Safe Reduction of Primary and Repeat Cesarean Birth: Pearls for Practice and Quality Improvement

Nancy Rouse, DNP, CNM
Holly Smith, MPH, MSN, CNM

Objectives

At the conclusion on this activity participants will

- Define the risks of unnecessary cesarean
- Summarize and compare best practices to reduce unnecessary cesarean
- Identify opportunities to reduce unnecessary cesarean in your facility
- Discuss alternatives to scheduled repeat cesarean

Today's Discussion

① Overview of the landscape of cesarean in California and the U.S.
② Why we should care: the risks to women and babies
③ Emerging best practices from California's project to reduce primary cesarean
④ Can we prevent the second cesarean? Review ACOG 2010 VBAC Practice Bulletin IOL guidelines in women with prior CD
⑤ Cervical ripening balloon & VBAC: what does the evidence show?
⑥ VBAC counseling points

- Childbirth is the most common reason for hospitalization in the United States
- 1 out of every 3 women who deliver at term will have major abdominal surgery
- Cesarean birth is the most common hospital surgery in the United States
- It is estimated that half of cesarean births in the United States may be medically unnecessary

Let's Begin with a Test:

You are about to give birth. Pregnancy has gone smoothly. The birth seems as if it will, too. It's one baby, in the right position, full term, and you've never had a cesarean section — in other words, you're at low risk for complications.

What's likely to be the biggest influence on whether you will have a C-section?

(A) Your personal wishes.
(B) Your choice of hospital.
(C) Your baby's weight.
(D) Your baby's heart rate in labor.
(E) The progress of your labor.

Rosenberg T, NYT, Jan 19 2016

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QUALITY OF CARE

By Katy Backes Kozhimannil, Michael R. Law, and Beth A. Virnig

Cesarean Delivery Rates Vary Tenfold Among US Hospitals; Reducing Variation May Address Quality And Cost Issues

DOI: 10.1377/hlthaff.2012.1030
HEALTH AFFAIRS 32,
NO. 3 (2013): 527–535

ABSTRACT **Cesarean delivery is the most commonly performed surgical procedure in the United States, and cesarean rates are increasing. Working with 2009 data from 593 US hospitals nationwide, we found that cesarean rates varied tenfold across hospitals, from 7.1 percent to 69.9 percent. Even for women with lower-risk pregnancies, in which more limited variation might be expected, cesarean rates varied fifteenfold, from 2.4 percent to 36.5 percent. Thus, vast differences in practice patterns are likely to be driving the costly overuse of cesarean delivery in many US hospitals. Because Medicaid pays for nearly half of US births, government efforts to decrease variation are warranted. We focus on four promising directions for reducing these variations, including better coordinating maternity care, collecting and measuring more data, tying Medicaid payment to quality improvement, and enhancing patient-centered decision making through public reporting.**

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Michael R. Law is an assistant professor in the Centre for Health Services and Policy Research, School of Population and Public Health, at the University of British Columbia, in Vancouver.

Beth A. Virnig is associate dean of research and a professor at the School of Public Health, University of Minnesota.

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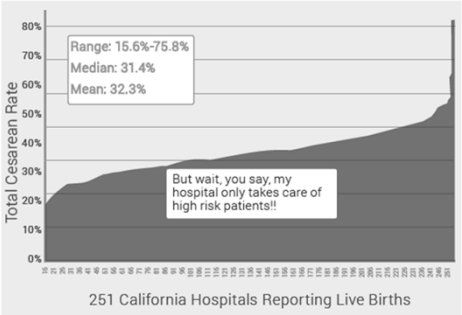
There is a Large Variation in Cesarean Rates Among California Hospitals



Data source: CMQCC Maternal Data Center

Why focus on Nulliparous Term Singleton Vertex Cesarean Birth?

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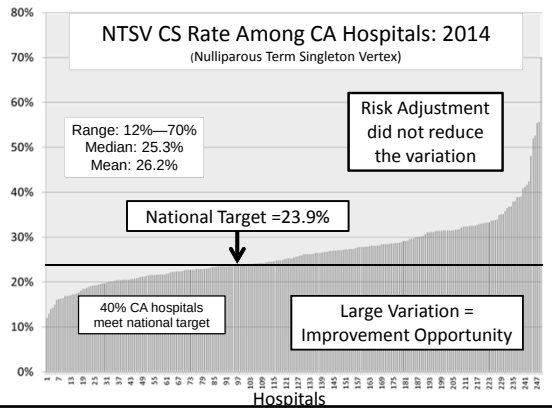
- Nulliparity = standardized population for comparison
- Already risk adjusted
- NTSV is largest contributor to the recent rise in cesarean rates
- NTSV has the greatest variation for all sub-populations of cesarean births for both hospitals and providers
- Most favorable conditions for vaginal birth, but most difficult labor management (must focus on labor management!)



