



Implementing The Joint Commission Perinatal Care Core Measure on Exclusive Breast Milk Feeding

Revised Edition

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*This document was funded in part by the U.S. Department of Health and Human Services,
Health Resources and Services Administration, Maternal and Child Health Bureau,
grant 6T79MC00007-22-01 – University of Minnesota.*

Summary Sheet

On March 31, 2010, The Joint Commission's Pregnancy and Related Conditions core measure set was retired and replaced with the new Perinatal Care core measure set. The new Perinatal Care core measure set became available for selection by hospitals beginning with April 1, 2010 discharges.

What are the Perinatal Care core measures? The Perinatal Care core measure set comprises the following measures:

- Elective delivery
- Cesarean section
- Antenatal steroids
- Health care-associated bloodstream infections in newborns
- Exclusive breast milk feeding***

This toolkit, published by the United States Breastfeeding Committee, addresses the exclusive breast milk feeding core measure.

Part 1 of the toolkit, **Guidelines for Data Collection**, was originally released in January 2010. It is designed to aid hospitals and maternity facilities in accurate collection of the data needed to comply with the new measure. The toolkit was re-released with the addition of Part 2 in December 2010. Part 2 of the toolkit, **Implementing Practices That Improve Exclusive Breast Milk Feeding**, focuses on improving adherence to evidence-based best practices, which is ultimately reflected in rates of exclusive breast milk feeding.

How is exclusive breast milk feeding defined? The Joint Commission defines exclusive breast milk feeding as: "a newborn receiving only breast milk and no other liquids or solids except for drops or syrups consisting of vitamins, minerals, or medicines." Breast milk feeding includes expressed mother's milk as well as donor human milk, both of which may be fed to the infant by means other than suckling at the breast. While breastfeeding is the goal for optimal health, it is recognized that human milk provided indirectly is still superior to alternatives.

Are any infants excluded? Yes. The list of exclusions is included in this document and on The Joint Commission's website.

The United States Breastfeeding Committee is an independent nonprofit coalition of more than 40 nationally influential professional, educational, and governmental organizations. Representing over half a million concerned professionals and the families they serve, USBC and its member organizations share a common mission to improve the Nation's health by working collaboratively to protect, promote, and support breastfeeding. For more information on USBC, visit www.usbreastfeeding.org.

Background

Pregnancy and related conditions were among the initial priority focus areas for hospital core measure development identified by key Joint Commission stakeholders. In 2002, the Pregnancy and Related Conditions (PR) core measure set was one of the initial sets of measures implemented.

On March 31, 2010, the Pregnancy and Related Conditions core measure set was retired and replaced with the new Perinatal Care (PC) core measure set. The new Perinatal Care core measure set became available for selection by hospitals beginning with April 1, 2010 discharges. This expanded measure set now comprises the following measures:

- Elective delivery
- Cesarean section
- Antenatal steroids
- Health care-associated bloodstream infections in newborns
- Exclusive breast milk feeding***

The Joint Commission's core measures serve as a national, standardized performance measurement system providing assessments of care delivered in given focus areas. One factor causing varying compliance with core measures may be a lack of awareness of the evidence connecting processes of care to improved outcomes. Hospitals should plan to use their data to drive quality improvements in evidence-based care and to help track progress from year to year.

The Joint Commission is looking specifically at the number of exclusively breast milk-fed term infants as a proportion of all term infants. The exceptions are those infants meeting certain criteria in which breastfeeding is contraindicated, and excluding all infants who have spent time in the Neonatal Intensive Care Unit (NICU). The measure is not examining medically acceptable reasons to supplement a breastfed infant. In other words, The Joint Commission will be measuring how many non-NICU babies without a contraindication to breastfeeding were exclusively breast milk-fed.

The Joint Commission is looking at the following ratio:

$$\frac{\# \text{ of exclusively breast milk-fed non-NICU term infants, including those supplemented with human milk}}{\# \text{ of non-NICU term infants, including those with medical reasons for supplementation, with certain exceptions}^*}$$

**Please see page 5 for allowable exclusions from the denominator.*

The Joint Commission defines exclusive breast milk feeding as: "a newborn receiving only breast milk and no other liquids or solids except for drops or syrups consisting of vitamins, minerals, or medicines." Breast milk feeding includes expressed mother's milk as well as donor human milk, both of which may be fed to the infant by means other than suckling at the breast.

Important note on exclusive breastfeeding

The health outcomes in most studies on breastfeeding are based on mother/child dyad breastfeeding, i.e., feeding at the breast. Although WHO and CDC now define breastfeeding to include feeding expressed milk, it is only in recent years, and predominantly in the United States, that studies have begun to include

expressed milk as part of the definition of breastfeeding. Further research is necessary to assess whether the health impact of breastfeeding for mother and child is also present with the feeding of expressed milk.

Important note on non-exclusive breast milk feeding

There are medical indications for supplementing a breastfed infant, but The Joint Commission does not require documentation of these indications. If the supplement consists of expressed or donor human milk, these infants can still be counted as exclusively breast milk-fed. Medical reasons for supplementation are *not* reasons for excluding infants from the denominator.

However, the indications for supplementing a breastfed infant should be documented for purposes of patient care. It is important to note that “supplements” may consist of expressed or donor human milk or formula, and each hospital will need to define whether “supplement” includes breast milk or only refers to formula. Note that hospitals seeking Baby-Friendly designation are required to document medical reasons for supplementation, as well as the route and type of supplementation.

The Joint Commission assumes that implementation of evidence-based best practices for infant feeding and care will greatly diminish the numbers of infants who become dehydrated from insufficient milk transfer. Supplementation (using breast milk or formula) is medically indicated in these infants. It is expected that in any facility there will always be a small number of breastfed infants in whom supplementation is medically indicated, even with exemplary implementation of best practices. Experience with public reporting on exclusive breastfeeding in California shows that less than 10% of breastfed infants are supplemented in the top-performing hospitals. Such hospitals range from public institutions serving low-income populations to private hospitals. Note that supplements can always take the form of human milk, either donor milk or expressed mother’s milk.

Part 1

Guidelines for Data Collection

Introduction and Overview on Data Collection

Accurate documentation of infant feeding will help hospitals monitor their practices and comply with the new Perinatal Care core measure set. Inadequate documentation of formula use, breastfeeding, and breast milk feeding can impede progress in delivering evidence-based care.

Compliance with the new core measure may require facilities to modify their paper charts and/or electronic medical records. Thus facilities may want to consider charting modifications that support breastfeeding (such as length of skin-to-skin contact, especially immediately following birth). This section offers suggestions on how to accurately collect data, and the appendix includes samples from exemplary facilities that already collect data on exclusive breast milk feeding.

The measure will exclude from the denominator the following infants:

Discharged from the hospital while in the Neonatal Intensive Care Unit (NICU)
ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Codes for galactosemia
ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for parenteral infusion

Experienced death

Length of Stay >120 days

Enrolled in clinical trials

Documented *Reason for Not Exclusively Feeding Breast Milk*. The Joint Commission describes the only acceptable maternal reasons for which "breast milk feeding should be avoided" as:

- o HIV infection
- o Human t-lymphotrophic virus type I or II
- o Substance abuse and/or alcohol abuse
- o Active, untreated tuberculosis
- o Taking certain medications, i.e., prescribed cancer chemotherapy, radioactive isotopes, antimetabolites, antiretroviral medications, and other medications where the risk of morbidity outweighs the benefits of breast milk feeding
- o Undergoing radiation therapy
- o Active, untreated varicella
- o Active herpes simplex virus with breast lesions

In some of these cases, the infant can and should be exclusively fed breast milk or donor human milk, even though The Joint Commission allows these infants to be excluded from the denominator. For example, a mother with herpetic lesions on one breast can still feed from the other breast. A mother with active untreated tuberculosis can have someone else feed her infant her own expressed milk, but feeding at the breast is not recommended due to droplet precautions, according to expert sources. A mother in a clinical trial may breastfeed if the trial allows.

It is important to note that the "reasons for not exclusively feeding breast milk" listed by The Joint Commission are *not* indications for *supplementation* in a breastfed infant. Many of these exclusions concern breastfeeding *initiation*.

Recommendations for Documentation

The Joint Commission currently suggests the following sources for collecting data on exclusive breast milk feeding:

- 1) Discharge summary
- 2) Feeding flow sheets
- 3) Individual treatment plans
- 4) Intake and output sheets
- 5) Nursing notes
- 6) Physician progress notes

Two of the six suggested sources—the intake/output sheets and feeding flow sheets—represent direct documentation of the types of feeding and offer the best starting place for appropriate documentation. The other four sources can augment these primary sources of information.

The United States Breastfeeding Committee suggests several different approaches to accurate data collection on exclusive breast milk feeding at discharge. These approaches may be applied to both paper and electronic documentation.

- 1) *Modify existing charting to support appropriate data collection and easy extraction with chart audits.*

Avoid using the word “bottle” as a synonym for formula. Because bottles may contain expressed breast milk or donor human milk, it is best to be specific about the milk that the infant is consuming.

Encourage provider orders that state “exclusive breastfeeding” or “breastfeeding contraindicated due to _____.” This may help collect and extract data more easily.

Create a special charting section on supplementation, that lists what the supplement is (formula, the mother’s expressed milk, or donor human milk), and the indication. This may be a form, a stamp, or a sticker.

