OBSTETRICS INITIATIVE

Safely Averting NTSV Cesarean Births: A QI Blueprint

This guide was developed to help your multidisciplinary champion team create an actionable quality improvement (QI) plan to promote vaginal birth and safely lower the NTSV cesarean rate at your hospital. Work together to 1) set an ambitious goal; 2) identify desired clinical behaviors; 3) measure your barriers & facilitators; and 5) select change strategies and action plan.

Page 3 is a high-level summary of your team's planned QI efforts that can be shared locally to communicate your team's shared vision for change. Page 4 is a checklist of strategies to track your team's progress. Pages 5-8 can help your team track key tasks, ownership, and deadlines. All pages can be reviewed and updated often as the project progresses.

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Develop Your QI Blueprint: Getting Started

Set A Goal

Meet with your team to review your performance data for the prior year and set a goal for the current year. Remember, **ambitious goals change our perspective, build confidence, and promote further progress**! Some options to consider for your goals might be:

- Your hospital's Expected NTSV Cesarean rate
- The Healthy People 2030 goal of 23.6%
- Your hospital's previously observed best rate
- A rate < 30%.

Identify Desired Clinical Behaviors

To change outcomes, we have to change clinical practice. Think about the clinical behaviors that lead to a cesarean for dystocia, or fetal heart tracings. Who needs to do what differently, when, and how, to achieve different outcomes? This discussion should generate a list of desired clinical behaviors. For example, for Category II management, some desired clinical behaviors might be:

- All clinical team members use shared language to interpret and describe management of tracings
- Attendings, residents, and nurses routinely use the algorithm to scaffold real-time dialogue with all team members
- Physicians follow the Category II algorithm with fidelity, including not proceeding with cesarean if tracing resolves/has reassuring features and labor is progressing

For dystocia, some desired clinical behaviors might be:

- Nurses offer bedside support to promote movement and position changes throughout early and active labor
- Clinicians utilize huddles and whiteboards in patient rooms to promote shared understanding about labor progress and management
- Clinicians utilize ACOG/SMFM dystocia criteria for making failed Induction diagnosis (<6cm, pit + AROM x 12-18h)

Measure Your Barriers & Facilitators

After completing the self-assessment in Appendix 1, select the top 3-5 conditions that you'd like to optimize with your QI strategies. These may include barriers you'd like to mitigate or strengths of your team/unit/organization that you'd like to leverage!

Select Strategies and Develop An Action Plan by Quarter

Now it's time to review the Essential and Optional Strategies Checklist. Denote which strategies you've successfully completed and which you'd like to optimize or newly execute (see Appendix 2 and 3 for strategy descriptions). Then identify key tasks - and their owners and deadlines - to help your team each strategy.

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QI Blueprint for Safely Averting NTSV Cesarean Births

PROBLEM AND SIGNIFICANCE:

OUR GOAL:

DESIRED CLINICAL BEHAVIORS:

Labor Dystocia	
Management of Category II FHT	
Other	

KEY BARRIERS & FACILITATORS:

Project Lead(s):

Last Updated:

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Essential & Optional Strategies for Safely Averting NTSV Cesarean Births

Consider using the highlight tool to denote strategies still "in progress."

Essential Strategies for Safely Lowering the NTSV Cesarean Rate

Optimize Your Team

- ☐ Identify a multidisciplinary champion team (physician, RN/CNM, CDA)
- ☐ Build a coalition
- ☐ Secure administrative awareness, buy-in & needed resources

Plan

- ☐ Review baseline performance data
- ☐ Assess for readiness & identify barriers/facilitators
- ☐ Tailor strategies
- ☐ Develop a QI blueprint
- ☐ Obtain stakeholder feedback about blueprint
- ☐ Conduct consensus discussions
- ☐ Develop/adapt policies & protocols
- ☐ Plan education & training activities
- ☐ Establish a communications plan
- ☐ Change electronic medical record (EMR) options to support QI
- ☐ Involve patients in QI Planning
- ☐ Plan for outcome evaluation

Engage

- ☐ Provide dynamic, interprofessional training activities
- ☐ Disseminate educational materials
- ☐ Conduct ongoing training
- ☐ Remind clinicians
- ☐ Organize clinicians & staff team meetings
- ☐ Relentlessly communicate to engage frontline workers
- ☐ Prepare patients to be active participants

