Lactation Rounds: A System to Improve Hospital Productivity
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According to Maternity Practices and Infant Nutrition and Care (mPINC) data, a Centers for Disease Control and Prevention (CDC) national survey of hospital breastfeeding care, US hospitals scored below average on lactation support (63 of 100) and also received a failing grade of 51% in staff training. To provide optimal care, maternity and pediatric hospitals must ensure that nursing staff are adequately trained in basic breastfeeding care and that families have access to RLCs when more than basic care is needed. The CDC’s mPINC survey clearly demonstrates that states receiving the lowest scores on hospital breastfeeding care also have the lowest breastfeeding rates. The mPINC results underscore the need for hospitals to improve the care given to breastfeeding patients, focusing more attention on lactation services.

This article describes a successful effort to improve patient care, lactation productivity, and employee satisfaction through a system of lactation rounds at Oklahoma University Medical Center (OUMC). Outcomes included more accurate data collection and distribution of resources for patient care, increased lactation service productivity, and increased employee satisfaction. J Hum Lact. 26(4):393-398.

Keywords: lactation rounds, lactation acuity, productivity, program development

Increasing breastfeeding initiation and duration are global public health imperatives. Skilled lactation support is a key element in achieving this goal. Women benefit from access to the expert care provided by International Board Certified Lactation Consultants, Registered Lactation Consultants (IBCLC, RLC*) as they overcome the challenges they face in nursing their children in today’s modern societies. Access to this care at the time of delivery is especially critical as evidence shows that mothers and babies receiving suboptimal breastfeeding care in the hospital are 13 times as likely to discontinue breastfeeding before 6 weeks of age. In 2011, the United States (US) Joint Commission will add exclusive breastfeeding at hospital discharge as an optional perinatal core measure, putting more pressure on hospitals to improve their breastfeeding care.

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This article describes a successful effort to improve patient care, lactation productivity, and employee satisfaction through a system of lactation rounds at Oklahoma University Medical Center (OUMC). Currently, there are no national guidelines on appropriate staffing for hospital lactation, and a central goal in today’s health care climate is to provide optimal patient care while making the best use of available resources. This article describes a successful effort to improve patient care, lactation productivity, and employee satisfaction through a system of lactation rounds at Oklahoma University Medical Center (OUMC). Outcomes included more accurate data collection and distribution of resources for patient care, increased lactation service productivity, and increased employee satisfaction. J Hum Lact. 26(4):393-398.

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statewide and regional referral center for high-risk obstetrical patients and serves as the children’s hospital for the state of Oklahoma. In 2008, there were 4300 deliveries with a 30% cesarean rate and a breastfeeding initiation rate of 79%. Maternal demographics included 39% white, 37% Latino, 17% African American, and 4% Native American. Ten percent of all deliveries occurred to mothers less than 18 years of age. Nineteen percent of mothers were privately insured, and the remainder were on Medicaid or other governmental support. Infant data included 21% born preterm (<37 completed weeks). Fifteen percent of infants born at OUMC were admitted to the NICU, representing about 70% of total NICU admissions.

The Lactation Center at OUMC is staffed by a team of RLCs who provide lactation care hospital-wide 7 days per week. Services in 2008 included inpatient care, limited outpatient care, telephone warmline, and staff/physician education. (See Mannel and Mannel18 for a full description of the OUMC program.) In 2008, there were 4.6 full-time equivalent (FTE) positions filled, and a separate lactation cost center had just been created. At a staffing ratio of about 1 RLC per 1000 deliveries, the lactation service was still considered to be understaffed, and the lactation team was challenged to provide optimal care with existing resources.18

OUMC’s Lactation Center had historically identified patients needing professional lactation support on a referral basis by receiving orders from physicians, nursing staff, and requests from mothers and their families. The use of a traditional referral system to identify patients had problems including inconsistent referral of patients with risk factors for or identified breastfeeding problems (high acuity), inappropriate referral of patients with no or low motivation to breastfeed, and inappropriate referral of patients with no breastfeeding problems (low acuity). For examples of risk factors for breastfeeding problems, see Table 1. An additional issue included the desire of hospital leadership to have every patient seen by an RLC. The lactation team implemented a new process of daily lactation rounds and assignment of acuity in hopes of addressing all of these issues.