Collect information on each infant related to the approved reasons for not exclusively feeding breast milk. Consider creating a check-off list that includes these reasons to exclude the infant from the denominator. It may be useful to have this check-off list in a central location for those indications that will not change, such as HIV infection or substance abuse.

- 2) *Key information should be aggregated and summarized.*

This can be done readily with electronic medical records. Note that any measures that will be electronically aggregated cannot be in free text, and must exist as a ready-made option for the user to choose. Paper charts may require chart audits at the time of discharge or after discharge. In this case, the information would need to be presented in a way that can be readily extracted.

- 3) *A hospital may use a feeding flow sheet or intake/output sheet as a central source of final documentation for all feeding information that may be present elsewhere (such as feeding records kept by mothers, or notes on supplementation written in the physician progress notes).*

Feeding records kept by mothers can be a useful source of information for a nurse to add into the nursing flow sheets.

- 4) *Universal data collection on all infants will support consistent practices and is preferable to sampling.*

It is helpful to record information on each feeding, and to have a place where the aggregate data for that patient is summarized.

If using a paper record, creating a lightly shaded row or column for formula use may make it easier to perform data extraction for chart audits.

5) *Point-of-use inventory management can support documentation of feeding practices.*

Some hospitals have had success in handling formula in the same manner as medications: a practice that can provide an easy way to document and track use of any formula, just as medication use is tracked. Including formula in automated medication dispensing and distribution systems provides a time-saving vehicle for accurate data collection while investing a minimal amount of staff time.

Additional measures

Updating documentation tools and changing work flow sheets can be time-consuming and costly. Thus, in addition to adding documentation to monitor exclusive breast milk feeding, hospitals may want to take advantage of the update process to add tools that will help encourage and monitor *other* best practices related to infant feeding. Such measures will help a hospital reduce the number of breastfed infants receiving formula for non-medical indications. Additional practices might include:

Documentation that allows easy measurement of breastfeeding initiation rates.

Documentation that includes the route of supplement administration, as this information may become relevant in improving best feeding practices.

Documentation that describes the medical indication for supplementation especially for conditions that may arise during the infant's stay (e.g., dehydration, mother starting a contraindicated medication).

Documentation that allows staff to record the length of time of skin-to-skin contact, especially immediately following birth.

Lactation documentation that includes ventral positioning as a positioning option (mother semi-reclining with infant prone on her body, with infant's head between her breasts and abdomen against hers).

Documentation that shows the mother has been taught and understands various aspects related to infant feeding, such as: the health impact of breastfeeding to mother and child; the importance of exclusivity, the importance of colostrum; information on milk supply, engorgement versus fullness, sore nipples, mastitis, pacifiers, and WIC, as well as information on preparing and giving formula, if appropriate. Most importantly, documentation can reflect that the breastfeeding mother is discharged knowing *how* to breastfeed, with a skill set that includes demonstration of proper positioning, achievement of infant latch, recognition of swallowing, knowledge of when to feed the infant and for how long, and recognition that the infant is receiving sufficient milk.

Documentation that demonstrates that the risks of inappropriate formula use were reviewed by the mother, including the risks to breastfeeding success, and health risks of formula feeding to mother and baby. (Such charting practices can help augment data collection on formula use.)

Documentation that supports workflows that eliminate mother-infant separation and disruptive procedures for the first two hours after birth.

Appendix for Part 1: Charting Samples

Note: The United States Breastfeeding Committee does not endorse the use of any particular documentation product or brand.

Charting samples are provided as a starting point and come from hospitals already implementing documentation procedures that satisfy the accurate collection of data for the exclusive breast milk feeding core measure. These examples are intended to aid hospitals in assessing their current charting tools and considering potential adjustments.

All examples are used with permission of the contributing institution.

Patient ID	Patient Name	Fed instruction	Delivery Date	Planned # Exclusive	Supplement Mat Request	Supplement Med Ind	Total # Supplement
Breast		No	12/6/2009 8:39:00 AM	Yes	0	0	
Breast		FHC	12/10/2009 11:34:00 AM	Yes	0	0	
Breast		FHC	12/2/2009 9:10:00 PM	Yes	0	0	
Breast		FHC	12/10/2009 4:29:00 PM	Yes	0	0	
Breast		NSP	12/4/2009 11:47:00 AM	Yes	0	0	
Breast		FHC (NO) Orange	12/3/2009 10:00:00 AM	Yes	0	0	
Breast		FHC (NO) Dr Data	12/7/2009 4:31:00 PM	Yes	0	0	
Breast		No f.o.	12/9/2009 4:45:00 AM	Yes	0	0	
Breast		Angela Asselin	12/9/2009 9:00:00 AM	No	0	0	13
Breast		Alonso - Fredericks	12/13/2009 3:13:00 AM	Yes	0	0	
Breast		FHC	12/2/2009 11:02:00 PM	No	1	0	1

Aggregate breastfeeding statistics compiled in a monthly report. Each row represents a different patient.

The last row shows a mother who stated on admission that she planned to exclusively breastfeed. Although not medically indicated, this mother did request one formula supplement during the hospital stay. As a result, the aggregate report then shows a "no" in the "Planned Exclusive" column.

The patient identifiers are omitted here, but are normally available if needed for chart audit. An audit was necessary for the mother on the third row from the bottom. This mother changed her mind and decided to formula feed although all education and support was offered, and she gave 13 formula feedings. Because she changed her mind after the fact, staff only documented the feedings without clicking the Newborn I&O tabs that would trigger "medical indication" or "maternal request." Thus there are no numbers under medical indication or maternal request.

All other rows show exclusive breastfeeding throughout the hospital stay.

Month	Initiation: % that breastfed at all during stay	NSVD	C-section	Breastfed in 1 st hour	Said "yes" to exclusive in Recovery Room	Exclusive breast milk feeding upon D/C	Had medical indication to supple- ment	Exclusive and medical indication combined %
		Skin- to- skin* in first ½ hour	Skin-to- skin* ½ hour when able to respond					
July	79/100 70%	28/57 49%	22/55 40%	54/70 77%	31/77 40%	37/77 48%	21/77 27%	58/77 75%
Aug	81/101 80%	37/38 97%	16/31 52%	60/74 81%	46/81 57%	45/81 56%	17/81 21%	62/81 77%

Prior to the development of computerized data aggregation at this hospital, this spreadsheet was used for manually auditing be used by utilizing computerized aggregation. This spreadsheet shows that in August, 81 of 101 mothers initiated breastfee 45 mothers (56%) were still exclusively breastfeeding upon discharge from the hospital, while 17 mothers (21%) had a mec supplement. While The Joint Commission is not looking at medical indications to supplement, monitoring this data can help care.

**Please see page 23 for further discussion of skin-to-skin contact.*

	11/21	11/20	11/23	11/22
Supplemented per mom's request	0	2	0	0
Total supplemented per mom's req	0	2	0	0
Supplemented medical indication	0	2	0	2
Total supplement medical indic	0	2	0	2
Soft cup feedings	0	0	0	0
Total supplement soft cup feed	0	0	0	0
SNS Feedings	0	0	0	0
Total supplement SNS feedings	0	0	0	0
Total supplements	0	2	0	2
Total breastfeeds in hospital	1	1	1	1

This hospital now tra breastfeeds through h exclusive breast milk shown at left.

Breastfeeding Statistics

Report Printed: 12/11/09 8:13:53 PM

12/01/09 to 12/31/09

Page 1, Page 10

	Patient ID	Preferential	Delivery Date	Planned Exclusive	Breastfeeds in Hospital	Supplement Med Request	Supplement Med Lab	Total # Supplement
Breast	[REDACTED]		12/17/09 9:41:00 AM	Yes	10	0	0	
Feeding Method								
Breast	[REDACTED]		12/17/09 12:11:00 PM	Yes	13	0	0	
Total: 1								
Feeding Method								
Breast	[REDACTED]		12/09/09 4:09:00 PM	Yes	17	0	0	
Total: 1								

This hospital now tra
breastfeeds *and* suppl
its monthly aggregate

Data collection tool for exclusive breast milk feeding core measure

J	F	M	A	M	J	J	A	S	O	N	D	Exclusion Criteria
100												Total deliveries for month
20												Ever admitted to the Neonatal Intensive Care Unit
												ICD-9-CM Principal Diagnosis Code or ICD-9-CM Other Diagnosis Code for galactosemia
												ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Code for parenteral infusion
												Experienced death
												Length of Stay >120 days
												Enrolled in clinical trials related to pregnancy/post-partum
1												HIV infection Human t-lymphotrophic virus type I or II
3												Substance abuse and/or alcohol abuse
												Taking certain medications where the risk of morbidity outweighs the benefits of breast milk feeding
												Undergoing radiation therapy
												Active, untreated tuberculosis
1												Active herpes simplex virus with breast
52												Exclusive breastfed at Breast
4												Exclusive breast milk-fed with supplemental feeder
56												Total exclusive breast milk-fed
56/78* 72%												Totals % Exclusive breast milk-fed for TJC. (exclude overlap)

*Of the 25 that met criteria for exclusion, three were already captured as admits to NICU, so total exclusions = 22 and deno offered as example to explain tool).

