Hospital Breastfeeding Numbers to Meet Accreditation Requirements: How to Achieve and Measure!

SC Birth Outcomes Initiative February 16, 2016
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This webinar is being recorded.
OBJECTIVES

• Identify Joint Commission PC05 definitions and best practice to achieve documentation requirements
• Determine the rational for hospital accreditation effort to increase hospital breastfeeding rates.
• Identify methods to improve hospital breastfeeding rates
AGENDA

I. Current hospital accreditation requirements for breastfeeding outcomes
   Michelle J. Narayanan, MBA, RD, LD, CLC

II. Why hospital accreditation organizations measure breastfeeding outcomes
    Sarah Taylor, MD, MSCR

III. Methods to improve and measure hospital breastfeeding rates
     Chaka Davis RNC, MSN, MPH, IBCLC

IV. Q & A

V. Survey
Michelle J. Narayanan, MBA, RD, LD, CLC  
*Lactation Coordinator*  
McLeod Regional Medical Center
Defining the Current Hospital Accreditation Requirements for Breastfeeding Outcomes

Michelle J. Narayanan, MBA, RD, LD, CLC
Lactation Coordinator
McLeod Regional Medical Center
Breastfeeding Rates: United States vs. South Carolina

<table>
<thead>
<tr>
<th></th>
<th>United States*</th>
<th>South Carolina*</th>
<th>Healthy People 2020 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever Breastfed</td>
<td>79.2%</td>
<td>73.4%</td>
<td>81.9%</td>
</tr>
<tr>
<td>Breastfeeding at 6 months</td>
<td>49.4%</td>
<td>37.4%</td>
<td>60.6%</td>
</tr>
<tr>
<td>Breastfeeding at 12 months</td>
<td>26.7%</td>
<td>14%</td>
<td>34.1%</td>
</tr>
<tr>
<td>Exclusive Breastfeeding at 3 months</td>
<td>40.7%</td>
<td>32%</td>
<td>46.2%</td>
</tr>
<tr>
<td>Exclusive Breastfeeding at 6 months</td>
<td>18.8%</td>
<td>13.4%</td>
<td>25.5%</td>
</tr>
</tbody>
</table>

*CDC Breastfeeding Report Card, 2014*
Perinatal Care (PC) Core Measure Set

PC-01  Elective Delivery
PC-02  Cesarean Section
PC-03  Antenatal Steroids
PC-04  Health Care-Associated Bloodstream Infections in Newborns
PC-05  Exclusive Breast Milk Feeding

- Effective **January 1, 2016**, all Joint Commission-accredited hospitals with 300 or more births per year will be required to collect data and report on all five measures in the PC core measure set.
Changes to Breast Milk Feeding Performance Measures PC-05a and PC-05

**PC-05a:** Exclusive breast milk feeding considering mother’s initial feeding plan – **Retired October 1, 2015**

**PC-05:** Exclusive breast milk feeding during the newborn’s entire hospitalization – **Revised October 1, 2015**

- Maternal medical conditions are no longer excluded
- Will continue to be an accountability measure reported on The Joint Commission’s Quality Check®
- Will not be included in the Top Performer on Key Quality Measures®

- Achievable target for hospital to strive to achieve = **70%**
PC-05: Exclusive Breast Milk Feeding

Reported as an overall rate which includes all newborns that were exclusively fed breast milk during the entire hospitalization

- **Exclusive Breast Milk Feeding** – A newborn receiving only breast milk and no other liquids or solids except for drops or syrups consisting of vitamins, minerals, or medicines

Exclusive Breast Milk Feeding = Newborns that were fed breast milk only since birth

Single term newborns discharged alive from the hospital
Numerator

“Newborns that were fed breast milk only since birth”

<table>
<thead>
<tr>
<th>Included Populations</th>
<th>Excluded Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>None</td>
</tr>
</tbody>
</table>

Data Elements

- Exclusive Breast Milk Feeding
**Denominator**

“Single term newborns discharged alive from the hospital”

<table>
<thead>
<tr>
<th>Included Populations</th>
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</tr>
</thead>
<tbody>
<tr>
<td>▪  CD-10-CM Principal Diagnosis Code for single liveborn newborn</td>
<td>▪  Admitted to the NICU</td>
</tr>
<tr>
<td></td>
<td>▪  Other Diagnosis Code for Galactosemia</td>
</tr>
<tr>
<td></td>
<td>▪  Principle or Other Procedure Code for parenteral nutrition</td>
</tr>
<tr>
<td></td>
<td>▪  Experienced Death</td>
</tr>
<tr>
<td></td>
<td>▪  LOS &gt; 120 days</td>
</tr>
<tr>
<td></td>
<td>▪  Enrolled in clinical trials</td>
</tr>
<tr>
<td></td>
<td>▪  Patients transferred to another hospital</td>
</tr>
<tr>
<td></td>
<td>▪  Patients not term or &lt; 37 weeks gestation</td>
</tr>
</tbody>
</table>
Denominator

