

# Safe Deliveries Roadmap

Advancing Safety for Mothers and Babies  
A Roadmap from Pre-pregnancy to Postpartum

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## IMPLEMENTATION GUIDE

### BACKGROUND:

Over the past 10 years, a number of evidence-based practices for enhancing the safety of maternity care in the United States have been published. Uptake and adoption have been slow despite support and encouragement of professional organizations such as:

- American College of Obstetricians and Gynecologists (ACOG)
- Society for Maternal-Fetal Medicine (SMFM)
- American Academy of Pediatrics (AAP)
- American College of Nurse Midwives (ACNM)
- Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN).

Care providers in the state of Washington, led by the Washington State Hospital Association in collaboration with the American Congress of Obstetricians and Gynecologists; the Association of Women's Health, Obstetric and Neonatal Nurses; Department of Health; Health Care Authority; Foundation for Healthcare Quality; March of Dimes; Northwest Organization of Nurse Executives; Rural Healthcare Quality Network; Washington State Medical Association and the Washington State Perinatal Collaborative, have developed a quality improvement roadmap that includes evidence-based practices that should be incorporated into routine care for mothers and babies along the pre-pregnancy, pregnancy, labor, birth and postpartum continuum.

This quality improvement project will span multiple years and will focus on four phases of care: pre-pregnancy, pregnancy, labor management, and postpartum, beginning with safe deliveries. The goal is to promote the adoption of the recommendations for labor management by the National Institute of Child Health and Human Development (NICHD), The Society for Maternal-Fetal Medicine (SMFM), and The American College of Obstetricians and Gynecologist (ACOG) in participating hospitals to enhance safe care for mothers and babies in Washington State.

## THE PURPOSE AND ORGANIZATION OF THE GUIDE

This guide describes the steps involved in putting the Safe Deliveries Roadmap Labor Management Bundle recommendations into practice. It is designed as a resource for program leaders, providers and staff interested in successfully achieving an evidence-based labor management practice.

The guide is organized as follows:

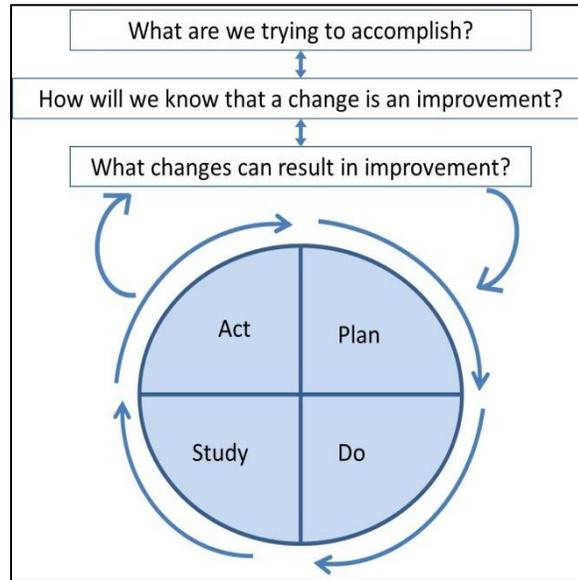
- **GETTING STARTED:** Identifies the key components for developing a strong foundation for implementing the Labor Management Bundle. It covers assembling your team, evaluating your current state of practice, and suggests a model for change.
- **APPLYING THE PRACTICES:** Lists and describes the supporting materials for implementation.
- **MEASUREMENTS AND DATA COLLECTION:** Outlines for the Labor Management Bundle and data system options for maternity departments to submit their data for analysis and benchmarking.
- **RESOURCES**

### GETTING STARTED:

The first step for a successful implementation of the Safe Deliveries Roadmap Labor Management Bundle is having strong support from the hospital's executive and maternity center's leadership teams. Next, a project team should be assembled whose role it will be to ensure successful project execution, engage providers and staff, and provide expertise for decision-making. Team membership should reflect the variety of clinical and support staff involved in the implementation.

One of the project team's first steps should be to review this guide and be familiar with the Safe Deliveries materials. They are available the Safe Deliveries Roadmap website (<http://www.wsha.org/quality-safety/projects/safe-deliveries>). Next, it will be important for the project team to understand their current state of adoption of the Safe Deliveries Roadmap practices. All participating Roadmap hospitals completed a baseline practice assessment in July of 2013 and a second practice assessment in July of 2014. The project team should review these two assessments and share the results, along with their goals and plans for fully adopting the Labor Management Bundle practices, with all the maternity services providers and personnel.

