Safe Deliveries Roadmap
Data Submission to
Washington State Hospital Association

June 25, 2014

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Mara Zabari, RN, MPA-HA: Executive Director - Integrated Care, Partnership for Patients
Objectives

- Overview of Safe Deliveries Roadmap project and data submission options
- Review Labor Management Bundle outcomes measures
- Review Partnership for Patients measures (New)
- Hear the process for hospitals submitting data to WSHA
- Learn about tools and resources available for extracting data
- Identify measure definitions for each measure with numerator and denominator descriptions

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
Introductions

• Name
• Organization
• Background - Clinical? Data? IT?
Washington State Hospital Association
Safe Deliveries Evidenced-Based Roadmap®

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

First Month
- Healthier mothers and babies

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

Delivery
- Less maternal morbidity and mortality
- Fewer early deliveries
- Higher Apgar scores
- Fewer NICU admissions
Safe Deliveries Roadmap – Labor Management Bundle Measures*

Outcome:
- NTSV Cesarean Section (Nulliparous, Term, Singleton, Vertex)
- TSV Primary Cesarean Section (Term, Singleton, Vertex)
- Elective induction of labor
- Maternal admission to Intensive Care Unit
- Maternal blood transfusions
- 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

*Details, including data source, numerator, denominator and sample requirement will be forthcoming.

For questions, please contact Mara Zabari, Director of Integration - Partnership for Patients, at maraz@wsha.org or (206) 216-2529.
Data Sources

Outcomes:
• California Maternal Data System
• WSHA

Process
• WSHA
• OB COAP – LEAPT hospitals
Tools and Resources Available and Location

• WSHA Outcome Measure Specifications document

• Helpful Appendices needed including long coding lists
  ✓ Primary TSV C-section rate
  ✓ Unexpected Newborn Complications (NQF 716) (Excel format)
  ✓ Joint Commission website for current specifications and code tables
  ✓ Cross-Walk: Measures and Types of Required Data Grid

URL link for WSHA Roadmap Measures and related resources:
http://www.wsha.org/0513.cfm%20

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
Resource: Appendices and Code Tables

- Primary Term Singleton Vertex C-section rate
- Joint Commission Appendix A Code Tables
Resource: Appendices and Code Tables

- Unexpected Term Newborn Complications (NQF #716)
- CROSSWALK - Measures and Types of Required Data Grid

CROSSWALK: Measures and Type(s) of Required Data Grid

Certain measures require only Patient Discharge Data (PDD), and can be calculated regardless of whether core clinical data or supplemental data is available. Other measures require both PDD and core clinical data and/or supplemental data. The following is a cross-walk between types of data sources (PDD, core clinical data, supplemental data, chart review data) and the types of data needed by each measure.

<table>
<thead>
<tr>
<th>Data Source – Required Data-File</th>
<th>WSHA Roadmap Measures</th>
<th>WSHA Partnership for Patients Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Discharge Data (PDD)</td>
<td>Rate of Operative vaginal deliveries per all vaginal deliveries</td>
<td>Rate of Maternal Blood Transfusions (RBCs, FFP, Platelets, or Cryoprecipitate) for all deliveries (ICD-9-CM procedure code based)*</td>
</tr>
<tr>
<td></td>
<td>Rate of Severe Maternal Morbidity among all delivering women with a diagnosis of Preeclampsia (Severe Morbidity is based on ICD-9-CM codes typical of an ICU admission)*</td>
<td>Rate of Maternal ICU Admission for all deliveries with maternal diagnosis of Preeclampsia*</td>
</tr>
<tr>
<td></td>
<td>Rate of Maternal Blood Transfusions (RBCs, FFP, Platelets, or Cryoprecipitate) for all deliveries (ICD-9-CM procedure code based)*</td>
<td>Rate of Severe Maternal Morbidity among all delivering women with a diagnosis of Preeclampsia (Severe Morbidity is based on ICD-9-CM codes typical of an ICU admission)*</td>
</tr>
<tr>
<td>PDD and Core Clinical Data Sets</td>
<td>NTSV CS Rate</td>
<td>Rate of Maternal ICU Admission for all deliveries &gt;= 20 wks gestational age with maternal diagnosis of Preeclampsia*</td>
</tr>
<tr>
<td></td>
<td>Unexpected Newborn Complications Primary TSV CS Rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS Rate for Nulliparous women &gt;=39 wks gestational age with Induction of Labor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS Rate for Multiparous women &gt;=39 wks gestational age with Induction of Labor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate of Maternal ICU Admissions for all deliveries &gt;= 20 wks gestational age</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate of Maternal Blood Transfusions (RBCs, FFP, Platelets, or Cryoprecipitate) for all deliveries &gt;= 20 wks (ICD-9-CM procedure code based)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate of maternal LOS &gt; 4 days from delivery date for all vaginal deliveries &gt;= 20 wks gestation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate of Maternal ICU Admission for all deliveries &gt;= 20 wks gestational age with maternal diagnosis of Preeclampsia</td>
<td></td>
</tr>
</tbody>
</table>

