Revised
2007
Supplement
Enclosed

September 2003

Nursing Best Practice Guideline
Shaping the future of Nursing

Breastfeeding Best Practice Guidelines for Nurses

RNAO
Registered Nurses Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario

RNAO Registered Nurses Association of Ontario L'Association des infirmières et infirmiers autorisés de l'Ontario

Greetings from Doris Grinspun
Executive Director
Registered Nurses Association of Ontario

It is with great excitement that the Registered Nurses Association of Ontario (RNAO) disseminates this nursing best practice guideline to you. Evidence-based practice supports the excellence in service that nurses are committed to deliver in our day-to-day practice.

We offer our endless thanks to the many institutions and individuals that are making RNAO's vision for Nursing Best Practice Guidelines (NBPGs) a reality. The Ontario Ministry of Health and Long-Term Care recognized RNAO's ability to lead this project and is providing multi-year funding. Tazim Virani–NBPG project director–with her fearless determination and skills, is moving the project forward faster and stronger than ever imagined. The nursing community, with its commitment and passion for excellence in nursing care, is providing the knowledge and countless hours essential to the creation and evaluation of each guideline. Employers have responded enthusiastically to the request for proposals (RFP), and are opening their organizations to pilot test the NBPGs.

Now comes the true test in this phenomenal journey: will nurses utilize the guidelines in their day-to-day practice?

Successful uptake of these NBPGs requires a concerted effort of four groups: nurses themselves, other health-care colleagues, nurse educators in academic and practice settings, and employers. After lodging these guidelines into their minds and hearts, knowledgeable and skillful nurses and nursing students need healthy and supportive work environments to help bring these guidelines to life.

We ask that you share this NBPG, and others, with members of the interdisciplinary team. There is much to learn from one another. Together, we can ensure that Ontarians receive the best possible care every time they come in contact with us. Let's make them the real winners of this important effort!

RNAO will continue to work hard at developing and evaluating future guidelines. We wish you the best for a successful implementation!

Doris Grinspun, RN, MScN, PhD (candidate)

Executive Director
Registered Nurses Association of Ontario

How to Use this Document

This nursing best practice guideline is a comprehensive document providing resources necessary for the support of evidence-based nursing practice. The document needs to be reviewed and applied, based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client. Guidelines should not be applied in a "cookbook" fashion, but used as a tool to assist in decision making for individualized client care, as well as ensuring that appropriate structures and supports are in place to provide the best possible care.

Nurses, other health care professionals and administrators who are leading and facilitating practice changes will find this document valuable for the development of policies, procedures, protocols, educational programs, assessment and documentation tools. It is recommended that the nursing best practice guidelines be used as a resource tool. It is not necessary, nor practical, that every nurse have a copy of the entire guideline. Nurses providing direct client care will benefit from reviewing the recommendations, the evidence in support of the recommendations and the process that was used to develop the guidelines. However, it is highly recommended that practice settings/environments adapt these guidelines in formats that would be user-friendly for daily use. This guideline has some suggested formats for such local adaptation and tailoring.

Organizations wishing to use this guideline may decide to do so in a number of ways:

- Assess current nursing and health care practices using the recommendations in the guideline.
- Identify recommendations that will address identified needs or gaps in services.
- Systematically develop a plan to implement the recommendations using associated tools and resources.

RNAO is interested in hearing how you have implemented this guideline. Please contact us to share your story. Implementation resources will be made available through the RNAO website to assist individuals and organizations to implement best practice guidelines.

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Breastfeeding Best Practice Guidelines for Nurses

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Acknowledgement

Stakeholders representing diverse perspectives were solicited for their feedback and the Registered Nurses Association of Ontario wishes to acknowledge the following for their contribution in reviewing this Nursing Best Practice Guideline.

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RNAO also wishes to acknowledge the following organizations in Sudbury, Ontario for their role in pilot testing this guideline:

Family Child Program
St. Joseph's Health Centre Site
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RNAO sincerely acknowledges the leadership and dedication of the researchers who have directed the evaluation phase of the Nursing Best Practice Guidelines Project. The Evaluation Team is comprised of:

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Breastfeeding Best Practice Guidelines for Nurses

Disclaimer

These best practice guidelines are related only to nursing practice and not intended to take into account fiscal efficiencies. These guidelines are not binding for nurses and their use should be flexible to accommodate client/family wishes and local circumstances. They neither constitute a liability or discharge from liability. While every effort has been made to ensure the accuracy of the contents at the time of publication, neither the authors nor RNAO give any guarantee as to the accuracy of the information contained in them nor accept any liability, with respect to loss, damage, injury or expense arising from any such errors or omissions in the contents of this work. Any reference throughout the document to specific pharmaceutical products as examples does not imply endorsement of any of these products.

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Summary of Recommendations

	RECOMMENDATION	*LEVEL OF EVIDENCE
Practice Recommendations	1 Nurses endorse the Baby-Friendly™ Hospital Initiative (BFHI), which was jointly launched in 1992 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The BFHI directs health care facilities to meet the "Ten Steps to Successful Breastfeeding".	III
	1.1 Nurses have a role in advocating for "breastfeeding friendly" environments by: ■ advocating for supportive facilities and systems such as day-care facilities, "mother and baby" areas for breastfeeding, public breastfeeding areas, 24-hour help for families having difficulties in breastfeeding; and ■ promoting community action in breastfeeding.	III
	2 Nurses and health care practice settings endorse the WHO recommendation for exclusive breastfeeding for the first six months, with introduction of complementary foods and continued breastfeeding up to two years and beyond thereafter.	I
	3 Nurses will perform a comprehensive breastfeeding assessment of mother/baby/family, both prenatally and postnatally, to facilitate intervention and the development of a breastfeeding plan.	III
	3.1 Key components of the prenatal assessment should include: ■ personal and demographic variables that may influence breastfeeding rates; ■ intent to breastfeed; ■ access to support for breastfeeding, including significant others and peers; ■ attitude about breastfeeding among health care providers, significant others and peers; and ■ physical factors, including breasts and nipples, that may effect a woman's ability to breastfeed.	III

*See page 14 for details regarding "Interpretation of the Evidence"

	RECOMMENDATION	LEVEL OF EVIDENCE
Practice Recommendations (cont.)	3.2 Key components of the postnatal assessment should include: ■ intrapartum medications; ■ level of maternal physical discomfort; ■ observation of positioning, latching and sucking; ■ signs of milk transfer; ■ parental ability to identify infant feeding cues; ■ mother-infant interaction and maternal response to feeding cues; ■ maternal perception of infant satisfaction/satiety cues; ■ woman's ability to identify significant others who are available and supportive of the decision to breastfeed; ■ delivery experience; and ■ infant physical assessment.	III
	3.3 Practice settings are encouraged to develop, adopt or adapt assessment tools encompassing key components for assessment and that meet the needs of their local practice setting.	III
	4 Nurses will provide education to couples during the childbearing age, expectant mothers/couples/families and assist them in making informed decisions regarding breastfeeding. Education should include, as a minimum, the following: ■ benefits of breastfeeding (Level I); ■ lifestyle issues (Level III); ■ milk production (Level III); ■ breastfeeding positions (Level III); ■ latching/milk transfer (Level II-2); ■ prevention and management of problems (Level III); ■ medical interventions (Level III); ■ when to seek help (Level III); and ■ where to get additional information and resources (Level III).	
	5 Small, informal group health education classes, delivered in the antenatal period, have a better impact on breastfeeding initiation rates than breastfeeding literature alone or combined with formal, non-interactive methods of teaching.	I

	RECOMMENDATION	LEVEL OF EVIDENCE
Practice Recommendations (cont.)	5.1 Evaluation of education programs should be considered in order to evaluate the effectiveness of prenatal breastfeeding classes.	II-2
	6 Nurses will perform a comprehensive breastfeeding assessment of mother/baby prior to hospital discharge.	III
	6.1 If mother and baby are discharged within 48 hours of birth, there must be a face-to-face follow up assessment conducted within 48 hours of discharge by a qualified health care professional, such as a Public Health Nurse or Community Nurse specializing in maternal/newborn care.	III
	6.2 Discharge of mother and baby after 48 hours should be followed by a telephone call within 48 hours of discharge.	III
	7 Nurses with experience and expertise in breastfeeding should provide support to mothers. Such support should be established in the antenatal period, continued into the postpartum period and should involve face-to-face contact.	I
	7.1 Organizations should consider establishing and supporting peer support programs, alone or in combination with one-to-one education from health professionals, in the antenatal and postnatal periods.	I
Education Recommendations	8 Nurses providing breastfeeding support should receive mandatory education in breastfeeding in order to develop the knowledge, skill and attitudes to implement breastfeeding policy and to support breastfeeding mothers.	II-2
Organization & Policy Recommendations	9 Practice settings need to review their breastfeeding education programs for the public and, where appropriate, make the necessary changes based on recommendations in this best practice guideline.	III
	10 Practice settings/organizations should work towards being accredited by the Baby-Friendly™ Hospital Initiative.	III

	RECOMMENDATION	LEVEL OF EVIDENCE
Organization & Policy Recommendations (cont.)	11 Nursing best practice guidelines can be successfully implemented only where there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. Organizations may wish to develop a plan for implementation that includes: ■ An assessment of organizational readiness and barriers to education. ■ Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process. ■ Dedication of a qualified individual to provide the support needed for the education and implementation process. ■ Ongoing opportunities for discussion and education to reinforce the importance of best practices. ■ Opportunities for reflection on personal and organizational experience in implementing guidelines. In this regard, RNAO (through a panel of nurses, researchers and administrators) has developed the *"Toolkit: Implementation of clinical practice guidelines"* based on available evidence, theoretical perspectives and consensus. The Toolkit is recommended for guiding the implementation of the RNAO *Breastfeeding Best Practice Guidelines for Nurses*.	III

Interpretation of Evidence

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN, 2000) utilized the U.S. Preventive Services Task Force (1996) *Guide to Clinical Preventive Services* framework for describing quality of evidence. This taxonomy, as described by AWHONN (2000), was selected for the purpose of reporting the level of evidence of the recommendations made in this guideline.

LEVEL I	Evidence obtained from at least one properly designed randomized controlled trial, plus consensus of panel.
LEVEL II-1	Evidence obtained from well-designed controlled trials without randomization, plus consensus of panel.
LEVEL II-2	Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one centre or research group, plus consensus of panel.
LEVEL II-3	Evidence from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as results of the introduction of penicillin treatment in the 1940s) could also be regarded as this type of evidence, plus consensus of panel.
LEVEL III	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees, plus consensus of panel.

Responsibility for Development

The Registered Nurses Association of Ontario (RNAO), with funding from the Ontario Ministry of Health and Long-Term Care, has embarked on a multi-year project of nursing best practice guideline development, pilot implementation, evaluation and dissemination. In this third cycle of the project, one of the areas of emphasis is on breastfeeding. This guideline was developed by a panel of nurses and other health care professionals convened by the RNAO, conducting its work independent of any bias or influence from the Ministry of Health and Long-Term Care.

Purpose and Scope

The purpose of this guideline is to improve breastfeeding outcomes for mothers and infants, to assist practitioners to apply the best available research evidence to clinical decisions, and to promote the responsible use of health care resources. Additionally, gaps in the availability of evidence-based practice will be highlighted. Nurses working in specialty areas or with special needs infants/families (i.e., pre-term infants) will require further practice direction from clinical practice guidelines in their unique area of focus.

Best practice guidelines are systematically developed statements to assist practitioners' and clients' decisions about appropriate health care (Field & Lohr, 1990). This best practice guideline is intended to provide direction to practicing nurses in all care settings (institutional and community) in promoting successful and enjoyable breastfeeding experiences. The promotion of breastfeeding within the context of this document includes the concepts of promotion, protection and support of breastfeeding.

This guideline focuses its recommendations on three areas: (1) Practice recommendations directed at the nurse; (2) Education recommendations directed at the competencies required for practice; (3) Organizational and policy recommendations addressing the importance of a supportive practice environment as an enabling factor for providing high quality nursing care, which includes ongoing evaluation of guideline implementation.

This guideline contains recommendations for Registered Nurses (RNs) and Registered Practical Nurses (RPNs). Although these guidelines are written for the nurse, breastfeeding support is an interdisciplinary and community wide endeavour. Many settings have formalized interdisciplinary teams and the panel strongly supports this structure. Collaborative assessment and planning with the client is essential. The recommendations made are guidelines for nurses and should assist in informed decision-making for clients and their families.

It is the consensus of the development panel that the baby at the breast is considered best practice, and it is the intention of this document to identify best nursing practices in breastfeeding support. It is acknowledged that individual competencies of nurses vary between nurses and across categories of nursing professionals and are based on knowledge, skills, attitudes and judgment enhanced over time by experience and education. It is expected that individual nurses will perform only those aspects of breastfeeding support for which they have appropriate education and experience. Further, it is expected that nurses will seek consultation in instances where the client's care needs surpass the individual nurse's ability to act independently. It is acknowledged that effective care depends on a coordinated interdisciplinary approach incorporating ongoing communication between health professionals and clients, ever mindful of the personal preferences and unique needs of each individual client.

Guideline Development Process

In February of 2001, a panel of nurses, researchers and other health professionals with expertise in the practice and research of breastfeeding support, from institutional, community and academic settings was convened under the auspices of the RNAO. At the outset, the panel discussed and came to consensus on the scope of the best practice guideline. The original scope identified was best practices for breastfeeding support from preconception through the mother's return (postpartum) to school or work. This scope was later found to be too ambitious. Therefore, the panel narrowed the scope of the guideline to address best practices that were general in nature and addressed the competent to proficient level of practice for nurses encountering families in both the prenatal and postnatal periods.

A search of the literature for systematic reviews, clinical practice guidelines, relevant articles and websites was conducted. See Appendix A for a detailed outline of the search strategy employed.

A total of eight clinical practice guidelines related to breastfeeding were identified. An initial screening was conducted using the following inclusion criteria:

- published in English;
- developed in 1996 or later;
- strictly about the topic area;
- evidence-based (or documentation of evidence); and
- accessible as a complete document.

All eight guidelines met the criteria and were critically appraised by the panel members using the "Appraisal Instrument for Clinical Guidelines", which is a tool from Cluzeau et al. (1997). This tool allows for evaluation in three key dimensions: rigour, content and context, and application. From this appraisal process, three high quality resources were identified for use as foundation documents in the development of this guideline:

Association of Women's Health, Obstetric and Neonatal Nurses (2000). *Evidence-based clinical practice guideline – Breastfeeding support: Prenatal care through the first year.* Association of Women's Health, Obstetric and Neonatal Nurses. [Online]. Available: http://www.awhonn.org

Canadian Institute of Child Health (1996). *National breastfeeding guidelines for health care providers.* Ottawa: Canadian Institute of Child Health.

World Health Organization (1998). *Child health and development – Evidence for ten steps to successful breastfeeding.* Geneva: Family and Reproductive Health Division of Child Health and Development - World Health Organization.

A critique of systematic review articles and pertinent literature was conducted to update the existing guidelines. Through a process of evidence gathering, synthesis and consensus, the final draft set of recommendations was established. This draft document was submitted to a set of external stakeholders for review and feedback – an acknowledgement of these reviewers is provided at the front of this document. Stakeholders represented various health care professional groups, clients and families, as well as professional associations. External stakeholders were provided with specific questions for comment, as well as the opportunity to give overall feedback and general impressions. The results were compiled and reviewed by the development panel – discussion and consensus resulted in revisions to the draft document prior to pilot testing.

A pilot implementation site was identified through a "Request for Proposal" (RFP) process. Practice settings in Ontario were asked to submit a proposal if they were interested in pilot testing the recommendations of the guideline. These proposals were then subjected to a review process, from which successful practice settings were identified. A nine-month pilot implementation was undertaken to test and evaluate the recommendations in both a hospital and public health unit in Sudbury, Ontario. An acknowledgement of these organizations is included at the front of this document. The development panel reconvened after the pilot implementation in order to review the experiences of the pilot site, consider the evaluation results and review any new literature published since the initial development phase. All these sources of information were used to update/revise the document prior to publication.

Definition of Terms

Artificial Baby Milk: A food in liquid or powdered form, intended for use as a substitute for human milk and intended as a sole source of nutrition for an infant (Ministry of Health Manatu Hauora New Zealand, 1997). Any food, manufactured or represented as a partial or total replacement for breast-milk, whether or not suitable for that purpose (WHO/UNICEF, 1981).

Baby-Friendly™ Hospital Initiative (BFHI): "The BFHI is a global program, initiated in 1991 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), in response to the Innocenti Declaration (1990). This program encourages and recognizes hospitals and maternity facilities that offer an optimal level of care for mothers and infants. A Baby-Friendly™ hospital/maternity facility focuses on the needs of the newborns and empowers mothers to give their infant the best possible start in life. In practical terms, a Baby-Friendly™ hospital/maternity facility encourages and helps women to successfully initiate and continue to breastfeed their babies, and receives special recognition for having done so. Since the program's inception, over 14,800 hospitals worldwide have received the Baby-Friendly™ designation" (Breastfeeding Committee for Canada, 2003c). To date, two Canadian hospitals (Brome-Missisquoi-Perkins Hospital in Cowansville, Quebec and St. Joseph's Healthcare in Hamilton, Ontario) have received this designation (BCC, 2003c).

Baby-Friendly™ Initiative: "In Canada, the name of the Baby-Friendly™ Hospital Initiative has been adapted to the Baby-Friendly™ Initiative (BFI) to reflect the continuum of care for breastfeeding mothers and babies outside of the hospital environment. With a Baby-Friendly™ hospital and community behind her, a mother will have the support she needs from the whole community to ensure her child's full, healthy development." (BCC, 2001a).

Breastfeeding: Refers to the process whereby the infant receives breast-milk (AWHONN, 2000) at the breast.

Exclusive breastfeeding means the infant receives only breast-milk and no other liquid or solid supplements (AWHONN, 2000; Lawrence & Lawrence, 1999).

Partial breastfeeding refers to the infant receiving breast-milk for some feedings and liquid supplements, such as formula {artificial baby milk} or glucose water, at other times (AWHONN, 2000).

Predominant breastfeeding refers to the infant being fed breast-milk as the predominant source of nourishment. Liquids (water, water-based drinks, fruit juice, oral re-hydration solution), ritual fluids and drops or syrups (vitamins, minerals, medicines) are allowed (WHO, 1996).

Breastfeeding Support: Refers to help and encouragement to breastfeed and is categorized as follows: (AWHONN, 2000)

Professional support is help and encouragement to breastfeed provided by health care professionals. These may include registered and advanced practice nurses, registered practical nurses, certified lactation consultants (in this document, this refers to IBCLC certification), registered dietitians and physicians (AWHONN, 2000).

Personal support is help and encouragement to breastfeed provided by the woman's significant other(s), friends and family members, peer counsellors or support groups (AWHONN, 2000).

Informal support is support and resources provided by persons associated with the person receiving care. Persons providing informal support can include: family, friends, members of a religious or spiritual group, neighbours, etc.

Breast-milk substitute: See Artificial Baby Milk

Clinical Practice Guidelines or Best Practice Guidelines: Systematically developed statements (based on best available evidence) to assist practitioner and patient decisions about appropriate health care for specific clinical (practice) circumstances (Field & Lohr, 1990).

Complementary Food: Any food, manufactured or locally prepared, suitable as a complement to breast-milk or to infant formula {artificial baby milk} when either becomes insufficient to satisfy the nutritional requirements of the infant. Such food is also commonly called 'weaning food' or 'breast-milk supplement' (WHO/UNICEF, 1981).

Consensus: A process for making policy decisions, not a scientific method for creating new knowledge. At its best, consensus development merely makes the best use of available information, be that scientific data or the collective wisdom of the participants (Black et al., 1999).

Education Recommendations: Statements of educational requirements and educational approaches/strategies for the introduction, implementation and sustainability of the best practice guideline.

Family: Whomever the person defines as being family. Family members can include: parents, children, siblings, neighbours, and significant people in the community.

Formula Feeding: Providing infants with proprietary infant formula {artificial baby milk}, either exclusively or as a supplement to breastfeeding (Ministry of Health Manatu Hauora New Zealand, 1997).

Infant Formula: See Artificial Baby Milk

Interdisciplinary: A process where health care professionals representing expertise from various health care disciplines participate in supporting families throughout the care experience.

Meta-analysis: The use of statistical methods to summarize the results of independent studies, therefore providing more precise estimates of the effects of health care than those derived from the individual studies included in a review (Clarke & Oxman, 1999).

Organization and Policy Recommendations: Statements of conditions required for a practice setting that enable the successful implementation of the best practice guideline. The conditions for success are largely the responsibility of the organization, although they may have implications for policy at a broader government or societal level.

Peer counsellors: Typically community-based persons who have received training aimed at promoting and supporting breastfeeding. Peer counsellors usually work under the supervision of a lactation consultant or other health care professional.

Practice Recommendations: Statements of best practice directed at the practice of health care professionals that are ideally evidence-based.

Samples: Single servings or small quantities of a product provided without cost (Ministry of Health Manatu Hauora New Zealand, 1997).

Self-Efficacy: Breastfeeding self-efficacy refers to a mother's perceived ability to breastfeed her newborn. It is a significant variable in breastfeeding duration as it predicts: whether a mother chooses to breastfeed or not; how much effort she will put forth; whether she will have self-enhancing or self-defeating thought patterns; and how she will respond emotionally to breastfeeding difficulties (Blyth et al., 2002).

Stakeholder: A stakeholder is an individual, group, or organization with a vested interest in the decisions and actions of organizations, who may attempt to influence these decisions and actions (Baker, et al., 1999). Stakeholders include all individuals or groups who will be directly or indirectly affected by the change. Stakeholders can be of various types, and can be divided into opponents, supporters, and neutrals (Ontario Public Health Association, 1996).

Systematic Review: Application of a rigorous scientific approach to the preparation of a review article (National Health and Medical Research Council, 1998). Systematic reviews establish where the effects of health care are consistent, and where research results can be applied across populations, settings, and differences in treatment (e.g., dose); and where effects may vary significantly. The use of explicit, systematic methods in reviews limits bias (systematic errors) and reduces chance effects, thus providing more reliable results upon which to draw conclusions and make decisions (Clarke & Oxman, 1999).

Background Context

The World Health Organization (1998, 2002) has recommended that infants should be exclusively breastfed for the first six months of life. During the past two decades, the breastfeeding initiation rate in Canada has oscillated from 64% (1979) to 73% (1994). The four months exclusive breastfeeding duration rate ranged from 37% (1979) up to 60% (1994), in comparison, the six months exclusive breastfeeding duration rate increased from 27% (1979) to 30% (1994) (Health Canada, 1996; Hogan, 2001).