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What Indications Have Driven the **RISE** in CS?

Cesarean Indication	Percent of the Increase in Primary Cesarean Rate Attributable to this Indication	
	Yale (2003 v. 2009) (Total: 26% to 36.5%) Focus: all primary Cesareans	**Kaiser SoCal (1991 v. 2008) (Primary: 12.5% to 20%)** Focus: all primary *singleton* Cesareans
Labor progress complications (CPD/FTP)	**28%**	**~38%**
Fetal Intolerance of Labor	**32%**	**~24%**
Breech/Malpresentation	<1%	<1%
Multiple Gestation	16%	Not available
Various Obstetric and Medical Conditions (Placenta Abnormalities, Hypertension, Herpes, etc.)	6%	20% (Did not separate preeclampsia from other complications)
Preeclampsia	10%	
"Elective" (variously defined)	8% (Scheduled without "medical indication")	18% (Those "without a charted indication")

60%!

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What Indications Drive the **VARIATION** in CS?

CS Indication	Proportion of Overall CS Rate	Proportion of Primary CS Rate	CS Rate for this Indication
Repeat (prior)	30-35%	---	90+%
"Abnormal Labor" (CPD/FTP)	25-30%	35-45%	Highly variable
Fetal Intolerance of labor	10-15%	15-20%	Highly variable
Breech/Transverse	10%	15-20%	98%
Multiple Gestation	5-9%	10-15%	60-80%
Other: Placenta Previa, Herpes, etc	~5%	~10%	90%

60%!

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Why Should We Care?

Rise in total CS rate without maternal or neonatal benefit

- 6% in early 70's
- 20% in mid 80's
- 33% in 2009
- 34% in 2013 (CDC preliminary data)
- Cerebral Palsy rates, neonatal seizure rates mostly unchanged for 3 decades

http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_01.Pdf
Main et al., 2011

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50% rise in CS rates over a 10 year period

500% increase since 1970's !

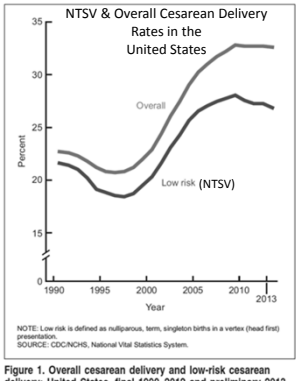
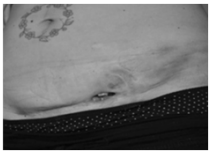


Figure 1. Overall cesarean delivery and low-risk cesarean delivery: United States, final 1990–2012 and preliminary 2013

Osterman M etal, NVSR vol 63, num 6, Nov 2014

Acute Maternal Risks:



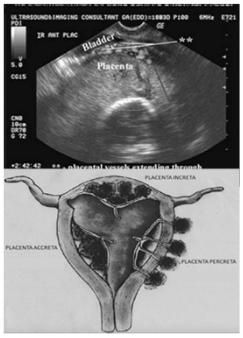
- Longer hospital stay
- Increased pain and fatigue
- Postpartum hemorrhage and transfusion
- Slower return to normal activity and productivity
- Delayed or difficult breastfeeding
- Anesthesia complications
- Wound infection

Long Term and Subsequent Births

1/100 to 1/1000

- Abnormal placentation (previas and accretas)
- Uterine rupture
- Surgical adhesions
- Bladder surgical injury
- Bowel surgical injury
- Bowel obstruction

Over 160,000 CS in CA annually. It adds up!!



Original Investigation ONLINE FIRST

August 9, 2017

Association of Previous Cesarean Delivery With Surgical Complications After a Hysterectomy Later in Life

Sofie A. I. Lindquist, MD[1]; Neel Shah, MD, MPP[2]; Charlotte Overgaard, PhD[1]; et al

Author Affiliations

JAMA Surg. Published online August 9, 2017. doi:10.1001/jamasurg.2017.2825

Neonatal Risks

- Impaired neonatal respiratory function
- Increased NICU admissions
- Affects maternal-newborn interactions including breastfeeding
- No reduction in cerebral palsy rates

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The Cost… Another Important Reason to Reduce Unnecessary CS

Summary of Issues

- Extreme variation among hospitals
- Rapid rise of rates without neonatal or maternal benefit (indeed can have complications)
- Significant consequences for future pregnancies
- Monetary cost, combined with the human cost, undermines the ongoing nationwide effort to provide high value maternity care for all women
- We can do better!

