Safe Deliveries Roadmap Project Coordinator

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Partnership for Patients
Washington State Hospital Association

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Presented at Washington State Hospital Association Safe Table Webcast July 23, 2014
Today’s Objectives

Review:
- The labor management bundle – best practices to optimize cesarean rates
- Controversies related to induction practices and recommendations for the collaborative
- Decision aids, tools, and education materials to support implementation at your hospital
- Plans for data collection

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Partnership for Patients

• **40** – Percent reduction in harm

• **20** – Percent reduction in readmissions

• **14** – by 2014

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10 Targeted Strategies

Infection Reduction:
1. Catheter-associated urinary tract infections (CAUTI)
2. Central line-associated blood stream infections (CLABSI)
3. Surgical site infections (SSI)
4. Ventilator-associated pneumonia (VAP)

Nursing Care:
5. Injuries from falls and immobility
6. Pressure ulcers

High Risk:
7. Adverse drug events
8. Obstetrical adverse events
9. Venous thromboembolism or blood clots (VTE)

Continuity of Care:
10. Prevention of readmissions

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Harm and Readmissions Reduction Results

Below the Line is Better

Baseline 2010

Goal 40%

Green - Reached Goal
Yellow - Moving in the Right Direction
Red - Work to Be Done

Submission Rates for Most Recent Quarter:

- CAUTI-ICU: 76.1%
- SSI: 91.5%
- CLABSI: 96.8%
- OB-EED: 90.2%
- VAP: 96.8%
- Falls: 80.2%
- ADE: 45.2%
- Pressure Ulcers: 86.0%
- VTE: 89.3%
- Leadership, Patient and Family: 83.0%

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OB Adverse Events

- Partnership for Patients: 2014
  - Early Elective Delivery Prior to 39 Weeks
  - Episiotomy
  - Safe Deliveries Roadmap
  - Pre-eclampsia
  - Hemorrhage

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Pre-Pregnancy:
- Increased use of preconception care services
- Improved health entering pregnancy
- Reduced risk from complications due to previous pregnancies

Pregnancy:
- Fewer infant abnormalities and disabilities
- Less maternal and fetal complications
- More educated patients

First Month:
- Healthier mothers and babies

Delivery:
- Less maternal morbidity and mortality
- Fewer early deliveries
- Higher Apgar scores
- Fewer NICU admissions
Safe Deliveries Roadmap Roll-out

- Enrollment *(March 2013)*
- Laying the Foundation: *(July 2013 and on-going)*
  - Baseline practice assessment
  - Education
- Testing with LEAPT hospitals: *(Dec – June 2014)*
- Implementation: *(July 2014)*
- Practice assessment - 2\textsuperscript{nd} round *(July 2014)*
Advisory Group
Delivery Phase

• Frank Andersen, MD - Providence Health & Services
• Amy Bertone, RN - Providence Health & Services
• Suzan Bishop, RN - MultiCare
• Deborah Castille, RN - PeaceHealth
• Angela Chien, MD - Evergreen Health
• Ann Darlington, CNM - Retired from Group Health
• Jane Dimer, MD - Group Health
• Katy Drennan, MD - MultiCare
• Rita Hsu, MD - Wenatchee
• Ellen Kauffman, MD - Foundation For Healthcare Quality
• Tracey Kasnic, RN - Central Washington
• Douglas Madsen, MD - PeaceHealth
• Shelora Mangan, RN - Legacy Health System
• Patrick Moran, MD - Yakima
• Bruce Myers, MD - Omak
• Duncan Neilson, MD - Legacy Health System
• Peter Nielsen, MD - Madigan
• Molly Parker, MD - Port Townsend
• Helen Phillips, RN - Legacy Health System
• Lynn Rhett, RN - Franciscan Health System
• Drew Robilio, MD - Franciscan Health System
• Deborah Saner, MD - Legacy Salmon Creek
• Bat-Sheva Stein, RN - Department of Health
• Jane Uhlir, MD – Swedish Health Systems
• Susan Walker, RN - University of Washington
• James Wallace, MD - Brewster

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LEAPT  (Leading Edge Advanced Practice Topics)