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
### Measure Definitions and Numerator / Denominator Specifications Document

**WSHA Labor Management Roadmap Outcome Measures and CMS OB Partnership for Patients Measures:**

Measure Definitions with Numerator and Denominator Specifications

This document is intended for the following hospital options for source of measurement data:

1. **WSHA-CMDC system:** Hospitals submit Patient Discharge Administrative data and supplemental maternal and newborn data to WSHA-CMDC system which then calculates measure rates based on definitions below and provides secure web-interface for focused supplemental chart review where indicated for selected measures.

2. **WSHA-QBS system:** Hospitals submit to WSHA-QBS System their own numerator and denominator values for each measure based on definitions below and internal hospital data analyst support and supplemental chart review where indicated OR based on hospital OB-COAP data consistent with numerator and denominator definitions below (data cross walk in process).

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Numerator Description</th>
<th>Denominator Description</th>
<th>Definition Source</th>
<th>Data Source</th>
<th>Numerator Specifications</th>
<th>Denominator Specifications</th>
</tr>
</thead>
</table>
| 1. **Nulliparous Term Singleton Vertex Cesarean Section Rate (NTSV)** | All cesarean deliveries among the denominator | Nulliparous (first birth) women ≥ 37 weeks. | Joint Commission PC-02 current for the time period | Hospital Patient Discharge Data Plus Gestational Age at Delivery, Parity and Maternal Age at delivery From either: Hospital supplemental data OR Birth Certificate data | Cases among the denominator who had cesarean delivery | Nulliparous patients delivered of live term singleton newborn in vertex presentation.
WSHA-CMDC: NTSV denominator cases are also divided into Joint Commission Age Range groupings for age adjusted rates
WSHA-QBS: will not be providing age adjusted rates
Included populations:
-ICD-9-CM Principal or other diagnosis codes for pregnancy as defined in Joint Commission Appendix A, Tables 11.01, 11.02, 11.03, 11.04:
-Nulliparous patients with ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for outcome of delivery as defined in Appendix A, Table 11.06:

Excluded Populations:
-ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes, for contraindications to vaginal delivery as defined in Appendix A, Table 11.09:
-Less than 8 yrs of age
-Greater than or equal to 65 yrs of age
-Length of stay >120 days
-Enrolled in clinical trials
-Gestational Age < 37 weeks
NOTE: SEE JOINT COMMISSION CODE TABLE APPENDICES FOR COMPLETE LIST OF CODES
When birth certificate data available add to exclusions “Planned Birth Place, if different” = Home or Freestanding Birth Center (item 4b) and “mother was transferred to hospital for higher level of care for maternal or fetal indications for delivery” (item 45)  

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<table>
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</tbody>
</table>

**This document provides the “Nitty Gritty” for measure specification detail and is on WSHA’s website**

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
**Terminology - Types of data**

✓ “PDD” – Patient Discharge Data:
i.e., (ICD-9-CM codes, UB-04)