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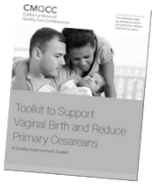
ACOG/SMFM Consensus Statement on Safe Prevention of the Primary Cesarean Delivery (2014)

"Although cesarean delivery can be life saving for the fetus, the mother, or both in certain cases, the rapid increase in the rate of cesarean births without concomitant decreases in maternal or neonatal morbidity or mortality raises significant concerns that cesarean delivery is overused… **It is important that health care providers understand appropriate opportunities to prevent overuse of cesarean delivery, particularly primary cesarean delivery.**"

The CMQCC Toolkit

- Comprehensive, evidence-based "How-to Guide" to reduce primary cesarean delivery in the NTSV population
- Foundational resource for the CA QI collaborative project
- The principles are generalizable to all women giving birth
- Released on the CMQCC website April 28, 2016
- Has a companion Implementation Guide
- Visit CMQCC.org



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CMQCC Supporting Vaginal Birth Taskforce

Writers

- Obstetricians
- MFMs
- Certified Nurse Midwives
- Registered Nurses
- Educators
- Doulas
- Hospital Leaders
- Public Health

Reviewers

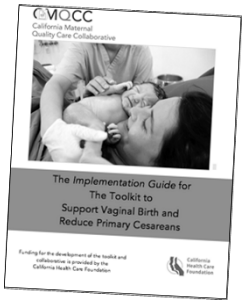
- ACOG leaders
- AWHONN leaders
- ACNM leaders
- SOAP (Society of Obstetric Anesthesia Providers) leaders
- California Hospital Association
- Medical Liability providers
- Several Hospital Systems

The Toolkit is Aligned with the ACOG/SMFM Consensus Statement and the AIM Patient Safety Bundle

- Readiness
- Recognition and Prevention
- Response to Every Labor Challenge
- Reporting

Implementation Guide

- Translates recommendations from the toolkit into practical advice for implementation
- Provides methodology to identify key focus areas, plan for sustainability, and key QI principles



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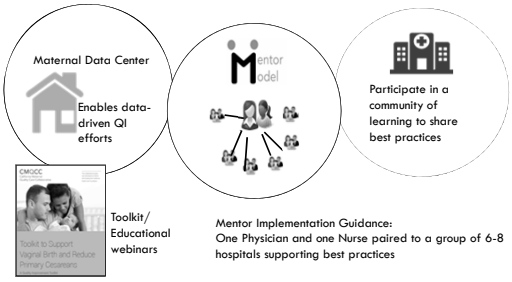
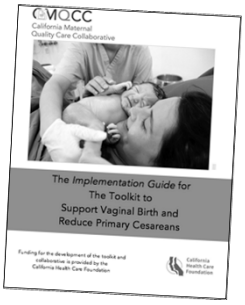
Structure of the CMQCC Collaborative to Support Vaginal Birth and Reduce Primary Cesareans



Best Practices for Cesarean Reduction: What is working in California hospitals?

Top 10 List chosen for immediate impact and ability to be quickly implemented



Engage Department, Hospital, and System Leadership

- The best performers have the "ear" and support of senior and departmental leadership
- This sort of project requires significant culture change and "constant gardening" – can only be sustained with motivation and support at all levels

Prioritize, Identify, and "Rebrand" NTSV

- Various identification methods for NTSV patients on the unit
- Rebranding and understanding of NTSV as a "**vulnerable population at high risk for unnecessary cesarean"**
- NTSV huddles; NTSV Case Review

Be Transparent with Physician Cesarean Rates

- Share department data monthly
- Share unblinded, individual provider (or group) data amongst providers quarterly
- Discuss as a non-punitive, necessary process for overall improvement
- Often a strategic, slow process of gaining trust over time and then unblinding the individual rates

Admit Only Women Who Are in Active Labor (4-6cm)

- Implement policies and/or unit expectations of admission only in active labor .
- Requires significant culture change and collective willingness to change years-long, ingrained practices
- Requires "in it for the long-haul" champions, and often experienced rather than new nurses in triage
- Requires change in patient education, most importantly during prenatal period when expectations for labor are discussed