- Kittitas Valley Healthcare
- Legacy Salmon Creek Medical Center
- Overlake Medical Center
- PeaceHealth St. Joseph Medical Center
- Providence Holy Family Hospital
- Providence Sacred Heart Medical Center and Children’s Hospital
- Providence St Peter Hospital
- Samaritan Healthcare
- Swedish/Ballard
- Swedish/Edmonds
- Swedish/First Hill
- Swedish/Issaquah
- Three Rivers Hospital
- UW Medicine/Northwest Hospital & Medical Center
- UW Medicine/Valley Medical Center
- Whidbey General Hospital
- Yakima Valley Memorial Hospital

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Participating Hospitals

- Cascade Valley Hospital and Clinics
- Central Washington Hospital
- Coulee Medical Center
- EvergreenHealth
- Group Health Cooperative
- Harrison Medical Center
- Highline Medical Center
- Island Hospital
- Jefferson Healthcare
- Kittitas Valley Healthcare
- Lake Chelan Community Hospital
- Legacy Salmon Creek Medical Center
- Mason General Hospital
- Mid Valley Hospital
- MultiCare Auburn Medical Center
- MultiCare Good Samaritan Hospital
- MultiCare Tacoma General Hospital
- Newport Hospital
- Othello Community Hospital
- Overlake Hospital
- PeaceHealth Southwest Medical Center
- PeaceHealth St. Joseph Medical Center
- PeaceHealth Sacred Heart Medical Center, Oregon
- PMH Medical Center
- Providence Holy Family Hospital
- Providence Mt. Carmel Hospital

- Providence Regional Medical Center Everett
- Providence Sacred Heart Medical Center & Children’s Hospital
- Providence St. Mary Medical Center
- Providence St. Peter Hospital
- Pullman Regional Hospital
- Samaritan Healthcare
- Skagit Valley Hospital
- St. Elizabeth Hospital
- St. Francis Hospital
- St. Joseph Medical Center – Franciscan Health System
- Sunnyside Community Hospital & Clinics
- Swedish/Ballard
- Swedish/First Hill
- Swedish/Edmonds
- Swedish/Issaquah
- Three Rivers Hospital
- UW/University of Washington Medical Center
- UW/Northwest Hospital & Medical Center
- UW/Valley Medical Center
- Valley Hospital/Rockwood Health System
- Walla Walla General Hospital
- Whidbey General Hospital
- Whitman Hospital and Medical Center
- Yakima Valley Memorial Hospital

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This bundle reflects emerging clinical, scientific and patient safety advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.
Distribution of Total Cesarean Rates
US Hospitals vs WA State, 2009

HEALTH AFFAIRS 32, No. 3 (2013):527-535

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Distribution of C/S Rates Among Low-Risk Pregnancies

US Hospitals (2009 data) vs WA State (July 2011 through June 2012 data)

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## Labor Induction and Cesarean Section

### Nulliparas

<table>
<thead>
<tr>
<th>Hospital/Year</th>
<th>Total Pts</th>
<th>Spont Labor</th>
<th>Induced Labor</th>
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<tbody>
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<td>WA Hospital #1, 2011–13</td>
<td>2,700</td>
<td>25.6%</td>
<td>23.7%</td>
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<tr>
<td>WA Hospital #2, 2008–09</td>
<td>10,000</td>
<td>17.0%</td>
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<tr>
<td>Yeast, 1999</td>
<td>8,000</td>
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<td>13.0%</td>
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<tr>
<td>WA Hospital #3, 2014</td>
<td>4,000</td>
<td>18.0%</td>
<td>—</td>
</tr>
</tbody>
</table>

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### Labor Induction and Cesarean Section

#### Multiparas

<table>
<thead>
<tr>
<th>Hospital/Year</th>
<th># Total Pts</th>
<th>Spont Labor</th>
<th>Induced Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA Hospital #1, 2011–13</td>
<td>3,000</td>
<td>4.2%</td>
<td>3.2%</td>
</tr>
<tr>
<td>WA Hospital #2, 2008–09</td>
<td>9,900</td>
<td>3.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Yeast, 1999</td>
<td>9,500</td>
<td>3.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Johnsson, 2012</td>
<td>7,900</td>
<td>1.8%</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