✓ Core Clinical Data-Maternal:
e.g., Parity, Gestational Age (weeks) at delivery

✓ Core Clinical Data-Newborn:
e.g., Linked Maternal and Newborn records, Birthweight, 5-minute Apgar Score

✓ Supplemental- Optional and/or Chart Review Data:
e.g., # of blood transfusions by type, number of ICU days, Severe range Blood Pressure confirmed, timely treatment of severe range blood pressure <= 60 minutes

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
#1. Cesarean section rate for Nulliparous Term Singleton Vertex (NTSV) Deliveries (first delivery)

Based on Joint Commission Perinatal Care Core Measure PC-02 NTSV C-section measure and WA State definitions, ICD-9-CM codes and Core Clinical Data Maternal

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cesarean deliveries among the denominator</td>
<td>Nulliparous (first delivery) women with gestational age at delivery &gt; 37 weeks.</td>
</tr>
</tbody>
</table>

Joint Commission Exclusions:
- Breech or transverse presentations
- preterm births < 37 weeks gestation
- fetal deaths
- multiple gestations (twins, etc.)

Data Type and Elements:
- Hospital Patient Discharge Data (PDD) including maternal DOB (used to calculate Maternal Age)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
  - Parity
#2. Cesarean section rate for Primary Term Singleton Vertex (TSV) Deliveries (first cesarean)

See Appendix for Primary Term Singleton Vertex Cesarean delivery rate

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cesarean deliveries among the denominator</td>
<td>Delivering women at ≥ 37 weeks gestational age who have not had a prior cesarean section.</td>
</tr>
<tr>
<td></td>
<td>Exclude:</td>
</tr>
<tr>
<td></td>
<td>• breech and transverse presentations</td>
</tr>
<tr>
<td></td>
<td>• preterm deliveries</td>
</tr>
<tr>
<td></td>
<td>• fetal deaths</td>
</tr>
<tr>
<td></td>
<td>• multiple gestations (twins, etc.)</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
#3.a. Cesarean section rate for Inductions of Labor in Nulliparous women >=39 weeks gestation at delivery

Based on Safe Deliveries Labor Management Roadmap Measure: administrative, ICD-9-CM code, Core Clinical Data Maternal: Parity and Gestational age data

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cesarean deliveries among the denominator</td>
<td>Nulliparous women whose labor was induced with delivery &gt;= 39 weeks gestation (Parity = 0)</td>
</tr>
</tbody>
</table>

Data Type Elements:
- Hospital Patient Discharge Data (PDD)
- Core Clinical Maternal Data:
  - Gestational Age at Delivery
  - Parity
#3.b. Cesarean section rate for Inductions of Labor in Multiparous women >= 39 weeks gestation at delivery

Based on Safe Deliveries Labor Management Roadmap Measure: administrative, ICD-9-CM code, Core Clinical Data Maternal: Parity and Gestational age data

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cesarean deliveries among the denominator</td>
<td>Multiparous women whose labor was induced with delivery &gt;= 39 weeks gestation (Parity &gt;= 1)</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
- Core Clinical Maternal Data:
  - Gestational Age at Delivery
  - Parity
#4.a. Number of Maternal admissions to ICU per all deliveries >= 20 weeks gestational age

Based on Safe Deliveries Labor Management Roadmap Measure: administrative, ICD-9-CM code, ICU Revenue codes or supplemental ICU data and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All maternal admissions to ICU anytime during delivery hospitalization among the denominator</td>
<td>Women with delivery at any gestational age &gt;= 20 weeks gestation</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal ICU admission data (if Revenue Codes need supplement)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
#4.b. Number of Maternal ICU days per 100 deliveries >= 20 weeks gestational age (Optional)

Based on Safe Deliveries Labor Management Roadmap Measure: administrative, ICD-9-CM code, ICU Revenue codes or supplemental ICU data and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of ICU days among the denominator</td>
<td>Women with delivery at any gestational age &gt;= 20 weeks gestation, calculated per 100 delivering women</td>
</tr>
</tbody>
</table>