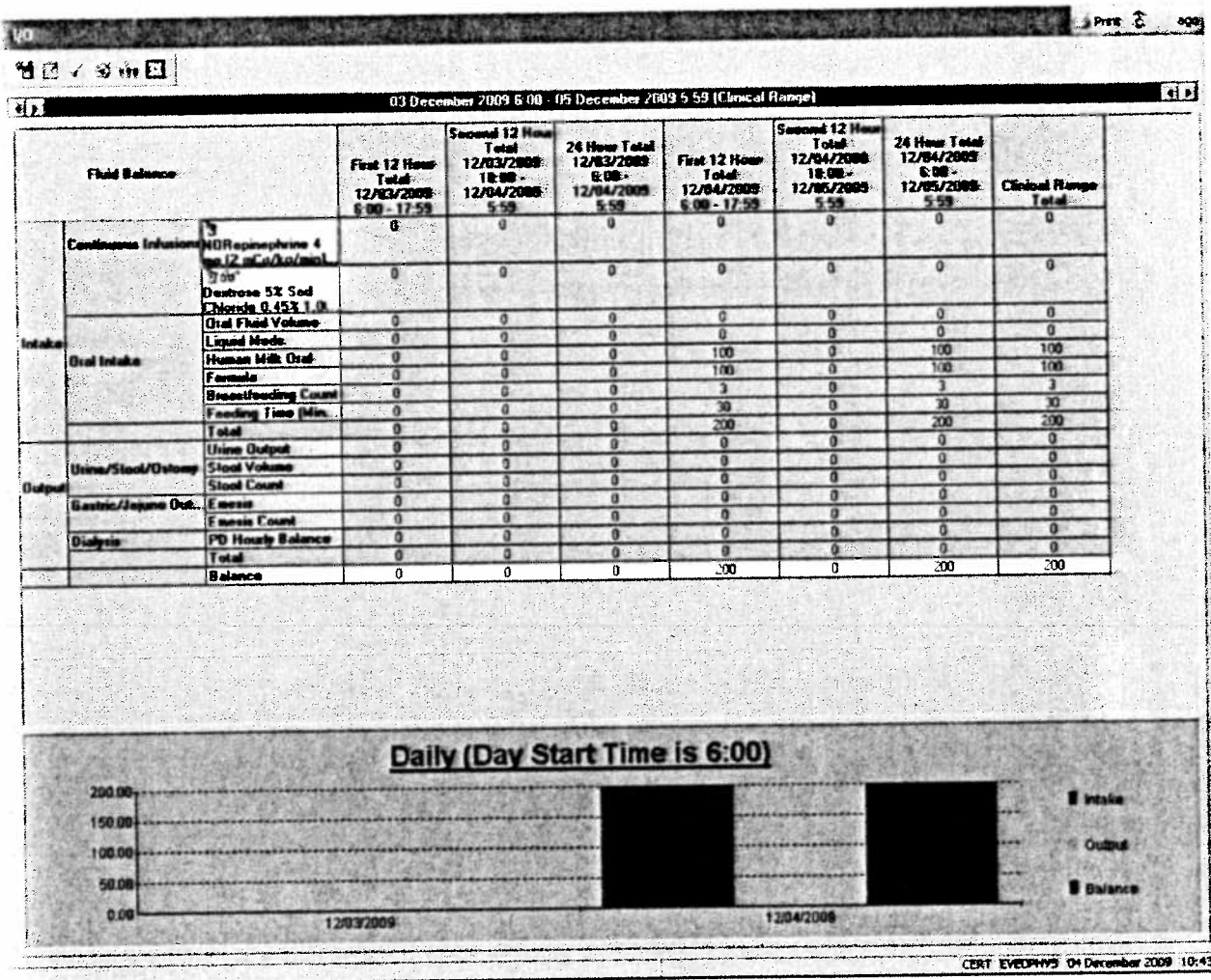
Example 2

Electronic medical record from Clarian Health, IN.

The screenshot displays a software interface for 'Results Review'. At the top, there is a navigation bar with tabs for 'Lab Results', 'Vital Signs', 'Significant Events', 'Results - 72 Hours', 'Radiology', 'Pathology', 'Diagnostics', 'Glucose Data', 'Respiratory Care', and 'TPN Therapy Analysis'. Below this, a 'Flowsheet' section shows 'Nutrition Services Detailed' selected, with a 'Level' dropdown also set to 'Nutrition Services Detailed'. A date range is specified as '30 November 2009 10:37 - 05 December 2009 10:37 (Clinical Range)'. The main content area is divided into a 'Navigator' on the left and a 'Nutrition Services Detailed' table on the right. The table has two columns for dates: '12/09/2009 10:37' and '12/04/2009 10:37'. The table lists various intake metrics:

Nutrition Services Detailed		12/09/2009 10:37	12/04/2009 10:37
Intake			
Human Milk Type		breast milk EXPRESSED 20 kcal	
Human Milk Oral		100.0 mL	
Formula Type		Alimentum 20 kcal	
Formula		100.0 mL	
Feeding Time (Minutes)		15 Minutes	15 Minutes
Breastfeeding Count		2	1

The best place to view type, amount, and length of feeding is on the Nutrition tab within Results Review, above.



The Intake/Output tab will display amount given totals, but will not display type of feeding or feeding time. It will, however, formula and breast milk feedings.

Clinview (CERT | PowerNote, Phillip - 37001260 | Vitals I/O) - Microsoft Internet Explorer

Patient: PowerNote, Phillip - 37001260 Location: USSW US715 P MRN: 37001260 ** Weight **
 Page: Vitals I/O Age: 27 years FN: 380017822 ** Allergies **
 Current User: EVEDPHYS Login/Logout User Gender: Male

SE/NN Show Hourly Sections As of: 12/04/2009 13:02 12/04/2009 Sign Add a Drain/Tube

Time	Vitals										Pain				Intake								
	Temperature (Deg C)	Heart Rate (Bpm)	Respiratory Rate (br/min)	O2 Sats (%)	O2 Delivery Mode	SP/DP Blood Pressure	BP B I MAP (mmHg)	BP B I Method	Comfort/Functional Goal	Pain Scale Used	Pain Score	Post Intervention Pain Score	Radiation (Admission/Int Disent Drug)	Formula Type	Formula Volume (mL)	Human Milk Type	Human Milk Oral (mL)	Feeding Time (Minutes)	Breast Feeding Count (#)	Nipple Type	Feeding Readiness Scale (1-5)	Nippling Quality Scale (1-5)	
12/04/09 06:00 to 12/05/09 05:59																							
10:28														Alimentum 20 kcal	100	Breast milk EXPRESSED 20 kcal	100	15	x1	Other: test			
10:28																							
10:56																							
12 Total															100		100	x3					
12 Total															100		100	x3					
24 Total															100		100	x3					

Clinview displays type, amount, feeding time, and nipple type on the Vitals Intake/Output flow sheet.

Example 3

Adapted from University of California, San Diego, a Baby-Friendly facility.

Date/Time _____ RN/LC/MD _____
 Formula Supplementation Initiated for:

- New maternal medication contraindicated in breastfeeding
- Development of untreated varicella or herpes simplex w/ breast lesions
- New enrollment in a clinical trial

Other reasons:

- Hypoglycemia: glucose ____ mg%
- Excessive wt loss ____% at ____ hours of age
- Failure to latch at ____ hours
- Delayed lactogenesis
- Jaundice related to decreased intake (per MD)
- LBW/IUGR requiring caloric suppl. (per MD or LC)
- Mother/baby separation; explain _____
- Maternal insistence
- Other _____

Education provided re Risks & Benefits of formula: Yes No
 If No, explain: _____

Supplement route (check all that apply):

- SNS(at breast)
- Finger
- Cup
- Bottle

This facility uses a formula supplement "stamp" that is put in the paper record for each instance of supplementation with infant formula. Use of expressed mother's milk or donor human milk is not included. Again, note that medical reasons for supplementation are unrelated to The Joint Commission's acceptable "reasons for not exclusively feeding breast milk." Baby-Friendly documentation requires the same data collection as for the exclusive breast milk feeding core measure but would also encourage this tool for tracking and improving exclusive breastfeeding rates. The presence of this stamp anywhere in the paper record easily alerts chart auditors that this infant was not exclusively fed breast milk.

Part 2
Implementing Practices That Improve
Exclusive Breast Milk Feeding

Introduction and Overview on Practice Implementation

Part 2 of this toolkit focuses on implementing practices that improve the core measure's outcomes and meet The Joint Commission's standards. It is structured around the dimensions of care described in the Centers for Disease Control and Prevention (CDC) survey of Maternity Practices in Infant Nutrition and Care (mPINC). Designed to give direction to hospital leaders and staff, the main approach toward improving the measure's outcomes consists of implementing and improving maternity care practices that have been shown to increase the incidence and duration of exclusive breastfeeding. For example, implementation of evidence-based maternity care practices decreases the incidence of dehydration from inadequate breastfeeding,¹ which has been reported to be a common medical indication for formula supplementation.

In order to optimize breastfeeding outcomes, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have identified *Ten Steps to Successful Breastfeeding* (Table 1). This set of evidence-based policy and practice steps has been demonstrated to improve breastfeeding outcomes.^{2,3} Research indicates that there is an additive effect of the implementation of the *Ten Steps*: each additional step experienced by a new mother during the maternity stay increases the chances that her baby will be breastfed at the time of discharge.⁴ A national study examining a sample of U.S. women found that 70% of first-time mothers participating intended to breastfeed exclusively, and that those who gave birth in facilities where most of the *Ten Steps* were in practice were six times more likely to achieve exclusive breastfeeding.⁵ Thus, implementing the *Ten Steps* is a powerful strategy to improve breastfeeding and health outcomes, achieve national breastfeeding objectives, and decrease unnecessary supplementation.