% Cesarean Section Rate

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<table>
<thead>
<tr>
<th>Author (yr)</th>
<th>Type</th>
<th>Findings</th>
<th>CAUTION</th>
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</thead>
<tbody>
<tr>
<td>Caughey, (2009)</td>
<td>Systematic Review</td>
<td>Expectant mgmt: 20% ↑ C/S rate vs. induced labor</td>
<td>No RCT done on elective induction &lt;41 wks</td>
</tr>
<tr>
<td>Mighanina (2014)</td>
<td>Systematic Review</td>
<td>Expectant mgmt: 12% ↑ C/S rate vs. induced labor Expectant: ↓ IUFD, ↑ NICU admits</td>
<td>GA 37–42 wks: &gt;80% medically indicated inductions</td>
</tr>
<tr>
<td>Wood (2013)</td>
<td>Systematic Review</td>
<td>Expectant mgmt: 17% ↑ C/S rate vs. Induction</td>
<td>GA 37–42 wks: Only 1 trial designed specifically to look at induction and C/S rates</td>
</tr>
<tr>
<td>Stock (2012)</td>
<td>Population-based cohort</td>
<td>37–39 wks: No difference in C/S rates. 40–41 wks: 8% ↓ C/S with induction</td>
<td>PNM ↑ at all GA with expectant mgmt. NICU admit ↑ in all GA with induction</td>
</tr>
</tbody>
</table>

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Labour Management Bundle
Assessment of Gestational Age

- Provide documentation on how and when gestational age determined (most recent ACOG criteria or 8% rule) – note: 1st trimester ultrasound dating is most accurate.
Labor Induction

Pre-procedure
✓ Consent form discussed with patient and signed for any induction; medical and non-medical (ACOG induction consent or equivalent).

Non-medically indicated
✓ Not done prior to 39 weeks gestation.
✓ Between 39 – 40 6/7 weeks gestation must have Bishop score of 9 or greater in nulliparous women and 6 or greater in multiparous women (no cervical ripening).

Medically indicated
✓ Done for reasons that are medically indicated and not included in the non-medically indicated guideline
✓ Cervical ripening if needed for unfavourable cervix.

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Guideline Criteria for Non-medically Indicated Labor Induction

(Adapted from Northern New England Perinatal Quality Improvement Network (NNEPQIN))

Non-medically indicated induction definition:

✓ Labor Induction without clear medical benefits to mother or fetus at that point in time compared with continuation of pregnancy.

Indications that make the induction elective:

✓ History of fast labor
✓ Distance from hospital
✓ Suspected macrosomia (without history of shoulder dystocia)
✓ Psychosocial (e.g. partner’s deployment date, family or significant relation availability, adoption, etc…)
✓ Maternal discomfort (e.g. hemorrhoids, reflux, sciatic nerve pain, fatigue, etc…)
✓ Advanced cervical dilation, GBS negative
✓ Gestational age between 39 – 40 6/7 weeks without a medical indication for delivery

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Labor Induction Cont:

Failed induction (assuming stable mother and fetus) – parameters to use when not entering active labor (> 6 cms):

- No cervical change after 24 hours of Oxytocin and membranes have been artificially ruptured (if feasible and no contraindications)

- Failure to enter active phase (6 cms) despite uterine contractions every 3 mins x 24 hours with ruptured membranes

- Inadequate response to 2nd cervical ripening agent and failure to respond to Oxytocin per hospital protocol

- In the setting of ruptured membranes, no cervical change after 12 hours of Oxytocin

If failed induction with intact membranes and GBS negative, discuss options regarding further management: consider risks, benefits, and alternatives of all options (i.e: discharge home with plan to return versus Ceserean Section, depending on clinical situation)
Labor - First Stage

For spontaneous labor use all considerations. For induction of labor entering active phase only use last consideration

Consider delay admission to labor unit (all conditions to be met for discharge)

- Cervix less than 4 cm.
- Membranes intact.
- Reactive NST/FHR category I (if uterine contractions present). Confirmed by 2 practitioners (RN, MD, DO, CNM).
- Pain control adequate with appropriate outpatient interventions as needed

Consider discharge home or further observation

- Cervix 4-5 cm without change x 2 - 4 hours.
- <80% effacement.
- Membranes intact.
- Reactive NST/FHR category I (if uterine contractions present).
- Contractions less than 3/10 minutes..