Data Type and Elements:

- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal ICU days data (if Revenue Codes need supplement)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
#5.a. Percent of delivering women who received a blood transfusion

Safe Deliveries Labor Management Roadmap Measure and Partnership for Patients Measure: administrative, ICD-9-CM codes and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of women who received any transfusion of blood products (RBC, FFP, Platelet packs, Cryoprecipitate) from among the denominator</td>
<td>Women who delivered at any gestational age &gt;= 20 wks</td>
</tr>
</tbody>
</table>

Data Type and Elements:

- Hospital Patient Discharge Data (PDD) Including ICD-9-CM Procedure codes for any maternal blood transfusion
- Core Clinical Data Maternal:
  - Gestational Age at Delivery

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
#5.b. Total number of blood products transfused per 1,000 delivering women >= 20 weeks gestation at delivery *(Optional)*

Based on Safe Deliveries Labor Management Roadmap Measure harmonized with Partnership for Patients Measure: PDD with ICD-9-CM codes, Blood Transfusion Revenue codes or supplemental transfusion data and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of blood product units transfused (number by type of unit: RBCs, FFP, Platelet packs, Cryoprecipitate) from among the denominator</td>
<td>Women who delivered at any gestational age &gt;= 20 wks, calculated per 1000 delivering women</td>
</tr>
</tbody>
</table>

**Data Type and Elements:**
- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal transfusion data (if Revenue Codes need supplement)
- Core Clinical Data Maternal: Gestational Age at Delivery

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#5.c. Total number of massive blood transfusions (>= 4 units) per 1000 delivering women >= 20 weeks gestation (Optional)

Safe Deliveries Labor Management Roadmap Measure harmonized with Partnership for Patients Measure: administrative, ICD-9-CM code, Blood Transfusion Revenue codes or supplemental transfusion data and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of delivering women who received &gt;= 4 units of blood products (RBC, FFP, Platelet packs, Cryoprecipitate) per 1000 delivering women at &gt;= 20 weeks gestation</td>
<td>Women who delivered at any gestational age &gt;= 20 wks.</td>
</tr>
</tbody>
</table>

Data Types and Elements:
- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal transfusion data (if Revenue Codes need supplement)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
#6.a. Percent of women with LOS > 4 days from delivery to discharge per women who delivered vaginally >= 20 weeks gestational age

Based on Safe Deliveries Labor Management Roadmap Measure: PDD with ICD-9-CM codes and discharge date, Core Clinical Data Maternal and Newborn: linked newborn date of birth and Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of women with LOS &gt; 4 days from date of delivery to discharge date among the denominator</td>
<td>All delivering women &gt;= 20 wks gestation who delivered vaginally</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
- Core Clinical Data Maternal and Newborn:
  - Gestational Age at Delivery
  - Linked maternal-newborn records with newborn date of birth
#6.b. Percent of women with LOS > 6 days from delivery to discharge per women who delivered by cesarean section >= 20 weeks gestational age

Based on Safe Deliveries Labor Management Roadmap Measure: PDD with ICD-9-CM codes, and discharge date, Core Clinical Data Maternal and Newborn: linked newborn date of birth and Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of women with LOS &gt; 6 days from date of delivery to discharge date among the denominator</td>
<td>All delivering women &gt;= 20 wks gestation who delivered by cesarean section.</td>
</tr>
</tbody>
</table>

Data Type and Elements:

- Hospital Patient Discharge Data (PDD)
- Core Clinical Data Maternal and Newborn:
  - Gestational Age at Delivery
  - Linked maternal-newborn records with newborn date of birth

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#7. Percent of Operative vaginal deliveries per all vaginal deliveries

Based on Safe Deliveries Labor Management Roadmap Measure: PDD with ICD-9-CM codes

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of operative deliveries by forceps or vacuum from among the denominator</td>
<td>Number of vaginal deliveries.</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
#8. Unexpected Newborn Complications NQF 716

- Most important outcome for families having a birth is taking home a healthy baby