Publication of this quality improvement project was declared exempt from review by the Institutional Review Board of the University of Oklahoma Health Sciences Center (IRB #15030).

Table 1. Oklahoma University Medical Center Lactation Acuity

<table>
<thead>
<tr>
<th>Level 3</th>
<th>High-risk infants on mother/baby unit (SGA, LGA, IUGR, preterm&lt;37, multiples)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infants readmitted to pediatric units</td>
</tr>
<tr>
<td></td>
<td>Mothers with IDDM, GDM, obesity</td>
</tr>
<tr>
<td></td>
<td>Mothers of NICU infants</td>
</tr>
<tr>
<td></td>
<td>Maternal request</td>
</tr>
<tr>
<td>Level 2</td>
<td>Primiparous mothers</td>
</tr>
<tr>
<td></td>
<td>First-time breastfeeding mothers</td>
</tr>
<tr>
<td></td>
<td>Difficulty latching</td>
</tr>
<tr>
<td></td>
<td>Pain with breastfeeding</td>
</tr>
<tr>
<td></td>
<td>Follow-ups from previous day, unless noted as higher acuity by RLC</td>
</tr>
<tr>
<td>Level 1</td>
<td>Multiparous/multilacta mothers with healthy term babies</td>
</tr>
<tr>
<td></td>
<td>SBF mothers due to PIM</td>
</tr>
<tr>
<td></td>
<td>Maternal knowledge deficit (MKD)</td>
</tr>
</tbody>
</table>

Abbreviations: SGA, small for gestational age; LGA, large for gestational age; IUGR, intrauterine growth retardation; IDDM, insulin dependent diabetes mellitus; GDM, gestational diabetes mellitus; NICU, neonatal intensive care unit; SBF, supplementing breastfeeding with formula; PIM, perceived insufficient milk.

Methods

Lactation Rounds

The Lactation Center’s daily rounding system includes the following: a lactation rounding census, a brief visit to every new mother/baby couplet, telephone rounding on breastfeeding patients newly admitted to other units (eg, Pediatrics), scripted rounding questions, determination of lactation acuity, and assignment of patients for the day.

In preparation for daily rounds, a specifically designed lactation census is reviewed to identify newly delivered mother/baby couplets. Mothers are rounded on briefly within 24 hours of delivery with the goal of identifying the mother’s intention/motivation to breastfeed, including her goal to exclusively breastfeed (EBF) versus supplement breastfeeding (SBF), and her possible need for professional lactation support. On rounds, mothers are asked in person by the RLC if they are breastfeeding or if they plan to breastfeed. Mothers who have chosen to not breastfeed are given verbal
instructions on management of lactogenesis II symptoms and contact information for the Lactation Center. Mothers who indicate a desire to breastfeed are asked the questions in Table 2.

**Acuity and Assignments**

The information gained on rounds is added to the lactation rounding census, which also includes the following data: time of birth, infant’s birth weight, gestational age, time of first breastfeeding and EBF versus SBF status to date (both from nursing documentation), number of previous lactation consults received, and mother’s English proficiency. New admissions to the NICU are not included in rounds. All mothers of NICU infants automatically receive a lactation consult due to their high lactation acuity. Orders from physicians and nursing staff are also reviewed and addressed based on information from that morning’s rounds.

By the time rounds are completed, all the new breastfeeding patients have been identified along with their risk factors for breastfeeding problems, and a lactation acuity rating has been determined for each one. NICU admits, high-acuity breastfeeding patients on other units, and follow-ups from the previous day are added, and the lactation team then has an accurate accounting of patients needing lactation consults. Breastfeeding patients with low acuity are handled by nursing staff, while the RLC team focuses on the higher acuity lactation situations. Assignments for consults are then made for the team. Within 1 to 1.5 hours of the first RLC arriving for the day, all the breastfeeding patients in the facility are identified, acuity defined, and assignments made.