Consider AROM and/or Oxytocin administration

- Cervix 4-5 cm without change x 2- 4 hours.
- 90 - 100% effacement.
- Membranes intact.
- Reactive NST/FHR category I (if uterine contractions present).
- Contractions less than 3/10 minutes.

Consider Cesarean delivery (all three present) ( )

- Cervix 6 cm or greater.
- Membranes ruptured (if feasible).
- Uterine activity:
  - >200 Montivideo units x 4 hours, or every 3 minute palpably strong contractions x 4 hours when not feasible to rupture membranes
  - OR
  - <200 Montivideo units or < 3/10 minute contractions x 6 hours despite Oxytocin administration per protocol.

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Labor – Second Stage

Assessment of descent and position of presenting part
At least every 1-2 hours.

Consider Operative Vaginal Delivery or Cesarean delivery (if presenting part not on perineal floor: +4 or lower)

Time from complete dilation***/**:  
✓ Nulliparous with epidural anesthesia – 4 hours.  
✓ Nulliparous without epidural anesthesia – 3 hours.  
✓ Multiparous with epidural – 3 hours.  
✓ Multiparous without epidural – 2 hours.  

OR
✓ Total time from complete dilation 5 hours or greater.

*Passive decent (laboring down) is included in these time periods.

** Each may need an additional hour if occiput posterior position and rotation of greater than 45 degrees toward anterior has been previously achieved.
Labor – All Phases

Assessment of Fetal Status

✓ Use Fetal Heart Rate interpretation algorithm (e.g. Spong, Clark) (Appendix B).

Staffing

✓ 1:1 nurse to patient staffing ratios in active labor (> 6cm AND 80% effaced) high risk or being induced.

Mode of Fetal Monitoring

✓ Provide ability to palpate contractions and auscultate FHR in appropriate populations.
Discussion
Labor Management Bundle Measures

**Outcome:**
- NTSV Cesarean Section (Nulliparous, Term, Singleton, Vertex)
- TSV Primary Cesarean Section (Term, Singleton, Vertex)
- Induced Cesarean Section (Nulliparous and Multiparous)
- Maternal admission to Intensive Care Unit
- Maternal blood transfusions
- Extended maternal length of stay
- Operative vaginal delivery
- Unexpected Newborn Complications measure

**Process:**
- Compliance with labor induction practices
- Compliance with first stage labor practices
- Compliance with second stage labor practices
Outcomes Measures:

• California Maternal Data System
  • July 29th from 9am – 10am
  • August 5th from noon to 1pm
• Washington State Hospital Association
  • August 5th 9am – 10am

Process Measures:

• To be announced

Resources:

• Preparing for data submission instructions – CMDC
• Preparing for data submission instructions – WSHA QBS
• Outcomes measure definition specifications and appendixes
• Data submission specifications – CMDC
• Data submission specifications – QBS
• Data sources for measures grid (crosswalk)

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NEXT STEPS

Applying the Practices:

• Implementation guide
• Safe Deliveries Labor Management Bundle document
• Obstetric definitions
• Education library listings
  • All educational webcast slides
  • List of webcast recording that can be requested
• Tools
  • Induction of Labor algorithm
  • Induction of Labor checklist
  • Active/spontaneous Labor algorithm
  • Active/spontaneous Labor checklist
  • Partogram
• FAQs
• Patient education flyer

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Partogram

Active Phase of Labor for ≥37 Weeks GA

Position:

Action Line

Decision Line

Cervical Dilatation (cm) (Plot X)

10
9
8
7
6

Time (hours)

-3 or higher
-2
-1
0
+1
+2
+3 or lower

Descent of Head (Plot O)

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Normal labor: Expectant management

Off median normal labor curve: Augment labor management

>95th percentile for normal labor curve: Consider safety of continued labor vs delivery

Action Line: “Normal” median labor progress line for active labor (>6 cm), based on the Zhang et al partograms. When the patient falls off this line, consider interventions to augment labor (AROM, oxytocin), prior to reaching the decision line.

Decision Line: Four hours to the right of the action line. If the patient’s labor progress crosses this line, she is outside the 95th percentile of normal labor progress per the Zhang et al partogram.