- Important Balance Measure for many obstetrical QI efforts:
  - WA State Labor Management work
  - WA State Bree goal to reduce Primary Cesarean Rates

- Originally developed by CMQCC

- Term Newborns without preexisting conditions who had severe or moderate complications
  - Excludes premies, multiple gestations, birth defects or other fetal conditions such as placental problems and growth restrictions, and affects from maternal medications/drugs (prescribed or not)
  - Measure reports 3 metrics: Total, Severe, and Moderate complications

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## #8. Unexpected Newborn Complications -NQF 716 (cont)

- Newborn Complication Sub-Categories (identified by specific diagnosis and/or procedure codes):
- For Each Subcategory examples below are listed. See Appendix on WSHA website for complete list of conditions

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Complication Diagnoses or procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory</td>
<td>severe hypoxia, hypoxic-ischemic encephalopathy (HIE), meconium aspiration with respiratory symptoms, continuous invasive mechanical ventilation, non-invasive mechanical ventilation-e.g. CPAP, 5 minute Apgar &lt;= 3</td>
</tr>
<tr>
<td>Infection</td>
<td>severe sepsis</td>
</tr>
<tr>
<td>Neurologic/ Birth Injury</td>
<td>subdural/cerebral hemorrhage, intra-ventricular hemorrhage, subarachnoid hemorrhage, convulsions in newborn, cerebral depression, newborn cardiac arrest, encephalopathy</td>
</tr>
<tr>
<td>Shock/ Resuscitation</td>
<td>cardiogenic shock, septic shock, acute kidney failure, arterial catheterization, cardiopulmonary resuscitation</td>
</tr>
<tr>
<td>Long LOS &gt; 5 days (without clear diagnosis)</td>
<td>Long LOS &gt; 5 days with Jaundice and social problems (e.g. adoption) excluded</td>
</tr>
<tr>
<td>Transfer to Higher Level of Care</td>
<td>Transferred to other hospital for higher level of care</td>
</tr>
<tr>
<td>Newborn Death in Liveborn</td>
<td>Identified by newborn discharge disposition</td>
</tr>
</tbody>
</table>
#9. Unexpected Newborn Complications (UNC) per 1000 term live births without pre-existing conditions

Based on NQF 716 measure (v. 2.3 or most recent version): PDD with ICD-9-CM code, Core Clinical Data Newborn and Maternal: newborn birthweight, 5-minute Apgar score, 10-minute Apgar if available and Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of term neonates with any unexpected newborn complications (Total UNCs) among the denominator</td>
<td>Liveborn Inborn Term neonates w/o preexisting conditions calculated per 1000 livebirths:</td>
</tr>
<tr>
<td>• Subgroup A: with any severe UNCs among the denominator</td>
<td>Exclude – preterm, &lt;2500gm, multiple gestations, all congenital anomalies, other fetal and placental conditions, exposure to maternal drug use (prescribed or illicit)</td>
</tr>
<tr>
<td>• Subgroup B: with any moderate UNCs among the denominator</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>

Data Type and Elements:

• Hospital Patient Discharge Data (PDD)
• Core Clinical Data Maternal and Newborn:
  • Gestational age at delivery
  • Linked maternal-newborn record
  • Newborn birthweight
  • 5 minute Apgar (10 minute Apgar optional)
Revised Specifications v2.3
NQF #716: Unexpected Newborn Complications
(aka Healthy Term Newborn)

Figure 1: Denominator Inclusions

Hospital Discharge Diagnosis File

Singleton Livebirth?

Yes

No or Unknown

BWt ≥2.5kg?

Yes

No or Unknown

GA ≥37wks?

Yes

No

GA Unknown

No

GA ≥37wks?

Yes

No

GA Unknown

Not in Measure Population

Starting Denominator

Screen for ICD-9 Diagnosis Codes V3000 or V3001

Use Birth Certificate or Medical Record: Birthweight

Note: ICD9 and DRG codes alone are very poor at identifying term infants. Therefore, the GA from BC is used.