**Results**

**Quality of Patient Care**

The initial outcome of rounding was the improved quality of care due to the collection of more accurate data. These data included identification of high-acuity lactation consults and accurate determination of mothers’ intent to breastfeed. Mothers not planning to breastfeed were documented as “no intent to breastfeed” in the lactation notes, which increased the accuracy of data on breastfeeding rates. These notes are not counted as actual consults. Patients/couplets rated as level 1 acuity received the “courtesy visit” from rounds, and thus, the remainder of patients/couplets were level 2 or 3 acuity. Prior to implementing rounds, 27% of lactation consults were documented as maternal knowledge deficit, routine support, or courtesy visits. These low-acuity consults decreased to 11%, which increased the ability of the team to provide care for higher acuity situations.

**Lactation Productivity**

The improved productivity of the lactation team was identified in several ways. First, more patients received lactation consults even though lactation staffing experienced a slight decrease in FTEs (Table 3). Overall, with a 4% drop in staffing, the lactation service actually had an increase of 4% in consults completed after implementing lactation rounds. The overall percentage of breastfeeding patients receiving at least one lactation consult also increased. In 2006, this outcome was 88% (80%-96%), was difficult to track, and varied greatly depending on census and staffing. In 2008, rounding data showed that 94% of breastfeeding patients consistently received at least one lactation consult. In addition, the lactation service could now report that every delivered mother was seen by an RLC.

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**Table 2. Rounding Scripts**

| Introduction                                                                 | "Hi, Ms Jones; I’m Paula, one of the registered lactation consultants here at OUMC, and I’ll just be in here for 1 or 2 minutes. I’m checking on all the new moms to see who is breastfeeding or wanting to breastfeed and who might need some extra help from us. Were you planning to breastfeed? (OR [I see you’ve been doing some breastfeeding already . . . ]"
| Mother says “I’m bottle-feeding” (ie, exclusively formula-feeding)          | “Well, you have a great nurse to help you with that. You know, your body will still make milk to feed your baby, so you will have some breast fullness in 1 to 2 days. You can apply ice packs and take acetaminophen/ibuprofen if the swelling gets uncomfortable. It should get better in a couple of days. Here’s one of our brochures in case you ever need to call us.”
| Mother says “I’m breastfeeding”                                            | “Great; then I have just a few quick questions to help us decide who might need a visit from us later today . . . ”
| Questions for breastfeeding mothers                                         | Is this your first baby?
| If multiparous: Have you breastfed any of your others?                     | Have you had to give any formula? (ie, Has her baby been exclusively breastfed so far?)
| Have you had any nipple or breast pain when your baby is nursing? If yes, rate on pain scale. (Pain scale = 1-10, with 10 being most severe) |

**Table 3. Productivity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Full-Time Equivalents Scheduled</th>
<th>Lactation Consults Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>4.8</td>
<td>9648</td>
</tr>
<tr>
<td>2007</td>
<td>4.6</td>
<td>9953</td>
</tr>
<tr>
<td>2008</td>
<td>4.6</td>
<td>10,076</td>
</tr>
</tbody>
</table>
After implementing lactation rounds, the hospital’s productivity target for the lactation service was consistently met. Lactation’s productivity target, or unit of service, is the number of consults completed based on electronic documentation of patient notes. In 2008, the first year that this target was measured for the lactation service, there were only 3 time periods where lactation had too many staff scheduled for the number of consults completed. In all 3 of those instances, the extra staff time was accounted for by scheduled education or training. Thus, after implementing lactation rounding, the lactation service never had excess staff scheduled for the work completed as measured by the hospital.

Employee Satisfaction

Satisfaction of the lactation team improved significantly as measured by the hospital’s annual employee satisfaction survey conducted by an independent source. Overall, employee satisfaction for lactation reached 100% in both 2008 and 2009, especially significant because the service continued to be stressed due to inadequate staffing. An internal team function survey given in 2008 and 2009 showed more specific impact on satisfaction due to rounding. When asked to rate lactation rounds as being effective, on a scale of 1 to 4 with 4 as the highest, the team rated them at 3.5 in 2008 and 3.6 in 2009. When asked to rate rounds as being efficient, the team rating increased from 2.5 in 2008 to 3.6 in 2009. Lastly, during monthly individual staff rounds by the lactation manager, RLCs responded to the question, “What’s working well?” with an answer of lactation rounds at least 50% of the time. Responses included “Rounding is a blessing these days; I know where to start” and “Rounds make us more efficient.”