The *Ten Steps to Successful Breastfeeding* form the basis of the WHO/UNICEF Baby-Friendly Hospital Initiative. Birth facilities that have achieved Baby-Friendly[®] designation have successfully demonstrated implementation of the *Ten Steps* through an on-site, independent assessment process. The Baby-Friendly[®] designation consists of the *Ten Steps* plus the additional step of compliance with the WHO International Code of Marketing of Breast-milk Substitutes.⁶

Several evidence-based interventions will be discussed in Part 2 of this toolkit, the majority of which are drawn from the *Ten Steps*. Keeping mothers and babies together offers the most significant opportunity for improvement of exclusive breastfeeding, however.⁷ This includes continuous, uninterrupted skin-to-skin contact immediately after birth until the first feeding occurs, continued skin-to-skin contact during the hospital stay, and rooming-in both day and night.

Table 1. WHO/UNICEF *Ten Steps to Successful Breastfeeding*
(as adopted for the United States by Baby-Friendly USA, Inc.)

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within one hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless *medically* indicated.
7. Practice "rooming in"—allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no pacifiers or artificial nipples to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Recommendations for Evidence-Based Best Practices

Labor and Delivery Care

a. Initial skin-to-skin contact

Practice: Emphasize skin-to-skin contact immediately after birth to facilitate imprinting of proper breastfeeding technique by the infant. The infant is quickly dried and then placed naked on mother's bare chest immediately after birth; then both are covered, except for the baby's head, with warmed blankets. A cap may be placed on the infant's head but his face should be visible. Ensure the infant is dried between his skin folds, and that wet towels and clothing are not in contact with him. The umbilical cord is not clamped until the infant is dried and on the mother's chest. The cord may be clamped with the infant turned slightly to the side with the clamp placed in the usual position, about 2 centimeters from the infant's body. Emphasize skin-to-skin contact as soon after birth as possible in cases of cesarean delivery. Ideally this should be with the mother as soon as she is stabilized, but other family members can serve until mother becomes available.

For mothers and infants having non-emergent cesarean births, immediate skin-to-skin contact after birth, while incisions are being closed, may help prevent both maternal and neonatal hypothermia and provide a pleasurable distraction during the remainder of the surgery. (See appendix for resources on how to implement this practice.)

Rationale: This practice, part of the 1997 WHO initiative "The Warm Chain,"⁸ helps promote breastfeeding,⁷ and prevents hypothermia and hypoglycemia.⁸ Being near the mother helps the infant adjust to extra-uterine life, with the familiar sound of her heartbeat and voice, and with warmth from her body heat. Studies show that the mother's body responds to the infant's body temperature, aiding in thermoregulation of the infant.^{9 10} Delayed cord clamping may also prevent anemia in the infant.^{11 12}

Who: Prenatal Educators; Labor and Delivery Nurse Managers and staff; Nurse Educators; Chief of Obstetrics and staff, including midwives; Chief of Pediatrics and staff; Chief of Family Practice and staff; Neonatal Intensive Care Unit staff.

b. Initial breastfeeding opportunity

Practice: Emphasize breastfeeding opportunities in the first hour of life. Infants immediately placed skin-to-skin with their mother after birth without interruption tend to find the breast and spontaneously initiate breastfeeding within the first hour. It is usually not necessary to bring the infant to the breast. "Ventral positioning" may facilitate this process: with the mother semi-reclining, the infant is placed prone on the mother's chest, with infant's head between her breasts and abdomen resting on hers. This crucial time can include transport of the infant and mother from the delivery area to the postpartum area while the infant is skin-to-skin on the mother's chest, as is recommended by the World Health Organization (WHO).⁸ During this time, the infant should not be removed for bathing, weighing, examinations, or medications, according to WHO guidelines.⁸ Diapering may also be postponed until after the first feed. Anticipatory guidance may be necessary for family members so that they will allow the infant and mother to have this uninterrupted time together skin-to-skin. Note that it may

take some infants longer than one hour to spontaneously initiate breastfeeding, particularly if the mother was given sedating medications during labor.

Rationale: Evidence has shown that postponing the first feeding is a strong predictor of breastfeeding failure.^{4 13 14} In addition to increased risk of neonatal hypothermia, immediate bathing of the infant and mother may disrupt initial breastfeeding behavior. Infants appear to have a heightened sense of olfactory learning in the first hour after birth,¹⁵ naturally seeking their mother's breast by smell, particularly if any amniotic fluid is present there.^{16 17 18} Immediate skin-to-skin contact after birth results in the infant having enhanced recognition of his own mother's milk, and is associated with longer breastfeeding duration.¹⁹

Who: Prenatal Educators; Labor and Delivery Nurse Managers and staff, Nurse Educators; Chief of Obstetrics and staff, including midwives; Chief of Pediatrics and staff; Chief of Family Practice and staff; Neonatal Intensive Care Unit staff.

c. Routine procedures performed skin-to-skin

Practice: Perform Apgar assessments and other procedures which may be painful (heel-sticks, medication administration) while mother and baby are skin-to-skin or breastfeeding. Choose the easiest task first, establish as the standard of care, and build other skin-to-skin performed procedures as staff confidence levels rise.^{20 21}

Rationale: This practice avoids mother-infant separation, may diminish newborn stress and risk of neonatal hypothermia and hypoglycemia,²² and may reduce the use of concentrated sucrose solutions. Skin-to-skin contact and breastfeeding are analgesic to the newborn.^{23 24 25} Incremental changes in newborn care policies may create more "buy-in" for nurses performing these procedures.^{20 21}

Who: Labor and Delivery and Postpartum Nurse Managers and staff, Nurse Educators; Chief of Obstetrics and staff; Chief of Pediatrics and staff; Chief of Family Practice and staff; Neonatal Intensive Care Unit staff.

d. Other

Practice: Assure continuous physical, emotional, and informational support from skilled, trained professionals during and just after birth, such as birth doulas, midwives, or registered nurses specially trained in the art of labor support.

Rationale: During labor, continuous care from birth doulas has been shown to decrease the need for pain medications and more invasive birth practices,²⁶ which can subsequently interfere with breastfeeding. Such labor support can lead to higher breastfeeding intent and initiation.²⁷ It may also help lower the rate of cesarean deliveries by as much as half,²⁶ another Perinatal Care core measure.

Who: Hospital Administrator; Labor and Delivery Nurse Managers and staff, Nurse Educators; Chief of Obstetrics and staff; Chief of Family Practice and staff; Chief of Anesthesia and staff.

Postpartum Care

1. Feeding of Breastfed Infants

a. Initial feeding received after birth

Practice: The infant should remain skin-to-skin with the mother until the first feeding spontaneously occurs. This usually occurs within the first hour, but may take longer if the infant has been exposed to certain labor medications. This may necessitate delaying other routine newborn procedures including weighing, measuring, bathing, and "routine" observation of medically stable infants in the nursery, prioritizing breastfeeding.

Rationale: Multiple studies have shown that delay in first breastfeeding beyond the first hour of life is associated with breastfeeding difficulties, including earlier weaning.^{4 13 14} Skin-to-skin contact in the three hours following birth is associated with improved exclusive breastfeeding rates in the hospital.²⁸ Breastfeeding is important to help the infant imprint proper suckling while the baby is awake and alert immediately after birth.⁷ The calories from early breastfeeding and skin-to-skin contact can reduce the risk of hypoglycemia.²⁹ Note that some labor medications may delay the baby's spontaneous progress to the breast beyond the first hour.^{30 31} and may be linked to problems with suckling or other infant breastfeeding difficulties.^{31 32 33}

Who: Labor and Delivery and Postpartum Nurse Managers and staff, Nurse Educators, Chief of Pediatrics and staff, Chief of Family Practice and staff.

b. Supplementary feedings

Practice: Include appropriate supplementation guidelines in your breastfeeding policy and documentation. This should include the reason for supplementation, the route (e.g., spoon, cup, syringe, etc.), the form of the supplement (e.g., formula, expressed mother's own milk, donor human milk), and the appropriate amount given the infant's age and weight. It is preferable to use milk expressed from the infant's own mother or donor human milk as a supplement; this practice would also allow the infant to be counted as exclusively breast milk-fed for the core measure.

Rationale: This practice allows for tracking of supplementation to help with continuous quality improvement. Amounts given should reflect the stomach capacity of the infant: approximately 5-7 mL on day 1, 7-12 mL on day 2, 18-25 mL on day 3, 28-42 mL on day 4, 34-48 mL on day 5.³⁴ Note that stomach capacity in these ages is even lower in infants born by cesarean.³⁴ Using these numerical guidelines, encourage feeding according to satiation cues. Avoiding artificial nipples in supplementing breastfed newborns helps avoid nipple preference, which can interfere with the establishment of breastfeeding.³⁵ If the baby is receiving supplementation of any type, the mother should also be hand expressing; any colostrum or milk she obtains should be used to supplement her baby. If the feeding and hand expression are unsuccessful, the mother should initiate pumping.

Who: Labor and Delivery and Postpartum Nurse Managers and staff, Nurse Educators, Chief of Pediatrics and staff, Chief of Family Practice and staff.