Use Birth Certificate or Medical Record: Best Obstetric Estimate of Gestational Age

Use Birth Certificate or Medical Record: LMP-based Gestational Age

These represent back-up criteria. Birth Certificate Obstetric Estimate of GA usually is present for >99% of cases, and then these two steps may be omitted

Use Birth Certificate or Medical Record: Birthweight

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In summary, the Final Denominator excludes most serious fetal conditions that are “preexisting” (present before labor), including: prematurity, multiple gestations, poor fetal growth, congenital malformations and genetic disorders, other specified fetal and maternal conditions and maternal drug use.
Figure 3: Numerator Inclusions: Severe Complications

1. **Neonatal Death?**
   - Yes: Use Patient Discharge Diagnosis Data: Disposition Code for Death
   - No: Use Patient Discharge Diagnosis Data: Disposition Code for Transfer to Higher Level of Care

2. **Neonatal Transfer?**
   - Yes: Use Birth Certificate or Medical Record: Apgar Score at 5 minutes or 10 minutes ≤3
   - No: Use Patient Discharge Diagnosis Data, examining both Primary and Other Diagnosis and Procedure fields for specific ICD-9 Codes defining a array of specific Severe Complications, included selected codes from the categories of: Birth Injuries, Hypoxia/Asphyxia, Shock/Complications, Respiratory Complications/Procedures, Infections, Neurologic Complications. (see Appendix 3, Groups 3A thru 3I)
   - No: Use Patient Discharge Diagnosis Data, examining both Primary and Other Diagnosis fields for the specific ICD-9 Code defining sepsis but also requiring a neonatal Length of Stay >4 days. (see Appendix 3, Group 3J)

3. **5’ or 10’ Apgar ≤3?**
   - Yes: Severe ICD-9 Code?
     - Yes: Numerator: Severe Complications
     - No: Sepsis and LOS >4 days?
       - Yes: Starting Population for Moderate Complications Analysis
       - No: Numerator: Severe Complications
   - No: Starting Population for Moderate Complications Analysis

**Final Denominator**

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Starting Population for Moderate Complications Analysis

**Figure 4: Numerator Inclusions: Moderate Complications**

- **Moderate Comps (No LOS)?**
  - Yes
  - No
    - **LOS >4d CS or LOS >2d Vag?**
      - Yes
        - **Moderate Comps (with LOS)?**
          - Yes
            - **LOS>5d?**
              - Yes
                - Jaundice or Social codes?
                  - Yes
                    - Numerator: Moderate Complications
                  - No
                    - Not in Numerator
              - No
                - Use Patient Discharge Diagnosis Data to determine LOS
            - No
              - Use Patient Discharge Diagnosis Data, examining both Primary and Other Diagnosis and Procedure fields for specific ICD-9 Codes defining a array of specific Moderate Complications, included selected codes from the categories of: Birth Injuries, Hypoxia/Asphyxia, Shock/Resuscitation, Respiratory Complications/Procedures, Infections, Neurologic Complications. (see Appendix 4, Groups D thru H)
        - No
          - Use Patient Discharge Diagnosis Data, examining both Primary and Other Diagnosis and Procedure fields for specific ICD-9 Code defining a specific Moderate Complication, that do not require a prolonged LOS. (see Appendix 4, Groups A thru C)
  - No
    - Use Patient Discharge Diagnosis Data for LOS and for ICD-9 Diagnosis Codes V3000 (vaginal birth) or V3001 (Cesarean birth)

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
#9.a. Percent with diagnosis of Preeclampsia who have an Admission to ICU

2014 WSHA-Partnership for Patients: PDD with ICD-9-CM codes, Revenue code for ICU or Supplemental data for ICU stay and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of delivering patients with any admission to ICU with preeclampsia diagnosis from among the denominator</td>
<td>All women giving birth &gt;= 20 weeks with any diagnosis code for Preeclampsia, Severe preeclampsia , or preeclampsia superimposed on pre-existing HTN</td>
</tr>
<tr>
<td></td>
<td>Exclude women with gestational Hypertension or Chronic Hypertension without superimposed preeclampsia (see Measures specifications document for code details)</td>
</tr>
</tbody>
</table>