Selection of Appropriate Candidates for Induction of Labor

- IOL practices clearly impact cesarean rates in CA hospitals
- How a provider manages an induction matters!
- Prevent inappropriate candidates from being admitted in the first place

Screenshot IOL Scheduling Form (page 141 in Toolkit)

Induction of Labor: Gravity: ____ Parity:____

Indication: (check all appropriate indications below)

Level 1	Level 2	Level 3
○ Chorioamnionitis ○ Diabetes Uncontrolled ○ Fetal Anomaly ○ Fetal hydrops/isoimmunization ○ Gestational/Chronic hypertension ○ IUGR less than 5% ○ Maternal medical conditions (specify): _____ ○ Multiple gestation: ○twins ○ di /di ○mo/di ○ Non-reassuring fetal testing ○ Oligohydramnios ○ Preeclampsia/HELLP ○ PROM	○ ≥ 41 weeks gestation I Post-term pregnancy ○ Gestational diabetes ○ IUGR - reassuring testing ○ Fetal demise	○ Distance from hospital ○ History of rapid labor ○ Maternal request ☐ Prior C/S ○ Patient desires VBAC ○ Psychological factors (specify): _____ ○ > 39 weeks w Ith a favorable cervix ○ Other indication: _____

Confirmation of gestational age:

LMP: _____

EDC: _____determined by: (check all that apply)

○ Ultrasound obtained a/o 20 weeks on (date): _____@ (gestational age): _____ weeks confirms gestational age

○ Known date of conception on (date): ___ associated with infertility treatment

If EDC was not determined by above methods, then identify documentation of fetal maturity:

○ Amniocentesis performed on: _____ Results:_____

*Provide explanation if scheduling at < 39 weeks_____

Bishop Score

	0	1	2	3	Score
Dilation (cm)	Closed	1-2	3-4	≥5	
Effacement (%)	0-30	40-50	60-70	≥80	
Station (cm)	-3	-2	-1	≥0	
Cervical consistency	Firm	Medium	Soft	----	
Cervical Position	Posterior	Midline	Anterior	----	
				Total	

Physician Signature:_____ **Date/Time:**_____

To be completed by Chief of Maternal Fetal Medicine or OB Hospitalist

Procedure Scheduling Determination:

☐ Schedule: Medically indicated and necessitates delivery < 39 weeks gestation

☐ Schedule: Gestation age ≥ 39 weeks on scheduled date

Completed by : _____ Date/Time: _____

[Chief of Maternal Fetal Medicine/OB Hospitalist]

Improve Labor Support

- Design and implementation of ongoing labor support trainings
- Focus on:
  - Freedom of mobility in unmedicated women
  - Frequent strategic positioning of epiduralized women
  - Identification of malposition when it occurs and the appropriate techniques to resolve it

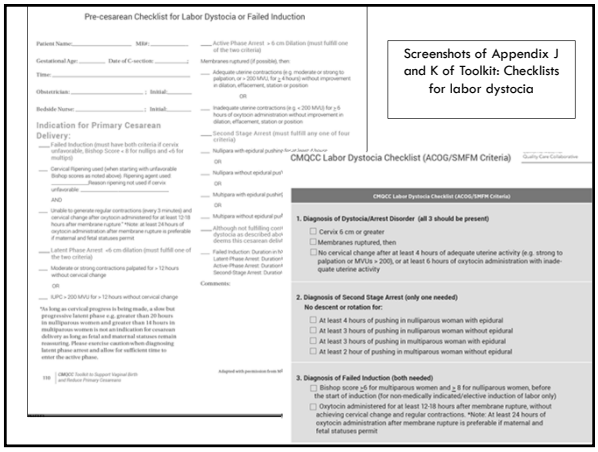
Two Interventions That Will Immediately Improve Labor Support and Mobility

Peanut Balls

Intermittent Monitoring

Pre-Cesarean Checklist and/or Dystocia Checklist

- Appendix J and K of Toolkit
- Checklists improve quality and adherence to standards in a variety of patient care settings
- Dystocia checklist can be implemented in a variety of ways and is a useful tool to improve accountability and appropriate decision making
- A Pre-cesarean checklist is a useful tool for appropriate decision making and subsequent case review
- Add to EMR build → becomes part of notes


Pre-cesarean Checklist for Labor Dystocia or Failed Induction

Patient Name:_____ MR#:_____

Gestational Age: _____ Date of C-section: _____;