“Single term newborns discharged alive from the hospital”

Data Elements

- Admission Date
- Admission to NICU
- Birthdate
- Clinical Trial
- Discharge Date
- Discharge Disposition
- Principal and Other Diagnosis Codes
- Principal and Other Procedure Codes
- Term Newborn
Data Collection

Retrospective Data
- Administrative data
- Medical records

Data Accuracy
- Evaluate coding practices to ensure consistency

Data Sampling
- Yes – For additional information, refer to “Sampling Section” in the Specifications Manual for Joint Commission National Quality Measures
  https://manual.jointcommission.org/releases/TJC2015B/SamplingChapterTJC.html

Data Reported as
- An aggregate rate generated from count data reported as a proportion
Review your current documentation practices:

- Are all data elements documented?

<table>
<thead>
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<th>Numerator</th>
<th>Denominator</th>
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</thead>
<tbody>
<tr>
<td>Exclusive Breast Milk Feeding</td>
<td>Admission Date</td>
</tr>
<tr>
<td></td>
<td>Admission to NICU</td>
</tr>
<tr>
<td></td>
<td>Birthdate</td>
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</table>
Review your current documentation practices:

– Are data elements documented in acceptable sources?

Acceptable Data Sources:

- Discharge summary
- Feeding flow sheets
- Individual treatment plans
- Intake and output sheets
- Nursing notes
- Physician progress notes
Best Practice for Documentation

Review your current documentation practices:

- *Accuracy of data collection on exclusive breast milk feeding at discharge?*

Modify existing charting to support accurate data collection:

- Be specific – Avoid the word “bottle” when referring to formula
- Central source for feeding documentation
- Provider orders – Encourage “exclusive breastfeed” or “breastfeeding contraindicated due to ________.”
- Contraindications to exclusively feed breast milk – Reasons to exclude the infant from the denominator
Best Practice for Documentation

Review your current documentation practices:

– How easy is it to extract data?

Things to consider:

- Individual chart reviews or EHR reports?
- Documenting measures as ready-made options vs. free text
Best Practice for Documentation

Consider adding tools that will help encourage and monitor other best practices related to infant feeding:

- Breastfeeding initiation
- Supplementation (i.e. administration, medical indication)
- Skin-to-skin contact
- Rooming-in
- Assistance with breastfeeding (i.e. LATCH score, positioning)
- Patient education topics (i.e. benefits of breastfeeding, manual expression, use of artificial nipples, negative aspects of formula)
Why Is Joint Commission Concerned About Breastfeeding Rates?

Sarah N. Taylor, MD, MSCR
Associate Professor
Medical University of South Carolina
Is Breastfeeding Good for You?

- Agency for Healthcare Research and Quality report
  - 2007

- The United States Preventive Services Task Force report
  - 2008

- American Academy of Pediatrics Section on Breastfeeding report
  - 2012

- *Lancet* Series on Breastfeeding
  - [http://www.thelancet.com/series/breastfeeding](http://www.thelancet.com/series/breastfeeding)
  - 2016
### Short term benefits for the infant

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>ODDS RATIO</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otitis Media</td>
<td>0.77</td>
<td>0.64 – 0.91</td>
</tr>
<tr>
<td>Gastrointestinal Infections</td>
<td>0.36</td>
<td>0.32 – 0.41</td>
</tr>
<tr>
<td>SIDS</td>
<td>0.64</td>
<td>0.51 – 0.81</td>
</tr>
</tbody>
</table>

Slide courtesy of Ganga Srinivas

AHRQ report 2007
## Short term benefits for the infant

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<th>DISEASE</th>
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<tr>
<td><strong>Lower Respiratory Infections</strong> (hospitalizations)</td>
<td>0.28</td>
<td>0.14 – 0.54</td>
</tr>
<tr>
<td><strong>Upper Respiratory Infections (&gt;6 months exclusive BF)</strong></td>
<td>0.3</td>
<td>0.18-0.74</td>
</tr>
<tr>
<td><strong>RSV bronchiolitis (&gt; 4 months BF)</strong></td>
<td>0.26</td>
<td>0.074-0.9</td>
</tr>
</tbody>
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Slide courtesy of Ganga Srinivas

