788 (29.7%)</td>
</tr>
<tr>
<td>African American</td>
<td>256 (14.0%)</td>
<td>260 (15.1%)</td>
<td>424 (16.0%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>779 (42.6%)</td>
<td>728 (42.3%)</td>
<td>1140 (43.0%)</td>
</tr>
<tr>
<td>Asian</td>
<td>151 (8.3%)</td>
<td>109 (6.3%)</td>
<td>188 (7.1%)</td>
</tr>
<tr>
<td>Other</td>
<td>52 (3.0%)</td>
<td>75 (4.4%)</td>
<td>114 (4.3%)</td>
</tr>
</tbody>
</table>

\(^a\) P < .01 using \(\chi^2\); \(^b\) P < .05 using analysis of variance; \(^c\) P < .01 using analysis of variance; \(^d\) P < .05 using \(\chi^2\).

Continuous support for women during childbirth

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“If you have a CS in the first labor, over 90% of ALL your subsequent births will be by Cesarean Section.”

“If you have a vaginal birth in the first labor, over 90% of ALL your subsequent births will be vaginal.”

Elliott Main
Immediately available

“...we recommend that the American College of Obstetricians and Gynecologists and the American Society of Anesthesiologists reevaluate this requirement ...”
Summary of Recommendations  *The following recommendations are based on good and consistent scientific evidence (Level A):*

- **Most women with one previous cesarean delivery with a low-transverse incision are candidates for and should be counseled about VBAC and offered TOLAC.**
“Because of the risks associated with TOLAC and that uterine rupture and other complications may be unpredictable, the College recommends that TOLAC be undertaken in facilities with staff immediately available to provide emergency care.”
17 Minutes
(Am J Obstet Gynecol 1993;169:945-50)

18 Minutes
(Obstet Gynecol 2012;119:725–31)
“44% of California hospitals do not allow TOLAC. Of the 56% allowing TOLAC, 10.8% report fewer than 3% VBAC births. Thus, national recommendations encouraging greater access to TOLAC had a minor effect in California.”
Predicting The Success of TOLAC

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal age</td>
<td>18 years</td>
</tr>
<tr>
<td>Height (range 54-80 in.)</td>
<td>in</td>
</tr>
<tr>
<td>Weight (range 80-310 lb.)</td>
<td>lb</td>
</tr>
<tr>
<td>Body mass index (BMI, range 15-75)</td>
<td>25 kg/m²</td>
</tr>
<tr>
<td>African-American?</td>
<td>no</td>
</tr>
<tr>
<td>Hispanic?</td>
<td>no</td>
</tr>
<tr>
<td>Any previous vaginal delivery?</td>
<td>no</td>
</tr>
<tr>
<td>Any vaginal delivery since last cesarean?</td>
<td>no</td>
</tr>
<tr>
<td>Indication for prior cesarean of arrest of dilation or descent?</td>
<td>no</td>
</tr>
</tbody>
</table>

https://mfmu.bsc.gwu.edu/PublicBSC/MFMU/VGBirthCalc/vagbirth.html
Box 1. Calculation of Integer Vaginal Birth After Cesarean Score

Calculate the Bishop score using the cervical examination at the time of admission
Add 4 points for history of vaginal delivery
Add 2 points if prepregnancy body mass index is less than 30
Add 3 points if primary cesarean delivery was not because of a recurring indication
Add 2 points if maternal age at the time of delivery is younger than 35 years
Sum total score

Fig. 3. Correlation between calculated vaginal birth after cesarean delivery (VBAC) score and successful trial of labor after cesarean delivery.

Strategies: Will Require Major Culture Change - I

• Not enough: “Do The Ones That Are Necessary; Avoid The Ones That Aren’t.”
• Probably not enough: “Here is what the literature says...now change!”
• Need major in house initiative with ongoing education, audits, oversight
• Need physician leadership, commitment & individual accountability for all medical staff
Strategies: Will Require Major Culture Change - II

- Need to eliminate cervical ripening for non-medically indicated inductions
- Need detailed data and feedback and *data display* for individual obstetricians
- Work on changing public’s expectations
- Need resources to allow VBACs and in house coverage to be immediately available – including anesthesia and OR
- Need to not go overboard!
Humans and Accepting Change

J.B.S. Haldane

1. This is worthless nonsense
2. This is interesting, but perverse
3. This is true, but quite unimportant
4. I always said so...
Have We Started Something?

It’s A Girl! San Diego Zoo Welcomes Its First C-Section Gorilla

By Kriss Moore, March 18th, 2014 | Health | 0 Comments
Thank You