Reflect & Evaluate

- ☐ Evaluate the QI effort
- ☐ Audit and provide feedback
- ☐ Facilitate the relay of clinical data to clinicians (NTSV Case Reviews)
- ☐ Obtain and use patient/family and clinician feedback
- ☐ Communicate with stakeholders to sustain gains

Optional Strategies for Tailoring

- ☐ Facilitation
- ☐ Engage local opinion leaders
- ☐ Change physical structure & equipment
- ☐ Promote network weaving
- ☐ Peer mentorship
- ☐ Alter incentives/allowance structures
- ☐ Assess & redefine workflow
- ☐ Visit other sites
- ☐ Conduct cyclical small tests of change
- ☐ Engage community resources
- ☐ Access new funding
- ☐ Promote adaptability
- ☐ Stage implementation scale-up

Q1: QI Action Plan for Safely Averting NTSV Cesarean Births

STRATEGY	KEY TASKS	RESPONSIBLE	DEADLINE

Q2: QI Action Plan for Safely Averting NTSV Cesarean Births

STRATEGY	KEY TASKS	RESPONSIBLE	DEADLINE

Q3: QI Action Plan for Safely Averting NTSV Cesarean Births

STRATEGY	KEY TASKS	RESPONSIBLE	DEADLINE

Q4: QI Action Plan for Safely Averting NTSV Cesarean Births

STRATEGY	KEY TASKS	RESPONSIBLE	DEADLINE

Appendix 1. Self-Assessment for Barriers/Facilitators to Safely Averting NTSV Cesarean Births

QI efforts may be more successful if champions explicitly identify local barriers and facilitators. Complete each question by denoting yes (facilitators), no (barriers), or mixed (mix of facilitators and barriers), and list your rationale. Consider soliciting frontline nurse, midwife, physician, and resident perspectives as you complete this form.

Self-Assessment Questions *Answering "No" suggests that you might have a barrier in this area.*	**Y/N/Mixed**	**Rationale**
Perceptions of clinical intervention (ACOG/SMFM Dystocia Criteria or Category II Algorithm): Do frontlines clinicians have thorough knowledge of the intervention, positive perceptions of the intervention as evidence-based and beneficial to patients, and willingness to use the intervention in routine clinical practice?		
Regional and National Context: Do frontline clinicians demonstrate awareness and support for OBI efforts and the ability to offer evidence-based medical care independent of medicolegal constraints?		
Structural Characteristics: Does your unit have shared physician and nurse workspaces that encourage teamwork, physician staffing models that avoid perverse financial incentives, AWHONN-aligned nurse staffing ratios, and a strong midwifery presence?		
Culture: Does your unit have a supportive, collaborative, humanistic culture, with high psychological safety that promotes collaboration, communication, and shared learning experiences?		
Communications: Does your unit have strong structured communication processes (e.g., huddles, safety rounds, debrief processes, unit boards), robust multi-disciplinary communication in real-time to guide clinical decision-making, and active ongoing efforts to continually improve unit communication?		

Appendix 1. Self-Assessment for Barriers/Facilitators to Safely Averting NTSV Cesarean Births

Self-Assessment Questions	Y/N/Mixed	Rationale
Relationships: Does your unit have strong, trusting, supportive relationships across the healthcare team that center collaboration and joint problem-solving during care delivery?		
Organizational Leaders: Are your hospital and unit leaders supportive of QI work broadly and OBI initiatives specifically?		
Leaders of QI Efforts: Do you have an engaged multidisciplinary QI team with a commitment to safely lowering the NTSV cesarean rate, genuine respect and camaraderie for one another, time to complete QI responsibilities, and high capacity to engage frontline staff and address emerging QI obstacles with creative problem-solving?		
Frontlines Individuals: Do your unit's frontline clinicians believe that it is possible and necessary to safely lower the NTSV cesarean rate and demonstrate a personal commitment to following evidence-based care guidelines for labor management and indications for cesarean birth?		
Patients: Does your unit offer anticipatory, patient-centered education about labor, involve patients in care decisions, and explicitly strive to avoid the potential additive risk of cesareans for patients with medical and social risk factors?		