The benefit of breastfeeding for both the mother and the baby is well researched and documented (AWHONN, 2000; CICH, 1996; Health Canada, 2000; Ministry of Health Manatu Hauora New Zealand, 1997; WHO, 1998). Breast-milk contains all the fluid and nutrients required for optimal growth (Heinig, Nommsen, & Peerson, 1993; Humenick, 1987; Tyson, Burchfield, & Sentence, 1992; Woolridge, Ingram, & Baum, 1990). In particular, breast-milk contains the omega-3 fatty acids docosahexaenoic acid (DHA) and alpha-linolenic acid (ALA), which are important for the development of the retina and brain in the last trimester of pregnancy and throughout the first year of life (Jorgensen, Holmer, Lund, Hernell & Michaelsen, 1998). Artificial milk available in Canada is not supplemented with omega-3 fatty acids, and infants receiving this food must synthesize their own DHA and ALA from precursors. Randomized studies have demonstrated that healthy term infants fed breast-milk have better visual acuity than infants fed standard artificial milks at two and four months postpartum (Jorgensen et al., 1998; Makrides, Neumann, Simmer, Pater & Gibson, 1995).

In developed countries, studies have provided evidence that breastfeeding protects against gastrointestinal infections and otitis media (Beaudry, Dufour, Marcoux,1995; Howie et al., 1990). A report by the U.S. Department of Agriculture's Economic Research Service has estimated that $3.6 billion could be saved in treating otitis media, gastroenteritis and necrotizing enterocolitis alone, if breastfeeding rates in the United States met current recommendations (Weimer, 2001).

Breastfeeding may give some protection against Sudden Infant Death Syndrome (SIDS). A meta-analysis of 23 studies suggested that breastfeeding halved the risk of SIDS (McVea, Turner & Peppler, 2000). However, the authors cautioned that there were many problems with these studies, including mis-classifications of SIDS, inaccurate data on the length of breastfeeding (especially partial breastfeeding), and failure to control for a number of known confounders (such as socioeconomic status, maternal education, infant sleep position and exposure to second hand smoke). Thus, a direct protective relationship is unproven (Bernshaw, 1991; Ford, 1993; Kraus, Greenland & Bulterys,1989; McVea et al., 2000). For infants with a family history of allergies, exclusive breastfeeding for four months appears to have a protective effect (Burr et. al., 1993; Chandra, 1997; Lucas, Brooke, Morley & Bamford, 1990; Saarinen & Kajosaari, 1995). Breastfeeding, however, does not appear to decrease incidence of allergies in infants who do not have a positive family history (Lucus, et al., 1990). There are conflicting views about whether breastfeeding is protective of insulin-dependent diabetes mellitus, whether it is a delayed introduction of cows' milk that may be protective, or whether the onset of insulin dependent diabetes mellitus results from unrelated environmental factors (see Ellis & Atkinson, 1996 and Heinig, 1997 for discussions of the evidence). Dentists note that breastfeeding is important for the proper development of the infant's oral cavity (Palmer, 1998).

For mothers, there is mixed evidence from case-control and cohort studies of an inverse relationship between breastfeeding and the risk of breast cancer. Some studies have suggested that this protective effect may only be for women with premenopausal cancer, that the age at which a woman first lactates may be important, and that parity and the duration of breastfeeding are relevant. A case-control study from China, where breastfeeding is typically of a longer duration than in North America, suggests that women who breastfed their children for 2 years had half the risk of breast cancer of women who breastfed for only 1 – 6 months (Zheng et al., 2000). Further, the lifetime duration of breastfeeding was also associated with a much lower risk of breast cancer. A New York case-control study found a weaker relationship between breastfeeding and breast cancer risk (Freudenheim et al., 1997). Among postmenopausal women, breastfeeding was protective if the woman first lactated before 25 years of age (although this is highly correlated with age at first birth, and it is not clear which is more important). In contrast, among premenopausal women with breast cancer, the age at first lactation was not important. Two cohort studies found no association between lactation and risk of breast cancer, while the most recently published cohort study found that the risk of breast cancer was significantly lower for women who had ever lactated (Tryggvadottir, Tulinius, Eyfjord & Sigurvinsson, 2001).

There is some suggestion in the literature that possible health benefits for mothers may also include fewer hip fractures after menopause, less risk of ovarian cancer and less bleeding after delivery (Weimer, 2001). Further, there is a large body of research that suggests breastfeeding has mental health benefits for mothers, such as feelings of bonding with their newborns, as well as economic benefits (Montgomery & Splett, 1997). There may be other impacts of breastfeeding on the health of the baby and/or mother, but these issues are not well supported in the research literature, and are not included in this discussion.

The importance of breastfeeding worldwide has translated into major world initiatives, such as the joint action between the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) and, appropriately named, "The Baby-Friendly™ Hospital Initiative" (BFHI). Some of the other known breastfeeding initiatives and actions include the WHO/UNICEF "Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding" (1990), the International Code of Marketing of Breastmilk Substitutes, the WHO Working Group on Infant Growth (1994), the WHO/UNICEF "Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services" (1989) and promotional campaigns during World Breastfeeding Week. Refer to Appendix A for a list of breastfeeding position statements reviewed by the guideline development panel.

In addressing breastfeeding recommendations for nurses, the health care team and health care practice settings, the development panel used the framework presented in the Ottawa Charter for health promotion (WHO, 1986) as one tool to structure the development of this document. The Charter addresses five key areas: public policy, supportive environment, community action, development of personal skills, and reorientation of health services. Health professionals must advocate for healthy public policy through legislative changes, economic measures and changes to organizational beliefs and practices. In order to achieve these changes, health professionals must be cognizant of facilitators and inhibitors to policy development and implementation. Health is dependent on the interaction that exists between people and the environment. Consequently, to promote health, we need to continuously examine all factors that impact the working and living environment of people. Community action is a fundamental strategy in health promotion that involves the active participation of the community in identifying their health priorities, deciding on appropriate strategies to deal with the identified priorities and implementing these strategies. Health professionals can enhance the life skills of the community by providing relevant and current health information and education, which people can use to make informed decisions and choices about their health. All health sectors have a shared responsibility in the promotion of the health of the community at large through the use of various channels (e.g., economic, political, social, environmental). Individuals, community groups, health institutions, health professionals and the various levels of government must collaborate to develop a health care system which contributes to and satisfies the health needs of the community (WHO, 1986).

Health professionals are utilizing various strategies to increase the number of women who breastfeed. Breastfeeding is dependent upon multiple factors that are related to the mother, the infant, and the environment. Studies have found that most women make their decision about breastfeeding either before or during pregnancy (Caulfield et al., 1998; Hills-Bonczyk, Avery, Savik, Potter & Duckett, 1993; Humphreys, Thompson & Miner,1998; Janke, 1993; Leff, Schriefer, Hogan, & DeMarco, 1995; Wright, Bauer, Naylor, Sutcliffe & Clarke, 1998). The brevity of a postpartum hospitalization, which results in mothers being discharged before breastfeeding is well established, impacts the continuation of breastfeeding. Consequently, these mothers are in need of more consistent, expert, and immediate assistance with breastfeeding from health professionals (Caulfield et al., 1998; Hart, Bax & Jenkins, 1980; Houston, Howie, Cook & McNeilly, 1981; Humenick, Hill & Spiegelberg, 1998; Janke, 1993; Jenner, 1988; Leff et al., 1995; Morrow et al.,1999; Pugh & Milligan, 1998; Saunders & Carrol, 1988; Schafer, Vogel, Viegas & Hausafus, 1998; Sciacca, Dube, Phipps & Rafliff, 1995a; Serafino-Cross & Donovan, 1992; Wright et al., 1998). There are conflicting views in the literature, however, regarding the optimal

length of a postpartum hospital stay and the subsequent impact on breastfeeding. Some of the various strategies that promote and support breastfeeding have been identified in the literature and include prenatal and postnatal education, home visiting, telephone advice lines, peer support and incentives.

Several research studies have identified variables that influence the rate of breastfeeding. A few of the variables are amenable to intervention, whereas others cannot be modified. Some non-modifiable variables include race, social class, ethnicity, education, marital status, age, and previous breastfeeding history, including whether the mother was breastfed as an infant. The following are variables that can be responsive to interventions: breastfeeding intention, timing of first feeding, commitment to breastfeeding, attitude towards breastfeeding, cultural ideology, exposure to women who breastfed and social support system. Conflicting results have been reported in the literature regarding the relationship between parity, prenatal class attendance and maternal employment status and breastfeeding (Arlotti, Cottrell, Lee & Curtin, 1998; Brent, Redd, Dworetz, D'Amico & Greenberg, 1995; Duckett, 1992; Giugliani, Caiaffa, Vogelhut, Witter & Perman, 1994; Hart et al., 1980; Hill, 1987; Humphreys et al., 1998; Janke, 1993; Jenner, 1988; Leff et al., 1995; Piper & Parks, 1996; Sciacca, Phipps, Dube & Rafliff, 1995b, Wilmoth & Elder, 1995).

There are two main outcome measures identified in the breastfeeding literature: duration of breastfeeding and incidence of breastfeeding (Arlotti et al., 1998; Brent et al., 1995; Duckett, 1992; Giugliani et al., 1994; Hart et al., 1980; Hill, 1987; Houston et al., 1981; Humenick et al., 1998; Humphreys et al., 1998; Janke, 1993; Leff et al., 1995; Michelman, Faden, Gielen & Buxton, 1990; Morrow et al., 1999; Piper & Parks, 1996; Pugin, Valdes, Labbok, Perez & Aravena, 1996; Saunders & Carroll, 1988; Sciacca et al., 1995a; Serafino-Cross & Donovan, 1992; Wright et al., 1998). Incidence of breastfeeding is usually measured at the time the mother is discharged from the hospital, whereas duration of breastfeeding is most commonly measured at 2 weeks, 4 weeks, 3 months and 6 months postpartum (Hart et al., 1980; Morrow et al., 1999; Piper & Parks, 1996; Saunders & Carroll, 1988; Wilmoth & Elder, 1995).

Breastfeeding studies cite various definitions of the measurement of duration. Arlotti et al. (1998) defined breastfeeding duration as the length of time from initiation until the infant receives no breast-milk. Other researchers distinguished between predominate breastfeeding and exclusive breastfeeding where exclusivity was defined as providing only breast-milk and excluding all supplements (Arlotti et al., 1998; Bender, Dusch & McCann, 1998; Hills-Bonczyk et al., 1993; Morrow et al., 1999; Wilmoth & Elder, 1995). Wilmoth and Elder (1995) used breastfeeding indicators recommended by WHO: exclusive breastfeeding rate; predominant breastfeeding rate; timely,

complimentary feeding rate; continued breastfeeding rate; and bottle-feeding rate. Wright et al. (1998) selected the following categories to measure breastfeeding duration: never breastfed, breastfed and formula {artificial baby milk} fed from birth, exclusively breastfed for any period of time, and exclusively breastfed (i.e., never formula {artificial baby milk} fed). Whereas Piper and Parks (1996) viewed breastfeeding duration from two different categories: breastfed up to 6 months and breastfed longer than 6 months. In the studies reviewed, the duration of breastfeeding was compared with a variety of independent variables including maternal employment (Duckett, 1992; Jenner, 1988), peer counsellors (Arlotti et al., 1998; Saunders & Carroll, 1988), health professionals (Hill, 1987; Houston et al., 1981; Humenick et al., 1998; Leff et al., 1995; Michelman, Faden, Gielen & Buxton, 1990; Pastore & Nelson, 1997; Serafino-Cross & Donovan, 1992), breastfeeding education (Arlotti et al., 1998; Brent et al., 1995; Sciacca et al., 1995a), and social support (Giugliani et al., 1994; Humphreys et al., 1998; Sciacca et al., 1995a). Duckett (1992) and Humphreys et al. (1998) identified breastfeeding intention as an overall outcome indicator that is measured antenatally. Humphreys et al. (1998) have shown a positive association between this indicator and actual breastfeeding initiation and duration. Predictors of breastfeeding intention include women's belief of breastfeeding outcomes, and referent beliefs and attitudes towards breastfeeding and bottle-feeding (Duckett, 1992).

The recommendations made by the development panel are directed towards assisting nurses in health care practice settings to implement evidence-based recommendations. However, several recommendations have been made within the parameters of the Ottawa Charter and the WHO/UNICEF initiative that currently have limited research evidence. These gaps in research include: lack of studies evaluating the impact of public policy changes on the uptake of breastfeeding (e.g., length of hospital stay, maternity leave, human rights legislation); lack of studies evaluating the impact of interventions designed to make environments more conducive to breastfeeding (e.g., restaurants, workplace initiatives) and lack of studies of the impact of increased breastfeeding rates on the health care system (e.g., hospital readmissions during the first year, drug costs related to otitis media).

Practice Recommendations

Recommendation • 1

Nurses endorse the Baby-Friendly™ Hospital Initiative (BFHI), which was jointly launched in 1992 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). The BFHI directs health care facilities to meet the *"Ten Steps to Successful Breastfeeding"*. *(Level of Evidence III)*

Refer to Appendix B for details on the Breastfeeding Committee for Canada's documents entitled: "The Breastfeeding Committee for Canada Welcomes You to the Baby-Friendly™ Initiative (BFI)", and "The Baby-Friendly™ Initiative in Community Health Services: A Canadian Implementation Guide".

The Baby-Friendly™ Hospital Initiative (BFHI) directs health care facilities to meet the following ten steps to successful promotion of breastfeeding:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in the skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers to initiate breastfeeding within a half-hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation even if they should be 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 artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Discussion of Evidence

Fairbank et al. (2000) in a systematic review identified that institutional changes in hospital practices to promote breastfeeding can be effective at increasing both the initiation and duration of breastfeeding. These may include stand-alone interventions, such as rooming-in, or a package of interventions such as rooming-in, early contact and education. Each of the ten steps has varying levels of research evidence. These ten steps have been accepted by thousands of hospitals around the world and have been accredited by the BFHI. Details on the evidence available for each of the ten steps can be found in the World Health Organization (1998) document titled "Evidence for the Ten Steps to Successful Breastfeeding." This report states that the most substantive evidence is for guidance and support for the mother (Step 3, antenatal education, Step 5, showing a mother how to breastfeed, and Step 10, continuing support after discharge). The least substantive evidence is the optimal timing of the first feed in Step 4. What is most important is early contact and breastfeeding when the infant shows readiness to feed in the first two hours. Step 7, rooming-in, and Step 8, demand feeding, are closely intertwined and show evidence of increased breastfeeding rates, greater attachment to babies, earlier production of breast-milk, infants crying less, less breast engorgement, no increase in nipple soreness and increased weight gain. Step 6, use of supplements, and Step 9, use of artificial teats and pacifiers, are also closely related. A causal relationship with cessation of breastfeeding and supplementation or the use of artificial teats has not been substantiated within the research literature. The use of artificial teats, however, may be an indication of difficulties with breastfeeding or lack of confidence and the need for increased support from health care workers. There is substantive evidence to indicate that providing discharge packs of artificial baby milk leads to early cessation of breastfeeding.

The impact of the Baby-Friendly™ Hospital Initiative, that is, looking at the entire "Ten Steps to Successful Breastfeeding" and the "International Code of Marketing of Breast-Milk Substitutes" as a whole has not been reported in the literature. One study by DiGirolama & Grummer-Strawn (2001) assessed the impact of Baby-Friendly™ practices and termination of breastfeeding before 6 weeks. This study found that the strongest risk factors for early termination of breastfeeding were late breastfeeding initiation and supplementation. Lvoff, Lvoff & Klaus (2000) studied the effect of the Baby-Friendly™ Initiative and infant abandonment in Russia. The results of this study indicated that for the six years following implementation of BFHI, there was a marked decrease in infant abandonment. Another study done by Kramer et al. (2001) found that by providing health care workers in Belarus with the 18-hour BFHI lactation management training course, there was an increase in breastfeeding duration. They also found a significant reduction in the risk of gastrointestional infections and atopic eczema.

A report prepared for UNICEF by Relucio-Clavano (1981) documents the impact of a 'no formula' {artificial baby milk} policy (before BFHI was implemented) in one Philippine hospital. After 4 years, the hospital's breastfeeding initiation rate rose from 26 to 87 percent, infant deaths dropped by 47 percent, diseases were reduced by 58 percent, and diarrhea by 79 percent. As detailed in the description of the benefits of breastfeeding to mother and child, this may translate into potential cost savings for the institution. There is limited evidence described in the literature that indicates cost savings for hospitals that adopt BFHI practices. However in one report reviewed (Relucio-Clavano, 1981), a hospital in the Philippines reportedly saved over $100,000 US or 8% of their budget after one year of BFHI accreditation.

Recommendation • 1.1

Nurses have a role in advocating for "breastfeeding friendly" environments by:

- **advocating for supportive facilities and systems such as day-care facilities, "mother and baby" areas for breastfeeding, public breastfeeding areas, 24-hour help for families having difficulties in breastfeeding; and**
- **promoting community action in breastfeeding.** *(Level of Evidence III)*

Discussion of Evidence

Nurses have a role in advocating for "breastfeeding friendly" environments by:

1) Advocating for supportive facilities and systems such as day-care facilities, 'mother and baby' areas for breastfeeding, public breastfeeding areas, 24-hour help for families having difficulties in breastfeeding, etc.

2) Promoting community action in breastfeeding by activities such as:
   - "Providing information about community resources and breastfeeding support groups such as La Leche League and community support groups" (AWHONN, 2000, p.14).
   - "Promoting a discussion of breastfeeding in school health curricula starting at the primary level. Replace bottle-feeding images in texts with breastfeeding pictures" (CICH, 1996, p.23).
   - "Educating employers about the benefits of breastfeeding and how to provide a work environment conducive to the continuation of breastfeeding" (CICH, 1996, p. 23).
     As many mothers returning to work wish to continue breastfeeding their children, work environments should accommodate breastfeeding. As mothers return to work

at various times postpartum (depending on individual circumstances and wishes), modifications to the workplace will provide supportive facilities for all breastfeeding mothers.

- "Educating professionals and the public about their responsibilities under the WHO Code and the unethical marketing practices of the formula {artificial baby milk} industry" (CICH, 1996, p. 24).
- "Encouraging parents to find a supportive breastfeeding network" (CICH, 1996, p.58).
- Encouraging use of peer counsellors, as they can have a significantly positive effect on breastfeeding initiation rates and duration (Fairbank et al., 2000).
- "Considering incorporating trained lay counsellors in breastfeeding education programs" (AWHONN, 2000, p. 5).
- Offering classes, information and education outside traditional health care settings in places such as homes, places of worship, school, local neighbourhoods, etc. (AWHONN, 2000).
- Ensuring nursing mothers are aware of their rights. Breastfeeding women "have the right to breastfeed a child in a public area. No one should prevent you from nursing your child in a public area or to ask you to move to another area that is more 'discreet'"(Ontario Human Rights Commission, 1999).

Refer to Appendix C for more information about promoting community action.

Recommendation • 2

Nurses and health care practice settings endorse the WHO recommendation for exclusive breastfeeding for the first six months, with introduction of complementary foods and continued breastfeeding up to two years and beyond thereafter. *(Level of Evidence I)*

Discussion of Evidence

The World Health Organization (2000) systematic review on the optimal duration of exclusive breastfeeding compared exclusive breastfeeding for four to six months versus six months. The review included 3000 references but found only two small controlled trials and seventeen observational studies. It is worthwhile to note that the evidence is limited and the recommendation is made using inferences, other noted results from studies not included in the sample, as well as the weighing of risks against the benefits of exclusive breastfeeding, especially the potential reduction in morbidity and mortality.

A more recent Cochrane review (Kramer & Kakuma, 2002) was conducted with a primary objective to assess the effects on child health, growth, and development, and on maternal health, of exclusive breastfeeding for six months versus exclusive breastfeeding for three to four months with mixed breastfeeding thereafter through six months. Their conclusions indicate that, with the acknowledgement that individual infants must be managed individually, the available evidence demonstrates no apparent risks in recommending, as a general policy, exclusive breastfeeding for the first six months of life. The WHO and World Health Assembly have, subsequent to this review, included in their global strategy statement that all governments ensure that "the health and other relevant sectors, protect, promote and support exclusive breastfeeding for six months and continued breastfeeding up to two years of age and beyond" (WHO, 2002, p. 10). There are several implications for practice identified by the Public Health Research, Education and Development (PHRED) – Effective Public Health Practice Project (2002) related to these findings, including: the need for appropriate health care and supports for individuals; individualized management of maternal and infant health; support to mothers who do not breastfeed to optimize the health of their infants; and the need for processes to ensure that infant status is monitored on an ongoing basis.

Many health professionals have promoted the previous, long-standing recommendation of 4 – 6 months for breastfeeding. It is important to communicate this new evidence and accompanying WHO recommendation for exclusive breastfeeding for six months to all nurses, to ensure consumers receive consistent advice. Refer to Appendix B for details of the Baby-Friendly™ Initiative in Community Health Services: A Canadian Implementation Guide.

Recommendation • 3

Nurses will perform a comprehensive breastfeeding assessment of mother/baby/family, both prenatally and postnatally, to facilitate intervention and the development of a breastfeeding plan. *(Level of Evidence III)*

Recommendation • 3.1

Key components of the prenatal assessment should include:

- **personal and demographic variables that may influence breastfeeding rates;**
- **intent to breastfeed;**
- **access to support for breastfeeding, including significant others and peers;**
- **attitude about breastfeeding among health care providers, significant others and peers; and**
- **physical factors, including breasts and nipples, that may effect a woman's ability to breastfeed.**

(Level of Evidence III)

Appendix D provides a sample prenatal assessment tool. Please note that this tool has been provided as an example only – it has not been tested for reliability or validity.

Discussion of Evidence

Nurses who work with prenatal populations should assess women for personal and demographic variables, such as ***age*** less than 20 years and low ***socioeconomic status***, that are associated with lower initiation and continuation rates (Hartley & O'Connor, 1996; Humphreys et al., 1998; Kessler, Gielen, Diener-West & Paiger, 1995; Kistin, Benton, Rao & Sullivan, 1990).

Intent to breastfeed should also be assessed prenatally. Balcazar, Trier & Cobas (1995) identified an association between prenatal exposure to breastfeeding advice and increased expression of intent to breastfeed among Mexican-American and non-Hispanic white women (AWHONN, 2000). The confidence, or ***self-efficacy***, of the mother in relation to breastfeeding plans has an impact on breastfeeding duration (Chezem, Friesen & Boettcher, 2003; McCarter-Spaulding & Kearney, 2001), and should be considered during the prenatal assessment. Women also should be assessed for ***physical factors*** such as inverted nipples or surgical scarring that may hinder or impede their ability to breastfeed (Biancuzzo, 1999; Riordan & Auerbach, 1999). The availability of ***support*** by significant others and peer counsellors should be assessed, as both may positively influence a woman's decision to initiate or continue breastfeeding (Duffy, Percival & Kershaw, 1997; Morrow et al., 1999; Sciacca et al., 1995a).

Once risk factors are identified, women can be targeted for individualized and culturally sensitive interventions to promote breastfeeding (Biancuzzo, 1999). For example, nurses working with teenagers might want to stress maternal benefits (such as enhanced weight loss) when trying to motivate their clients to breastfeed.