Time:_____

Obstetrician: _____ ; Initial:_____

Bedside Nurse: _____ ; Initial:_____

Indication for Primary Cesarean Delivery:

____ Failed Induction (must have both criteria if cervix unfavorable, Bishop Score < 8 for nullips and <6 for multips)

____ Cervical Ripening used (when starting with unfavorable Bishop scores as noted above) Ripening agent used: _____Reason ripening not used if cervix unfavorable _____

AND

____ Unable to generate regular contractions (every 3 minutes) and cervical change after oxytocin administered for at least 12-18 hours after membrane rupture.* *Note: at least 24 hours of oxytocin administration after membrane rupture is preferable if maternal and fetal statuses permit

____ Latent Phase Arrest >6 cm dilation (must fulfill one of the two criteria)

____ Moderate or strong contractions palpated for > 12 hours without cervical change

OR

____ IUPC > 200 MVU for > 12 hours without cervical change

*As long as cervical progress is being made, a slow but progressive latent phase e.g. greater than 20 hours in nulliparous women and greater than 14 hours in multiparous women is not an indication for cesarean delivery as long as fetal and maternal statuses remain reassuring. Please exercise caution when diagnosing latent phase arrest and allow for sufficient time to enter the active phase.

110 | CMQCC Toolkit to Support Vaginal Birth and Reduce Primary Cesareans

____ Active Phase Arrest > 6 cm Dilation (must fulfill one of the two criteria)

Membranes ruptured (if possible), then:

____ Adequate uterine contractions (e.g. moderate or strong to palpation, or > 200 MVU, for ≥ 4 hours) without improvement in dilation, effacement, station or position

OR

____ Inadequate uterine contractions (e.g. < 200 MVU) for ≥ 6 hours of oxytocin administration without improvement in dilation, effacement, station or position

____ Second Stage Arrest (must fulfill any one of four criteria)

____ Nullipara with epidural pushing for at least 3 hours

OR

____ Nullipara without epidural push

OR

____ Multipara with epidural pushi

OR

____ Multipara without epidural puf

____ Although not fulfilling cont dystocia as described abo dicates this cesarean deliv

____ Failed Induction: Duration in hr Latent Phase Arrest: Duration Active Phase Arrest: Duration Second Stage Arrest: Duratio

Comments:

Adapted with permission from MF

CMQCC Labor Dystocia Checklist (ACOG/SMFM Criteria)

Quality Care Collaborative

CMQCC Labor Dystocia Checklist (ACOG/SMFM Criteria)

1. Diagnosis of Dystocia/Arrest Disorder (all 3 should be present)
   - ☐ Cervix 6 cm or greater
   - ☐ Membranes ruptured, then
   - ☐ No cervical change after at least 4 hours of adequate uterine activity (e.g. strong to palpation or MVUs > 200), or at least 6 hours of oxytocin administration with inadequate uterine activity

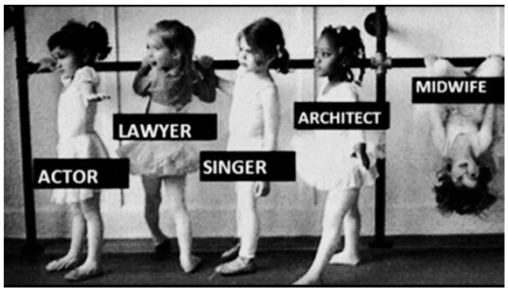
2. Diagnosis of Second Stage Arrest (only one needed)
   No descent or rotation for:
   - ☐ At least 4 hours of pushing in nulliparous woman with epidural
   - ☐ At least 3 hours of pushing in nulliparous woman without epidural
   - ☐ At least 3 hours of pushing in multiparous woman with epidural
   - ☐ At least 2 hour of pushing in multiparous woman without epidural

3. Diagnosis of Failed Induction (both needed)
   - ☐ Bishop score ≤6 for multiparous women and ≤ 8 for nulliparous women, before the start of induction (for non-medically indicated/elective induction of labor only)
   - ☐ Oxytocin administered for at least 12-18 hours after membrane rupture, without achieving cervical change and regular contractions. *Note: At least 24 hours of oxytocin administration after membrane rupture is preferable if maternal and fetal statuses permit

Screenshots of Appendix J and K of Toolkit: Checklists for labor dystocia

Patience, Patience, Patience

- Nearly half of the SMFM/ACOG guidelines for safe reduction of primary cesarean are simply about being more patient with normal labor and waiting longer if the fetus remains in good health
- Cesarean reduction necessarily requires a return to respecting and advocating for normalcy!
- Therefore, quality improvement in cesarean holds the potential to have a transforming effect of the culture of maternity care in the US