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Appendix 2. Description of Essential Strategies For Safely Averting NTSV Cesarean Births

Optimize Your Team

- **Identify champion(s):** Secure a highly effective multidisciplinary team (including physician, nurse/midwife, and CDA) who meet regularly and dedicate themselves to supporting new practices and overcoming indifference or resistance
- **Build a coalition:** Recruit partners in the QI effort, (ideally with representation of clinicians affected by the changes and administrators who can influence the changes), and define roles/responsibilities and meeting cadence
- **Secure administrative buy-in:** Secure awareness and needed support/resources from institutional and unit leaders

Plan

- **Review baseline performance data:** Collect and analyze data (e.g., rate of NTSV cesareans, overall and by indication) demonstrating a gap between current performance and goal, identify your key opportunities (i.e., drivers of the gap), and set time-bound, ambitious goals (e.g., related to cesarean rate, dystocia compliance, Category II management, and % NTSV cesareans for various indications)
- **Assess for readiness and identify barriers and facilitators:** Determine your unit's readiness for change, barriers that may impede QI, and strengths that can be used in the QI effort; consider provider attitudes and beliefs and points of resistance, knowledge and skill gaps that education and training must address, and patient needs and preferences
- **Tailor strategies:** Select QI strategies to address barriers and leverage facilitators
- **Develop a QI blueprint:** Develop a description or "charter" for the QI initiative, containing content like: 1) rationale for the QI initiative; 2) goal; 3) desired clinical behaviors; 4) barriers, facilitators, and strategies; 5) timeline and milestones
- **Obtain stakeholder feedback about the QI blueprint:** Formally and informally solicit stakeholder (e.g., frontline workers, patients) input to refine the QI blueprint
- **Conduct consensus discussions:** Include stakeholders in discussions about how the QI effort addresses an important problem and will benefit patients and achieve consensus about what clinical behavior(s) need to change
- **Develop policies and protocols****: Optimize evidence-based, patient-centered policies to support right-sizing the NTSV cesarean rate (e.g., policies related to comfort measures and ambulation in labor, induction management, pitocin dosing, outpatient cervical ripening, fetal assessment approaches [e.g., intermittent auscultation])

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Appendix 2. Description of Essential Strategies For Safely Averting NTSV Cesarean Births

Plan

- **Plan education & training activities**:** Prepare content and schedule activities to train all members of the maternity care team together (i.e., in shared, interprofessional activities), as well as patients and their supporters
- **Establish a project communications plan**:**
  - Determine how you will convey WHY change is needed and what clinical behaviors need to change (i.e., WHO needs to do WHAT differently WHEN, and HOW?)
  - Determine how you will proactively address likely points of resistance
  - Identify multi-media communication channels and frequency of communications
- **Change electronic health record (EHR) systems:** Change EHRs (e.g., incorporating standardized order sets, dot phrases, best practice alerts, patient educational materials, structured flowcharts) to facilitate better patient care or assessment of clinical outcomes
- **Involve patients in QI planning*:** Solicit and use patient feedback to help plan QI activities
- **Plan for outcome evaluation:** Identify relevant outcomes, measures, and data sources

Engage

- **Provide dynamic, interprofessional training activities:** Use a variety of interactive methods (e.g., standing learning systems, Grand Rounds, unit huddles) to teach stakeholders about the desired changes, with the goal of changing clinical behavior; shared, multi-disciplinary training (with physicians, nurses, residents attending together) may be particularly helpful
- **Develop and disseminate educational materials:** Develop and disseminate materials that make it easier for clinicians to learn about and know how to deliver the desired clinical practice
- **Conduct ongoing training:** Offer follow-up training, advanced training, booster training, purposefully spaced training, training to competence, structured supervision, and onboarding for new staff
- **Remind clinicians:** Develop reminder systems to help clinicians recall information and/or prompt them to use desired best practices (e.g., reminder card with ACOG/SMFM dystocia criteria on computers; unit posters with Cat II algorithm)

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Appendix 2. Description of Essential Strategies For Safely Averting NTSV Cesarean Births

Engage

- **Organize clinician & staff meetings:** Support the teams implementing the innovation & protect time at recurring meetings to reflect on their efforts & share lessons learned
- **Relentlessly communicate*:** Use robust formal & informal communication channels to keep all frontlines individuals informed of QI initiative progress
- **Prepare patients to be active participants:** Prepare patients to be active in their care, ask questions, & inquire about care guidelines & available evidence-based treatment options