Practice: Avoid using supplements for which there is no medical indication.

Rationale: There is no medical evidence of benefit for glucose water or water feeds.³⁶

Who: Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics; Chief of Family Practice; Chief of Pharmacy; Purchasing Managers.

Practice: If not already in existence, consider developing a policy and procedure that encourages use of mother's own expressed milk or banked donor human milk as a preference over formula, when supplementation is indicated. Further information can be obtained from the Human Milk Banking Association of North America.

Rationale: For infants who require supplementation for a medical reason, use of human milk preserves the bowel flora and pH of the newborn's gut,^{37 38} and avoids exposure to potentially sensitizing non-human antigens. In addition, using mother's own expressed milk or donor human milk allows the infant to be counted as exclusively breast milk-fed. Use of human milk also reinforces the message to the family of the importance of human milk.

Who: Hospital Administrator; Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics; Chief of Family Practice; Chief of Pharmacy.

Practice: When addressing questions about the effect of maternal medication on breastfeeding, consult evidence-based resources on medication safety such as LactMed from the National Library of Medicine.

Rationale: Few drugs require cessation or interruption of breastfeeding; for those that do, there are often safer alternatives. Use of accurate medication safety resources allows for patient-centered decision making and evidence-based care. The Joint Commission allows maternal use of medications that are unsafe in lactation as an appropriate reason to give formula (although using donor human milk instead of formula would be preferable). Note: Intravenous contrast is not a contraindication to breastfeeding, according to multiple expert sources, including the American College of Radiology.³⁹

Who: Chief of Obstetrics and staff; Chief of Pediatrics and staff; Chief of Family Practice and staff; Chief of Pharmacy and staff; Chief of Radiology and staff; Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators.

Practice: Assure accountability in distribution of infant formula and nipples. Consider storing formula in a locked cabinet or medication dispensing system. When administered, record the amount, method of administration, lot number, time, reason for supplementation, person who administered the formula, and patient number.

Rationale: Tracking the use of formula fosters accountability and is essential in the event of manufacturer recalls. Locked dispensing systems help with accountability and ease documentation. Giving supplements to breastfed newborns by means of artificial nipples is not recommended as it may undermine the establishment of breastfeeding.³⁵

Who: Postpartum Nurse Managers and staff; Nurse Educators; Pharmacy Director (if using locked medication device); Chief of Pediatrics and staff.

Practice: Review the risk of routine or non-medically indicated formula use with all mothers, including the risks to breastfeeding success as well as potential health risks to mother and infant, especially due to early weaning. Consider including nursing documentation that risks were reviewed with the mother. In addition, assure that all formula feeding mothers receive oral and written instructions explaining the appropriate mixing, storage, discarding, and feeding of formula.

Rationale: The health risks of non-exclusive breastfeeding are well described.⁴⁰ Such charting can help ensure patient-centered, shared decision making, and ensure that mothers are instructed in the safe use of formula. Some hospitals have employed informed consent forms for mothers who request formula without a medical indication.

Who: Postpartum Nurse Managers and staff; Nurse Educators; Chief of Pediatrics and staff; Chief of Family Practice and staff.

2. Breastfeeding Assistance

a. Documentation of feeding decision

Practice: Document that mother has received adequate information to make an informed feeding choice, and that she understands the risks of formula feeding to her health and that of her infant.

Rationale: Informed decision making is patient centered, and allows staff and patient to have mutual respect for the decision, once made. Decisions involving risks of harm should be disclosed and discussed with patients.

Who: Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Obstetrics and staff; Chief of Pediatrics and staff; Chief of Family Practice and staff.

Practice: Avoid use of the term "bottle" as a synonym for formula feeding.

Rationale: Bottles may contain expressed or donor human milk. Formula may be given by other means besides a bottle.

Who: Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Obstetrics and staff; Chiefs of Pediatrics and staff; Chief of Family Practice and staff.

b. Breastfeeding advice and counseling

Practice: Staff and parents should be taught the following information, both in the prenatal setting and in the hospital:

- Avoid scheduled feedings. Feed at the earliest signs of hunger: baby's eyes open, rooting, yawning, and stretching. Crying is a late sign of hunger.
- It is normal for exclusively breastfed babies under six months to feed 8-11 times in 24 hours.^{41 42} Nursing more than the minimum (8 feedings per 24 hours) will help mature milk come in sooner, avoiding high bilirubin levels and excessive weight loss. Babies commonly cluster feed, asking for several closely-spaced feeds followed by a longer sleep.
- During the hospital stay, a newborn who does not wake to feed at least 8 times in 24 hours should be assessed for hydration status and signs of sepsis or hypoglycemia. If the baby appears healthy, continue to monitor until he is feeding effectively and spontaneously waking for feeds.
- Use of supplements, especially in the early weeks, can decrease milk supply, cause undue engorgement, and risk early weaning. Frequent nursing helps increase milk supply. Discuss normal newborn behavior, so that parents will understand that it is normal for infants to breastfeed frequently or cluster feed. Explain to parents that babies may breastfeed for comfort as well as for nourishment, and that this does not reflect inadequate milk production.

Rationale: These practices have been shown to promote breastfeeding duration and exclusivity.^{4 13 43} Breastfeeding education during the prenatal period provides pregnant women and their partners with the information necessary for implementation of best practices in the hospital and at home.

Who: Prenatal Educators; Chief of Obstetrics and staff, Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Pediatrics and staff, Chief of Family Practice and staff.

c. Assessment and observation of breastfeeding

Practice: As much as possible, staff should allow mother to position the baby and achieve latch, with guidance if necessary, rather than positioning and latching on the infant for the mother.

Rationale: This strategy will help optimize mother's chances of success after returning home. She will better learn how to become independent with successful latch and positioning and this may improve her self-efficacy.^{44 45}

Who: Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators.

Practice: Be prepared to offer extra help for those mothers at increased risk for delay in milk production: cesarean delivery (especially if unscheduled), large infants (>3600g), primiparas, prolonged labor,³² obesity,⁴⁶ infants of diabetic mothers,⁴⁷ and possibly for those using selective serotonin-reuptake inhibitors.⁴⁸ These mothers will need particular attention to

assure frequent feedings, rooming-in, skin-to-skin contact, and appropriate latch and positioning, and may need heightened access to a trained lactation specialist.

Rationale: Increased attention to at-risk dyads will diminish the risk of neonatal dehydration, hyperbilirubinemia, and excessive weight loss, decreasing the need for supplementation in these infants and improving rates of exclusive breast milk feeding.

Who: Hospital Administrator; Lactation Managers; Chief of Obstetrics and staff; Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Pediatrics and staff; Chief of Family Practice and staff.

Practice: Formal evaluation of breastfeeding, including observation of position, latch, and milk transfer, should be undertaken by trained caregivers at least twice daily and fully documented in the record during each day in the hospital after birth.^{36 49} During the last eight hours preceding discharge of the mother and baby, formal documented assessment of breastfeeding effectiveness should be performed by a breastfeeding-trained medical professional.³⁹ International Board Certified Lactation Consultant (IBCLC) staffing levels should be consistent with evidence-based recommendations.⁵⁰

Rationale: Close observation by trained professionals helps prevent complications associated with insufficient milk transfer.

Who: Hospital Administrator; Lactation Managers; Chief of Obstetrics and staff; Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Pediatrics and staff; Chief of Family Practice and staff.

d. Pacifier use

Practice: Include a policy with clear and limited indications for pacifier use, such as if needed during circumcisions for analgesia, or if parents supply their own. The policy may include informing parents of risk of interference with the establishment of breastfeeding.

Rationale: Pacifiers have been shown to interfere with the establishment of breastfeeding^{4 32 35 51 52} and are not necessary in the early weeks.⁵³

Who: Postpartum Nurse Managers and staff; Nurse Educators; Chief of Obstetrics and staff; Chief of Pediatrics and staff; Chief of Family Practice and staff; Chief of Pharmacy.

Practice: Restrict access to hospital-issued pacifiers. Some hospitals successfully do this by keeping pacifiers in locked cabinets or storing them in locked medication dispensing devices. It may be helpful to institute this process at the same time as instituting a process for securing and tracking formula use.

Rationale: While often popular with parents and hospital staff, pacifiers have been shown to interfere with the establishment of breastfeeding and are not necessary in the early weeks.^{4 13 14 35} They may mask signs of hunger and have been shown to cause problems with latch. Use of pacifiers may contribute to increased rates of non-exclusive breast milk feeding if such interference results in excessive weight loss or dehydration. Keeping pacifiers in locked

medication dispensing devices allows managers to track their use. While promoting pacifiers for sleep for older infants to reduce the risk of SIDS, the American Academy of Pediatrics states that pacifiers are not to be used in breastfeeding newborns for the first month, until breastfeeding has been well established.⁵³

Who: Prenatal Educators; Postpartum Nurse Managers and staff, Nurse Educators; Chief of Pediatrics and staff; Chief of Family Practice and staff, Chief of Obstetrics and staff, Chief of Pharmacy.

Practice: Restrict use of pacifiers dipped in concentrated sucrose solution to circumstances in which they are needed for analgesia, and not for calming babies, delaying feedings, or attracting babies to the breast.

Rationale: Reduce the circumstances by which infants will need to be calmed by artificial means. Rooming-in and skin-to-skin contact are calming to newborns. Parents should learn other calming strategies they will be able to practice at home.