AHRQ report 2007 and AAP report 2012
Benefits of breastfeeding ≥ 6 months

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>BREASTFEEDING DURATION</th>
<th>ODDS RATIO</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent otitis media</td>
<td>4 to &lt; 6months</td>
<td>1.95</td>
<td>1.06-3.59</td>
</tr>
<tr>
<td>Lower respiratory tract infection</td>
<td>4 to &lt; 6months</td>
<td>4.27</td>
<td>1.27-14.35</td>
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AHRQ report 2007
## Long term benefits for the infant

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<tr>
<td>Acute Lymphoblastic Leukemia (BF &gt; 6mo)</td>
<td>0.80</td>
<td>0.71 - 0.91</td>
</tr>
<tr>
<td>Acute Myeloblastic Leukemia (BF &gt;6mo )</td>
<td>0.85</td>
<td>0.73 - 0.98</td>
</tr>
<tr>
<td>Obesity (ever BF VS Never BF)</td>
<td>0.76</td>
<td>0.67 - 0.86</td>
</tr>
<tr>
<td>Type II Diabetes</td>
<td>0.61</td>
<td>0.44 - 0.85</td>
</tr>
<tr>
<td>Type I Diabetes (&gt;3 months exclusive BF)</td>
<td>0.71</td>
<td>0.53-0.93</td>
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AHRQ report 2007
Long term benefits for the infant

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<tr>
<td>Inflammatory Bowel Disease</td>
<td>0.69</td>
<td>0.51-0.94</td>
</tr>
<tr>
<td>Celiac disease (&gt;2 months BF)</td>
<td>0.48</td>
<td>0.4-0.89</td>
</tr>
</tbody>
</table>

Slide courtesy of Ganga Srinivas  
AHRQ report 2007
Reduction in Odds of Allergic Disease with Breastfeeding

Greater reduction for infants with family history, but significant reduction for all

Asthma | Atopic Dermatitis

AHRQ report 2007

Slide courtesy of Ganga Srinivas
Women’s Health Initiative Longitudinal Study

- 139,000 postmenopausal women
- Cumulative lactation history 12-23 months

<table>
<thead>
<tr>
<th>Disease</th>
<th>Odds Ratio</th>
<th>95% CI</th>
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</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>0.89</td>
<td>0.84-0.93</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>0.81</td>
<td>0.76-0.87</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>0.9</td>
<td>0.86-0.96</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0.74</td>
<td>0.65-0.84</td>
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Schwarz EB et al 2009
Cost of **NOT** Breastfeeding

- **Financial**
  - 302 billion annually
  - 0.49% of world gross national income

- **Mortality**
  - 823,000 annual deaths in children < 5 years
  - 20,000 annual deaths in women caused by breast cancer

- A 10% increased rate of breastfeeding in U.S. exclusively for 6 months or continued up to 1-2 years translates to 312 million reduction in childhood disorder treatment costs

Rollins NC et al *Lancet* 2016
In The Beginning…
In The Beginning…

Amniotic Fluid
Continuum of Gut Development and Maturation

Fetal Development

Amniotic Fluid — Human Milk

Phase I — Phase II — Phase III — Phase IV — Phase V

Birth

Adapted from Wagner CL et al; *Clinic Rev Allerg Immunol* 2008
Human Milk

• Maturation of Intestinal Wall
  – Decreased intestinal permeability
    • Human milk dose-dependent
  – Stem cells in human milk
  – Intestinal cell maturation
    • Numerous growth factors

• Apoptosis (Programmed Cell Death)
  – Lactoalbumin and HAMLET in human milk

Taylor SN et al 2009; Cregan M et al 2008; Koldovsky O 1995; Gustafsson L et al 2005
Human Milk and Immune Cells

- Initially, 1 billion white blood cells/Liter
  - Hypofunctional activity
- By 6 months, epithelial cells predominate

Buescher ES 2001
Multifunctional Milk Components

• Example: Lactoferrin
  – Chelates free iron potentially for iron absorption
  – Removes unbound iron which bacteria need
  – Stimulates white blood cells to kill
  – Inhibits HIV, CMV, and herpes virus
  – Broad antibacterial activity