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Recommendation • 3.2

Key components of the postnatal assessment should include:

- **intrapartum medications;**
- **level of maternal physical discomfort;**
- **observation of positioning, latching and sucking;**
- **signs of milk transfer;**
- **parental ability to identify infant feeding cues;**
- **mother-infant interaction and maternal response to feeding cues;**
- **maternal perception of infant satisfaction/satiety cues;**
- **woman's ability to identify significant others who are available and supportive of the decision to breastfeed;**
- **delivery experience; and**
- **infant physical assessment.**

(Level of Evidence III)

Discussion of Evidence

Assessment of infant feedings is a critical component of lactation management during the postnatal period. Areas to observe during a feeding include the infant's position at the breast, latch, suck and signs of milk transfer. Women need information on how to recognize infant feeding and satisfaction/satiety cues and ways to determine whether the infant is getting enough breast milk (Brandt, Andrews & Kvale, 1998; Hill, Humenick, Argubright & Aldag, 1997; Matthews, Webber, McKim, Banoub-Baddour & Laryea, 1998). McCarter-Spaulding and Kearney (2001) conducted a descriptive correlational study that examined the relationship between parenting self-efficacy and the perception of insufficient milk. The results suggest that mothers who perceive that they have the competence to parent an infant also perceive that they have an adequate breast-milk supply. Self-confidence and the knowledge and skills related to breastfeeding can impact positively on breastfeeding duration (Blyth et al., 2002; Chezem et al., 2003; McCarter-Spaulding & Kearney, 2001).

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Recommendation • 3.3

Practice settings are encouraged to develop, adopt or adapt assessment tools encompassing key components for assessment and that meet the needs of their local practice setting. *(Level of Evidence III)*

Discussion of Evidence

Several assessment tools addressing various aspects of support and care of the breastfeeding mother and infant have been developed (Bar-Yam, 1998; Dennis & Faux, 1999; Hill & Humenick, 1996; Johnson, Brennan & Flynn-Tymkow, 1999; Matthews et al., 1998; Nyquist, Rubertsson, Ewald & Sjoden, 1996; Riordan, 1998; Riordan & Koehn, 1997; Schlomer, Kemmerer & Twiss, 1999). Furthermore, very little research has been conducted to compare various assessment tools in the area of breastfeeding. Riordan and Koehn (1997) initially compared three tools to measure breastfeeding effectiveness (Infant Breastfeeding Assessment Tool – IBFAT; Mother Baby Assessment Tool – MBA and the LATCH assessment tool) and found that further development/revisions and retesting were needed before recommendations for clinical practice could be made. Subsequently, Riordan, Bibb, Miller and Rawlins (2001) examined the validity of the LATCH tool by comparing it with other measures of effective breastfeeding and by determining its effectiveness in predicting breastfeeding duration to eight weeks postpartum. The results indicate support for the validity of the LATCH, however further testing of construct validity is warranted.

Assessment tools also vary from setting to setting based on the time in the preconception to postpartum period in which the nurse is in contact with the mother and/or infant. This points to a need for assessment tools that are either comprehensive to meet the practice requirement at various times or the requirement of specific comprehensive tools for specific stages in the continuum. Additionally, there is a need for user-friendly and short assessment tools in order to facilitate use by practicing nurses. Appendix E provides some details regarding postpartum assessment tools.

Recommendation • 4

Nurses will provide education to couples during the childbearing age, expectant mothers/couples/families and assist them in making informed decisions regarding breastfeeding. Education should include, as a minimum, the following:

- **benefits of breastfeeding** *(Level I)*;
- **lifestyle issues** *(Level III)*;
- **milk production** *(Level III)*;
- **breastfeeding positions** *(Level III)*;
- **latching/milk transfer** *(Level II-2)*;
- **prevention and management of problems** *(Level III)*;
- **medical interventions** *(Level III)*;
- **when to seek help** *(Level III)*; **and**
- **where to get additional information and resources** *(Level III)*.

The education provided by the nurse must take into account the social, economic and cultural factors of the expectant mothers/couples/families and be based on the principles of adult learning (AWHONN, 2000).

Benefits of Breastfeeding *(Level of Evidence I)*

Discussion of Evidence

"It has been shown repeatedly in developed countries that one third to one half of women decide how they will feed their babies before they are pregnant" (WHO, 1998, p.23). In the antenatal period, health professionals should cover the importance of exclusive breastfeeding, the benefits of breastfeeding and basics of breastfeeding management, and ensure that women have not received group education on formula {artificial baby milk} feeding (WHO, 1998).

The benefits of breastfeeding have been extensively documented in the literature and endorsed by several organizations and, as such, is the preferred method of infant feeding (AWHONN, 2000; CICH, 1996; Canadian Paediatric Society, Dietitians of Canada & Health Canada, 1998; Health Canada, 2000; Ministry of Health Manatu Hauora New Zealand, 1997; WHO, 1998). Breast-milk contains all the fluid and nutrients required for optimal growth (Heinig, Nommsen, & Peerson, 1993; Humenick, 1987; Tyson, Burchfield & Sentence, 1992; Woolridge, Ingram, & Baum, 1990). As discussed in the Background Context, recent studies in developed countries have provided evidence that breastfeeding protects against gastrointestinal infections and otitis media (Beaudry et.al., 1995; Canadian Paediatric Society, Dietitians of Canada and Health Canada, 1998; Howie et. al., 1990). Breastfeeding may

give some protection against Sudden Infant Death Syndrome (SIDS), and a number of studies have suggested an association between breastfeeding and protection against SIDS. However, with the exception of one study from New Zealand (Ministry of Health Manatu Hauora New Zealand, 1997), these studies have not controlled for infant sleep position and exposure to second hand smoke. Thus, a direct protective relationship is unproven as of yet (Bernshaw, 1991; Canadian Paediatric Society, Dietitians of Canada and Health Canada, 1998; Ford, 1993; Kraus et. al., 1989). For infants with a family history of allergies, exclusive breastfeeding for four months appear to have a protective effect (Burr et. al., 1993; Canadian Paediatric Society, Dietitians of Canada and Health Canada, 1998; Chandra, 1997; Lucas et. al., 1990; Saarinen & Kajosaari, 1995). Breastfeeding, however, does not appear to decrease incidence of allergies in infants who are not predisposed due to family history (Lucus et al., 1990).

The development panel, through its literature search and critical review of several clinical practice guidelines, arrived at consensus that there are a few special circumstances that may preclude breastfeeding. Breastfeeding is possible for the vast majority of mothers and their children, however galactosemia in the infant, drug abuse by the mother, untreated active tuberculosis, and a mother with HIV are special situations in which the appropriateness of breastfeeding should be evaluated on an individual basis. However, the benefits of breastfeeding with respect to nutrition, immunology and psychosocial gains generally outweigh the need to discontinue breastfeeding. Readers are referred to the work of Riordan, Lawrence and Motherisk (see reference list) for further discussion on this topic.

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Lifestyle Issues *(Level of Evidence III)*

Provide consistent information about the potential effects of the following on breastfeeding:

a) Medications related to medical interventions;
b) Alcohol;
c) Smoking;
d) Street drugs; and
e) Caffeine.

Discussion of Evidence

a) Medications related to medical interventions

Information about the effects of maternal medication on breastfeeding is constantly changing and is dependent on a variety of factors. However, there is agreement that the concentration of the maternal medication in breast-milk is usually <1% of the maternal dose (CICH, 1996; Scarborough Breastfeeding Network, 1999). Currently, there are a limited number of drugs that are contraindicated with breastfeeding. For the limited number of drugs that are contraindicated there are usually safe alternatives. Several key sources of current information on medications and breastfeeding include:

- Motherisk Program at The Hospital for Sick Children, Toronto, Ontario (www.motherisk.org);
- Hale, T. (2000). *Medications in mother's milk*. Amarillo, TX: Pharmasoft Medical Publishing.
- Hale, T. (1999*). Clinical Therapy in Breastfeeding Patients.* (1st ed.) Amarillo, TX: Pharmasoft Medical Publishing.

b) Alcohol

Alcohol is transferred into breast-milk at a similar concentration as into maternal serum. Excessive intake of alcohol impedes milk production. Furthermore, alcohol can also depress the milk "letdown" (ejection) reflex. A few studies have found that light, 'social drinking' mothers can minimize the amount of alcohol that transfers into the breast-milk by limiting the amount of alcohol to one drink, two hours prior to breastfeeding which allows for the maximum time for the alcohol to be metabolized by the maternal body (Riordan & Auerbach, 1993). On an empty stomach, alcohol peaks in breast-milk within 30-60 minutes in comparison to 60-90 minutes if alcohol is taken with food (Scarborough Breastfeeding Network, 1999).

c) Smoking

Nicotine can be found in breast-milk of both smoking mothers and mothers exposed to second hand smoke. Excessive exposure to nicotine in breast-milk can cause the infant to experience gastrointestinal problems, increased heart rate, increased irritability, and poor weight gain. The breastfeeding mother can experience reduced milk supply and milk ejection (CICH, 1996; Ministry of Health Manatu Hauora New Zealand, 1997; Scarborough Breastfeeding Network, 1999). However, breastfeeding is still the recommended feeding method. Smoking mothers should be encouraged to quit or reduce smoking. To reduce the harmful effects of smoking if the mother continues to smoke, she should smoke immediately after breastfeeding, which allows for a longer period of time for the nicotine to be metabolized. Also, to limit the baby's exposure to second hand smoke, people who smoke in the household should smoke outside (CICH, 1996; Ministry of Health Manatu Hauora New Zealand,1997; Scarborough Breastfeeding Network, 1999).

d) Street drugs

Breastfeeding may not be the recommended infant feeding method with mothers who use street drugs (e.g., heroin, cocaine, and marijuana). The concentration of these drugs in breast-milk, even with the use of very small amounts may result in harmful effects to the infant. Infants should also not be exposed to the smoke fumes from marijuana. However, discussing the benefits of breastfeeding to mothers who use street drugs could encourage them to stop using these drugs (CICH, 1996; Hale, 2000; Lawrence, 1994; Moretti, Lee & Ito, 2000).

e) Caffeine

The American Academy of Pediatrics (Watson, 1994) approves occasional use of caffeine.

Milk Production *(Level of Evidence III)*

Facilitate the development of breastfeeding knowledge by providing the client with consistent information regarding the anatomy and physiology of the breast including:

- External structures;
- Internal structures;
- Hormonal influences on the breast; and
- Milk production.

Discussion of Evidence

Educating breastfeeding families about breast-milk production represents one component of a comprehensive breastfeeding education. Although the literature does not specifically identify the importance of educating breastfeeding families about this topic, one can infer that being knowledgeable about how breast-milk is produced would be an asset in supporting families' overall understanding and comfort with breastfeeding.

Fairbank et al. (2000) discussed the effectiveness of interventions to promote the initiation of breastfeeding and found that "small, informal, group health education classes, delivered in the antenatal period, can be effective intervention to increase initiation rates, and in some cases the duration of breastfeeding, among women from different income or ethnic groups" (pg. vi). Fairbank et al. (2000) also suggested that "there is some evidence to show that one-to-one health education can be effective at increasing initiation rates among women on low incomes, and particularly among women who have expressed a wish to breastfeed" (pg. 48). This evidence would further support nurses in their role of facilitating breastfeeding knowledge of clients by implementing these intervention strategies.

Breastfeeding Positions *(Level of Evidence III)*

Nurses assist mothers in finding various breastfeeding positions that they are comfortable with and/or can experiment with. See Appendix F for a description of breastfeeding positions, along with accompanying illustrations.

Discussion of Evidence

Nurses need to provide consistent information to the mother so she can choose a comfortable and effective breastfeeding position for herself and baby. Several of the guidelines reviewed by the panel provide a description of a number of effective breastfeeding positions (AWHONN, 2000; International Lactation Consultant Association, 1999; Scarborough Breastfeeding Network, 1999; Society of Paediatric Nursing of the Royal College of Nursing, 1998).

Latching/Milk Transfer *(Level of Evidence II-2)*

Appendix G provides details for assessing latch, milk transfer and breastfeeding effectiveness. Nurses should include information and education on latching: how to latch; how to recognize a good latch; how to know baby is getting the milk; recognizing good infant sucking; and recognizing feeding cues.

Discussion of Evidence

Milk production, milk transfer and nipple comfort are dependent on correct infant latch. Several resources reviewed by the panel provided descriptions on how to establish an effective latch and milk transfer (CICH, 1996; ILCA, 1999; Newman & Pitman, 2000; Society of Paediatric Nursing of the Royal College of Nursing, 1998).

Correct latch is evidenced by wide open mouth, flanged lips, chin pressed into the breast and lower lip covering more of the areola than the upper lip (Ziemer, Paone, Schupay & Cole, 1990). Signs that indicate effective milk transfer include: rhythmic suck/swallow pattern; hearing and seeing the infant swallowing; small amount of colostrum/milk seen in mouth; contentment after feedings; non-painful tugging at the breast; milk leaking from opposite breast; maternal drowsiness; and breast softening after feeding (Biancuzzo, 1999; Brandt, Andrews & Kvale, 1998; Chute & Moore, 1996; Hill et al., 1997; Matthews et al., 1998).

A baby who is obtaining adequate milk at the breast sucks in a very characteristic way. The transfer of milk can be assessed by watching the baby at the breast for the following signs of good latch and milk transfer: the baby opens his mouth fairly wide as he sucks with a slow and steady rhythm; at the maximum opening of his mouth, there is a pause which can be observed if one watches the baby's chin; the baby closes his mouth again. The pattern is *open – suck – pause – swallow*. Each one of these pauses corresponds to a mouthful of milk and the longer the pause, the more milk the baby is getting (Newman, 1998).

Prevention and Management of Problems *(Level of Evidence III)*

Nurses should identify and educate families about the prevention and treatment of the following potential breastfeeding problems:

- Cracked, bleeding, sore, flat, or inverted nipples;
- Breast engorgement;
- Mastitis, obstructed (plugged) ducts;

- Maternal illness (i.e., HIV, CMV, Hepatitis B, Streptococcus B, breast surgery);
- Infant illness issues (i.e., neonatal jaundice, phototherapy, hypoglycemia, cold stress, preterm infants, thrush, separation from mother, cleft lip);
- Adopted baby;
- Multiple births;
- Breast refusal or difficulty achieving a latch;
- Ineffective suck;
- Insufficient milk supply;
- Overabundant milk supply; and
- Overactive milk ejection (letdown) reflex.

Appendix H provides an "Immediate Postpartum Decision Tree" to assess breastfeeding, encourage effective intervention and prevent problems from developing.

Discussion of Evidence

The Canadian Institute for Child Health (1996) suggests that having the knowledge of potential breastfeeding difficulties and prompt responses by health professionals can prevent problems and promote breastfeeding success.

For the purposes of this best practice guideline and to stay within its defined scope, the consensus of the development panel is that readers should refer to current breastfeeding authorities and sources regarding the management of breastfeeding problems. Although further research into the management of breastfeeding problems needs to be undertaken, for problems identified in this guideline, readers are directed to the following referenced breastfeeding guidelines (AWHONN, 2000; CICH, 1996; Health Canada, 2000; ILCA, 1999; Scarborough Breastfeeding Network, 1999) and other evidence-based sources (Newman & Pitman, 2000; Riordan & Auerbach, 1999).

There is a gap in the evidence that directly supports education alone as having the ability to problem solve breastfeeding concerns. However, one can infer that the more knowledge breastfeeding families have about breastfeeding and the management of concerns, longer duration rates and a more positive breastfeeding experience would be anticipated (Fairbank et al., 2000).

Medical Interventions *(Level of Evidence III)*

The nurse will educate families about the following medical interventions used during the intrapartum period and the potential effect they may have on the initial breastfeeding experience:

- Medications used during labour, such as narcotics;
- Epidural;
- Caesarian birth; and
- Vacuum extraction and forceps delivery.

Discussion of Evidence

Infants born to mothers who received narcotic and/or epidural medication during labour may experience sucking difficulties in the early postpartum period. From a review of studies (AWHONN, 2000), the effects of intrapartum medications on the breastfeeding experience will vary according to the timing and the quantity of the medication administered. After a caesarian birth, breastfeeding should be initiated as soon as the mother is physically able. With a local anesthesia, initiation of breastfeeding should not be delayed. With a general anesthesia, breastfeeding should be initiated when the mother regains consciousness (Gonzales, 1990; WHO, 1998).

Currently, there is insufficient evidence on induction, forceps delivery and other related factors such as length and difficulty of labour on breastfeeding. Nurses need to assess and consider how these factors might affect the early breastfeeding experience.

When to Seek Help *(Level of Evidence III)*

Nurses must provide families with key verbal and written information on when they should seek help. It is important to emphasize to families that the presence of individual signs is not necessarily a problem, but that the identification of a pattern indicates a need for intervention by a health care professional. Information provided to families should include the following:

INFORMATION FOR FAMILIES – WHEN TO SEEK HELP
Weight loss greater than 7% and/or continued weight loss after Day 3 Nurses need to identify to families that the baby's weight should ideally be taken on the same scale at each assessment. Scales have a level of variability, and taking the measurement on a consistent scale provides a means of accurate comparison. It is not expected, or encouraged, that families should be calculating this weight loss, but nurses should be familiar with the necessary calculations.
Less than 3 bowel movements in a 24 hour period
Meconium stool after Day 4
Less than 6 wet diapers in a 24 hour period after Day 4 Discuss with families the difference between soaked diapers and stained diapers. This is often difficult to assess with super-absorbent disposable diapers.
Infant is sleepy, restless or irritable
No audible swallowing while breastfeeding
Refusal to feed
No change in maternal breast size or milk volume by Day 5
Sore nipples
Engorgement unrelieved by feeding
No infant weight gain by Day 5
Birth weight has not been achieved by approximately 2 – 3 weeks

Discussion of Evidence

Nurses need to work with the family's primary care provider to ensure that parents are able to identify the signs indicating the need for immediate help and further breastfeeding assessment. These signs include: weight loss greater than 7% (taken from consistent scales); continued weight loss after day 3; less than 3 bowel movements in 24 hours; meconium stool after day 4; less than 6 wet diapers in 24 hours after day 4; irritable, restless or sleepy infant; no audible swallowing; refusal to feed; no change in maternal breast size or milk volume by day 5; sore nipples; engorgement unrelieved by feeding; no infant weight gain by day 5; and infant has not returned to birth weight by 2 to 3 weeks (Huggins & Billon, 1993; Humenick, Hill & Wilhelm, 1997; Merlob, Aloni, & Prager, 1994; Neifert, 1998; Nyhan, 1952; Powers & Slusser, 1997; Righard & Alade, 1990; Shrago, 1996).

Where to get additional information and resources *(Level of Evidence III)*

Breastfeeding women and their families need to be aware of where they can access additional assistance and information regarding breastfeeding. Nurses need to be familiar with various breastfeeding resources available in the local community. These resources include, but are not limited to: lactation consultants; La Leche League; Public Health Units; community support nurses; physicians; breastfeeding clinics; and midwives. Appendix I provides a list of recommended educational resources, while Appendix J provides a framework for identifying local breastfeeding support services.

Women and their families need to be aware of the importance of support for successful breastfeeding experiences. Partners will often share household tasks, but it is the frequent positive reinforcement and sensitivity to the mother's feelings of frustration and discouragement that has been shown to be most helpful. Partners should be encouraged to explore, prior to the birth of the infant, their sources of support, including each other, family, friends and their community. The support of health care providers is essential to successful breastfeeding (CICH, 1996).

Discussion of Evidence

Support services have been associated with an increase in duration for breastfeeding (AWHONN, 2000).

Recommendation • 5

Small, informal group health education classes, delivered in the antenatal period, have a better impact on breastfeeding initiation rates than breastfeeding literature alone or combined with formal, non-interactive methods of teaching. *(Level of Evidence I)*

Nurses may offer breastfeeding information early during pregnancy (first trimester) through:

- Group classes (Duffy et al., 1997; Kistin et al., 1990; Pugin et al.,1996; Wiles, 1984);
- Peer groups (Caulfield et al., 1998; Long et al., 1995; Morrow et al., 1999); and
- One-on-one instruction (Caulfield et al., 1998; Hartley & O'Connor, 1996; Humphreys et al., 1998).

Discussion of Evidence

Fairbank et al. (2000), in their systematic review, identified 19 studies examining the effect of stand-alone health education interventions on initiation rates. Although finding several cautious interpretations of results, it can be concluded that information in the form of breastfeeding literature alone will not lead to behaviour change. Fairbank et al. (2000) also reported on one randomized controlled trial (RCT) by Kistin et al. (1990) in their systematic review that lends support for both one-to-one health education and group health education. They found differences in breastfeeding practices: those receiving group health education increased initiation rates of those who planned to breastfeed; while one-to-one health education affected initiation rates of those who planned to bottle feed. Although limited in evidence, practice settings ought to consider the design of their breastfeeding education session following an assessment of their target population. Three other RCTs by Rossiter (1994), Wiles (1984) and Thorley et al. (1997) all supported using group education.

Peer counsellors can provide effective education and support beginning at the antenatal period, as evidenced by initiation rates increasing by 15 to 25 percent among low-income urban and rural populations (Caulfield et al., 1998; Kistin et al., 1994; Lang, Lawrence & Orme, 1994; Morrow et al., 1999), and duration rates increasing by 40 to 60 percent (Morrow et al., 1999). There is also a positive relationship between prenatal class attendance and breastfeeding initiation (Kistin et al., 1990). Encouraging a mother to breastfeed even during one prenatal visit may have a positive effect on initiating breastfeeding (Balcazar et al., 1995; Duffy et al., 1997). A study by Pugin et al. (1996) assessed the effect of a hospital breastfeeding promotion program, with or without specific prenatal education. It was concluded that prenatal breastfeeding education is a significant and important component of breastfeeding support, especially among women who have no previous breastfeeding experience. Intervention may have played an important role with group discussion about common myths, problems and support.

Recommendation • 5.1

Evaluation of education programs should be conducted in order to evaluate the effectiveness of prenatal breastfeeding classes. *(Level of Evidence II-2)*

Discussion of Evidence

AWHONN (2000) suggests that education plans should be evaluated for the following factors: culturally and age-appropriate, community specific information, and accurate information that includes the benefits of breastfeeding.

Recommendation • 6

Nurses will perform a comprehensive breastfeeding assessment of mother/baby prior to hospital discharge. *(Level of Evidence III)*

Appendix K provides examples of discharge assessment tools that can be used to facilitate the transition from hospital to home.

Recommendation • 6.1

If mother and baby are discharged within 48 hours of birth, there must be a face-to-face follow up assessment conducted within 48 hours of discharge by a qualified health care professional, such as a Public Health Nurse or Community Nurse specializing in maternal/newborn care. *(Level of Evidence III)*

Discussion of Evidence

In the absence of strong research evidence, the panel endorses guidelines made by the Canadian Paediatric Society (2000). Refer to Appendix L for a summary of these guidelines. Specifically, the panel would like to highlight that if mother and baby are discharged within 48 hours of delivery, there must be an in-person follow up assessment conducted within 48 hours of discharge. This assessment must be provided by a qualified health care professional such as a Public Health Nurse or community-based nurse specializing in maternal/newborn care. However, it is the consensus of the development panel that there are some mothers who would benefit from a home visit and breastfeeding assessment as early as 24 hours following discharge. Mothers identified at risk may be in more need of closer follow-up, early post discharge.