Who: Prenatal Educators; Postpartum Nurse Managers and staff, Nurse Educators; Chief of Pediatrics and staff; Chief of Family Practice and staff, Chief of Obstetrics and staff.

3. Contact Between Mother and Infant

a. Separation of mother and newborn during transition to receiving patient care units

Practice: If mother and infant must be transported after birth, delay transfer until initial skin-to-skin contact and feeding have occurred. Whenever possible, infant should be transported while skin-to-skin on the mother's chest, as recommended by WHO.⁸ Mother and infant should remain in the same room for at least two hours after birth and be cared for as a unit ("pair care" or "couplet care").

Rationale: These practices diminish risk of neonatal hypothermia by allowing thermoregulation of the newborn.⁸ Keeping mother and baby together has been shown to promote breastfeeding.^{7 28}

Who: Postpartum Nurse Managers and staff, Nurse Educators; Chief of Pediatrics and staff, Chief of Obstetrics and staff, Chief of Family Practice and staff.

b. Patient rooming-in

Practice: Emphasize rooming-in. All infants, regardless of feeding method, should be kept with the mother both day and night. Families should be informed about rooming-in and why it is important.

Rationale: Rooming-in has been shown to promote exclusive breastfeeding^{54 55} and longer breastfeeding duration.^{4 14} Babies who room-in are more likely to take in more breast milk⁵⁴ and gain more weight per day⁵⁶ and are less likely to become jaundiced.⁵⁷

Infants who stay near their mothers sleep better and cry less,⁵⁸ and mothers get the same amount of sleep whether the infant is in their room or the nursery.⁵⁹ Rooming-in allows the mother to learn to recognize her infant's cues and feed at the earliest signs of hunger. Rooming-in is also associated with improved maternal competence in caring for her newborn.^{60 61 62}

Who: Prenatal Educators; Postpartum Nurse Managers and staff, Nurse Educators; Chief of Pediatrics and staff; Hospital Administrator.

c. Instances of mother infant separation throughout the intrapartum stay

Practice: Perform Apgar assessments, heel-sticks, and medication administration while mother and baby are skin-to-skin, with painful procedures performed while breastfeeding. Baby should be transported while skin-to-skin on the mother.

Rationale: This practice both avoids mother-infant separation, and may diminish newborn stress and risk of neonatal hypothermia and hypoglycemia.²² Skin-to-skin and breastfeeding are analgesic to the newborn.^{23 24 25}

Who: Labor and Delivery and Postpartum Nurse Managers and staff, Nurse Educators; Chief of Obstetrics and staff, Chief of Pediatrics and staff, Chief of Family Practice and staff.

Practice: Avoid waking the mother and/or infant and removing the infant from the mother's presence in order to obtain routine weights and vital signs. Whenever possible, these should be done in the mother-infant room and timed so both can be assessed together, in order to reduce the number of interruptions to mother's and infant's sleep. If the infant must be removed from the mother's room, he should be returned as soon as circumstances allow. Consider allowing the mother or another family member to accompany the infant and help assure his immediate return.

Rationale: This practice is patient centered, promoting appropriate rest of mother and infant,⁶³ and promotes breastfeeding by minimizing mother-infant separation.

Who: Postpartum Nurse Managers and staff, Nurse Educators.

Facility Discharge Care

a. Assurance of ambulatory breastfeeding support

Practice: Arrange for evaluation of all breastfeeding newborns within 3-5 days of age, by a pediatrician or other knowledgeable health professional, as recommended by the American Academy of Pediatrics (AAP). This visit should include infant weight; physical examination, especially for jaundice and hydration; breast symptoms in the mother (painful feedings, engorgement); infant elimination patterns; and a formal, observed evaluation of breastfeeding, including position, latch, and milk transfer.³⁶ This may include a home visit.

Rationale: Close follow-up is recommended by the AAP, and helps prevent serious complications due to insufficient milk transfer. The AAP notes that weight loss in the infant

of greater than 7% from birth weight indicates possible breastfeeding problems and requires more intensive evaluation of breastfeeding and possible intervention to correct problems and improve milk production and transfer.³⁶

Who: Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics and staff, Chief of Family Practice and staff; Public Health Nurses; Visiting Nurses.

Practice: Offer walk-in support groups for all new parents. These support groups should offer trained breastfeeding support, in addition to general support for new parents. In addition, consider having a support group leader visit the mother before discharge and offer to provide the mother's telephone number to group leaders. Alternatively, a designated trained staff member from the hospital can call all new parents after discharge to aid in support. Finally, a support warm-line at the institution can be helpful and can make referrals to an institution-based or community support group, and outpatient lactation consultation if necessary.

Rationale: These practices may help promote breastfeeding duration and thus optimal health for mother and infant. Such support systems help encourage all new parents to get the help they may require.

Who: Hospital Administrator; Postpartum Nurse Managers; Nurse Educators; Lactation Managers and staff.

b. Distribution of "discharge packs" containing infant formula

Practice: Refrain from giving breastfeeding mothers formula company discharge packs and/or extra bottles of formula upon discharge. Staff should also refrain from giving other supplements for infants such as water, teas, or herbal preparations.

Rationale: Distribution of industry-provided materials and other "free" gifts is a form of marketing that implies endorsement of the product by the hospital, sending a mixed message to patients. Such materials have been shown to interfere with exclusive breastfeeding,^{64 65} increasing the risk of non-exclusive breastfeeding at 10 weeks by 39%.⁶⁵ Hospital distribution of such marketing materials raises ethical concerns as well. Patient safety is compromised when mothers cannot be informed of recalls of formula distributed by hospitals.

Who: Hospital Administrator; Risk Managers; Purchasing Managers; Labor and Delivery and Postpartum Nurse Managers and staff; Nurse Educators; Chief of Obstetrics and staff; Chief of Pediatrics and staff; Chief of Family Practice and staff; Hospital Ethics Committee.

Staff Training

- a. Preparation of new staff
- b. Continuing education
- c. Competency assessment

For a., b., and c.:

Practice: Provide basic education to new staff regarding perinatal care practices that may impact breastfeeding, such as avoidance of mother-infant separation, skin-to-skin contact, early initiation of breastfeeding, and the hospital's breastfeeding policy. Individual training on latch, positioning, and swallowing should be incorporated. Also provide continuing education on breastfeeding to existing staff. All staff should be given competency assessments at least once a year. Staff education and competencies should be mandatory and assessed during yearly evaluations. Many online tools and in-person courses are available that can assist in both training and competency assessment. Note that policy changes should be implemented prior to staff training, to ensure training is most effective.

Rationale: Staff training in evidence-based best practices is essential to implementation.^{66 67}

Who: Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics; Chief of Obstetrics; Chief of Family Practice.

Structural and Organizational Aspects of Care Delivery

- a. Breastfeeding policy
- b. Communication of breastfeeding policy

For a. and b.:

Practice: Have a written breastfeeding policy that is communicated to all staff including physicians and allied health care providers. Consider integrating such a policy into a general infant feeding policy. Assure that tangential (or department specific) policies that involve infant feeding practices are congruent with the breastfeeding policy, such as blood draws, hearing screens, and picture taking. Plan for Quality Improvement (QI) programs to collect data on policy compliance (e.g., number of patients rooming-in, time spent skin-to-skin following birth, amounts and types of supplementation, etc).

Rationale: The development and communication of a breastfeeding policy has been found to be one of the strongest predictors of breastfeeding duration and exclusivity. Effective communication to staff is essential in order to ensure it is properly implemented.

Who: Hospital Administrator; Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics; Chief of Obstetrics; Chief of Family Practice; Quality Improvement Committee; Compliance Officer.

- c. Employee breastfeeding support

Practice: Provide space and time for lactating employees and visitors to express milk, and consider providing on-site day care for young infants.

Rationale: While not required by The Joint Commission, consistent standards for both employees and patients help staff provide consistent messages to patients. Worksite lactation support has also been shown to gain a positive return on investment, decreasing employee turnover and reducing sick days to care for sick infants.⁶⁸ Section 4207 of the Patient Protection and Affordable Care Act of 2010 specifies that employers must provide reasonable unpaid break time and private space that is not a bathroom for non-exempt employees to

express milk until the child's first birthday. Employers with fewer than 50 employees may apply for an exemption if the provision creates an "undue hardship.")

Who: Human Resources Department; Hospital Administrator; Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Prenatal Educators.

d. Facility receipt of free infant formula

Practice: Ensure that business relationships and vendor policies with formula and breastfeeding equipment companies are congruent with policies for other vendors.

Rationale: Hospital vendor policies should not allow for products that are not paid for or inventoried. Acceptance of free formula in return for the hospital's implied endorsement of formula, indeed a particular brand of formula, raises several ethical concerns, not the least of which is the promotion of a product which is not medically necessary for most infants.

Who: Hospital Administrator; Purchasing Managers; Labor and Delivery and Postpartum Nurse Managers; Nurse Educators; Chief of Pediatrics; Chief of Family Practice; Compliance Officer; Hospital Ethics Committee.

e. Prenatal breastfeeding instruction

Practice: Discuss infant feeding at prenatal visits and during prenatal education classes, using open-ended questions, exploring each mother's questions and concerns in a non-judgmental way, and offering education targeted to her specific concerns. In addition, prenatal education should include information about breastfeeding as optimal nutrition, impact of lack of breastfeeding on health and other outcomes, and anatomy and physiology of lactation.⁶⁹

Rationale: This counseling method allows patients to feel safe in addressing their concerns and is effective and patient centered.⁷⁰ Evidence shows that primary care based educational programs on breastfeeding had the greatest effect of any single intervention on both initiation and short-term duration.⁶⁹

Who: Chief of Obstetrics and staff; Prenatal Educators.