Background

United States cesarean delivery rates among the highest in the world

- 1996: 21% cesarean rate
- 2009: 33% cesarean rate peak rate
- 2013: 34% preliminary data from CDC (http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_01.pdf)

Main et al., 2011

Background

- A significant contributor to this is that…
- Women are not always offered the option for a trial of labor after a cesarean (TOLAC) and instead have a repeat cesarean

- 1996: TOLAC rate 28.3%
- 2010: TOLAC rate 8.7%

Guise et al., 2010

Background

- Currently, 90% of women will deliver by repeat cesarean rather than attempting a VBAC

Guise et al., 2010; Healthy People 2020

- In 1996, 100,000 women per year experienced cesarean for no other reason except for the fact they had a prior CD

Flam, 1997

- 2010 this number increased by 20%

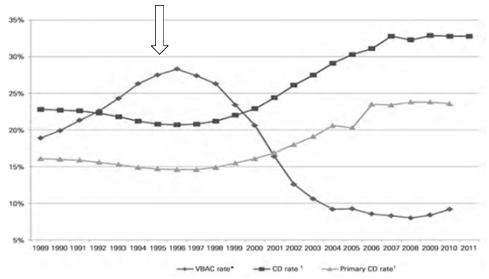
Guise, et al., 2010

Background

- More than 120,000 women in the United States each year are at risk for surgical complications because they had a prior cesarean delivery and
- did not choose or were not offered a TOLAC

In the U.S., of those who attempt TOLAC, 74% will experience successful vaginal birth and avoid the risk of surgical complications

VBAC Rates 1989-2011



ACOG Consensus Opinion, 2014

Decline of TOLAC

- 1994 – 1998: Emerging concern in the literature for uterine rupture
  - Misoprostol (Cytotec) associated with higher uterine rupture rate in the VBAC candidate undergoing cervical ripening
  - Induction of VBAC patients and pharmacological cervical ripening in this population abandoned

ACOG 2010 Consensus Statement

- Most women with one previous CD are VBAC candidates and should be counseled about and offered TOLAC
- Women with two prior LTCS may be considered for TOLAC
- Breech version not contraindicated in women with prior LTCS
- Twin vaginal delivery with prior LTCS not contraindicated
- IOL is an option for women undergoing TOLAC
- Misoprostol is contraindicated

ACOG Practice Bulletin No.115, 2010

ACOG 2010 Consensus Statement

Most women with one previous CD are VBAC candidates and should be counseled about and offered TOLAC

Induction of labor is an option for women desiring a TOLAC

Why TOLAC Rates Remain Low

- Fear of Litigation: primary reason for reduced TOLAC rates

Schifrin and Cohen 2013

- Smaller hospital lack resources recommended by ACOG
  - In-house Anesthesia, OB providers, Scrub tech, Pediatricians
  - Ability to quickly perform emergency cesarean

Guise et al., 2010

Why TOLAC Rates Remain Low

- VBAC not offered as an option
- Women not informed or educated by their providers
- Smaller hospitals banned TOLAC as an option for delivery

In the cases in which it was offered:

- Provider impatience
- Failure to allow for physiologic labor

Guise et al., 2010

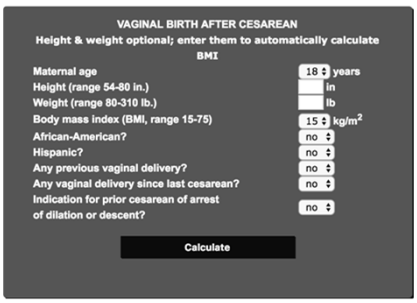
VBAC Success Rates

- The success rate for VBAC has remained constant despite the drop in TOLAC rates
- 74% of women who attempt VBAC are successful

Guise et al., 2010

www.vbac.calculatord.com

Simplified tool



Simple, Validated VBAC Prediction model

- Calculate the Bishop score upon admission
- Add 4 points for history of VD
- Add 2 points if PRE-pregnancy BMI is <30
- Add 3 points if primary CD was NOT for recurring indication (meaning: add 3 points if previous CD was for breech, FIOL, previa, HSV or other nonrecurring condition)
- Add 2 points if maternal age at time of delivery is younger than 35 years
- Total the score

Metz et al., 2013

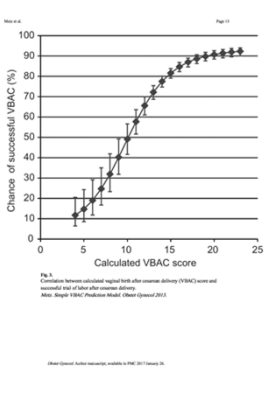


Fig. 3.
Correlation between calculated vaginal birth after cesarean delivery (VBAC) score and successful trial of labor after cesarean delivery.
Metz. Simple VBAC Prediction Model. Obstet Gynecol 2013.