Recommendation • 6.2

Discharge of mother and baby after 48 hours should be followed by a telephone call within 48 hours of discharge. *(Level of Evidence III)*

Discussion of Evidence

The Ontario Ministry of Health and Long-Term Care, through the Healthy Babies, Healthy Children Program, has mandated that all new mothers are contacted by a health care professional within 48 hours of hospital discharge, and consenting mothers receive a home visit (Ontario Ministry of Health, 1997). This telephone contact should include an assessment of the mother, which needs to address her physical health, nutritional status, breast care, parenting, support systems, emotional health, medical supervision and other determinants of health. The telephone assessment of the infant should focus on the infant's feeding and nutrition, general health status, including output, infant care and medical supervision. In addition, the health and well being of other family members and adjustment to the new baby should be reviewed. Information on community resources that support parenting (e.g., breastfeeding clinics, infant-parenting groups, parenting centres) should be provided during this telephone contact.

Sword et al. (2001), in a five site Ontario study of postpartum health and social service utilization, reported that healthy mothers and newborn infants rely mainly on primary medical care and community nursing services during the first four weeks post discharge from hospital. The patterns of utilization are variable from site to site and depend upon the mothers, the newborn infant and provider practice patterns. It was also reported that healthy mothers in the first month of motherhood are experiencing significant information gaps which are relevant to appropriate health and social services utilization. Specific breastfeeding implications for policy makers, program managers, service delivery personnel and the public are included in the Ontario Mother and Infant Survey (Sword, 2001).

Studies have also shown the value of home visiting services both prenatally and in the postpartum period. Ciliska et al. (1999) conducted a systematic review to assess the effectiveness of home visiting as a program delivery strategy for prenatal and postnatal clients. Twenty relevant articles reporting twelve studies of strong or moderate quality were found. The studies were all trials except one, which was a cohort design, and considered to be of moderate quality. Two studies targeted prenatal clients, and four included interventions for both the pre and postnatal period. The most effective interventions were those that: involved multiple community agencies and primary care service; were more intensive with weekly home visits at least initially, either during pregnancy or after the birth of the child; and had a greater impact on those who

would be considered at risk due to social disadvantage. Implications for practice included: multiple intervention strategies are most effective; and home visiting interventions with women at high risk due to social circumstances, age, income or education have a greater impact than those directed to more advantaged clients.

Recommendation • 7

Nurses with experience and expertise in breastfeeding should provide support to mothers. Such support should be established in the antenatal period, continued into the postpartum period, and should involve face-to-face contact. *(Level of Evidence I)*

The length of such support programs should be determined based on local needs (evidence on the duration of support programs is not conclusive).

Discussion of Evidence

Sikorski, Renfrew, Pindoria and Wade (2001) reviewed thirteen studies that examined the effectiveness of breastfeeding support services on breastfeeding duration rates. The design of the studies included in the review were randomized or quasi-randomized controlled. In these studies, the breastfeeding support offered to mothers was in addition to the standard care the mothers usually receive. Therefore, the support was provided specifically to facilitate the continuation of breastfeeding. In the studies that were analyzed, breastfeeding support was provided either in both the antenatal and postnatal period or exclusively in the postnatal period. Twelve of the studies involved face-to-face breastfeeding support intervention, whereas one study examined telephone support provided by volunteers. The findings of the studies demonstrated that breastfeeding support, provided by health professionals who are specifically skilled in relation to breastfeeding, resulted in mothers breastfeeding until two months and more mothers exclusively breastfeeding to two months. In particular, breastfeeding support interventions that were offered in both the antenatal and postnatal period were more effective than interventions just delivered in the postnatal period. However, from the studies reviewed, the effectiveness of support interventions on breastfeeding duration over the longer term (more than two months) remains unclear. In addition, the effectiveness of telephone support by volunteers was unsubstantiated. A recent study by Steel O'Connor et al. (2003) compared routine home visiting by a public health nurse (PHN) and a screening telephone call to determine need for further intervention. They concluded: "a critical component of the initial telephone contact is careful assessment of the need for further PHN intervention" (pg. 103).

Recommendation • 7.1

Organizations should consider establishing and supporting peer support programs, alone or in combination with one-to-one education from health professionals, in the antenatal and postnatal periods. *(Level of Evidence I)*

Discussion of Evidence

In the Fairbank et al. (2000) systematic review, two randomized controlled trials (RCTs) (Kistin et al., 1994; McInnes, 1998) were identified. Both RCTs found evidence for the use of peer support programs in assisting women to start and maintain exclusive breastfeeding for at least six weeks, as well as assistance in breastfeeding effectively. Peer support did not change the behaviour of women who had decided to bottle-feed.

Education Recommendations

Recommendation • 8

Nurses providing breastfeeding support should receive mandatory education in breastfeeding in order to develop the knowledge, skills and attitudes to implement breastfeeding policy and to support breastfeeding mothers. *(Level of Evidence II-2)*

A. Breastfeeding Education should:

1. Include content that will facilitate the development of clinical skills, a theory base and reflective attitudes. Appendix M provides examples of exercises to facilitate self-reflection within the educational session.

2. Be based on a structure that includes:

- The Baby-Friendly™ Initiative;
- UNICEF/WHO *Ten Steps to Successful Breastfeeding;*
- Evidence-based practice;
- Adult learning theories; and
- Development of skills from novice to expert.

B. Specific content should include information about breastfeeding assessment, support and management of problems.

Examples of programs can be found in:

- WHO Breastfeeding Education module "Breastfeeding Management and Promotion in a Baby-Friendly™ Hospital: An 18-hour course for maternity staff".
- Breastfeeding Education Series – Perinatal Partnership Program of Eastern & Southeastern Ontario.
- Universities/Colleges of Applied Arts and Technology.
- Educational resources – websites, journals, videos, on-line breastfeeding courses, etc.

Appendix I provides a list of Internet resources, videos and recommended reading. Appendix N provides a list of on-line courses on the topic of breastfeeding.

Discussion of Evidence

Studies have shown a positive correlation between increased breastfeeding knowledge and skills in health care providers with increased breastfeeding initiation rates (Balcazar et al., 1995; Hartley & O'Connor, 1996; Humphreys et al., 1998; Rajan & Oakley, 1990). However, it is unfortunate that there is a minimal amount of time dedicated to basic breastfeeding training in health science programs resulting in health professionals being inadequately prepared to provide breastfeeding counselling or assistance (CICH, 1996; WHO, 1998). Consequently, health care organizations must take the initiative to provide adequate breastfeeding training to their health care workers. This will facilitate the delivery of effective breastfeeding guidance to ensure mothers receive consistent and supportive breastfeeding information (AWHONN, 2000; CICH, 1996).

For the effective promotion of breastfeeding, training for health professionals needs to focus on increasing their knowledge and skills, as well as changing their attitudes about breastfeeding. Research has demonstrated that, in order for training to be effective, it must be mandatory and endorsed by senior management through the implementation of a breastfeeding policy (Iker & Morgan, 1992; Stokamer, 1990; Winikoff, Myers, Laukaran & Stone, 1987). WHO/UNICEF (1992) has recommended that health care providers should receive a minimum of eighteen hours of breastfeeding training and three hours of clinical practice. Furthermore, the training needs to encompass at least eight of the ten steps of the WHO Code.

Two studies have looked into the effectiveness of training. Altobelli, Baiocchi-Ureta and Larson (1991) measured the effectiveness of a twenty-hour staff training course, that used standardized breastfeeding educational materials, nine months following the training. They reported improvements in initial mother-infant contact and attachment at the breast, as well as reduced use of feeding supplements. Westphal, Taddei, Venancio and Bogus (1995) examined the effectiveness of a three week intensive breastfeeding training course. Through the use of a pre- and post-test, they found that most of the training participants demonstrated a significant improvement in their knowledge and attitude about breastfeeding. In addition, the researchers administered the post-test to the participants six months later and found they had a high retention of the training information. Both studies ascertained that increased education is only effective if accompanied by changes in practitioners' attitudes and increases in skill level.

Integrating self-efficacy enhancing strategies (e.g., opportunities to observe another woman breastfeed) into interactions with clients may improve the quality of care that nurses deliver (Blyth et al., 2002). Establishing a therapeutic relationship is key to the inclusion of these types of strategies in interactions with breastfeeding mothers, and should be considered as part of any educational strategy. The College of Nurses of Ontario provides direction in the *Standard for the Therapeutic Nurse-Client Relationship* (2000), and the Registered Nurses Association of Ontario (2002a) supports evidence-based care in the best practice guideline *Establishing Therapeutic Relationships*.

It is the consensus of the development panel that encouragement and support should be provided to nurses willing to work towards an International Board Certified Lactation Consultant (IBCLC) designation. The International Board of Lactation Consultant Examiners credential is the recognized standard for mastery that has been established by experts in the lactation field (International Board of Lactation Consultant Examiners, 2001).

Organization & Policy Recommendations

Recommendation • 9

Practice settings need to review their breastfeeding education programs for the public and, where appropriate, make the necessary changes based on recommendations in this best practice guideline. *(Level of Evidence III)*

Consideration needs to be given to social, economic and cultural factors.

Recommendation • 10

Practice settings/organizations should work towards being accredited by the Baby-Friendly™ Hospital Initiative. *(Level of Evidence III)*

Refer to Appendix O for details regarding the process for Baby-Friendly™ Hospital Initiative accreditation.

Recommendation • 11

Nursing best practice guidelines can be successfully implemented only where there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. Organizations may wish to develop a plan for implementation that includes:

- **An assessment of organizational readiness and barriers to education.**
- **Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process.**
- **Dedication of a qualified individual to provide the support needed for the education and implementation process.**
- **Ongoing opportunities for discussion and education to reinforce the importance of best practices.**
- **Opportunities for reflection on personal and organizational experience in implementing guidelines.**

In this regard, RNAO (through a panel of nurses, researchers and administrators) has developed the *"Toolkit: Implementation of clinical practice guidelines"* based on available evidence, theoretical perspectives and consensus. The Toolkit is recommended for guiding the implementation of the RNAO *Breastfeeding Best Practice Guidelines for Nurses.*
(Level of Evidence III)

Refer to Appendix P for a description of the RNAO "Toolkit: Implementation of clinical practice guidelines".

Evaluation & Monitoring

Organizations implementing the recommendations in this nursing best practice guideline are advised to consider how the implementation and its impact will be monitored and evaluated. The following table, based on the framework outlined in the RNAO *Toolkit: Implementation of clinical practice guidelines (2002c),* summarizes some suggested indicators for monitoring and evaluation:

	Structure	Process	Outcome
Objectives	• To evaluate the supports in the organization that allow for nurses to appropriately promote breastfeeding.	• To evaluate changes in practice that lead towards improved breastfeeding practices.	• To evaluate the impact of implementing the recommendations.
Organization/ Unit	• Availability of patient education resources that are consistent with best practice guideline recommendations. • Review of guideline recommendations by organizational committee(s) responsible for policies or procedures and/or for Baby-Friendly™ Hospital Initiative (BFHI) accreditation.	• Progress towards BFHI accreditation since implementation of guideline and elements of progress that administrators attribute to guideline implementation. • A standardized tool is used for documenting a breastfeeding assessment.	• Policies and procedures related to promoting breastfeeding are consistent with the guideline.
Nurse	• Percentage of full-time, part-time and casual nurses attending education sessions on breastfeeding. • Average number of hours of education on breastfeeding since guideline implementation.	• Nurses' self-assessed knowledge related to breastfeeding. • Nurses' average self-reported awareness levels of community referral sources for breast-feeding support.	• Percentage of breastfed infants given a supplement while in hospital. • Evidence of documentation in health record related to: • Prenatal assessment; • Postnatal assessment; • Family education; and • Community referral.
Breastfeeding mother		• Percentage of mothers reporting a prenatal breastfeeding assessment conducted by a nurse. • Percentage of mothers reporting a postnatal breastfeeding assessment conducted by a nurse.	• Percentage of primiparas initiating breastfeeding while in hospital. • Percentage of multiparas initiating breastfeeding while in hospital. • Percentage of mothers (primips and multips) exclusively breastfeeding at 8 weeks (2 months) postpartum. • Percentage of mothers accessing referral sources in the community.
Financial costs	• Provision of adequate financial and human resources.		

Examples of evaluation tools that were used to collect data on some of the indicators identified above during the pilot implementation/evaluation of this guideline are available at www.rnao.org/bestpractices.

Implementation

This best practice guideline was pilot tested in a hospital and public health unit in Sudbury, Ontario. The lessons learned and results of the pilot implementation may be unique to these organizations, and it is acknowledged that their experience may not be appropriate to generalize to other settings. However, there were many strategies that the pilot sites found helpful during implementation, and those who are interested in implementing this guideline may wish to consider these tips. A summary of these strategies follows:

- Identify an individual to lead the project who is able to provide dedicated time to implementation. If the implementation initiative crosses more than one site, each site should consider identifying such a resource nurse. This nurse will provide support, clinical expertise and leadership to the implementation, and should have strong interpersonal, facilitation and project management skills.

- Utilize a systematic approach to planning, implementation and evaluation of the guideline initiative. A work plan is helpful to keep track of activities and timelines.

- Before a change in practice can be expected and guideline recommendations implemented, the attitudes, values and beliefs of staff about breastfeeding must be addressed. The use of reflective practice exercises and transformational learning approaches were key to the educational program developed for the pilot implementation (See Appendix M).

- Provide opportunities for staff to attend interactive, adult-learning based breastfeeding education programs, which incorporate the above approaches, but also the background on the politics of breastfeeding. The 18-hour INFACT course is highly recommended for as many staff as can attend.

- Teamwork and collaboration through an interdisciplinary approach is essential, and all services/institutions dealing with young families should be included in the process. Consider establishing an implementation team that includes not only the organization implementing the guideline, but others such as community partners (referral sources), support groups, pre- and post-natal programs and dietitians.

In addition to the tips mentioned above, RNAO has published implementation resources that are available on the website. A Toolkit for implementing guidelines can be helpful, if used appropriately. A brief description about this toolkit can be found in Appendix P. It is available for free download at www.rnao.org/bestpractices. Implementation resources developed by the pilot site in Sudbury, Ontario are also available on the website to assist individuals and organizations implement this best practice guideline. These resources are specific to the pilot site, and have been made available as examples of local adaptation for implementation of the recommendations.

Process for Update/Review of Guideline

The Registered Nurses Association of Ontario proposes to update this nursing best practice guideline as follows:

1. Following dissemination, each nursing best practice guideline will be reviewed by a team of specialists (Review Team) in the topic area every three years following the last set of revisions.

2. During the three-year period between development and revision, RNAO Nursing Best Practice Guideline project staff will regularly monitor for new systematic reviews, meta-analysis and randomized controlled trials (RCTs) in the field.

3. Based on the results of the monitor, project staff may recommend an earlier revision period. Appropriate consultation with a team, comprising original panel members and other specialists in the field, will help inform the decision to review and revise the best practice guideline earlier than the three-year milestone.

4. Three months prior to the three-year review milestone, the project staff will commence the planning of the review process as follows:
   a) Invite specialists in the field to participate in the Review Team. The Review Team will be comprised of members from the original panel as well as other recommended specialists.
   b) Compilation of feedback received, questions encountered during the dissemination phase, as well as other comments and experiences of implementation sites.
   c) Compilation of new clinical practice guidelines in the field, systematic reviews, meta-analysis papers, technical reviews and randomized controlled trial research.
   d) Detailed work plan with target dates for deliverables will be established.

The revised guideline will undergo dissemination based on established structures and processes.

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Appendix A: Search Strategy for Existing Evidence

STEP 1 – Database Search

An initial database search for existing breastfeeding guidelines was conducted early in 2001 by a company that specializes in searches of the literature for health related organizations, researchers and consultants. A subsequent search of the MEDLINE, CINAHL and Embase database for articles published from January 1, 1995 to February 28, 2001 was conducted using the following search terms: "Breastfeeding", "Breast Feeding", "practice guidelines", "practice guideline", "clinical practice guideline", "clinical practice guidelines", "standards", "consensus statement(s)", "consensus", "evidence based guidelines" and "best practice guidelines". In addition, a search of the Cochrane Library database for systematic reviews was conducted using the above search terms.

STEP 2 – Internet Search

A metacrawler search engine (metacrawler.com), plus other available information provided by the project team, was used to create a list of 42 websites known for publishing or storing clinical practice guidelines. The following sites were searched in early 2001:

- Agency for Healthcare Research and Quality: www.ahrq.gov
- Alberta Clinical Practice Guidelines Program: www.amda.ab.ca/general/clinical-practice-guidelines/index.html
- American Medical Association: http://www.ama-assn.org/
- Best Practice Network: www.best4health.org
- British Columbia Council on Clinical Practice Guidelines: www.hlth.gov.bc.ca/msp/protoguide/index.html
- Canadian Centre for Health Evidence: www.cche.net
- Canadian Institute for Health Information (CIHI): www.cihi.ca/index.html
- Canadian Medical Association Guideline Infobase: www.cma.ca/eng-index.htm
- Canadian Task Force on Preventative Health Care: www.ctfphc.org/
- Cancer Care Ontario: www.cancercare.on.ca

- Centre for Clinical Effectiveness – Monash University, Australia http://www.med.monash.edu.au/publichealth/cce/evidence/
- Centers for Disease Control and Prevention: www.cdc.gov
- Centre for Evidence-based Child Health: http://www.ich.bpmf.ac.uk/ebm/ebm.htm
- Centre for Evidence-based Medicine: http://cebm.jr2.ox.ac.uk/
- Centre for Evidence-based Mental Health: http://www.psychiatry.ox.ac.uk/cebmh/
- Centre for Evidence-based Nursing: www.york.ac.uk/depts/hstd/centres/evidence/ev-intro.htm
- Centre for Health Services Research: www.nci.ac.uk/chsr/publicn/tools/
- Core Library for Evidence-Based Practice: http://www.shef.ac.uk/~scharr/ir/core.html
- CREST: http://www.n-i.nhs.uk/crest/index.htm
- Evidence-based Nursing: http://www.bmjpg.com/data/ebn.htm
- Health Canada: www.hc-sc.gc.ca
- Health Care Evaluation Unit: Health Evidence Application and Linkage Network (HEALNet): http://healnet.mcmaster.ca/nce
- Institute for Clinical Evaluative Sciences (ICES): www.ices.on.ca/
- Institute for Clinical Systems Improvement (ICSI) www.icsi.org
- Journal of Evidence-based Medicine: http://www.bmjpg.com/data/ebm.htm
- McMaster Evidence-based Practice Centre: http://hiru.mcmaster.ca/epc/
- McMaster University EBM site: http://hiru.hirunet.mcmaster.ca/ebm
- Medical Journal of Australia: http://mja.com.au/public/guides/guides.html
- Medscape Multispecialty: Practice Guidelines: www.medscape.com/Home/Topics/multispecialty/directories/dir-MULT.PracticeGuide.html
- Medscape Women's Health: www.medscape.com/Home/Topics/WomensHealth/directories/dir-WH.PracticeGuide.html
- National Guideline Clearinghouse: www.guideline.gov/index.asp
- National Library of Medicine: http://text.nlm.nih.gov/ftrs/gateway
- Netting the Evidence: A ScHARR Introduction to Evidence Based Practice on the Internet: www.shef.ac.uk/uni/academic/
- New Zealand Guideline Group: http://www.nzgg.org.nz/library.cfm
- Primary Care Clinical Practice Guideline: http://medicine.ucsf.edu/resources/guidelines/
- Royal College of Nursing: www.rcn.org.uk
- The Royal College of General Practitioners: http://www.rcgp.org.uk/Sitelis3.asp
- Scottish Intercollegiate Guidelines Network: www.show.scot.nhs.uk/sign/home.htm
- TRIP Database: www.tripdatabase.com/publications.cfm
- Turning Research into Practice: http://www.gwent.nhs.gov.uk/trip/
- University of California: www.library.ucla.edu/libraries/biomed/cdd/clinprac.htm
- www.ish.ox.au/guidelines/index.html

One individual searched each of these sites. The presence or absence of guidelines was noted for each site searched – at times it was indicated that the website did not house a guideline but re-directed to another web site or source for guideline retrieval. A full version of the document was retrieved for all guidelines.

STEP 3 – Hand Search/Panel Contributions

Panel members were asked to review personal archives to identify guidelines not previously found through the above search strategy. In a rare instance, a guideline was identified by panel members and not found through the database or Internet search. These were guidelines that were developed by local groups and had not been published to date. Results of this strategy revealed no additional clinical practice guidelines.

STEP 4 – Core Screening Criteria

The search method described above revealed eight guidelines, several systematic reviews and numerous articles related to breastfeeding. The final step in determining whether the clinical practice guideline would be critically appraised was to apply the following criteria,

- Guideline was in English;
- Guideline was dated 1996 or later;
- Guideline was strictly about the topic area;
- Guideline was evidence-based, e.g., contained references, description of evidence, sources of evidence; and
- Guideline was available and accessible for retrieval.

All eight guidelines were deemed suitable for critical review using the Cluzeau et al. (1997) Appraisal Instrument for Clinical Guidelines.

RESULTS OF THE SEARCH STRATEGY

The following table details the results of the search strategy. All eight guidelines identified in the search were determined appropriate for critical appraisal.

TITLE OF THE PRACTICE GUIDELINE RETRIEVED AND CRITICALLY APPRAISED
Association of Registered Nurses of Newfoundland (2000). *Guidelines: Registered Nurse competencies to protect, promote and support breast-feeding*. St. John's, Newfoundland: Association of Registered Nurses of Newfoundland (ARRN House).
Association of Women's Health, Obstetric and Neonatal Nurses (2000). *Evidence-based clinical practice guideline. Breastfeeding support: Prenatal care through the first year.* Association of Women's Health, Obstetric and Neonatal Nurses. [Online]. Available: http:www.awhonn.org.
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Health Canada (2000). *Family–centered maternity and newborn care: National guidelines*. Ottawa, Ontario: Health Canada.
International Lactation Consultant Association (1999). *Evidence-based guidelines for breastfeeding management during the first fourteen days*. Raleigh, NC: International Lactation Consultant Association.
Ministry of Health Manatu Hauora (1997). *Infant feeding: Guidelines for New Zealand health workers*. Wellington, New Zealand: Ministry of Health.
World Health Organization (1998). *Child health and development-Evidence for ten steps to successful breastfeeding*. Geneva: Family and Reproductive Health Division of Child Health and Development. World Health Organization.

In addition to the guidelines listed above, the panel reviewed numerous position statements related to breastfeeding. These included:

POSITION STATEMENTS
American Dietetic Association (1997). Position of the American Dietetic Association: Promotion of breastfeeding. *Journal of the American Dietetic Association, 97*(6), 662-666.
Australian College of Paediatrics (1998). Policy statement on breastfeeding: The Australian College of Paediatrics. *Journal of Paediatrics and Child Health, 34*(5), 412-413.
Breastfeeding Committee for Canada (2001). *Breastfeeding statement of the Breastfeeding Committee for Canada.* [Online]. Available: http://www.breastfeedingcanada.ca/webdoc5.html.
Canadian Nurses Association (1999). Position statement: Breastfeeding. [Online]. Available: http://206.191.29.104/pages/resources/brstfeed.htm
International Lactation Consultant Association (1991). Position paper on infant feeding. [Online]. Available: http://www.ilca.org/pubs/pospapers/InfantFeedingPP.pdf
Ontario Public Health Association (1993). Breastfeeding position paper. Toronto: Ontario Public Health Association.
Registered Nurses Association of British Columbia (1996). *Breastfeeding: Promotion, protection and support*. Registered Nurses Association of British Columbia, Position Statement, 31-32.
Registered Nurses Association of Ontario (2002b). Policy statement: Breastfeeding. [Online]. Available: http://www.rnao.org/html/PDF/Policy_Statement_Breastfeeding.pdf

Appendix B: Baby-Friendly™ Initiative (BFI)

Two documents from the Breastfeeding Committee for Canada (BCC) provide an introduction to the Baby-Friendly™ Initiative. These documents are reproduced with the permission of the Breastfeeding Committee for Canada.