Challenges and Limitations

One of the greatest challenges in implementing lactation rounding was the perception that rounds would be too time consuming. Other challenges included rounding on the exclusively formula-feeding (EFF) mother without “antagonizing” her, educating nursing staff that the rounding RLC cannot consult on their patients during rounds, and how to manage a baby trying to latch without delaying rounds.

First, by using scripted questions and clearly stating the purpose of the rounding visit, mothers understand and do not expect a full consult during rounds (Table 2). An RLC experienced at rounding can round on 15 new mothers in 30 minutes or less. EFF mothers are not antagonized when the RLC states clearly that all the “newly” delivered mothers are visited and that the purpose is to gather information. Sometimes, an EFF mother will acknowledge that she really did want to breastfeed and had been told that she could not. Rounding is especially essential for these mothers.

Secondly, nursing staff learn quickly the advantages of lactation rounds. Rather than just asking the rounding RLC to see their patient, they share any information they have that may affect the lactation acuity of their patients. Thirdly, most babies are not trying to latch when the RLC is rounding. If the mother does need assistance during rounds, she is helped briefly with her baby placed skin-to-skin, or the nurse or another RLC is called for assistance until rounds are completed.

Other challenges included documenting rounding notes and consistency in defining acuity. Standard text was developed for rounding notes. Breastfeeding couplets with level 1 acuity are noted as having been seen by an RLC, determined to need only routine support, given brief education, referred back to their nurse, and provided contact information for future reference or if problems develop. Higher acuity breastfeeding patients are priority patients for the lactation team, and the percentage that do not receive a consult can indicate the need for more staffing or better utilization of resources.

Consistency in determining acuity is an ongoing challenge because there are no formal definitions of lactation acuity in the literature. The OUMC Lactation Center has developed an in-house definition and identified a need for an evidence-based definition of lactation acuity. A definition of lactation acuity that is recognized by the entire health care team can help improve the care of breastfeeding patients.

Limitations of OUMC’s lactation rounds include greater initial dependence on infant risk factors, dependence on nursing documentation, and lack of face-to-face rounding on other hospital units. More of the data gathered in rounds relates to infant risk factors. These data, more readily available electronically, can heavily influence early initiation of breastfeeding.
risk factors (Table 1) are also important, and some may not be identified by the RLC until the actual lactation consult. Ideally, maternal risk factors would be identified prior to delivery and readily available before the RLC starts daily rounds. A standardized definition of lactation acuity would also help resolve this limitation. Dependence on nursing documentation allows for the possibility that necessary information was not documented and is therefore not available. For example, time of first breastfeeding is sometimes not documented. Face-to-face rounding throughout the hospital is ideal, although currently not possible outside of the mother/baby unit due to staffing. Speaking directly to the mother by telephone is a second-best option.

**Conclusion**

The time invested up front in lactation rounds saves significant time throughout the day and directs the lactation team’s resources more effectively. As hospital administrators focus on the need to improve care of breastfeeding patients, they will seek the most effective and efficient ways to do so. Utilizing RLCs has been shown to improve breastfeeding outcomes both through provision of direct clinical care and provision of staff education to other health care team members. Routine breastfeeding care should be provided by the bedside nurse, while RLCs provide care in higher acuity lactation situations and as referral/educational resources for nursing and other hospital staff.

While still a young profession, 25 years old in 2010, RLCs have a defined scope of practice, standards of practice, and a code of ethics. Recently, the US Breastfeeding Committee has defined standards for basic competencies in breastfeeding care for other health care providers. The Association of Women’s Health, Obstetric and Neonatal Nurses has also defined similar standards for nurses working in maternal/child health. Consistent application of all of these standards will lead to better patient care and more efficient use of health care resources as exemplified by OUMC’s lactation rounding. Improving the care given to breastfeeding patients is associated with increased breastfeeding duration rates with the resultant positive impact on maternal/child health.

**Acknowledgments**

Acknowledgments to the OUMC Lactation Center team of IBCLC, RLCs, whose innovative work is described in this article; to Cathy Pierce, RN, MS, OUMC assistant chief nursing officer, and to Debbie Parris, RN, MS, director of OUMC Women’s/Newborn Services, for their support of the Lactation Center’s quality improvement efforts; and to the OUHSC Department of Obstetrics & Gynecology for their support of this project. Funding sources: no external funding.

**References**