Practice: Give anticipatory guidance to parents in the prenatal period regarding the hospital stay, particularly about immediate and continuous skin-to-skin contact, first feeding, frequent feedings, rooming-in, and pacifiers, the effect of supplements on milk supply and breastfeeding. Suggest limiting visitors so that mothers and infants can bond and normal feeding and sleeping patterns will not be interrupted.

Rationale: Anticipatory guidance will assure parents of continuity of care between the community and the hospital, easing the transition to evidence-based practices in the maternity facility.

Who: Chief of Obstetrics and staff; Obstetric Office Managers; Prenatal Educators.

Practice: Incorporate breastfeeding education into all routine prenatal classes and visits, regardless of mother's infant feeding decision, rather than limiting breastfeeding education only to dedicated breastfeeding classes. Invite partners and/or family to attend and participate.

Rationale: Prenatal breastfeeding education improves breastfeeding outcomes.^{3 71 72 73} If incorporated into routine prenatal care, breastfeeding information will be more accessible to pregnant women, helping the hospital course and postpartum period go more smoothly. Partners and family members will be better equipped to support the mother and baby and will receive consistent messages.

Who: Chief of Obstetrics and staff; Obstetric Office Managers; Nurse Managers and staff; Nurse Educators; Prenatal Educators.

Practice: Eliminate formula advertising and marketing materials (such as coupons, free samples, and gifts) from prenatal offices, prenatal classes, ultrasound offices, and other sites of medical care utilized by pregnant women.

Rationale: Such materials have been shown to interfere with exclusive breast milk feeding.⁷⁴ Hospital and provider distribution of marketing materials raises ethical concerns and violates vendor policies.

Who: Chief of Obstetrics and staff; Obstetric Office Managers; Ultrasound Office Managers; Prenatal Educators.

f. Coordination of lactation care

Practice: Provide access to lactation care and services after discharge.^{3 73} These services may take the form of general new parent support groups staffed by a trained lactation specialist or one-on-one lactation consultation, both of which may be required by some women. Most women could also benefit from community-run breastfeeding support groups.

Rationale: New parents often require ongoing lactation support, especially those discharged before their mature milk comes in. Access to trained lactation specialists increases breastfeeding success.^{75 76} Other mothers with risk for delayed lactogenesis may require ongoing lactation support. Many women abandon breastfeeding in the first two weeks. Use of formula supplements in the first two weeks without medical indication may interfere with establishment of breastfeeding and result in early weaning before mothers have reached their own breastfeeding goals.^{4 13 14} Early referral to the primary care provider on days 3-5 of life provides reassurance and avoids unnecessary supplementation and weaning.⁴⁹

Who: Hospital Administrator; Lactation Services Managers; Postpartum Nurse Managers; Nurse Educators.

Appendix for Part 2: Resources

Below is a list of selected resources, some of which are available at no cost, and some of which are available for purchase. This list is by no means exhaustive and may be periodically updated. The most up-to-date list may be found on the [USBC website](#). The United States Breastfeeding Committee has no financial interest in the sale or use of any of these resources.

California Department of Public Health: Examples of consents to supplement

Includes two model consent forms in English and one in Spanish

Includes model policy (from Kaiser) for supplementation

Academy of Breastfeeding Medicine: Clinical protocols

See especially Protocol #3 (*Supplementation*) and Protocol #7 (*Model Hospital Policy*)

Lamaze International: Healthy birth practices

Includes care practice papers such as *Keep Mother and Baby Together—It's Best for Mother, Baby, and Breastfeeding*

Health Education Associates: Resources on skin-to-skin contact

Skin to Skin in the First Hour After Birth: Practical Advice for Staff after Vaginal and Cesarean Birth: three-part video to aid in training hospital staff about the importance of skin-to-skin and examples of the baby's stages during the first hour; practical advice for staff after a vaginal birth; and practical advice for staff after a cesarean birth

"The First Hour After Birth: A Baby's 9 Instinctive Stages": tear-off pad which clearly explains the nine observable newborn stages that occur when a baby is in skin-to-skin contact after birth

JSI Maternal and Infant Health Project: "The Warm Chain"

Ten-minute online video demonstrating the World Health Organization's recommendations on skin-to-skin contact and other measures for preventing neonatal hypothermia

California Department of Public Health: Birth and Beyond California: hospital breastfeeding quality improvement and staff training demonstration project

Utilizes Quality Improvement (QI) methods and training to implement evidence-based policies and practices that support breastfeeding within the maternity care setting

University of Virginia: Online provider training module

Provides 7 hours of CME and CEU

Association of Women's Health, Obstetric and Neonatal Nurses: Guidelines for Professional Registered Nurse Staffing for Perinatal Units

Provides staffing recommendations for nurses as well as for lactation consultants

U.S. Lactation Consultant Association: International Board Certified Lactation Consultant Staffing Recommendations for the Inpatient Setting

Provides staffing recommendations for lactation consultants in various hospital settings

Skin-to-skin contact during cesarean birth:



Photo courtesy of Cindy Curtis



Photo courtesy of Jack Newman

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Resources for Hospitals/Maternity Centers to Meet JCAHO Standards

Access page at: <http://www.usbreastfeeding.org/HealthCare/HospitalMaternityCenterPractices/ResourcesforHospitalsMaternityCenters/tabid/183/Default.aspx>

Below is a list of selected resources, some of which are available at no cost, and some of which are available for purchase. This list is by no means exhaustive and may be periodically updated. The United States Breastfeeding Committee has no financial interest in the sale or use of any of these resources.

California Department of Public Health: Examples of consents to supplement

- Includes two model consent forms in English and one in Spanish
- Includes model policy (from Kaiser) for supplementation

Academy of Breastfeeding Medicine: Clinical protocols

- See especially Protocol #3 (*Supplementation*) and Protocol #7 (*Model Hospital Policy*)

Lamaze International: Healthy birth practices

- Includes care practice papers such as *Keep Mother and Baby Together—It's Best for Mother, Baby, and Breastfeeding*

Health Education Associates: Resources on skin-to-skin contact

- *Skin to Skin in the First Hour After Birth: Practical Advice for Staff after Vaginal and Cesarean Birth*: three-part video to aid in training hospital staff about the importance of skin-to-skin and examples of the baby's stages during the first hour; practical advice for staff after a vaginal birth; and practical advice for staff after a cesarean birth
- "The First Hour After Birth: A Baby's 9 Instinctive Stages": tear-off pad which clearly explains the nine observable newborn stages that occur when a baby is in skin-to-skin contact after birth

JSI Maternal and Infant Health Project: "The Warm Chain"

- Ten-minute online video demonstrating the World Health Organization's recommendations on skin-to-skin contact and other measures for preventing neonatal hypothermia

California Department of Public Health: Birth and Beyond California: hospital breastfeeding quality improvement and staff training demonstration project

- Utilizes Quality Improvement (QI) methods and training to implement evidence-based policies and practices that support breastfeeding within the maternity care setting

University of Virginia: Online provider training module

- Provides 7 hours of CME and CEU

Association of Women's Health, Obstetric and Neonatal Nurses: Guidelines for Professional Registered Nurse Staffing for Perinatal Units

- Provides staffing recommendations for nurses as well as for lactation consultants

U.S. Lactation Consultant Association: International Board Certified Lactation Consultant Staffing Recommendations for the Inpatient Setting

- Provides staffing recommendations for lactation consultants in various hospital settings

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Release Notes: Measure Information Form Version 2013A1

***NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE**

Measure Information Form

Measure Set: Perinatal Care(PC)

Set Measure ID: PC-05

Set Measure ID	Performance Measure Name
PC-05a	Exclusive Breast Milk Feeding Considering Mother's Choice

Performance Measure Name: Exclusive Breast Milk Feeding

Description:

- PC-05 Exclusive breast milk feeding during the newborn's entire hospitalization
- PC-05a Exclusive breast milk feeding during the newborn's entire hospitalization considering mother's choice

The measure is reported as an overall rate which includes all newborns that were exclusively fed breast milk during the entire hospitalization, and a second rate, a subset of the first, which includes only those newborns that were exclusively fed breast milk during the entire hospitalization excluding those whose mothers chose not to breast feed.

Rationale: Exclusive breast milk feeding for the first 6 months of neonatal life has long been the expressed goal of World Health Organization (WHO), Department of Health and Human Services (DHHS), American Academy of Pediatrics (AAP) and American College of Obstetricians and Gynecologists (ACOG). ACOG has recently reiterated its position (ACOG, 2007). A recent Cochrane review substantiates the benefits (Kramer et al., 2002). Much evidence has now focused on the prenatal and intrapartum period as critical for the success of exclusive (or any) BF (Centers for Disease Control and Prevention [CDC], 2007; Petrova et al., 2007; Shealy et al., 2005; Taveras et al., 2004). Exclusive breast milk feeding rate during birth hospital stay has been calculated by the California Department of Public Health for the last several years using newborn genetic disease testing data. Healthy People 2010 and the CDC have also been active in promoting this goal.