The Breastfeeding Committee for Canada Welcomes You to the Baby-Friendly™ Initiative (included in its entirety) www.breastfeedingcanada.ca/webdoc41.html

The Baby-Friendly™ Initiative in Community Health Services: A Canadian Implementation Guide (executive summary) www.breastfeedingcanada.ca/pdf/webdoc50.pdf

The Breastfeeding Committee for Canada Welcomes You to the Baby-Friendly™ Initiative (BFI)

Reproduced with permission of the Breastfeeding Committee for Canada.

What is the WHO/UNICEF Baby-Friendly™ Hospital Initiative (BFHI)?

The BFHI is a global program initiated in 1991 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in response to the Innocenti Declaration (1990). This program encourages and recognizes hospitals and maternity facilities that offer an optimal level of care for mothers and infants. A Baby-Friendly™ hospital/maternity facility focuses on the needs of the newborns and empowers mothers to give their infant the best possible start in life. In practical terms, a Baby-Friendly™ hospital/maternity facility encourages and helps women to successfully initiate and continue to breastfeed their babies, and will receive special recognition for having done so. Since the inception of the program, over 14,800 hospitals worldwide have received the Baby-Friendly™ designation.

The BFHI protects, promotes and supports breastfeeding through the *Ten Steps to Successful Breastfeeding* developed by UNICEF and the World Health Organization. In order to achieve Baby-Friendly™ designation, every hospital and maternity facility must:

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 to initiate breastfeeding within a half-hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation even if they should be 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 artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

A Baby-Friendly™ hospital/maternity facility also adheres to the *International Code of Marketing of Breast-milk Substitutes* (1981). The Code seeks to protect breastfeeding by ensuring the ethical marketing of breast-milk substitutes {artificial baby milk} by industry. The Code includes these ten important provisions:

1. No advertising of products under the scope of the Code to the public.
2. No free samples to mothers.
3. No promotion of products in health care facilities, including the distribution of free or low-cost supplies.
4. No company representatives to advise mothers.
5. No gifts or personal samples to health workers.
6. No words or pictures idealizing artificial feeding, including pictures of infants on products.
7. Information to health workers should be scientific and factual.
8. All information on artificial feeding, including the labels, should explain the benefits of breastfeeding and all costs and hazards associated with artificial feeding.
9. Unsuitable products such as sweetened condensed milk should not be promoted for babies.
10. Products should be of a high quality and take account of the climatic and storage conditions of the country where they are used.

Why do we need the Baby-Friendly™ Hospital Initiative (BFHI)?

The BFHI is a coordinated program that enables hospitals, maternity facilities and communities to protect, promote and support breastfeeding. It is an accepted international standard by which hospitals/maternity facilities can evaluate their policies and practices of breastfeeding. Implementing the BFHI strengthens and demonstrates commitment to family-centred care and has been shown to increase family satisfaction of care. Where implemented, the BFHI has been successful in increasing breastfeeding initiation and duration rates.

Evidence shows that:

- Breastfeeding provides optimal nutritional, immunological and emotional nurturing for the growth and development of infants and children. Beyond infancy, the benefits contribute to protection against many childhood illnesses.
- Breastfeeding contributes to women's health by offering protection for some women against breast and ovarian cancers and osteoporosis and by increasing the spacing between pregnancies.
- Breastfeeding is a basic human right. For women, breastfeeding contributes affirmatively to women's social and economic equality as well as to women's self-esteem and body image. For children, gaining the right to the enjoyment of the highest attainable standard of health is facilitated by breastfeeding.
- Breastfeeding provides positive economic advantages to both families and society. It ensures a safe, secure and self-reliant food source. Healthier infants and mothers mean substantial savings in health costs.
- Breastfeeding rates in Canada are variable. Initiation rates are low among regional and socio-economic groups. Duration of breastfeeding is also a concern across Canada.
- Breastfeeding protection, promotion and support are needed from all sectors of society. All levels of government, health professional and consumer groups need to value breastfeeding.

What is the progress of the Baby-Friendly™ Hospital Initiative in Canada?

In 1996, the Breastfeeding Committee for Canada (BCC) identified the WHO/UNICEF BFHI as a primary strategy for the protection, promotion and support of breastfeeding. The WHO/UNICEF global guidelines for the BFHI state that each country must identify a BFHI National Authority to facilitate the assessment and monitoring of the progress of BFHI within its borders. The Breastfeeding Committee for Canada is the National Authority for the BFHI and will implement the BFHI in partnership with Provincial and Territorial Implementation BFI Committees.

In June 1999 the Brome-Missiquoi-Perkins Hospital in Cowansville, Quebec was designated as the first Baby-Friendly™ Hospital in Canada.

In March 2003, St. Joseph's Healthcare in Hamilton, Ontario, was designated as Canada's second Baby-Friendly™ Hospital.

Are we ready for the Baby-Friendly™ Hospital Initiative?

Hospitals and maternity facilities can make a commitment to improve breastfeeding policies and practices. To facilitate the process of implementing the BFHI in Canada, the BCC and UNICEF Canada conducted a needs assessment to assess the current status of the BFHI activities in Canada and to determine future directions. The vast majority of respondents had heard of the BFHI, was involved in activities to promote the BFHI and was working on the *Ten Steps to Successful Breastfeeding*. Virtually 100 percent of respondents supported the concepts of the BFHI and the majority would be prepared to participate in a national implementation of the initiative in some concerted way.

How can hospitals and maternity facilities prepare for the BFHI?

The BFHI designation process requires an on-site pre-assessment that is conducted after a hospital or maternity facility indicates its readiness. This is followed by an External Assessment. Only after the facility has passed this External Assessment does it receive the designation of being a Baby-Friendly™ Hospital.

- Contact the Provincial/Territorial BFI Implementation Committee in your province or territory or the Breastfeeding Committee for Canada for information packages on the BFHI implementation process. This package includes a hospital self-appraisal tool designed as a self-evaluation and education tool that assists staff in identifying strategies to accomplish the Ten Steps to Successful Breastfeeding.
- Upon adherence to the Ten Steps and Code, hospitals/maternity facilities can request consideration for assessment.

Why the importance of a Baby-Friendly™ Community?

In Canada, the name of the BFHI has been adapted to the Baby-Friendly™ Initiative (BFI) to reflect the continuum of care for breastfeeding mothers and babies outside of the hospital environment. With a Baby-Friendly™ hospital and community behind her, a mother will have the support she needs from the whole community to ensure her child's full, healthy development. A baby-friendly community is one in which mothers are encouraged and supported in their desire to breastfeed; where women are provided with the maternity rights to which they are entitled; and where the commercial promotion of breast-milk substitutes {artificial baby milk} and the bottle feeding culture are challenged. A Baby-Friendly™ environment is one in which working conditions for women reflect the mother's role in family and community health and development. It is an environment in which the value of the time and energy women spend on breastfeeding and all the other responsibilities of child health care are acknowledged as an essential, life-sustaining contribution to her family, community and society.

What resources are available to assist in the process?

The BCC and the Provincial/Territorial BFI Implementation Committees are available to provide consultation and expert assistance to hospitals and maternity facilities as they prepare for BFHI assessment process. A plan for the protection, promotion and support of breastfeeding in community health care settings is currently being developed. Assistance is also available for increasing awareness of the BFI in your community for individuals and organizations not affiliated with hospitals or maternity facilities. Additional resources/materials and literature are available through UNICEF Canada.

Join the many Canadians who are working to establish breastfeeding as the cultural norm for infant feeding in Canada. The Baby-Friendly™ Initiative will assist groups and individuals along the way.

The Baby-Friendly Initiative™ in Community Health Services: A Canadian Implementation Guide

EXECUTIVE SUMMARY

The Baby-Friendly Initiative™ in Community Health Services: A Canadian Implementation Guide has been developed to facilitate the implementation of the Baby-Friendly™ Initiative in community health services, a new process for Canada. The process is based on The Breastfeeding Committee for Canada's (BCC) *Seven Point Plan for the Protection, Promotion and Support of Breastfeeding in Community Health Services (The Seven Point Plan)*. The Canadian guide is adapted from the UK Baby- Friendly™ Initiative's Seven Point Plan for the Protection, Promotion and Support of Breastfeeding in Community Health Care Settings (UNICEF UK Baby Friendly Initiative, 1999). This resource aims to provide current and relevant information to assist community health services to prepare for the Baby-Friendly™ assessment and designation process. Information and guidance on The Seven Point Plan and key issues investigated at assessment are outlined. The guide is intended for the use of health care providers working directly with pregnant women, breastfeeding mothers and their families within community health services. Other staff and volunteers working within these services may find specific components of the guide relevant in their contact with these groups. This guide is the primary Canadian resource for the Baby-Friendly™ Initiative in community health services. It is not intended to be an all encompassing guide to breastfeeding. Other excellent breastfeeding resources are available to complement this guide and assist community health services in their efforts to protect, promote and support breastfeeding.

The Seven Point Plan for the Protection, Promotion and Support of Breastfeeding in Community Health Services

1. Have a written breastfeeding policy that is routinely communicated to all staff and volunteers.
2. Train all health care providers in the knowledge and skills necessary to implement the breastfeeding policy.
3. Inform pregnant women and their families about the benefits and management of breastfeeding.
4. Support mothers to establish and maintain exclusive breastfeeding to six months.
5. Encourage sustained breastfeeding beyond six months with appropriate introduction of complementary foods.
6. Provide a welcoming atmosphere for breastfeeding families.
7. Promote collaboration between health care providers, breastfeeding support groups and the local community.

Adapted with permission from: UNICEF UK Baby Friendly Initiative, 1999.

For the complete document, please visit the Breastfeeding Committee for Canada's website at www.breastfeedingcanada.ca

Appendix C: Promoting Community Action

The action folder from which this summary was taken is available in its entirety at:

Heifti, R. (2001). *Breastfeeding: A community responsibility*. World Alliance for Breastfeeding Action. [On-line]. Available: http://www.waba.org.br/folder96.htm

Breastfeeding – A Community Responsibility

"A woman's choice about how best to feed her child is a personal one. However, as no woman lives in isolation, her decision is influenced by many factors. Family members, health workers, the media, religious institutions, social traditions, the work place and her own education can all have a bearing on her decision to breastfeed –as well as her ability to continue breastfeeding for the optimal length of time. Every woman should be able to count on full support from those around her to enable her to initiate and sustain breastfeeding. It is the responsibility of the entire community to see that the best possible nutrition and health is available to all of its members, beginning with its youngest" (Heifti, 2001, p. 1).

A community is the people nearby (or those who are able to provide support, even if they are not physically nearby) in the family, neighbourhood, and workplace. Women feel supported when the community welcomes them to breastfeed in public; provides help to overcome challenges; offers facilities in the workplace to breastfeed; and when health professionals take an ethical stand against the promotion of breast-milk substitutes {artifical baby milk} and use their influence to support women to breastfeed. People within a community can join to support the breastfeeding mother, and as such can be a vehicle for change (Heifti 2001, p. 1).

The opportunity to evaluate our own communities, and the attitudes expressed within those communities to see if they are supportive of breastfeeding, is an important step towards advocacy. The Triple-A model for advocacy has been used to provide specific suggestions for community action.

The TRIPLE-A Approach

Assess (Look)

Talk to people about how infant feeding decisions are made. During this assessment consider the views of the school, family, restaurants and business (public places), health care professionals and the organizations in which they work, social groups, clubs and organizations, religious institutions, government and the workplace. Establish how much these various sectors understand about the importance of breastfeeding, not only for the mother and child, but for the entire community.

Analyze (Think)

Once you have gathered your data, think about what you have found out. Are there gaps? Conflicting information? Is there misinformation? Are there areas that work well? What activities support success?

Act (Do)

The next step is to design activities based on what you have discovered. If misinformation exists, provide accurate information. If breastfeeding support groups are not available, determine if a local organization could start one. Talk to decision makers in health care organizations, government, educational and religious institutions, to discuss the gaps and the opportunities for change.

For a full discussion of sample questions to ask at each step of the Triple-A model, and for details of what we currently know, please refer to the World Alliance for Breastfeeding Action at www.waba.org.br/folder96.htm.

APPENDIX D: Prenatal Assessment Tool

Please note that the tool that follows on the next page has been provided as an example only – it has not been tested for reliability or validity.

Prenatal Breastfeeding Assessment Tool

Demographic Data

Mother's Name _____

Mother's Age _____ Current Gestation _____

Marital Status _____ Language _____

Employment _____ Education _____

Bra Size	Shape of Breasts	Description of Breast	Size of Areola	Diameter of Nipple
Pre-pregnant Now ❑ Right Larger ❑ Left Larger ❑ Same		❑ Flat ❑ Rounded ❑ Upright ❑ Saggy ❑ Non-lactating ❑ Firm ❑ Full	Radius from base of nipple ❑ Small (1/2-3/4") ❑ Medium (1") ❑ Large (1-11/2") ❑ Extra Large (2"+)	❑ Small (1/4") ❑ Medium (3/8") ❑ Large (1/2") ❑ Extra Large (3/4")

Length of Nipple	Breast, Nipple & Areola	Birth Plan	Past BF Experience
(A=At rest, S=Stimulated, C=Compressed) ❑ Inverts ❑ 0 ❑ 1/8" ❑ 1/4" ❑ 3/8" ❑ 1/2" ❑ 5/8"	❑ Tenderness ❑ Trauma ❑ Inverted nipple ❑ Marmet's dimpled nipple ❑ Thorpes folding nipple ❑ Dancheck's intussuscepted nipple ❑ Raspberry nipple ❑ Fissured nipple ❑ Supernumerary nipples ❑ Unusual shape ❑ Reduction ❑ Augmentation ❑ Masses ❑ Fibrocystic ❑ Compressibility - tissue behind nipple ❑ Deformities ❑ Scarring ❑ Other	❑ Epidural ❑ Elective C/S ❑ Rooming-In ❑ Early Discharge	
		Health Care Provider	**Medical Status**
		❑ Family Physician ❑ Obstetrician ❑ Midwife ❑ Lactation Consultant ❑ Other	

Cultural Information	Support Assessment	Attitude	Lifestyle	Drugs
	❑ Informational ❑ Emotional ❑ Material ❑ Appraisal	❑ Significant Others ❑ HCP ❑ Peers	❑ Nutrition ❑ Alcohol ❑ Smoking ❑ Physical Activity ❑ Other	❑ Prescription ❑ OTC ❑ Addictive

Goals

Resources Received

Breastfeeding Plan

Signature: _____ Date: _____

Appendix E : Postpartum Assessment Tools

Postpartum Assessment Tool	Reference
Infant Breastfeeding Assessment Tool (IBFAT)	See next page. Matthews, M.K. (1988). Developing an instrument to assess infant breastfeeding behaviour in the early neonatal period. *Midwifery*, *4*(4), 154-165.
LATCH – Breastfeeding Charting System©	Jensen, D., Wallace, S., & Kelsay, P. (1994). LATCH: A breastfeeding charting system and documentation tool. *Journal of Obstetric, Gynecologic and Neonatal Nursing, 23*(1), 27-32.
Mother-Baby Assessment (MBA) Form	Mulford, C. (1992). The mother-baby assessment (MBA): An "Apgar Score" for breastfeeding. *Journal of Human Lactation*, *8*(2), 79-82.

Infant Breastfeeding Assessment Tool (IBFAT)

Reprinted from: Matthews, M.K. (1988). Developing an instrument to assess infant breastfeeding behaviour in the early neonatal period. *Midwifery*, *4*(4), 154-165, with permission of Elsevier.

Infant Breastfeeding Assessment Tool (IBFAT)

Check the score which best describes the baby's feeding behaviours at this feed.

	3	2	1	0
In order to get baby to feed:	Placed the baby on the breast as no effort was needed.	Used mild stimulation such as unbundling, patting or burping.	Unbundled baby, sat baby back and forward, rubbed baby's body or limbs vigorously at beginning and during feeding.	Could not be aroused.
Rooting	Rooted effectively at once.	Needed coaxing, prompting or encouragement.	Rooted poorly even with coaxing.	Did not root.
How long from placing baby on breast to latch & suck?	0 – 3 minutes.	3 – 10 minutes.	Over 10 minutes.	Did not feed.
Sucking pattern	Sucked well throughout on one or both breasts.	Sucked on & off but needed encouragement.	Sucked poorly, weak sucking; sucking efforts for short periods.	Did not suck.

MOTHER'S EVALUATION

How do you feel about the way the baby fed at this feeding?

3 – Very pleased 2 – Pleased 1 – Fairly pleased 0 – Not pleased

IBFAT assigns a score, 0,1,2, or 3 to five factors. Scores range from 0 to 12.
The mother's evaluation score is not calculated in the IBFAT score.

Appendix F: Breastfeeding Positions

Cradle-Hold

This is a common position for breastfeeding. In order to latch the baby, the mother may support her breast with the hand opposite the side that the baby is nursing, with her thumb and fingers well back from the areola. Using the arm on the same side the baby is nursing on, the mother supports the baby's head and body and keeps the infant close. The baby should be at the level of the breast, and pillows are useful to provide additional support. The mother turns the baby towards her so that the infant's nose, chin, tummy and knees are touching her. The mother can tuck the infant's lower arm below her breast to keep it out of the way.

Modified Cradle-Hold

The mother should be seated comfortably with additional pillows as necessary to support her back and arms then tuck the baby under breast. Use of a footstool may be beneficial. The mother can support her breast with fingers positioned at the base of her breast well back from the areola. The baby should be held in the arm opposite to the breast being used. The baby's shoulder and neck are supported by her hand and the baby is turned facing the mother. Holding the back of the infant's head with her hand may cause the infant to pull away when being put onto the breast. The baby's head and neck should be in a slightly extended position to facilitate the chin touching the breast (Biancuzzo, 1999; Lothian, 1995).

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Side-Lying

The mother should lie on her side with one or two pillows supporting her head and her lower arm flexed up. Use pillows as necessary to support her back and legs. The baby should be positioned side-lying, facing the mother, with the head low enough that the mom's nipple is at the level of the baby's nose, and the neck extended so that eye contact with the mother is possible (Scarborough Breastfeeding Network, 1999; Society of Paediatric Nursing of the Royal College of Nursing, 1998). The mother's hand should be across baby's shoulder blades. The mother should pull the baby towards her abdomen, and wait. The baby will extend his head with a wide mouth and will latch onto the breast without assistance.

Football Hold (Clutch Hold)

The mother should be seated comfortably as per the 'cradle-hold' description. The baby should be positioned on a pillow at the mother's side, on the side of the breast to be used. Use extra pillows to raise baby to the level of the breast. The baby should be tucked in close to the mother's side and held like a football with the bottom against the back of the chair and the legs up behind mother's arm (Scarborough Breastfeeding Network, 1999; Society of Paediatric Nursing of the Royal College of Nursing, 1998). The baby's back should be supported with the mother's arm and his shoulders with mother's hand (avoid holding baby's head).

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Appendix G: Latch, Milk Transfer and Effective Breastfeeding

International Lactation Consultant Association (ILCA)
Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)

Latch (ILCA)

Observe infant for signs of correct latch-on:

- wide opened mouth
- flared lips
- nose, cheeks, and chin touching, or nearly touching, the breast

Milk Transfer (ILCA)

Observe infant for signs of milk transfer:

- sustained rhythmic suck/swallow patterns with occasional pauses
- audible swallowing
- relaxed arms and hands
- moist mouth
- satisfied after feedings

Observe mother for signs of milk transfer:

- strong tugging which is not painful
- thirst
- uterine contractions or increased lochia flow during or after feeding for the first 3-5 days
- milk leaking from the opposite breast while feeding
- relaxation or drowsiness
- breast softening while feeding
- nipple elongated after feeding but not pinched or abraded

Infant Behaviours (AWHONN)

Infant feeding cues:

- Rooting
- Hand-to-mouth movements
- Sucking movements/sounds
- Sucking of fingers or hands
- Opening of mouth in response to tactile stimulation

Transition between behaviour states (sleep to drowsy and quietly alert)

Infant satisfaction/satiety cues including the following:

- During the feeding, a gradual decrease in number of sucks
- Pursed lips, pulling away from the breast and releasing the nipple
- Body relaxed
- Legs extended
- Absence of hunger cues
- Sleep, contented state
- Small amount of milk seen in mouth

Frequency and duration (ILCA)

Frequency and duration of feedings:

- Expect a minimum of 8-12 feedings in 24 hours
- Some infants will breastfeed every 3 hours day and night, others will cluster-feed, feeding every hour for 4-6 feeds then sleeping 4-6 hours
- Expect to feed 15-20 minutes on the first breast and 10-15 minutes on the second but do not be concerned if the infant is satisfied after one breast
- If necessary, wake a sleepy infant for feedings until an appropriate weight gain pattern is established
- Expect feeding frequency to decrease as the infant gets older

Urine (AWHONN)

- One void by 24 hours
- 3 or more voids by next 24 hours
- 6 or more voids by day four

Stool (AWHONN, ILCA)

- One stool by 24 hours (AWHONN)
- 1-2 stools by day 3 (AWHONN)
- 3 or more stools by day 4 (AWHONN)
- Expect bowel movements to change from meconium to a yellow, soft, and watery consistency by day 4 (ILCA)

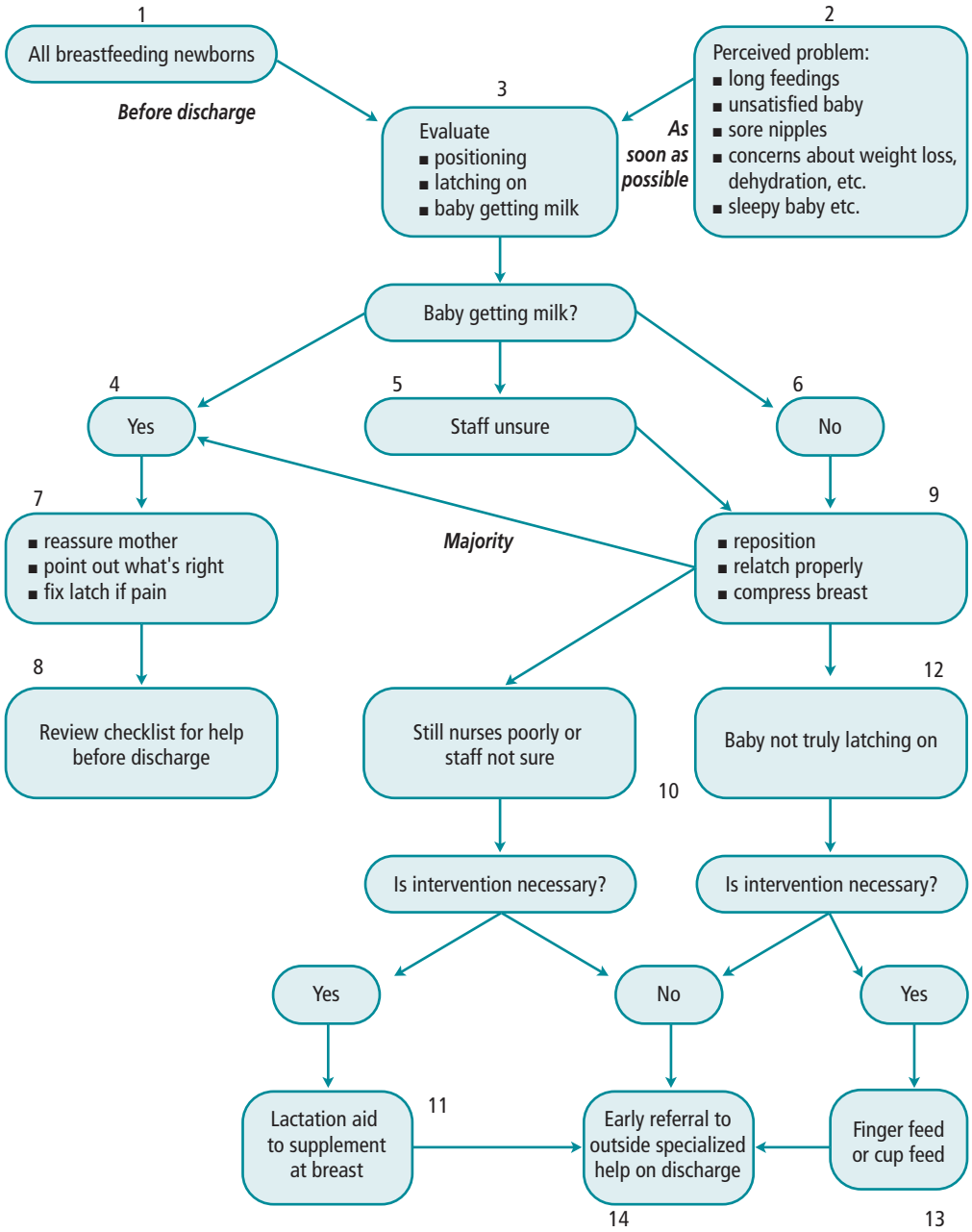
Weight (ILCA)

- Expect less than 7% weight loss the first week
- Expect return to birth weight by 14 days of age
- Expect weight gain of 4-8 ounces (120 – 240 grams) a week until the infant has doubled birth weight

Ineffective Breastfeeding (ILCA)

- Infant weight loss greater than 7%
- Continued weight loss after day 3
- Less than 3 bowel movements in 24 hours
- Meconium stools after day 4
- Less than 6 wet diapers in 24 hours after day 4
- Infant who is irritable and restless or sleepy and refusing to feed
- No audible swallowing during feedings
- No discernible change in weight or size of breasts and no discernible change in milk volume and composition by 3-5 days
- Persistent or increasingly painful nipples
- Engorgement unrelieved by feeding
- Infant who does not begin to gain weight by day 5
- Infant who has not returned to birth weight by day 14

Appendix H: Immediate Postpartum Decision Tree



Immediate Postpartum Descision Tree. The same approach can be used to make decisions about breastfeeding at any age of the baby, but may require some modification depending on the age and problems encountered.