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Discussion
Safe Deliveries Roadmap
Meeting Schedule

2014

- Roadmap Monthly (webcast) 7:00 – 8:00 a.m.
  - January 9
  - February 21
  - March 26
  - April 23
  - May 20
  - June 12
  - July 23
  - August 19
  - September 18
  - October 21
  - November 26
  - December 18

- Safe Tables (in-person) 9:00 a.m. – 2:30 p.m.
  - September 4
  - November 18

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Thank You!

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Safe Deliveries Roadmap Website
http://www.wsha.org/0513.cfm%20

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Medicaid Quality Incentive

Elective Delivery 37 to less than 39 Weeks Gestational Age

✓ Numerator: Patients with elective deliveries >=37 and < 39 weeks gestation
✓ Denominator: Patients delivering newborns between >=37 and < 39 weeks of gestation.

Review Process Available

Data collection period: July 1, 2014 – December 31, 2014
Reporting deadline: 45 days following the end of a quarter
Data collection system: Data submitted to the Washington State Hospital Association QBS

Elective Delivery Between 37 and 39 Weeks Award Table:

<table>
<thead>
<tr>
<th>Threshold</th>
<th>&gt;2%</th>
<th>2 - 1.1%</th>
<th>1 - 0.1%</th>
<th>&lt;0.1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point Award</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
Review Process

• The hospital will conduct an internal review to determine whether the case should be submitted to the Health Care Authority for external review. The internal review should include at least two Obstetric providers from a different provider group(s) than the provider group whose patient is being reviewed. If there is no other internal provider group, the additional providers can be from another hospital.

• If the internal review determines that an external review is warranted, a request for a case review can be submitted to the Health Care Authority by faxing the request form located on the Washington State Hospital Association website in the Medicaid Quality Incentive section at http://www.wsha.org/0558.cfm to: the Washington State Health Care Authority: 360-586-9551.

• The request form asks hospitals and attending providers to provide a brief (250 words or less) narrative case-description that includes a description of the clinical circumstances justifying the early-term delivery as medically indicated.

• Based on review of the narrative, the committee may decide that the early-term delivery was medically indicated; if so, no further review is needed. In order for an early-term delivery to be deemed “medically indicated” on the basis of the narrative alone, the review panel must be in unanimous agreement.

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Review Process

• If the committee is unsure or believes on the basis of the narrative that the delivery may not have been medically indicated, then a full review via phone that includes committee members, a hospital representative(s), and attending provider(s) will be conducted. Full reviews via teleconference will be scheduled on an ad hoc basis; while every effort will be made to accommodate hospital representatives and attending physicians, scheduling will be based primarily on the availability of the Panel.

• During the teleconference the hospital and attending provider(s) will have 5 minutes to present their case followed by a brief period for panel members to ask any clarifying questions. The person(s) presenting the case will then be excused from the call and the review panel will deliberate. HCA will send a notification of the review panel’s decision to the hospital contact within 7 days.

• The Panel’s decisions will be determined by a formal vote of the panel. If 50% or more of the voting panel members concur that an early-term delivery was medically necessary, the hospital will be so informed and shall classify the delivery as such; otherwise, the delivery shall be classified as not medically indicated.

• The deadline to request an external review is February 1, 2015.
Medicaid Quality Incentive

Percent non-medically indicated inductions with unfavorable cervix in nulliparous women

✓ **Numerator**: Number of non-medically indicated inductions with Bishop’s score <9 in nulliparous women

✓ **Denominator**: Total number of deliveries

*Data collection period*: August 1, 2014 - December 31, 2014

*Reporting deadline*: 45 days following the end of the quarter

Data collection system: Washington State Hospital Association Quality Benchmarking System

<table>
<thead>
<tr>
<th>For hospitals with &lt;100 deliveries/6 months</th>
<th>Threshold</th>
<th>&gt; 5 cases</th>
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<th>2-3 cases</th>
<th>0-1 case</th>
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</thead>
<tbody>
<tr>
<td>Point Award</td>
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<td>3</td>
<td>5</td>
<td>10</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For hospitals with &gt;100 deliveries/6 months</th>
<th>Threshold</th>
<th>&gt; 5%</th>
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<th>1.1 – 3%</th>
<th>0 - 1%</th>
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