Metz et al.

Table 2

Chance of Successful Vaginal Birth After Cesarean Delivery Based on Calculated Vaginal Birth After Cesarean Delivery Score

Calculated VBAC Score	No. of Study Participants	Chance of Successful VBAC	Actual VBAC Success Rate
4	2 (0.17)	11.7 (6.4–20.5)	0.0
5	3 (0.26)	14.7 (8.5–24.3)	33.3
6	5 (0.43)	19.0 (11.8–29.1)	20.0
7	5 (0.43)	24.7 (16.7–35.0)	40.0
8	7 (0.60)	31.9 (23.3–41.9)	42.9
9	16 (1.37)	40.2 (31.8–49.2)	25.0
10	23 (1.97)	49.1 (41.6–56.6)	60.9
11	46 (3.93)	57.7 (51.6–63.6)	58.7
12	58 (4.96)	65.6 (61.0–69.9)	65.5
13	95 (8.12)	72.2 (68.7–75.4)	73.7
14	102 (8.72)	77.5 (74.7–80.1)	71.3
15	150 (12.82)	81.6 (79.1–83.8)	80.7
16	134 (11.45)	84.7 (82.3–86.8)	84.2
17	144 (12.31)	87.0 (84.6–89.0)	86.1
18	139 (11.88)	88.6 (86.3–90.6)	92.1
19	94 (8.03)	89.8 (87.6–91.8)	90.4
20	62 (5.30)	90.7 (88.5–92.6)	91.9
21	48 (4.10)	91.4 (89.1–93.2)	91.7
22	25 (2.14)	91.9 (89.6–93.7)	96.0
23	12 (1.03)	92.3 (90.1–94.0)	91.7

VBAC, vaginal birth after cesarean delivery; CI, confidence interval.

Data are n (%),% (95% CI), or %.

Position Statement

Women who have had a prior cesarean birth have the right to evidence-based information to guide their decision-making when considering a TOLAC versus an elective repeat cesarean birth.

Certified nurse-midwives (CNMs) and certified midwives (CMs) are qualified to provide education, informed consent and risk assessment regarding a woman's decision to have a TOLAC.

ACNM, 2011 www.midwife.org

Women Want a Choice

- Unhappy with previous birth experience
- Demand safety
- Desire accurate information
- Need to know what options exist
- Right to an informed choice and to share in decision making
- Is there a safe compromise?

RECENT EVIDENCE SUPPORTS VBAC SAFETY AND INDUCTION OF LABOR IN WOMEN ATTEMPTING A VBAC

Schatz et al., 2013

VBAC Safety

Can women with a history of a prior cesarean delivery be safely induced using a cervical ripening balloon?

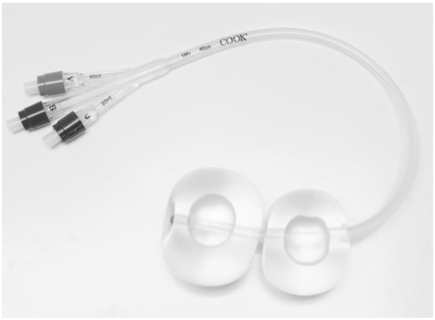
Modalities to Induce labor

Pharmacologic	Non Pharmacologic
Oxytocin	Acupuncture, sex, castor oil, magical Hollywood salad
Misoprostol (Cytotec)	Membrane stripping
Prostaglandins	Cervical ripening balloon

- Bishop scoring used to determine method of induction
- A combination of these methods may be used to induce labor

Foley Catheter Ripening Balloon

Cook's Ripening Balloons



Influence of Provider Advice

- Provider advice plays a key role in deciding for VBAC

  Cleary-Goldman et al., 2005
- Women who had better knowledge about VBAC chose VBAC over ERCD

  Scaffidi et al., 2013
- Women value opinions of providers over families and only 6% actually discussed their decision with their families