Reproduced with permission of Dr. J. Newman, Toronto, Ontario.

Appendix I: Breastfeeding Educational Resources

Breastfeeding Resource Websites

(URLs last updated May 9, 2003)

- Archives of LACTNET@PEACH.EASE.LSOFT.COM – *Lactation Information and Discussion* (http://peach.ease.lsoft.com/archives/lactnet.html)
- Breastfeeding Committee of Canada (www.breastfeedingcanada.ca/)
- Breastfeeding.com (www.breastfeeding.com/)
- Breastfeeding Online (www.breastfeedingonline.com/)
- Bright Future Lactation Resource Center Ltd (www.bflrc.com)
- Canadian Institute of Child Health (www.cich.ca/)
- Canadian Lactation Consultants Association (www.clca-accl.ca/)
- Canadian Paediatric Society (www.cps.ca/)
- Health Canada (www.hc-sc.gc.ca/)
- Infant Feeding Action Coalition – INFACT (www.infactcanada.ca/)
- International Lactation Consultant Association – ILCA (www.ilca.org/)
- La Leche League International (www.lalecheleague.org/)
- Motherisk (www.motherisk.org/)
- Registered Nurses Association of Ontario (www.rnao.org/bestpractices/)
- Statistics Canada (www.statcan.ca/)
- The American Academy of Pediatrics (www.pediatrics.org/)
- United Nations Childrens Fund – UNICEF (www.unicef.org/)
- World Alliance for Breastfeeding Action (http://www.waba.org.br/)
- World Health Organization – WHO (www.who.ch/)

Breastfeeding Videos

Delivery Self Attachment

Dr. Lennart Righard
Geddes Productions
PO BOX 41761
Los Angeles, CA 90041-0761 USA

phone: (323) 344-8045
fax: (323) 257-7209
email: orders@geddesproduction.com

Breastfeeding: Coping with the First Week
Breastfeeding: Dealing with Problems

Mark-It Television
7 Quarry Way
Stapleton,
Bristol BS16 1UP, United Kingdom

phone: (0117) 939-1117
fax: (0117) 939-1118
email: sales@markittelevision.co.uk

The Art of Successful Breastfeeding: A Guide for Health Professionals

Dr. Verity Livingstone
The Vancouver Breastfeeding Centre
690 West 11th Avenue
Vancouver, British Columbia V5Z 1M1

phone: (604) 875-4678
fax: (604) 875-5017
email: vlivings@direct.ca

The Art of Breastfeeding – La Leche League

National Office
18C Industrial Drive
P.O. Box 29
Chesterville, Ontario K0C 1H0

phone: (613) 448-1842, 1-800-665-4324
fax: (613) 448-1845
email: laleche@igs.net

"Breastfeeding" Interactive CD ROM

Susan Moxley, RN, MEd, IBCLC
email: sue.moxley@iam-net.com

Breastfeeding: How To

Canadian Learning Company
95 Vansittart Avenue
Woodstock, Ontario N4S 6E3

phone: (519) 537-2360, (800) 267-2977
fax: (519) 537-1035

INFANT CUES – A Feeding Guide

Canadian Childbirth Teaching Aids
11716 267 Street
Maple Ridge, British Columbia V2W 1N9

phone: (604) 462-0457
fax: (604) 936-4216
email: ccta@childbirthedu.com

Breast is Best

Health Info, Video Vital as
Skovveien 33, Pb.5058
Majorstua, 0301 Oslo, Norway

phone: 22 55 45 88
fax: 22 56 19 91
email: health-info@videovital.no

Teen Breastfeeding: The Natural Choice Volume 1: Why Breastfeed? Volume 2: Starting Out Right!

This video emphasizes the need for a healthy diet for the breastfeeding teenager. The consensus of the development panel is that the occasional ingestion of alcohol does not contraindicate breastfeeding, nor are there any food restrictions for the breastfeeding teenager.

Injoy Birth & Parenting Videos
1435 Yarmouth, Suite 102
Boulder, Colorado 80304

phone: 1-800-326-2082
email: custserv@injoyvideos.com

Suggested Reading - Breastfeeding References

- Auerbach, K. (2000). *Current issues in clinical lactation 2000*. London: Jones & Bartlett Publishers International.
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- WHO/UNICEF. (1981). *International code of marketing of breastmilk substitutes*. Geneva: World Health Organization/UNICEF.
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- World Health Organization. (1998). *Evidence for the ten steps to successful breastfeeding*. Geneva: World Health Organization.

Appendix J: Breastfeeding Support Services

The table below provides a framework for identifying breastfeeding support services available to breastfeeding mothers and their families in their local community.

Type of Services	Contact Information
Public Health Unit Services	
Hospital Breastfeeding Clinics	
Private Practice Lactation Consultants	
Internet websites	
Medical 1-800 info line access regarding breastfeeding aids and products	
La Leche League	
Drop in Centre	
Parents "Hot line"	
Telehealth Ontario	
Other (specific to local services)	

Appendix K: Discharge Assessment Tools

Sample 1: Temiskaming Hospital

Reproduced with the permission of Temiskaming Hospital, New Liskeard, Ontario.

OBSTETRICAL PATIENT DISCHARGE INSTRUCTIONS AND CHECKLIST	Delivery Doctor: _____ Family Doctor: _____

Date of Birth: _____

Birth Wt: _____ Wt. on D/C: _____ Wt. loss from B.W.: _____ %

Telephone call from Public Health Nurse will be made to arrange home visit within 48 hrs. of discharge.

APGAR Scale: 1 minute _____ 5 minutes _____ Birth Events: _____

Criteria for Discharge

Maternal Initials	Newborn Initials
_____ Healthy Babies, Healthy Children screening tool has been completed.	_____ Birth weight to be noted.
_____ Bladder and bowel functions assessed.	_____ Discharge weight to be noted. *must be less than 10% loss from birth*
_____ Demonstrated ability to feed the baby properly. If breastfeeding, the baby has achieved adequate "latch".	_____ No apparent feeding problem (at least two successful feedings documented).
_____ Advised to discuss contraception with doctor.	_____ Baby has urinated and had bowel movement.
_____ For anyone at risk, if home environment (safety, shelter, support, communication) is not adequate, measures have been taken to provide help (e.g. homemaking help, social services).	_____ No bleeding at least two hours after the circumcision, if this procedure has been performed.
_____ Receipt of Rh immune globulin & MMR, if indicated.	_____ Metabolic screen completed (at >24 hours of age) – satisfactory arrangements made.
_____ Physician who will provide ongoing care is identified and notified.	_____ Mother is able to provide routine infant care (e.g. care of the cord).
_____ Consents to Public Health Nurse home visit.	_____ Infant car seat will be used on discharge.

IF ALL CRITERIA NOT MET, ATTENDING PHYSICIAN NOTIFIED PRIOR TO DISCHARGE

_____

Signature of Discharge Nurse

I have read and understand the above instructions

_____ _____

Signature of Patient Date

Sample 2: The Ottawa Hospital – Civic Campus

Vaginal Birth — Newborn

Addressograph

BIRTH DATE AND TIME
/YY /MM /DD at

CRITICAL PATH

	0 – 2 HOURS	2 – 24 HOURS (DAY 1)	24 – 48 HOURS (DAY 2)
Consults	**TM Sticker**	• Social Work prn • Home Care prn • Lactation Consult prn	• Social Work prn • Home Care prn • Lactation Consult prn
Medications	• IM Vitamin K 1 mg @ date/time _____ by _____ • Apply Erythromycin ophthalmic ointment to each eye ×1 dose @ date/time _____ by _____		
Tests	• Venous cord blood if mother Rh neg by _____ • Venous cord blood prn by _____ • Arterial cord gases by _____ • Glucose meter prn	• Bilirubin meter reading prn (Civic) • Glucose meter prn • Initial total Bilirubin test prn	• PKU, thyroid blood test @ date/time _____ by _____ • Bilirubin meter reading prn (Civic) • Glucose meter prn • Initial total Bilirubin test prn
Assessments/ Treatments	**Nursing / Normal / Abnormal** Head/Neck Palate Chest/Back Abdomen Extremities Anus Genitalia Comments Time: Initial: • Weight • Vital signs q1h ×2	• Weight • **Head circumference** _____ cm • Vital signs q1h ×2; then vital signs qshift • Temperature before initial bath • Initial bath done @ date/time _____ by _____ • Cord care as per standard • Physician's physical exam completed by 24 hrs **Circumcision care:** • Time of circumcision _____ • Observe ×4 hours for bleeding and voiding • Routine circumcision care	• Weight • Vital signs qshift • Remove cord clamp @ date/time _____ by _____ **Circumcision care:** • Time of circumcision _____ • Observe ×4 hours for bleeding and voiding • Routine circumcision care
Nutrition	• Initiate breastfeeding • Initiate bottle feeding prn	• Breastfeeding on cue–minimum of 6 feeds/24 hrs • Bottle feeding on cue a minimum of 6 feeds/ 24 hrs (15–60 mls per feed)	• Breastfeeding on cue–minimum of 8 feeds/24 hrs • Bottle feeding on cue a minimum of 6 feeds/ 24 hrs (15–60 mls per feed)
Elimination	☐ Initial void ☐ Initial meconium	☐ Initial void ☐ Initial meconium ☐ Post circumcision void	☐ Post circumcision void
Discharge Planning	• OHIP Form: ☐ provided (General)	**If discharged prior to 24 hours:** • ☐ Discharge order • PKU, thyroid blood test & F/U information • F/U visit to physician/midwife within 2 days • ☐ Discharge forms • OHIP form: ☐ Provided ☐ Returned • **ID band #** _____ • **Mother's signature** _____ • **Nurse's initials** _____	☐ Discharge order • F/U visit to physician/midwife within 7 days • OHIP form: ☐ Returned • **ID band #** _____ • **Mother's signature** _____ • **Nurse's initials** _____
Discharge Date & Time		DATE (YY/MM/DD) & TIME INITIALS	DATE (YY/MM/DD) & TIME INITIALS
Patient progress corresponds with Clinical Pathway	**0–2 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____	**2–12 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____ **12–24 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____	**24–36 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____ **36–48 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____

NUS 380 (PAGE 2)

Vaginal Birth — Newborn

Addressograph

PATIENT OUTCOMES

Patient Problem List

1) Potential for hyperbilirubinemia
2) Potential for feeding difficulties
3) Potential for hypothermia (T < 36.5 C) or hyperthermia (T > 37.5 C)
4) Potential for cardiac and/or respiratory difficulties
5) Potential for sepsis
6) Potential for bleeding post circumcision

	0 – 2 HOURS	2 – 24 HOURS (DAY 1)	24 – 48 HOURS (DAY 2)
Hyper Bilirubinemia	• Demonstrates no signs of jaundice	• Demonstrates no signs of jaundice	• Demonstrates jaundice WNL • Bilirubin meter WNL (Civic)
Nutrition/ Elimination	• Initiates breastfeeding: – *licks, nuzzles* – *intermittent latch and suck* • Normal skin turgor	• Initiates feeding: – *breast: effective latch, intermittent sucking* – *bottle: coordinated suck and swallow* • Normal skin turgor • Voids – minimum ×1 • Passes meconium/stool	• Demonstrates a minimum of 2 effective breastfeedings: – *effective latch, sustained sucking* • Demonstrates effective bottle feeding (suck and swallow) • Voids – minimum ×2 • Passes meconium/stool • Weight loss less than 10% from birth weight
Hypo/Hyper Thermia	• Maintains stable temperature between 36.5 C – 37.5 C	• Maintains stable temperature between 36.5 C – 37.5 C	• Maintains stable temperature between 36.5 C – 37.5 C
Cardiac/ Respiratory Difficulties	• Shows no signs of cardiac or respiratory difficulties: – *HR 100–160/min* – *RR 40–60/min* – *respiratory rhythm and effort are normal* – *no cyanosis, nasal flaring or grunting*	• Shows no signs of cardiac or respiratory difficulties: – *HR 100–160/min* – *RR 40–60/min* – *respiratory rhythm and effort are normal* – *no cyanosis, nasal flaring or grunting*	• Shows no signs of cardiac or respiratory difficulties: – *HR 100–160/min* – *RR 40–60/min* – *respiratory rhythm and effort are normal* – *no cyanosis, nasal flaring or grunting*
Sepsis	• Temperature WNL • No apnea • Maintains colour WNL • No vomiting • Cord: moist and clamped	• Temperature WNL • No apnea • Maintains colour WNL • No vomiting • Cord: moist and clamped	• Temperature WNL • No apnea • Maintains colour WNL • No vomiting • Cord: drying
Bleeding Post Circumcision		• No evidence of bleeding	• No evidence of bleeding
Patient progress corresponds with Clinical Pathway	**0–2 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____	**2–12 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____ **12–24 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____	**24–36 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____ **36–48 hrs:** ☐ Yes ☐ No Date (y/m/d)_____ Time _____ Initials _____

Nutrition & Elimination

Criteria for assessment of newborn infant at the breast

Position:

- Mother states that she is comfortable: back, feet & arms supported (head supported in side-lying)
- Infant's head and body supported at the level of the breast (pillows usually helpful with cradle and football to support mother's arm that is holding infant's head and body)
- Infant turned completely on side with nose, chin, chest, abdomen and knees touching mother (cradle and side-lying)
- Infant's head in neutral position (hip, shoulder and ear aligned)
- Infant kept close by support from mother's arm and hand along the infant's back and buttocks
- Mother's breast supported with cupped hand; thumb and fingers well back from areola

Addressograph

Year/Month _____		DAY																			
✓ **First Side** X **Second Side**		**TIME**																			
	Breast																				
RIGHT SIDE	POSITION	Reverse arm hold																			
		Cradle																			
		Football																			
		Sidelying																			
	BABY RESPONSE	Latch achieved																			
		Minimal sucking																			
		Sustained sucking																			
		Sucking & swallowing																			
		No latch achieved																			
		Too sleepy																			
		Reluctant																			
LEFT SIDE	POSITION	Reverse arm hold																			
		Cradle																			
		Football																			
		Sidelying																			
	BABY RESPONSE	Latch achieved																			
		Minimal sucking																			
		Sustained sucking																			
		Sucking & swallowing																			
		No latch achieved																			
		Too sleepy																			
		Reluctant																			
ASSISTANCE	Independent																				
	Minimum																				
	Moderate																				
	Maximum																				
STOOLS	Feeding observed by nurse																				
	Feeding reported by patient																				
	Expressed breast milk (EBM)																				
	Formula:																				
	Nurse's initials																				
	Meconium																				
	Transitional																				
	Curdy																				
	Yellow																				
	Green																				
	✓ for each stool																				
URINE	Normal																				
	Uric acid crystals																				
	✓ for each void																				

Criteria for assessment of newborn infant at the breast (con't)

Latch:

- Mouth wide open (like a yawn)
- Lips visible and flanged outward
- ¾ – 1" of areola covered by the infant's lips (usually most or all of areola)
- Tongue over lower gum line
- No clicking or smacking sounds
- No indrawing or dimpling of cheeks
- Mother states she is comfortable (no persistent nipple pain)

Suck and Swallow:

- Chin moves in rhythmic motion
- Bursts of sucking, swallowing and rests

Addressograph

Year/Month _____		DAY																			
✓ First Side X Second		TIME																			
Breast																					
RIGHT SIDE	POSITION	Reverse arm hold																			
		Cradle																			
		Football																			
		Sidelying																			
	BABY RESPONSE	Latch achieved																			
		Minimal sucking																			
		Sustained sucking																			
		Sucking & swallowing																			
		No latch achieved																			
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LEFT SIDE	POSITION	Reverse arm hold																			
		Cradle																			
		Football																			
		Sidelying																			
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		No latch achieved																			
		Too sleepy																			
		Reluctant																			
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	Expressed breast milk (EBM)																				
	Formula:																				
	Nurse's initials																				
	Meconium																				
	Transitional																				
	Curdy																				
	Yellow																				
	Green																				
	✓ for each stool																				
URINE	Normal																				
	Uric acid crystals																				
	✓ for each void																				

Appendix L: Canadian Paediatric Society Guidelines on Facilitating Discharge Home Following a Normal Term Birth

A joint statement with the Society of Obstetricians and Gynaecologists of Canada available in full at: www.cps.ca/english/statements/FN/fn96-02.htm

Table 1 has been reproduced with the permission of the Canadian Paediatric Society.

Summary:

The purpose of this statement is to provide guidelines for physicians and other health care providers, to influence policy and practice related to discharge of healthy term infants and their mothers from hospital and subsequent follow-up in the community.

Recommendations:

1. Care for mothers and babies should be individualized and family-centred. With many uncomplicated births, a stay of 12 to 48 hours is adequate, provided the mother and baby are well, the mother can care for her baby and there is community nursing follow-up in the home. In the absence of these requirements, mothers should have the choice to stay in hospital with their baby for a minimum of 48 hours after a normal vaginal birth. Women with complicated deliveries, including caesarean section, may require a longer hospital stay.

2. With discharge from hospital before 48 hours after birth, the guidelines in Table 1 should be followed. Individual hospitals may identify more specific criteria according to the needs of their populations and regions.

3. When discharge occurs before 48 hours after birth, this must be part of a program that ensures appropriate ongoing assessment of the mother and baby. This evaluation should be carried out by a physician or other qualified professional with training and experience in maternal/infant care. A personal assessment in the home is preferred for all mothers and babies. Relying on newly delivered mothers to travel to a clinic or office may result in many families being inadequately followed due to lack of compliance. This visit is not intended to replace a complete evaluation by a physician, but should focus on those aspects that require early intervention (e.g., feeding problems, jaundice, signs of infection). Programs should ensure availability of assessment, including on weekends, to:
   - assess infant feeding and hydration with support of the mother in the nutrition of her infant;
   - evaluate the baby for jaundice and other abnormalities that may require further investigation and/or assessment by a physician earlier than anticipated;
   - complete screening tests and/or other investigation as required;
   - evaluate maternal status with regard to the normal involutional processes after delivery;
   - assess and support integration of the baby into the home environment;
   - review plans for future health maintenance and care, including routine infant immunizations, identification of illness and periodic health evaluations; and
   - link the family with other sources of support (e.g., social services, parenting classes, lactation consultants) as necessary.

4. Preparation for discharge should be considered part of the normal antenatal education of all expectant mothers (and families), including information on infant feeding and detection of neonatal problems such as dehydration and jaundice. This should be reinforced during the short hospital stay.

5. Hospitals with early discharge programs should work with community health agencies to audit outcomes for mothers and babies, to ensure that guidelines for early discharge are appropriate and being effectively used.

6. When readmission of the baby to hospital is required within seven days after birth, the baby should be admitted to the hospital of birth with accommodation for the mother to maintain the maternal/child dyad. When readmission of the mother is required, there should be opportunity for the newborn baby to be with her, if appropriate.

The following table summarizes the criteria for discharge less than 48 hours after birth.