Data Type and Elements:

- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal ICU admission data (if Revenue Codes need supplement)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
#9.b. Preeclampsia: Number of ICU days per 100 delivering women >= 20 weeks gestation with a diagnosis of Preeclampsia (Optional)

2014 WSHA-Partnership for Patients: PDD with ICD-9-CM codes, Revenue code for ICU or Supplemental data for ICU days and Core Clinical Data Maternal: Gestational age at delivery

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of ICU days from patients among the denominator</td>
<td>All women giving birth &gt;= 20 weeks with any diagnosis code for Preeclampsia, Severe preeclampsia, or preeclampsia superimposed on pre-existing HTN Exclude: women with gestational Hypertension or Chronic Hypertension without superimposed preeclampsia (see Measure specifications document for code details)</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD) Including Revenue Codes
- Supplemental maternal ICU admission data (If Revenue Codes need supplement)
- Core Clinical Data Maternal:
  - Gestational Age at Delivery
9.c. Percent of Severe Maternal Morbidity among all delivering women with a diagnosis of Preeclampsia
(Severe Morbidity is based on ICD-9-CM codes typical of an ICU admission)

<table>
<thead>
<tr>
<th>Numerator Description</th>
<th>Denominator Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number with Severe Maternal Morbidity from patients among the denominator</td>
<td>All delivering women with any diagnosis code for Preeclampsia, Severe preeclampsia, or preeclampsia superimposed on pre-existing HTN Exclude: women with gestational Hypertension or Chronic Hypertension without superimposed preeclampsia (see Measure specifications document for code details)</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
10. Percent with Timely Treatment for Severe Range Blood Pressure in delivering women >= 20 wks gestation

2014 WSHA Partnership for Patients Process Measure: PDD with ICD-9-CM codes, Core Clinical Data
Maternal: Gestational age and Chart Review confirming severe range BP and timely appropriate
treatment with first-line medications

<table>
<thead>
<tr>
<th>Numerator Description – with Chart Review</th>
<th>Denominator Description – with Chart Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number with timely &lt;=60 minutes with appropriate treatment of first-line medications: (IV labetalol or IV hydralazine or ponifedipine or labetalol if IV access not established)</td>
<td>All women giving birth &gt;= 20 weeks with any diagnosis code for Preeclampsia, Severe preeclampsia, or preeclampsia superimposed on pre-existing HTN AND Chart Review confirmation of Severe Range BP measurement x2 at least 15 minutes apart: &gt;=160 systolic or &gt;=110 diastolic Exclude: women with gestational Hypertension or Chronic Hypertension without superimposed preeclampsia (see Measure specifications document for code details)</td>
</tr>
</tbody>
</table>

Data Type and Elements:
- Hospital Patient Discharge Data (PDD)
- Core Clinical Data Maternal:
  > Gestational Age at Delivery
- Chart Review

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
Internal Process for Chart Reviews: Confirmation of Severe Range BP and timely treatment (for non WSHA-CMDC hospitals)

- Hospitals design internal process
- Identify cases by ICD-9-CM code list definitions
- Pull cases – do chart reviews
- Hospital average # of cases estimate based on CHARS data
- 5-6 cases per month average -- many hospitals had fewer than this based on CHARS data
- Submit chart review results monthly (numerators and denominators to WSHA-QBS )

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
Time Line & Next Steps
Time Line

- Data submission begins August 20, 2014
- Data submission is monthly (60 days after the end of month)
- Baseline (optional) and May data submitted in August (60 days after the month)

AND, THEY’RE OFF!

Presented at June 25, 2014 WSHA Roadmap Webinar: “Outcome Measure-Numerators and Denominators”
Next Steps

• Set up internal processes to capture and submit labor management roadmap measure numerators and denominators
• Future Webinar on WSHA Quality Benchmark System (QBS) and user interface structure
Questions?

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