Type of Measure: Process

Improvement Noted As: Increase in the rate

Numerator Statement:

- PC-05 Newborns that were fed breast milk only since birth
- PC-05a Newborns that were fed breast milk only since birth

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- Exclusive Breast Milk Feeding

Denominator Statement:

- PC-05 Single term newborns discharged alive from the hospital
- PC-05a Single term newborns discharged alive from the hospital excluding those whose mothers chose not to breast feed

Included Populations: Liveborn newborns with ICD-9-CM Principal Diagnosis Code for single liveborn newborn as defined in Appendix A, Table 11.20.1

Excluded Populations:

- Admitted to the Neonatal Intensive Care Unit (NICU) at this hospital during the hospitalization
- ICD-9-CM Other Diagnosis Codes for galactosemia as defined in Appendix A, Table 11.21
- ICD-9-CM Principal Procedure Code or ICD-9-CM Other Procedure Codes for parenteral infusion as defined in Appendix A, Table 11.22
- Experienced death
- Length of Stay >120 days
- Enrolled in clinical trials
- Documented Reason for Not Exclusively Feeding Breast Milk
- Patients transferred to another hospital
- ICD-9-CM Other Diagnosis Codes for premature newborns as defined in Appendix A, Table 11.23

Data Elements:

- Admission Date
- Admission to NICU
- Birthdate
- Clinical Trial
- Discharge Date
- Discharge Disposition
- ICD-9-CM Other Diagnosis Codes
- ICD-9-CM Other Procedure Codes
- ICD-9-CM Principal Diagnosis Code
- ICD-9-CM Principal Procedure Code
- Reason for Not Exclusively Feeding Breast Milk

Risk Adjustment: No.

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: In order to identify areas for improvement in breast milk feeding rates, hospitals may wish to review documentation for reasons. Education efforts can be targeted based on the specific reasons identified.

Sampling: Yes. For additional information see the Sampling Section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:

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Original Performance Measure Source / Developer:

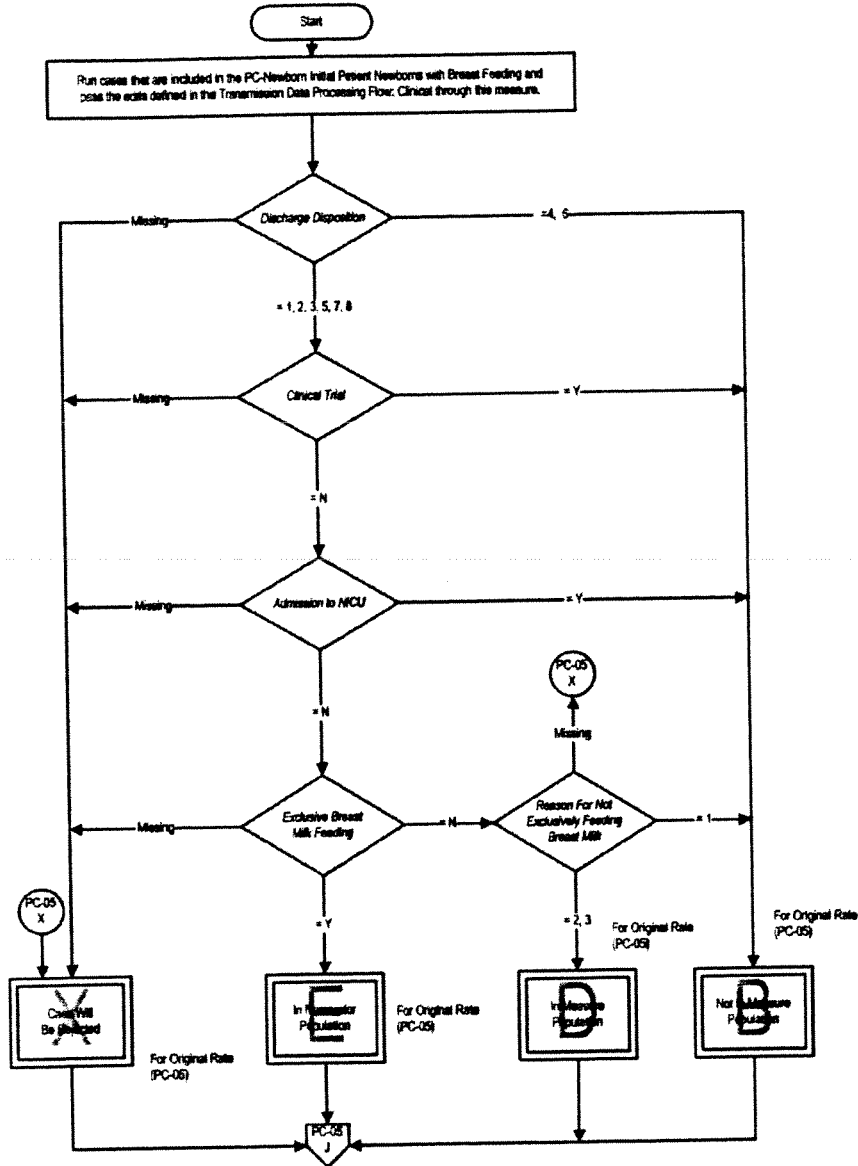
California Maternal Quality Care Collaborative

Adopted for Stage 2 Medicare and Medicaid EHR Incentive Program

Measure Algorithm:

PC-05: Exclusive Breast Milk Feeding

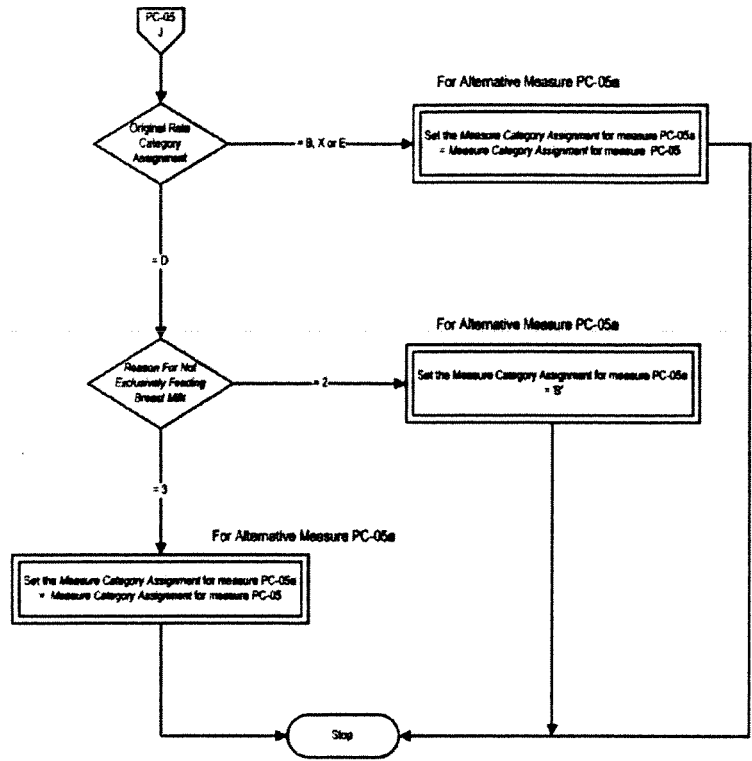
Numerator: Newborns that were fed breast milk only since birth
Denominator: Single term newborns discharged alive from the hospital



PC-05a: Exclusive Breast Milk Feeding Considering Mother's Choice

Numerator: Newborns that were fed breast milk only since birth

Denominator: Single term newborns discharged alive from the hospital excluding those whose mothers chose not to breast feed



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Home » Exclusive Breast Milk Feeding

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Release Notes:
Data Element
Version 2013A1

Data Element Name: *Exclusive Breast Milk Feeding*

Collected For: PC-05.

Definition: Documentation that the newborn was exclusively fed breast milk during the entire hospitalization.
Exclusive breast milk feeding is defined as a newborn receiving only breast milk and no other liquids or solids except for drops or syrups consisting of vitamins, minerals, or medicines.

Suggested Data Collection Question: Is there documentation that the newborn was exclusively fed breast milk during the entire hospitalization?

Format:
Length: 1
Type: Alphanumeric
Occurs: 1

Allowable Values:
Y (Yes) There is documentation that the newborn was exclusively fed breast milk during the entire hospitalization.
N (No) There is no documentation that the newborn was exclusively fed breast milk during the entire hospitalization OR unable to determine from medical record documentation.

Notes for Abstraction: If the newborn receives any other liquids including water during the entire hospitalization, select allowable value "No".
Exclusive breast milk feeding includes the newborn receiving breast milk via a bottle or other means beside the breast.
Sweet-Ease® or a similar 24% sucrose and water solution given to the newborn for the purpose of reducing discomfort during a painful procedure is classified as a medication and is not considered a supplemental feeding.
If the newborn receives donor breast milk, select allowable value "Yes".
If breast milk fortifier is added to the breast milk, select allowable value "Yes".
In cases where there is conflicting documentation and both exclusive breast milk feeding and formula supplementation is documented, select allowable value "No".

Suggested Data Sources:

- Discharge summary
- Feeding flow sheets
- Individual treatment plan
- Intake and output sheets
- Nursing notes
- Physician progress notes

Additional Notes:

Guidelines for Abstraction:

Inclusion	Exclusion
None	None

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Discharges 01-01-13 (1Q13) through 06-30-13 (2Q13)

Exclusive Breast Milk Feeding

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