It is important to use a proven model for change. The Plan, Do, Study, Act (PDSA) cycle is the most commonly used approach for rapid cycle improvement in health care. This method has four repeated steps; Plan, Do, Study, and Act. The PDSA steps support organizational learning through experimentation to make improvements. In this model, suggested solutions are tested on a small scale before changes are made to the whole system.



Using this model for applying the Labor Management Bundle practices, it is recommended the tools are used on a small group of patients first (see available tools in *Applying the Practices* section). This will give the maternity care team a chance to test their process before using the tools on a larger group of patients. For example, the first PDSA could be a two-week cycle to focus on induction of labor patients who have not yet entered the active phase of labor. This will test the use of the Induction of Labor checklists. This cycle will entail educating providers and staff on the practice recommendations and use of the checklists, setting up a process to disseminate the checklists, and then evaluating how well the checklists were completed. Once the kinks are worked out with this process, the Active/Spontaneous Labor checklists can be added for the induction patients who go into active labor for the second PDSA cycle. A third PDSA round can be to use the Induction of Labor and Active/Spontaneous Labor checklists for all eligible patients (for eligible populations, see the checklist descriptions in the tools section of this guide).

#### APPLYING THE PRACTICES:

This section lists and describes the documents and tools available on the Safe Deliveries Roadmap website (<http://www.wsha.org/quality-safety/projects/safe-deliveries>) that support implementation of the Labor Management Bundle. **Note: these tools will be updated periodically to incorporate the learnings from the Safe Deliverers Roadmap project. Please check the website regularly for the latest version of the tools.**

### Safe Deliveries Labor Management Bundle:

This document is the foundation of the Safe Deliveries Roadmap Labor Management Bundle project and outlines the evidence-based recommendations for induction of labor, first stage labor, and second stage labor management.

### Obstetric definitions:

The Safe Deliveries Roadmap Obstetric Definitions document outlines the relevant definitions for the Labor Management Bundle recommendations. The majority of the definitions come from reVitalize, an American College of Obstetricians and Gynecologists (ACOG) initiative to standardize obstetric data definitions.

### Tools:

#### *Induction of Labor Algorithm*

This algorithm describes recommended steps outlined in the Safe Deliveries Roadmap Labor Management Bundle. It is intended to be used with patients that are induced for medical indications with unfavorable cervix or any indication with a favorable cervix. This algorithm follows the patient management through failed induction, first stage labor arrest, or adequate first stage progress. If the patient is experiencing adequate first stage labor progress, clinicians can transition to the Active/Spontaneous Labor Algorithm.

#### *Induction of Labor Checklist*

This checklist includes the induction of labor practices outlined in the Safe Deliveries Roadmap Labor Management Bundle. It is intended to be used with patients that are induced for medical indications with unfavorable cervix or any indication with a favorable cervix. This tool can be used to track adherence with the recommended practices and to provide data for quality improvement activities.

#### *Checklist item explanations:*

Header: "First Calendar Day/Admission Time." This is included in the checklist in this format to capture important time periods between phases of care and to avoid HIPAA violations when the checklists are submitted to WSHA for data analysis.

Example: If a patient is admitted on Monday, January 23rd at 10:30 pm, instead of writing the date and time on the line, a "1" and 10:30 pm should be entered to denote the patient was admitted at 10:30 p.m. on the first day of the encounter.

#### *Active/Spontaneous Labor Algorithm*

This algorithm describes the steps to adhere to the Active/Spontaneous Labor recommendations outlined in the Safe Deliveries Roadmap Labor Management Bundle. It is intended to be used with induced patients who progress to active labor as well as spontaneously laboring Term, Singleton, Vertex (TSV) patients who are stable.

#### *Active/Spontaneous Labor Checklist*

This checklist includes the practices outlined in the Safe Deliveries Roadmap Labor Management Bundle for induced patients who progress to active labor as well as spontaneously laboring Term, Singleton, Vertex (TSV)

patients who are stable. It is intended for tracking adherence with the recommended practices and to provide data for quality improvement activities.

#### Checklist item explanations:

Header: “First Calendar Day/Admission Time.” This is included in the checklist in this format to capture important time periods between phases of care and to avoid HIPAA violations when the checklists are submitted to WSHA for data analysis.