  Cleary-Goldman et al., 2005

Cervical Ripening Balloons in women without prior CD

- Jozwiak et al., 2012 Cochran Review studied all mechanical methods for IOL
- 23 studies with CRB, 3474 women patients BS 4-6
- Concluded that Foley CRB efficacious and safe for pre induction ripening
- Conclusions support actual practice today

Jozwiak et al., 2012

Recommendations for Practice

- Providers need to consider TOLAC and IOL as an option for women eligible for a VBAC
- Consider CRB in this population
  - Not associated with higher UR rate.
  - VBAC success rate varies, but one cesarean prevented is priceless

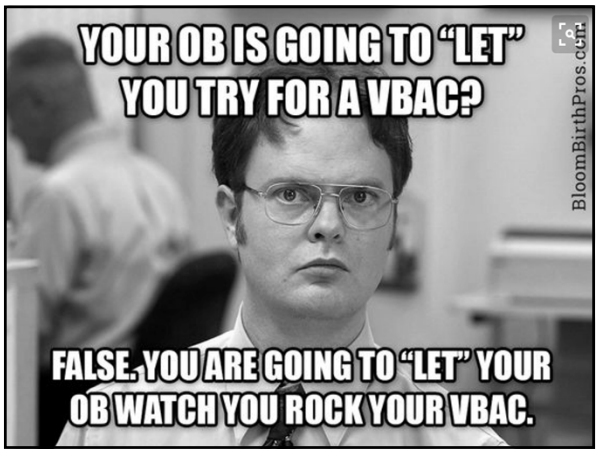
Despite variance, 44-83% success is markedly higher than 8.5% overall TOLAC rate in the U.S.

Recommendations for Practice

- Midwives and Physicians are ethically obligated to present factual, unbiased evidence based counseling
- Shared decision making between provider and patient: for anyone considering VBAC or repeat CD
- Midwives well positioned to prevent the first CD or promoting the first VBAC

Recommendations for Practice

- Break down the barriers to achieve a successful VBAC
  - Educate & Encourage
  - No automatic scheduled cesarean for absence of SL
  - Trust in the evidence
- Listen to the birth stories that reflect self-determination in their choice of delivery options
- Ongoing critical analysis of the literature



Shared Decision Making with Women Who Have Had a Prior Cesarean

- Elective repeat cesarean birth is not without risk
- Increasing cesarean births increases the risk in future pregnancies for uterine scar separation, placental implantation abnormalities including placenta previa or placenta accreta
- With multiple cesareans, some women require an emergency, unplanned hysterectomy at the time of delivery

Shared Decision Making with Women Who Have Had a Prior Cesarean

- Compared to cesarean, vaginal birth is safer for both mother and baby with less risk for hemorrhage, infection, venous thromboembolism, neonatal NICU admissions, and neonatal seizures
  - Less pain, lower need for narcotic pain medication, faster recovery
  - Immediate skin to skin bonding & immediate breast feeding

Shared Decision Making with Women Who Have Had a Prior Cesarean

- Between 66-86% of all women who attempt a TOLAC are successful at achieving a VBAC
- Spontaneous labor is associated with the highest rate of success of 86%
  - Induced labor is associated with a 66% success rate
- The active labor definition and provider expectation of active labor has changed which may positively affect this

Shared Decision Making with Women Who Have Had a Prior Cesarean

- Factors that decrease the likelihood of success include reason for prior cesarean delivery include:
  - the position of the baby's head prevented descent through the bones of the pelvis
  - active labor did not dilate the cervix to 10 centimeters in an expected time frame

Shared Decision Making with Women Who Have Had a Prior Cesarean

If spontaneous labor is not imminent or likely, women who are candidates for TOLAC should be offered IOL

Pharmacologic

- Oxytocin
- Prostaglandin E2 (controversial)

Non Pharmacologic

- Membrane stripping
- Cervical ripening balloon or CRB + MS
- May require subsequent IOL method

Shared Decision Making with Women Who Have Had a Prior Cesarean

- The major risk for TOLAC is the approximate 0.8% risk for uterine rupture in labor
  - Women planning ERCD are also at increased risk of uterine rupture
  - Uterine rupture risk in women without a uterine scar is: 0.02%

Shared Decision Making with Women Who Have Had a Prior Cesarean

- Literature review demonstrated uterine rupture risk in women using CRB ranged from 0%-1.7%
  - Included combined methods for induction including PGE2 and Oxytocin or both
- Uterine rupture risk with a cervical ripening balloon is NOT significantly higher compared to spontaneous labor

Challenges

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