The Immunosurveillance Balance

- Adaptive immune system (antibodies)
  - Maternal secretory Immunoglobulin A
    - 1 g/L mature milk and 12 g/L colostrum
    - Resistant to digestion
    - Accumulates in the GI tract (along mucous membranes)
    - Binds antigens on pathogens

Hanson L 1961; Uren TK et al 2005
The Immunosurveillance Balance

- **Innate Immune Function**
  - Immature intestinal immune cells
    - Inflammatory and toxic cytokine release

  **Versus**

- **Human milk**
  - Anti-inflammatory cytokines
  - Antioxidants
  - Inhibition of pro-inflammatory process

GI Balance of Inflammation

• Role of human milk important for avoiding
  – Necrotizing enterocolitis
  – Allergy
  – Infection
    • Infants with known immune immaturity that is replaced with human milk factors

• Just starting to elucidate the physiology and biochemistry of these processes
Why So Difficult?

Breastfeeding is natural
Why So Difficult?

Breastfeeding is natural

Not in our unnatural environment
Breastfeeding in 2016

• Mothers need specialized help
  – Medical conditions such as obesity, diabetes
  – Medical care such as epidural, C/section, meds
• We have to train ourselves and all mother/baby team members to support lactation
• Takes work
Challenge to You

• “Our patients do not breastfeed”

• Are they educated on benefits to mother and baby early in pregnancy?

• Baby Friendly prenatal education and in-hospital support ENDS the disparity regarding breastfeeding education and expectations
Chaka Davis RNC, MSN, MPH, IBCLC
Nurse Manager, Women’s Education Programs
Palmetto Health
Increasing Breastfeeding Rates in the Hospital Setting

Chaka M. Davis RNC, MSN, IBCLC
Nurse Manager Women’s Education Programs
Palmetto Health
Breastfeeding Education and Support

- Staff
- Patient
Staff Education

• Hospital Staff
  – Importance of breastfeeding for mom and baby
  – How supplementation during the hospital stay can affect breastfeeding long term
  – How to assist the breastfeeding dyad
Staff Education

• Methods
  – Formal vs. Informal
  – Cost
Patient Education

• Prenatal
  – Benefits of breastfeeding
  – How to breastfeed
  – What to expect while breastfeeding
Patient Education

• Methods
  – Printed material (free from advertising)
  – Verbal
  – Demonstration
  – Class vs. Individual
Sample Patient Education Handout

How Breastfeeding Helps Moms
- Burns up to 500 calories a day so it helps with post-baby weight loss
- Provides protection from diseases like type 2 diabetes, heart disease, breast and ovarian cancer

How Breastfeeding Helps Babies
- Decreases the chance of Sudden Infant Death Syndrome (SIDS)
- Provides protection from conditions like obesity, diabetes, childhood leukemia, ear infections, allergies, gastrointestinal and respiratory illnesses

Why Only Breast Milk
- Formula changes the normal bacteria of the gut and increases the chance of illness.
- The bacteria that breast milk offers protects babies’ intestines from disease.
- Breast milk has everything the baby needs for the first six months!
Patient Education

• In the hospital prior to delivery
  – Review benefits of breastfeeding
  – Review the risks of artificial supplementation
Reinforce Breastfeeding Education
Breastfeeding Support

• Support the breastfeeding family through common issues:
  – Sleepy Infant
  – Fussy Infant
  – Non-Latching Infant
  – Painful Latch/Feeding
Breastfeeding Initiation Rates
10 Steps for Successful Breastfeeding

• Step 1 – Have a written policy that is routinely communicated to all health care staff
• Step 2 – Train all health care staff in the skills necessary to implement this policy
• Step 3 – Inform all pregnant women about the benefits and management of breastfeeding
• Step 4 – Help mothers initiate breastfeeding within 1 hour after birth
  – Now interpreted as Skin-to-Skin
• Step 5 – Show mothers how to breastfeed and how to maintain lactation even if they are separated from their infants
10 Steps for Successful Breastfeeding

• Step 6 – Give no food or drink other than breastmilk unless medically indicated
• Step 7 – Allow mothers and infants to remain together twenty four hours/day, regardless of feeding method
• Step 8 – Encourage feeding on demand
• Step 9 – Give no pacifiers or artificial nipples to breastfeeding infants
• Step 10 – Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center
Initiatives Supporting Breastfeeding

• Baby Friendly Hospital Initiative
• Mother-Friendly Childbirth Initiative
• South Carolina Birth Outcomes Initiative
Questions?
SC Birth Outcomes Initiative

Thank You!

Please visit: https://www.scdhhs.gov/boi