Table 1: Criteria for discharge less than 48 h after birth

Maternal	Newborn
PURPOSE: To ensure postpartum mothers are safely discharged following the birth of their baby, they should meet basic criteria and have appropriate arrangements for ongoing care. Prior to discharge, the following criteria should be met:	PURPOSE: To ensure newborn infants are safely discharged, they should meet basic criteria and have appropriate arrangements for ongoing care. The baby should be healthy in the clinical judgment of the physician, and the mother should have demonstrated a reasonable ability to care for the child.
■ Vaginal delivery ■ Care for the perineum will be ensured ■ No intrapartum or postpartum complications that require ongoing medical treatment or observation* ■ Mother is mobile with adequate pain control ■ Bladder and bowel functions are adequate ■ Receipt of Rh immune globulin and/or rubella vaccine, if eligible ■ Demonstrated ability to feed the baby properly; if breastfeeding, the baby has achieved adequate "latch" ■ Advice regarding contraception is provided ■ Physician who will provide ongoing care is identified and, where necessary, notified ■ Family is accessible for follow up and the mother understands necessity for, and is aware of the timing for, any health checks for baby or herself ■ If home environment (safety, shelter, support, communication) is not adequate, measures have been taken to provide help (e.g., homemaking help, social services) ■ Mother is aware of, understands, and will be able to access community and hospital support resources * **Mothers should NOT be discharged until stable, if they have had:** ■ significant postpartum hemorrhage or ongoing bleeding greater than normal; ■ temperature of 38°C (taken on two occasions at least 1 hour apart) at any time during labour and after birth; ■ other complications requiring ongoing care.	■ Full-term infant (37-42 weeks) with size appropriate for gestational age ■ Normal cardiorespiratory adaptation to extrauterine life† ■ No evidence of sepsis† ■ Temperature stable in cot (axillary temperature of 36.1˚C to 37˚C) ■ No apparent feeding problems (at least two successful feedings documented) ■ Physical examination of the baby by physician or other qualified health professional within 12 hours prior to discharge indicates no need for additional observation and/or therapy in hospital ■ Baby has urinated ■ No bleeding at least 2 hours after the circumcision, if this procedure has been performed ■ Receipt of necessary medications and immunization (e.g., hepatitis B) ■ Metabolic screen completed (at >24 hours of age) or satisfactory arrangements made ■ Mother is able to provide routine infant care (e.g., of the cord) and recognizes signs of illness and other infant problems ■ Arrangements are made for the mother and baby to be evaluated within 48 hours of discharge ■ Physician responsible for continuing care is identified with arrangements made for follow-up within 1 week of discharge †Infants requiring intubation or assisted ventilation, or infants at increased risk for sepsis should be observed in hospital for at least 24 hours.

Canadian Paediatric Society (1996). Facilitating discharge home following a normal term birth. [Online].

Available: http://www.cps.ca/english/statements/FN/fn96-02.htm

Appendix M: Reflective Practice Exercises

The reflective practice exercises, provided as examples below, were developed as part of the core educational program during the pilot-implementation of the RNAO Breastfeeding Best Practice Guideline for Nurses. The implementation experience highlighted the usefulness of reflective practice exercises and transformational learning to address the attitudes, values and beliefs of staff about breastfeeding. It was recognized that these have to be addressed before a change in practice can be expected, and guideline recommendations successfully implemented.

Introductory Exercise:

Overview

Reflective practice is "based on the concept that thinking systematically and critically about your practice enables you to identify the areas you need to work on to remain competent in a changing health care environment" (College of Nurses of Ontario, 2000, pg. 6). This introduction to best practices in breastfeeding encourages the learner to reflect upon values, beliefs and nursing practices to advance personal professional growth.

In Class:

1. Describe your beliefs about breastfeeding. Don't be afraid to be honest, as this reflection is personal and private.

2. What are the sources of your beliefs and values about breastfeeding?

3. Think about the last time that you helped a mother to breastfeed. Describe what happened during that client/nurse interaction.

Summary Exercise:

Overview

The educational sessions conducted today were meant to influence your nursing practice, specifically, the care of the breastfeeding dyad. To explore the impact today's session may have had on your practice, it is valuable to revisit your introductory personal reflection.

In Class:

1. Critically examine the sources of your beliefs and values about breastfeeding. Are these sources valid and appropriate upon which to base your practice?

2. Review the breastfeeding occasion described in your introductory reflection. Were the actions that you demonstrated consistent with your espoused beliefs and values? If you could experience the same occasion again, would your approach be any different? If so, how?

3. Have you identified any areas for improvement in your clinical practice? If so, how can we support your learning through educational activities?

Appendix N: Internet Breastfeeding Courses

Many continuing education courses are currently available on the Internet. The courses described below are examples of professional development opportunities available on-line that support those wishing to further their knowledge and expertise in breastfeeding. Other opportunities for on-line education or programs in alternative formats may be available through educational institutions. Contact your local community college or university for courses in your area.
(URLs were last updated May 9, 2003)

Breastfeeding Support Consultants (BSC) Center for Lactation Education
http://www.bsccenter.org/
BSC's Center for Lactation Education offers 12 distance-learning courses. All courses are completed entirely at the student's home and community. The learner will gain advanced skills and knowledge for a career as a lactation consultant. Professional lactation consultants are qualified to educate and counsel breastfeeding mothers, handle special breastfeeding problems, develop breastfeeding support programs, and train health care providers. Employment opportunities may be available as a staff member of a hospital, clinic or physician's practice; or possibly private practice. Certification can be obtained through the International Board of Lactation Consultant Examiners.

Lactation Education Resources

http://www.leron-line.com/

Lactation Education Resources are dedicated to providing high-quality lactation management training programs and innovative educational materials. They offer training programs for those desiring to become a certified lactation consultant and continuing education for those who are certified. On-line courses are offered as continuing education for nurses, dietitians, lactation consultants and other interested professionals.

Dr. Janice Riordan

http://members.cox.net/jriordan/breastfeedingcourse.html

Wichita State University, School of Nursing offers a 3 hour credit course, "Breastfeeding and Human Lactation," on the Internet. The course is open to nursing and non-nursing graduate students and focuses on clinical topics that prepare the student for practice as a lactation consultant and for IBCLC certification.

The Vancouver Breastfeeding Centre – The University of British Columbia

http://www.breastfeeding1.com

The purpose of this self-directed course is to teach clinicians an approach to the prevention, early detection and management of common breastfeeding problems throughout the puerperium. The content is based on clinical case studies. It is designed to be fun, with an interactive, multi-tiered, problem solving format, and includes visual illustrations.

Appendix O: Baby Friendly™ Hospital Initiative – Accreditation

Two documents, provided by the Breastfeeding Committee for Canada (BCC), regarding the accreditation process for the Baby Friendly™ Hospital Initiative are included (in their entirety) in this appendix. These documents are reproduced with the permission of the Breastfeeding Committee for Canada.

- Using the Baby-Friendly™ Hospital Initiative Self-Appraisal Tool & Analyzing the Results http://www.breastfeedingcanada.ca/webdoc39.html
- Hospital/Maternity Guidelines for the Implementation of the WHO/UNICEF Baby-Friendly™ Hospital Initiative (BFHI) in Canada. http://www.breastfeedingcanada.ca/webdoc33.html

Using the Baby-Friendly™ Hospital Initiative Self-Appraisal Tool & Analyzing the Results

Reproduced with permission of the Breastfeeding Committee for Canada.

Using the Baby-Friendly™ Hospital Initiative Self-Appraisal Tool

Any hospital/maternity facility interested in becoming Baby-Friendly™ should begin by appraising its current practices in relation to the *Ten Steps to Successful Breastfeeding*. The Self-Appraisal Tool (available at http://www.breastfeedingcanada.ca/pdf/webdoc40.pdf) has been developed to examine current routines and policies for comparison with the Ten Steps, and other recommendations in the 1989 WHO/UNICEF joint statement entitled, *Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services.*

The self-appraisal tool is a checklist that permits a hospital/maternity facility to make a quick initial appraisal of its practices in regards to breastfeeding. Completion of this initial self-appraisal is the first step in the process, but does not qualify a hospital as Baby-Friendly™. The checklist will help to clarify the international standards of the Baby-Friendly™ Hospital Initiative (BFHI). These standards should be used by staff when evaluating the effectiveness of their breastfeeding program.

Analyzing the Self-Appraisal Results

Hospitals are encouraged to bring their key management and clinical staff together to review the Self-Appraisal Tool. Developing a plan of action based on the results of the self-appraisal is the next step to becoming designated as a Baby-Friendly™ Hospital.

A hospital with many "yes" answers on the Self-Appraisal Tool, and an exclusive breastfeeding rate of 75% from birth to discharge may wish to study The Global Criteria to learn the details of the international standards. The hospital may then wish to consider taking further steps toward being designated as a Baby-Friendly™ Hospital and receiving global recognition. This distinction involves assessment, using Global Criteria, by a team of BFHI Assessors external to the facility.

When a hospital is ready for assessment, a Pre-Assessment is recommended prior to the External Assessment. This can be arranged by contacting your Provincial/Territorial Baby-Friendly™ Initiative (P/T BFI) Implementation Committee or if such a committee has not yet been established, contact the Breastfeeding Committee for Canada (BCC). When the Pre-Assessment report has been successfully completed, the P/T BFI Implementation Committee will notify the BFHI National Authority, the Breastfeeding Committee for Canada, who will then make arrangements for the External Assessment.

A hospital with many "no" answers on the Self-Appraisal Tool or where exclusive breastfeeding rate from birth to discharge is not yet 75%, may want to develop an action plan. The aim of the plan might be to eliminate practices that hinder initiation of exclusive breastfeeding and to expand those that enhance it. Information may be provided, for example with staff education or hospital policy development, by your Province or Territory BFI Implementation Committee.

Hospital/Maternity Facility Guidelines for the Implementation of the WHO/UNICEF Baby-Friendly™ Hospital Initiative (BFHI) In Canada

Reproduced with permission of the Breastfeeding Committee for Canada.

Self-Appraisal Process

The first significant step on the road toward full Baby-Friendly™ Hospital status is completion of the Hospital Self-Appraisal Tool, included in Part 2 of the BFHI Manuals (see Appendix A). Parts 1 and 2 of the BFHI Manuals contain information on evaluating the Ten Steps to Successful Breastfeeding as well as a questionnaire enabling a hospital/maternity facility to review its practices. This initial Self-Appraisal facilitates analysis of the practices that encourage or hinder breastfeeding. Hospitals/maternity facilities may request information and clarification from the respective Provincial/Territorial Baby Friendly Initiative (BFI) Implementation Committee or the Breastfeeding Committee for Canada (*) at any time.

It may be helpful for the hospital/maternity facility to develop a multidisciplinary committee to address protection, promotion and support of breastfeeding.

The role of this committee might include:

1. Acquisition of resources for the BFHI (see Appendix A).
2. Education of administrators, colleagues and consumers about the BFHI.
3. Review of breastfeeding initiation and duration rates.
4. Review of practices and development of an action plan with timelines to address those practices which require change using the minimum standards of the Ten Steps to Successful Breastfeeding.
5. Work with the hospital/maternity facility and community to ensure compliance with the International Code of Marketing of Breast-milk Substitutes.

Having accomplished all of the above, the hospital/maternity facility may complete the WHO/UNICEF Hospital Self-Appraisal Tool.

Pre-Assessment

If the results of the Self-Appraisal Tool are primarily positive, the hospital/maternity facility requests the Provincial/Territorial BFI Implementation Committee (*) to arrange a Pre-Assessment. A Pre-Assessment is required as a mechanism for assuring a more successful External Assessment. A Pre-Assessment consists of an intensive, abbreviated evaluation by a BFHI Assessor assigned in collaboration with the BCC. It is strongly recommended that this person have had no past or current affiliation with the hospital. The Pre-Assessment would include detailed discussions with staff, examination of hospital facilities and systems, and review of available documentation regarding training programs, prenatal education, breastfeeding and BFHI policies. A Pre-Assessment will typically take one (1) full day.

The Process of Pre-Assessment

1. When the hospital/maternity facility considers it is ready for a Pre-Assessment, a request is submitted to the Provincial/Territorial BFI Implementation Committee (*).
2. The Provincial/Territorial BFI Implementation Committee (*) sends the hospital/maternity facility a Pre-Assessment Contract in which the hospital/maternity facility agrees to cover all costs of the Pre-Assessment, as outlined in *Financial Guidelines for a Baby-Friendly Hospital Initiative (BFHI) Pre-Assessment in Canada.*
3. The Provincial-Territorial BFI Implementation Committee (*) forwards the signed contract and completed Hospital Self-Appraisal Tool, accompanied by an administrative fee of $100.00 to the BCC with a request to arrange a Pre-Assessment.
4. In consultation with the Provincial/Territorial BFI Implementation Committee (*), the BCC will select an Assessor to conduct the Pre-Assessment. See *Guidelines for WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) Assessors and Master Assessors in Canada.*
5. Upon completion, the Assessor will submit a complete Pre-Assessment Report to the hospital/maternity facility, the Provincial/Territorial BFI Implementation Committee (*) and the BCC.
6. Should any areas of weakness be identified in the Pre-Assessment Report, the Provincial/Territorial BFI Implementation Committee (*) will provide expert advice to the hospital/maternity facility to address these weaknesses.

External Assessment

Over a period of two (2) to four (4) days, a team of Assessors, under the direction of a Master Assessor, conducts an extensive assessment of hospital/maternity facility practices and policies and does appropriate interviews as outlined in the WHO/UNICEF Global Hospital Assessment Criteria. The External Assessors selected must have had no past or current affiliation with the hospital. Random interviews of both staff who work in, and mothers who have delivered in, the hospital/maternity facility will take place. Practices in labour and delivery, postpartum, and special care nurseries will be observed.

The Process of External Assessment

1. If the results of the Pre-Assessment are primarily positive, the hospital/maternity facility requests the Provincial/Territorial BFI Implementation Committee (*) to arrange an External Assessment.
2. The Provincial/Territorial BFI Implementation Committee (*) sends the hospital/maternity facility an External Assessment Contract in which the hospital/maternity facility agrees to cover all costs of the External Assessment, as outlined in *Financial Guidelines for a Baby-Friendly Hospital Initiative (BFHI) External Assessment in Canada*.
3. The Provincial/Territorial BFI Implementation Committee (*) forwards the signed contract, written materials required by the WHO/UNICEF Global Hospital Assessment Criteria (see *Appendix B*) and the Pre-Assessment Report, accompanied by an administrative fee of $400.00 to the BCC with a request that an External Assessment be arranged.
4. In consultation with the Provincial/Territorial BFI Implementation Committee (*), the BCC will select a Master Assessor and a team of Assessors to conduct the External Assessment. See *Guidelines for WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI) Assessors and Master Assessors in Canada*.
5. Upon completion, the External Assessment Team will meet with the hospital/maternity facility to discuss preliminary findings. The Master Assessor will submit a complete External Assessment Report to the Provincial/Territorial BFI Implementation Committee (*), which will forward it to the BCC.

6. Following a review of the External Assessment Report, the BCC, in consultation with the Provincial/Territorial BFI Implementation Committee (*), will decide if the hospital/maternity facility will receive Baby-Friendly designation. The Provincial/Territorial BFI Implementation Committee (*) will notify the hospital/maternity facility of the results of the assessment and will send the facility a copy of the External Assessment Report. A certificate will be awarded and the hospital/maternity facility will be added to the BCC database of designated Baby-Friendly facilities in Canada.
7. Every two (2) years following receipt of the Baby-Friendly designation, the hospital/maternity facility will report to the Provincial/Territorial BFI Implementation Committee (*). The purpose of the report will be to ensure ongoing compliance with the WHO/UNICEF Global Hospital Assessment Criteria. The format of the report will be determined by the Provincial/Territorial BFI Implementation Committee (*).
8. Every five (5) years following receipt of the Baby-Friendly designation, the hospital/maternity facility will undertake a Re-Assessment, involving a subsequent contract and additional costs to the hospital in order to retain the Baby-Friendly designation.
9. A hospital/maternity facility which does not achieve Baby-Friendly designation may provide the Provincial/Territorial BFI Implementation Committee (*), within 90 days of receipt of the External Assessment Report, with a plan of action and timetable to meet the WHO/UNICEF Global Hospital Assessment Criteria.
10. A Certificate of Commitment will be issued to the hospital/maternity facility upon receipt of the plan of action and timetable.
11. If the hospital/maternity facility does not achieve Baby-Friendly designation following the External Assessment, the Provincial/Territorial BFI Implementation Committee (*) will provide expert advice to address weaknesses identified in the External Assessment Report to the hospital/maternity facility for a maximum of four (4) years from the date of the original contract.

(*) The BCC will assume the responsibility for BFHI implementation in a specific province or territory until the respective BFI Implementation Committee is in place.

Appendix A

The following resources are available from the sources listed:

BFHI Manuals 1 and 2

SOURCE: UNICEF CANADA 11th Floor, 2200 Yonge Street, Toronto, ON M4S 2C6
Tel: (416) 482-4444, FAX: (416) 482-8035 e-mail: secretary@unicef.ca

Breastfeeding Management and Promotion in a Baby-Friendly Hospital: The 18 Hour Course

SOURCE: UNICEF CANADA 11th Floor, 2200 Yonge Street, Toronto, ON M4S 2C6
Tel: (416) 482-4444, FAX: (416) 482-8035 e-mail: secretary@unicef.ca

Protecting Infant Health: A health workers' guide to the International Code of Marketing of Breast-Milk Substitutes. 9th Edition.

SOURCE: INFACT CANADA 6 Trinity Square, Toronto, ON M5G 1B1
Tel: (416) 595-9819 FAX: (416) 595-9355 e-mail: info@infactcanada.ca

Appendix B

The following written materials, required by the WHO/UNICEF Global Hospital Assessment Criteria, certified by an officer of the hospital/maternity facility, must accompany the signed contract for External Assessment:

1. A written breastfeeding policy covering all Ten Steps to Successful Breastfeeding as defined in the WHO/UNICEF Baby-Friendly Hospital Initiative, including date of implementation.
2. A written curriculum for training in lactation management given to all hospital staff who have any contact with mothers, infants and/or children (including a description of how instruction is given and a training schedule for new employees).
3. An outline of content to be covered in antenatal breastfeeding education received by pregnant women.
4. All educational materials on breastfeeding provided to pregnant women and new mothers.

Appendix P: Description of the Toolkit

Toolkit: Implementation of Clinical Practice Guidelines

Best practice guidelines can only be successfully implemented if there are: adequate planning, resources, organizational and administrative support as well as appropriate facilitation. In this light, RNAO, through a panel of nurses, researchers and administrators has developed the "Toolkit: Implementation of clinical practice guidelines" based on available evidence, theoretical perspectives and consensus. The Toolkit is recommended for guiding the implementation of any clinical practice guideline in a health care organization.

The "Toolkit" provides step-by-step directions to individuals and groups involved in planning, coordinating, and facilitating the guideline implementation. Specifically, the "Toolkit" addresses the following key steps.

1. Identifying a well-developed, evidence-based clinical practice guideline.
2. Identification, assessment and engagement of stakeholders.
3. Assessment of environmental readiness for guideline implementation.
4. Identifying and planning evidence-based implementation strategies.
5. Planning and implementing evaluation.
6. Identifying and securing required resources for implementation.

Implementing guidelines in practice that result in successful practice changes and positive clinical impact is a complex undertaking. The "Toolkit" is one key resource for managing this process.

The "Toolkit" is available through the Registered Nurses Association of Ontario. The document is available in a bound format for a nominal fee, and is also available free of charge from the RNAO website. For more information, an order form or to download the "Toolkit", please visit the RNAO website at www.rnao.org/bestpractices.

Notes:

March 2007

Nursing Best Practice Guideline
Shaping the future of Nursing

Breastfeeding Best Practice Guidelines for Nurses
Supplement

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Supplement Integration

This supplement to the nursing best practice guideline *Breastfeeding Best Practice Guidelines for Nurses* is the result of a three year scheduled revision of the guideline. Additional material has been provided in an attempt to provide the reader with current evidence to support practice. Similar to the original guideline publication, this document needs to be reviewed and applied, based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client.

Overall, breastfeeding initiation rates have increased from 75 to 82 percent in Canada during the past decade (Health Canada, 2003). Although this encouraging rise in rates is observed across all age groups, young women less than 24 years of age continue to have initiation rates less than 70 percent (Health Canada, 2003). However, less than 40 percent of mothers who initiate breastfeeding continue to do so beyond six months (Callen & Pinelli, 2004). As such, early cessation of breastfeeding prior to the Canadian Pediatric Society recommended six months remains a major concern for health professionals.

The recommendations in this supplement continue to address these concerns by focusing on nursing interventions that promote initiation, duration and exclusivity of breastfeeding in term infants (≥37 weeks). This supplement should be used in conjunction with the original guideline as a tool to assist in decision making for individualized client care and to ensure that appropriate structures and supports are in place to provide the best possible care.

Based on research evidence published since the initial guideline, more specific recommendations have been formulated for peer support interventions, the Baby Friendly Hospital Initiative, and skin-to-skin care. Although face-to-face peer support is known to be effective in women of low income, a recent Canadian-based randomized controlled trial demonstrated that telephone-based peer support can be effective in increasing duration and exclusivity of breastfeeding in women across socioeconomic groups (Dennis et al., 2002). Similarly, further evidence regarding the Baby Friendly Initiative suggests that this hospital-wide inter-

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vention may increase duration (Braun et al., 2003), initiation (Phillip et al., 2003), and exclusivity of breastfeeding when combined with follow-up home visits (Coutinho et al., 2005). Although much research on skin-to-skin care has focused on the physiological benefits in transition to extrauterine life for the infant, a recent study found that skin-to-skin care can also improve duration and exclusivity of breastfeeding (Mikil-Kostyra et al., 2002).

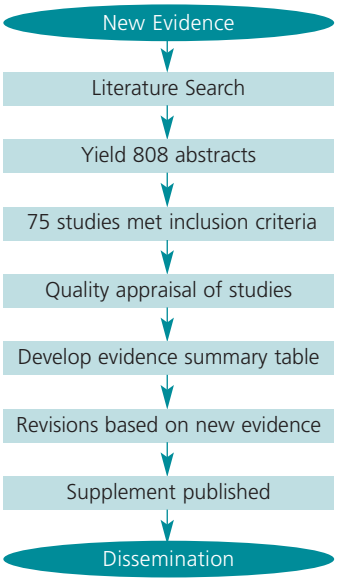
Revision Process

The Registered Nurses' Association of Ontario (RNAO) has made a commitment to ensure that this best practice guideline is based on the best available evidence. In order to meet this commitment, a monitoring and revision process has been established for each guideline every three years. The revision panel members (experts from a variety of practice settings) are given a mandate to review the guideline focusing on the recommendations and the original scope of the guideline.

Members of the panel critically appraised five guidelines on the topic of breasfeeding support using the Appraisal of Guidelines for Research and Evaluation (AGREE Collaboration, 2001). From this review, one guideline was identified to inform the revision process:

Canadian Pediatric Society. (2005). Revised Recommendations for Breastfed Infants. Ottawa, Ontario: Health Canada and Canadian Pediatric Society.

Review/Revision Process Flow Chart



RNAO has developed resources specifically designed to support implementation of this guideline. Visit our website at www.rnao.org/bestpractices to view and download the *Breastfeeding: Fundamental Concepts* self-learning package and the *Breastfeeding Educational Resources: Mother/Infant Self Reflection Guide for Nurses.*

Summary of Evidence

The following content reflects the changes made to the original publication (2003) based on the consensus of the review panel. Many of the recommendations have been renumbered as a result of revisions to sequence and content of the recommendations, as well as the addition of new recommendations.

✓ unchanged
✎ changed
\+ additional information
NEW new recommendation

Practice Recommendations

Recommendation 1

Nurses in all practice settings, endorse the Baby-Friendly Hospital Initiative (BFHI) which was jointly launched in 1992 by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), and the Baby-Friendly Initiative in Community Health Services (Breastfeeding Committee for Canada). The BFHI directs health care facilities to meet the "Ten Steps to Successful Breastfeeding".

(Level of Evidence II-3)

✎

The following has been added to the discussion of evidence.

There is some evidence to suggest that the Baby Friendly Initiative can lead to increased initiation, duration and exclusivity of breastfeeding.

Additional Literature Supports

Braun et al., 2003 (Level II-3); Kramer, Chalmers, & Hodnett, 2001 (Level I); Philipp et al., 2003 (Level II-3).