Reflect & Evaluate

- **Evaluate the QI effort:** Monitor progress and adjust clinical practices and QI strategies to mitigate resistance, catalyze change, and continuously improve the quality of care
- **Audit and provide feedback:** Collect clinical performance data and give it to clinicians and administrators to monitor, evaluate, and modify provider behavior (e.g., track clinician-level NTSV cesarean rates, provide feedback to each clinician on their rates, share comparative clinician-level data [blinded or unblinded] with the unit)
- **Facilitate relay of clinical data to providers:** Provide as close to real-time data as possible about key process and outcome measures, using multiple channels of communication, in a way that promotes use of desired clinical behaviors
- **Obtain and use patient and family feedback*:** Develop strategies to increase patient and family feedback on the QI effort (e.g., attending coalition meetings, sharing their personal story with clinicians)
- **Communicate with stakeholders to sustain gains:** Communicate data to demonstrate the continued impact of the clinical practice changes, emphasizing ongoing benefit, cost-effectiveness, or return on investment of the effort

Definitions adapted from Powell, B.J., et al. A refined compilation of implementation strategies: results from the Expert Recommendations for Implementing Change (ERIC) project. Implementation Sci 10, 21 (2015).

*ERIC strategies rarely observed at OBI hospitals, but likely to be helpful based on observed barriers

**Strategies not in ERIC compilation but observed in use at sites with low cesarean rates

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Appendix 3. Description of Optional Strategies for Safely Averting NTSV Cesarean Births

Facilitation	A process of interactive problem-solving and support in the context of a recognized need for improvement and a supportive interpersonal relationship with your OBI Outreach and Engagement Nurse. **Barriers Addressed: All**
Engage Local Opinion Leaders	Activate individuals recognized as "influential" on your unit to motivate colleagues to adopt desired clinical behavior changes; dampen resistance among opinion leaders, if needed. **Barriers Addressed: Frontline individual factors, Engaging**
Change Physical Structure & Equipment	Adapt the physical structure/equipment to promote quality improvement (e.g., co-location of residents & nurses to support joint strip review, addition of remote fetal monitors to facilitate movement). **Barriers Addressed: Structural characteristics, Available resources, Workflow incompatibility**
Access New Funding	Access money to facilitate improvement, including resources to secure unit supplies (e.g., birthing balls), offer employee trainings, or incentivize participation in QI activities. **Barriers Addressed: Structural characteristics, QI team, Engaging**
Promote Network Weaving	Cultivate high-quality working relationships within and across organizational units to promote information sharing, collaborative problem-solving, and a shared vision related to implementing the innovation. **Barriers Addressed: Relationships, Teaming**
Peer Mentorship	Capture local knowledge from other sites on how clinicians made something work in their setting and then share it with other sites. **Barriers Addressed: All**
Alter Incentive/ Allowance Structures	Actions to incentivize or reward the adoption and implementation of the desired clinical behavior. **Barriers Addressed: Frontline individual factors**

Appendix 3. Description of Optional Strategies for Safely Averting NTSV Cesarean Births

Promote Adaptability	Identify the ways a clinical innovation can be tailored to meet local needs and clarify which elements of the innovation must be maintained to preserve fidelity. **Barriers Addressed: Frontline individual factors**
Assess & Redefine Workflow*	Map current work processes and plan for desired work processes, identifying changes necessary to routinize the clinical innovation. **Barriers Addressed: Frontline individual factors, Workflow incompatibility, Engaging**
Visit Other Sites*	Visit (or conduct virtual meetings with) sites where a similar implementation effort has been considered successful. **Barriers Addressed: All**
Conduct Cyclical Small Tests of Change*	Implement changes in a cyclical fashion using small tests of change before taking changes system-wide. Tests of change benefit from systematic measurement, and results of the tests of change are studied for insights on how to do better. This process continues serially over time, and refinement is added with each cycle. **Barriers Addressed: Engaging**
Stage Implementation Scale Up*	Phase implementation efforts by starting with small pilots or demonstration projects and gradually move to a system-wide rollout. **Barriers Addressed: Engaging**
Engage Community Resources*	Utilize health departments, non-profits, resources for addressing social determinants of health, and reproductive justice experts. **Barriers Addressed: Patient factors, Frontline individual factors**

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