#### Examples:

- If the induced patient described above goes into active labor on Tuesday, January 24 at 1:25 a.m., instead of writing this date and time on the line, a “2” and 1:25 a.m. should be entered to denote the induced patient transitioned to this checklist on the second calendar day of the encounter at 1:25 a.m.
- If a spontaneously laboring patient is admitted on Tuesday, November 12 at 9:05 a.m., instead of writing the date and time on the line, a “1” and 9:05 a.m. should be entered to denote the patient was admitted on the first calendar day of the encounter.
- If a patient comes to triage on October 30 at 1:15 p.m. to rule out labor and meets the criteria to send home, instead of writing in the date and time on the line, the “home” box in #2 *Triage Determination* should be checked and nothing should be entered on the Calendar Day/Admission Time line.

#### *Partogram (Labor Curve)*

Developed at the University of Washington, this Partogram, based on [Zhang labor curves](#) can be used to assess adequate labor progress. It represents 95% confidence intervals of thousands of labors resulting in normal newborn outcomes. The tool provides parameters for a patient entering the active phase of labor ( $\geq 6$  cm). When a patient is in the green zone, the patient’s labor is progressing normally. When a patient is in the yellow zone, labor is progressing outside of normal range and interventions should be considered to enhance progress (e.g. AROM, Oxytocin, position change, analgesia etc.). When the patient is in the red zone, the patient is two standard deviations from normal range and a decision must be made to ensure timely delivery of the baby.

In the active phase ( $\geq 6$  cm) normal progress to complete is expected within 4 to 5 hours at the most. The guideline to allow 4 hours (6 hours without adequate contractions) before diagnosing labor arrest does not mean the clock should be reset – for example, if the patient makes 1 cm progress to 7 cm in 4 hours. Expert clinical judgment is required to be sure the active phase is not severely prolonged with resultant increased risks for mother and baby from Chorioamnionitis. This will mean that sometimes patients who have poor progress in the active phase could have cesarean section recommended without having absolute arrest of dilation if they exceed the 4-5 hour limit from 6 cm.

#### Data Submission:

- **Presentation Slides: Overview of Data Submission:** These webcast slides include an overview of the data submission options, outcome measures, process for data submission and tools and resources available for extracting data.

#### WSHA-MDC Data Submission:

- **Steps for First-time Participants: Registration and Data Submission:** This document describes the steps for preparing to submit data to the California Maternal Data Center. It covers important dates, training information, registration steps, and contact information.
- **Data Specifications:** This document outlines the data guidelines and specifications for submitting data to the California Maternal Data Center.
- **CSV File Template:** Use this CSV file template with pre-entered column headers to submit data files to the California Maternal Data Center.

#### WSHA-QBS Data Submission:

- **Presentation Slides: Overview of data submission to QBS:** This webcast covers the steps for submitting data to the Washington State Hospital Association's Quality Benchmarking System (QBS)

#### Outcomes Measure Definition Specifications and Appendices:

This document outlines the Safe Deliveries Roadmap Labor Management Bundle outcomes measures and definitions. It includes the numerator and denominator descriptions and specifications along with the definition and data sources. This document also refers to the appendices documents listed below for further detail.

- Unexpected Term Newborn Complications (NQF #716)
- Primary Term Singleton Vertex C-section rate, part 1 and part 2
- Joint Commission Appendix A Code Tables

#### Data sources for measures grid (crosswalk):

This document identifies the sources of data for each of the Safe Deliveries Roadmap measures (Patient Discharge Data, Core Maternal and Newborn Clinical Files, supplemental and chart reviewed data).

#### Process measures definitions specifications:

This document describes the Safe Deliveries Roadmap Labor Management Bundle process measures definitions.

#### Resources:

This section provides documents you may find helpful as you participate in the program. A few of the resources are highlighted below, with more listed on the program website.

#### Education library listings:

The education library includes slides from past webcasts and a sample of available offerings is listed below. Selected recordings are available upon request to the Kathryn Bateman at [kathrynb@wsha.org](mailto:kathrynb@wsha.org).

- Safe Deliveries Roadmap project on-boarding information
- Obstetric definitions
- Preventing the first cesarean delivery

- Labor Management Bundle readiness assessment results/Medicaid Quality Incentive
- California Maternal Data Center
- Intentional management of labor program
- Partograms (labor curve)
- Second stage labor
- Improving healthcare response to preeclampsia
- Safe Deliveries Roadmap kick-off

#### Frequently Asked Questions:

This FAQ was developed from questions that arose as clinicians used the tools listed above. Questions will be added to this document over time. Requests for answers to additional questions can be directed to [kathrynb@wsha.org](mailto:kathrynb@wsha.org)