\+

Recommendation 1.1

Nurses have a role in advocating for "breastfeeding friendly" environments by:

- Advocating for supportive facilities and systems such as day-care facilities, "mother and baby" areas for breastfeeding, public breastfeeding areas, 24-hour help for families having difficulties in breastfeeding; and
- Promoting community action in breastfeeding.

(Level of Evidence III)

✓

Information formerly listed as the final bullet point on page 32 has been re-arranged and should be considered to be item 1, to emphasize the importance of this point.

Discussion of Evidence

1) Ensuring nursing mothers are aware of their rights. Breastfeeding women "have the right to breastfeed a child in a public area. No one should prevent you from nursing your child in a public area or to ask you to move to another area that is more 'discreet'" (Ontario Human Rights Commission, 1999).

\+

Recommendation 2

Nurses and healthcare practice settings endorse the WHO recommendation for exclusive breastfeeding for the first six months, with introduction of complementary foods and continued breastfeeding up to two years and beyond thereafter.

(Level of Evidence I)

✓

The following paragraph has been added to the discussion of evidence:

Discussion of Evidence

Until recently, many health professionals have promoted breastfeeding of healthy, full-term infants for a period of four to six months. The Canadian Pediatric Society has reviewed and decided to align with the recommendations resulting from the World Health Organization's systematic review, as discussed on page 32 of the guideline (CPS, 2005). Endorsing exclusive breastfeeding for the first six months is considered to be ideal policy, with the proviso that all infants should be managed individually.

\+

Recommendation 3

Nurses should perform a comprehensive breastfeeding assessment of mother/baby/family, both prenatally and postnatally, to facilitate intervention and the development of a breastfeeding plan.

(Level of Evidence II-3)

The wording of this recommendation has been changed, as well as the Level of Evidence, as there is new research evidence to support the recommendation.

The following has been added to the discussion of evidence:

Discussion of Evidence
Breastfeeding assessment in the early postpartum period can alert health professionals to risk factors that may lead to early breastfeeding attrition in the absence of targeted intervention.

Literature Supports

Dennis, 2002; Kumar, Mooney, Wieser, & Havstad, 2006.

Recommendation 3.1

Key components of the prenatal assessment should include:

- Personal and demographic variables that may influence breastfeeding rates;
- Intent to breastfeed;
- Access to support for breastfeeding, including significant others and peers;
- Attitude about breastfeeding among health care providers, significant others and peers; and
- Physical factors, including breasts and nipples, that may affect a woman's ability to breastfeed.

(Level of Evidence III)

Recommendation 3.2

Key components of the postnatal assessment should include:

- Interpartum practices and interventions including medications;
- Level of maternal physical discomfort;
- Observation of positioning, latching and sucking;
- Signs of milk transfer;
- Parental ability to identify infant feeding cues;
- Mother-infant interaction and maternal response to feeding cues;
- Maternal perception of infant satisfaction/satiety cues;
- Woman's ability to identify significant others who are available and supportive of her decision to breastfeed;
- Delivery experience;
- Infant physical assessment; and
- Maternal breastfeeding self-efficacy (Level I).

(Level of Evidence III except where noted)

The wording of this recommendation has been changed. As well, the following content has been added to the discussion of evidence, addressing the validity of assessment tools, and the inclusion of self-efficacy as a component of postnatal assessment:

Discussion of Evidence
Low breastfeeding self-efficacy is a significant predictor of early attrition (Dennis & Faux, 1999; Dennis, 2002). The Breastfeeding Self-Efficacy Scale (BSES-SF) is a short, 14-item scale used to assess maternal breastfeeding self-efficacy. The total score can be used to quantify the level of a mother's breastfeeding self-efficacy and the scores of individual items can be used to diagnose specific areas where a mother lacks self-efficacy and requires targeted intervention (Dennis, 2002). This tool has been psychometrically tested in a number of studies involving Canadian, Australian, Chinese, and Spanish women and demonstrates good reliability and validity. The BSES-SF has also been translated into Chinese and Spanish.
Several assessment tools addressing various aspects of support and care of the breastfeeding mother and infant have been developed (Bar-Yam, 1998; Dennis & Faux, 1999; Hill & Humenick, 1996; Johnson et al., 1999; Matthews et al., 1998; Nyquist, et al., 1996; Riordan, 1998; Riordan & Koehn, 1997; Schlomer et al., 1999). Very little research has been conducted to compare various assessment

tools in the area of breastfeeding. Riordan and Koehn (1997) initially compared three tools to measure breastfeeding effectiveness (Infant Breastfeeding Assessment Tool – IBFAT; Mother Baby Assessment Tool – MBA and the LATCH assessment tool) and found that further development/revisions and retesting were needed before recommendations for clinical practice could be made. Subsequently, Riordan, Bibb, Miller and Rawlins (2001) examined the validity of the LATCH tool by comparing it with other measures of effective breastfeeding and by determining its effectiveness in predicting breastfeeding duration to eight weeks postpartum. The results indicate support for the validity of the LATCH, however further testing of construct validity is warranted. For a comparison of breastfeeding assessment tools, please see Appendix Q, (pg 13 of this supplement).

Assessment tools also vary from setting to setting based on the time in the preconception to postpartum period in which the nurse is in contact with the mother and/or infant. This points to a need for assessment tools that are either comprehensive to meet the practice requirements at various times or the requirement for unique comprehensive tools for specific stages in the continuum. Additionally, there is a need for user-friendly and short assessment tools in order to facilitate use by practicing nurses.

Recommendation 4

Nurses should provide informational support to couples during the childbearing age, as well as to expectant mothers/couples/families and assist them in making informed decisions regarding breastfeeding. Education should include, as a minimum, the following:

- Benefits of breastfeeding (Level I);
- Lifestyle issues (Level III);
- Milk production (Level I);
- Breastfeeding positions (Level I);
- Latching/milk transfer (Level I);
- Prevention and management of problems (Level III);
- Medical interventions (Level III);
- When to seek help (Level III);
- Where to get additional information and resources (Level III);
- Benefits of skin to skin contact (Level III); and
- Recognizing feeding cues (Level III).

This recommendation now combines content from the original guideline's Recommendation 5, which has been deleted. The wording of this recommendation has been changed, and additions to the concepts to be included in education have been made.

The following has been added to the discussion of evidence:

Discussion of Evidence

Antenatal education is effective in increasing breastfeeding initiation rates in low-income women (Dyson et al., 2005; Fairbank et al., 2002; Haque et al., 2002). Antenatal education in combination with early postpartum lactation support has a greater impact on breastfeeding initiation and duration up to 3 months, particularly in groups where initiation rates are low (Dyson et al., 2005; Guise et al., 2003). There appears to be little difference in effectiveness between individual or group-based educational sessions or the length of the session (Guise et al., 2003).

Educational programs that are effective in increasing breastfeeding initiation/duration are:

- Conducted by lactation consultants or nurses in the antenatal period (Guise et al., 2003). (Level I)
- Programs based on structured content that is consistently delivered, and includes (i) breastmilk as the ideal nutrition for infants, (ii) benefits of breastfeeding, (iii) anatomy and physiology of breastfeeding (Guise et al., 2003). (Level I)
- Inclusive of skill training such as latch and positioning techniques (Forster et al., 2004; Guise et al., 2003). (Level I)
- Inclusive of discussion of pumping, breastmilk storage (Guise et al., 2003). (Level I)
- Inclusive of discussion of common myths, attitudes, fears, and concerns (Forster et al., 2004; Guise et al., 2003). (Level I)

Educational approaches that have NOT been shown to be effective are:

- Written materials alone (Guise et al., 2003, Fairbank et al., 2002). (Level I)
- Single, structured, one-to-one educational sessions on positioning and attachment in the early postpartum period (Henderson et al., 2001; Labarere et al., 2003). (Level I)
- Single group educational sessions during the early post-partum period, even after antenatal education (Lavender et al., 2005). (Level I)

Additional Literature Supports

Graffy, 2005.

Recommendation 4.1

NEW

Women's partners should be encouraged to attend breastfeeding education classes.

(Level of Evidence I)

Discussion of Evidence

Educational classes that include instruction for fathers on the benefits of breastfeeding and methods of assisting their breastfeeding partner can increase the odds of their partner initiating breastfeeding (Wolfberg et al., 2004).

Recommendation 5

✎

Nurses should perform a comprehensive breastfeeding assessment of mother/baby prior to hospital discharge.

(Level of Evidence III)

This recommendation has been rephrased for clarity.

Recommendation 5.1

✓

If mother and baby are discharged within 48 hours of birth, there must be a face-to-face follow up assessment conducted within 48 hours of discharge by a qualified health care professional, such as a Public Health Nurse or Community Nurse specializing in maternal/newborn care.

(Level of Evidence III)

Recommendation 5.2

✎

Discharge of low-risk mothers and infants after 48 hours may be followed by a telephone call within 48 hours of discharge, rather than a home visit.

(Level of Evidence I)

This recommendation has been rephrased to indicate its application to low-risk mothers and infants.

The following has been added to the discussion of evidence:

+

Discussion of Evidence

For low risk women and infants, duration of breastfeeding at 6 months does not appear to be influenced by method of post-partum follow-up e.g., home visit versus telephone follow-up (O'Connor et al., 2003).

Recommendation 6

✎

Nurses should provide information, emotional and physical support to breastfeeding mothers with an attitude that conveys support for breastfeeding.

(Level of Evidence II-3)

This recommendation has been changed to emphasize the importance of nurses' attitudes with regard to breastfeeding.

+

Literature supports

DiGirolamo, Grummer-Strawn, & Fein, 2003.

Recommendation 7

Nurses should support local peer support breastfeeding programs, ensuring that women are provided with peer support resources.

(Level of Evidence I)

Discussion of Evidence

Intensive pre- and post-natal peer support has been effective in increasing initiation and exclusivity of breastfeeding among low-income women (Bonuck et al., 2005; Chapman et al., 2004). Face-to-face peer support during the post-natal period in combination with pre- or post-natal community support has been found to be effective at increasing initiation, duration, and exclusivity of breastfeeding in low-income women (Pugh et al., 2001; Pugh et al., 2002; Fairbank et al., 2000) and lengthening duration of breastfeeding in aboriginal mothers (Martens et al., 2002). Telephone-based peer support has also been proven effective at increasing duration and exclusivity of breastfeeding in a community sample of Canadian mothers (Dennis et al., 2002).

+

Recommendation 8

Nurses should initiate skin to skin contact between mother and infant immediately after birth as part of on-going, routine care.

(Level of Evidence II-2)

NEW

Discussion of Evidence

Skin-to-skin contact within 10 minutes after delivery and for a period of at least 20 minutes may increase duration and exclusivity of breastfeeding, particularly when followed by rooming in practices (Mikiel-Kostyra et al., 2002).

For information on resources related to skin-to-skin contact (or "kangaroo care"), see Appendix I, (pg 11 of the supplement).

Education Recommendations

Recommendation 9

Organizations must ensure that nurses providing breastfeeding support receive education appropriate to their role in breastfeeding in order to develop the knowledge, skill and attitudes to implement breastfeeding policy and to support breastfeeding mothers.

(Level of Evidence III)

This recommendation has been changed to emphasize organizational responsibility for ensuring that nurses receive appropriate breastfeeding education.

Organization and Policy Recommendations

Recommendation 10

Practice settings/organizations should work towards Baby Friendly Initiative designation as part of a comprehensive plan towards improving breastfeeding outcomes.

(Level of Evidence I)

This recommendation has been rephrased to indicate that the Baby Friendly Initiative is a designation, rather than an accreditation.

Literature Supports

Kramer, Chalmers & Hodnett, 2001.

Recommendation 11

Practice settings should evaluate the effectiveness of their breastfeeding support on rates of initiation, duration and exclusivity of breastfeeding.

(Level of Evidence III)

This recommendation reflects the content of the original publication's Recommendation 5.1. This recommendation has been changed to emphasize the components of breastfeeding support which are to be evaluated.

Recommendation 12

Organizations should establish and support peer support programs.

(Level of Evidence I)

This recommendation has been moved from its previous position as Recommendation 7.1, to reflect the intent of the recommendation to pertain to organization and policy change. The recommendation has been rephrased to focus on peer support programs alone.

Literature Supports

Anderson, Damio, Young, Chapman & Perez-Escamilla, 2005; Pugh, Milligan, Frick, Spatz & Bronner, 2002; Pugh, Milligan & Brown, 2001.

Recommendation 13

Nursing best practice guidelines can be successfully implemented only when there are adequate planning, resources, organizational and administrative support, and appropriate facilitation. Organizations may develop a plan for implementation that includes:

- An assessment of organizational readiness and barriers to education.
- Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process.
- Dedication of a qualified individual to provide the support needed for the education and implementation process.
- Ongoing opportunities for discussion and education to reinforce the importance of best practices.
- Opportunities for reflection on personal and organizational experience in implementing guidelines.

In this regard, RNAO (through a panel of nurses, researchers and administrators) has developed the *Toolkit: Implementation of clinical practice guidelines* based on available evidence, theoretical perspectives and consensus. The Toolkit is recommended for guiding the implementation of *Breastfeeding Best Practice Guideline for Nurses.*

(Level III)

Implementation Strategies

The Registered Nurses' Association of Ontario and the guideline panel have compiled a list of implementation strategies to assist health care organizations or health care professionals who are interested in implementing this guideline. A summary of these strategies follows. Organization should:

- Have at least one dedicated person such as an advanced practice nurse or a clinical resource nurse who will provide support, clinical expertise and leadership. The individual should have good interpersonal, facilitation and project management skills.
- Conduct an organizational needs assessment related to breastfeeding support to identify current knowledge and further educational requirements.
- Create a vision to help direct the change effort and develop strategies for achieving and sustaining the vision.
- Establish a steering committee comprised of key stakeholders and interdisciplinary members committed to leading the change initiative. Identify short-term and long-term goals.
- Identify and support designated best practice champions on each unit to promote and support implementation. Celebrate milestones and achievements, acknowledging work well done (Davies & Edwards, 2004).
- Provide organizational support such as having the structures in place to facilitate best practices in breastfeeding. For example, having an organizational philosophy that reflects the value of best practices through policies and procedures.
- Develop new documentation tools (Davies & Edwards, 2004).

Research Gaps and Implications

Some research gaps that are evident from the literature review are:

(i) No new systematic reviews have been published since the original guideline was published. There is a need for updated reviews of existing evidence on topics such as interventions to promote initiation, duration and exclusivity of breastfeeding, predictors of breastfeeding by age and socioeconomic position, as well as interventions delivered by specific health care personnel.

(ii) Although a few breastfeeding assessment tools have been developed (LATCH, IBFAT, MBAS), little validation work has been done. There is a need for rigorously tested breastfeeding assessment tools.

(iii) Continued evaluation of the Baby Friendly Initiative on outcomes of initiation, duration and exclusivity of breastfeeding is needed.

(iv) Maternal confidence/self-efficacy is emerging as a key factor in breastfeeding outcomes. Future research should focus on evaluating the effectiveness of interventions designed to enhance maternal confidence/self-efficacy and breastfeeding outcomes.

(v) Little research in Canada has addressed factors that influence breastfeeding, or the effectiveness of breastfeeding interventions specifically in younger women or women of low income. Given that women belonging to these sub-groups have the lowest initiation and duration rates, research addressing these issues would assist health professionals in planning targeted intervention strategies.

(vi) Much breastfeeding research is, of necessity, based on cohort or before-after studies. Where possible, randomized-controlled trials should be used to evaluate the effectiveness of interventions on breastfeeding initiation, duration, and exclusivity.

Appendices

The review process identified a need for two additional appendices, added below as Appendix P: Ontario Human Rights Commission and Appendix Q: Breastfeeding Assessment Tools Comparison. Additionally, updates to the following appendices are noted below.

Appendix B: Baby Friendly Initiative (BFI)

The website given for "the Breastfeeding Committee for Canada Welcomes you to the Baby-Friendly Initiative (included in its entirety)", is no longer active. Please visit www.breastfeedingcanada.ca for information about the Baby-Friendly Initiative.

Please note that the Baby-Friendly Initiative is a designation, not an accreditation as originally published.

Appendix C: Promoting Community Action

Website update:
Heifti, R. (2001). Breastfeeding: A community responsibility. World Alliance for Breastfeeding Action [On-line]: No longer available.

Appendix D: Prenatal Assessment Tool
Appendix E: Post Partum Assessment Tools

To date, most breastfeeding assessment tools have not demonstrated adequate reliability (Riordan et al., 2005). In order for nurses to use breastfeeding tools accurately, education regarding the use of the tool is imperative. The implementation of tools for general use that is not accompanied by education may result in a wide variation of assessment findings that cannot inform intervention efforts. Education related to the use of assessment tools should minimally provide an understanding of the criteria in the tool and the scoring system.

Assessment tools provided in this guideline may be useful in practical application, or simply as examples, depending on the user. Please see Appendix Q for a comparison of breastfeeding assessment tools listed in the original guideline.

Appendix F: Breastfeeding Positions

The following statements should be added to the beginning of this appendix.

Good positioning facilitates a good latch. The following are to be considered examples of positions that may help to ensure a good latch. It is important to note that in whichever position the mother chooses, a successful outcome is a mother and baby who are calm, comfortable and alert.

Baby-led Latch

Baby-led latching recognizes that the infant is born with reflexes that help facilitate breastfeeding. The technique for this approach can be found on the following website: www.breastfeeding.asn.au/bfinfo/bla.html

Appendix G: Latch, Milk Transfer and Effective Breastfeeding

To date, most breastfeeding assessment tools have not demonstrated adequate reliability (Riordan et al., 2005). In order for nurses to use breastfeeding tools accurately, education regarding the use of the tool is imperative. The implementation of tools for general use that is not accompanied by education may result in a wide variation of assessment findings that cannot inform intervention efforts. Education related to the use of assessment tools should minimally provide an understanding of the criteria in the tool and the scoring system.

Appendix I: Breastfeeding Educational Resources

Updated web addresses:

- Archives of LACTNET@PEACH.EASE.LSOFT.COM – *Lactation Information and Discussion* http://peach.ease.lsoft.com/scripts/wa.exe?A0=lactnet
- The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) www.awhonn.org
- Ontario Breastfeeding Committee www.breastfeedingontario.org
- World Alliance for Breastfeeding Action www.waba.org.my
- Kangaroo Mother Care Promotions www.kangaroomothercare.com

Breastfeeding Videos

"Breastfeeding" Interactive CD ROM
Susan Moxley, RN, Med, IBCLC
No longer available

Dr Jack Newman's Visual Guide to Breastfeeding
Newman Breastfeeding Clinic and Institute
1255 Sheppard Ave East
Toronto, ON Canada
M2K 1E2

fax: 416-498-0012
email: dvd@drjacknewman.com
wesite: www.drjacknewman.com

Kangaroo Mother Care
Geddes Productions
PO BOX 41761
Los Angeles CA 90041-0761
USA

voice: (323) 344-8045
fax: (323) 257-7209
email: orders@geddesproduction.com

Suggested Reading – Breastfeeding References

International Lactation Consultant Association. (2005). Clinical guidelines for the establishment of exclusive breastfeeding. Raleigh, NC: International Lactation Consultant Association [Online] Available: http://www.ilca.org/education/2005clinicalguidelines.php

Appendix K: Discharge Assessment Tools

The discharge tools in this appendix are only provided as examples. It should be noted that these assessment tools are intended to be comprehensive discharge assessments of mother and infant; as such, the breastfeeding assessment forms a small part of these discharge assessments.

Appendix N: Internet Breastfeeding Courses

Dr. Janice Riordan
http://members.cox.net/jriordan/brestfeedingcourse.html
No longer available

Appendix O: Baby Friendly Hospital Initiative – Accreditation

Please note that the Baby Friendly Initiative is a designation, not an accreditation as original published.

Appendix P: Ontario Human Rights Commission Policy on Discrimination Because of Pregnancy and Breastfeeding.

The Ontario Human Rights Commission has drafted a policy addressing the rights of pregnant and breastfeeding women. View this policy at: http://www.ohrc.on.ca/en/resources/Policies/PolicyPregBreastfeedEN/view

Appendix Q: Breastfeeding Assessment Tools Comparison

Title	Description	Reliability	Validity	Strengths	Limitations
LATCH (Jensen et al, 1994)	Five indicators of breastfeeding. "L" latches to breast; "A" audible swallowing; "T" nipple type; "C" mother's breast/ nipple comfort; "H" amount of help mother needs. Score range 0 to 10.	Interrater agreement 85 to 90 percent among mothers, LCs, and researchers scores; LC and mother agreement: r =.53 to.67 (Adams & Hewell, 1997) and r=.26 (Riordan, 2001). Pairwise correlations among LC raters: .11, .46, .48 (Riordan, 1997).	Total score predicted 7.3 percent of duration variance, primarily due to sore nipple indicator. (Riordan et al., 2001). Moderately correlated with duration r=.26 (Riordan, 1997). Audible swallowing alone predicted milk intake R2 =29 percent, p<.001). Kumar et al. (2006) found that women who had a score of >9 at 16-24 hours were 1.7 times more likely to breastfeed at 6 weeks than women with lower scores.	• Of all the tools available, this tool has been most extensively tested for reliability and validity. • Short and easy to administer. • Only tool to date to have "cut-off" scores defined e.g., women who score <9 at 16-24 hours more likely to stop breastfeeding by 6 weeks (Kumar et al., 2006).	• Has limited utility because it predicts breastfeeding cessation that is solely related to sore nipples (Riordan et al., 2001). • Inter-rater reliability much lower when raters independently assess infant feeding (as in clinical practice) versus together (Topf, 1988). • Tool has not been compared with milk intake.
Infant Breastfeeding Assessment Tool (IBFAT). (Matthews, 1988, 1998).	To assess and measure infant breastfeeding competence. Four indicators: readiness to feed, rooting, fixing and sucking. Score range 0 to 12.	91 percent agreement in co-assessed feeds (Matthews, 1988). Pairwise correlations of raters' scores .58 (Riordan & Keohn, 1995). Pairwise correlations among LC raters: .27, .57, .69. (Riordan, 1997).	Observation in clinical practice (Matthews, 1988). Lower scores in Infants whose mothers had labor analgesia (p = .019) (Crowell, Hill & Humenick, 1994).	• Short and easy to use.	• Agreement between raters low to moderate e.g., different raters score the same infants differently. • Limited evaluation of reliability and validity. • Tool has not been compared with milk intake.
Mother/Baby Assessment Score (MBA) (Mulford, 1992). N=71; 348 observations.	To assess maternal and infant breastfeeding behaviors. For both, breastfeeding is rated using five steps: signaling, positioning, fixing, milk transfer, and ending. Score 0 to 10.	Pairwise correlations among LC raters: .33, .64, .66. (Riordan, 1997).	Observations in clinical practice (Mulford, 1992).		• Agreement of raters on criteria ranges low to high. Low agreement on items related to milk transfer, high on those related to readiness of baby and mother to feed. • Tool has not been compared with milk intake.

LC = Lactation Consultant

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September 2003

Breastfeeding Best Practice Guidelines for Nurses

This project is funded by the
Ontario Ministry of Health and Long-Term Care

ISBN 0-920166-38-5
9 780920 166383

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