Complete Summary

GUIDELINE TITLE

Interventions to promote breast-feeding: applying the evidence in clinical practice.

BIBLIOGRAPHIC SOURCE(S)

Palda VA, Guise JM, Wathen CN. Interventions to promote breast-feeding: applying the evidence in clinical practice. CMAJ 2004 Mar 16;170(6):976-8. [45 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Canadian Task Force on Preventive Health Care. Canadian Task Force on the Periodic Health Examination. Canadian Guide to Clinical Preventive Health Care. Ottawa (Canada): Health Canada; 1994. Breast feeding. p. 232-42.

A complete list of planned reviews, updates and revisions is available under the What's New section at the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Infant nutrition (through breast-feeding)

GUIDELINE CATEGORY

Counseling
Management

CLINICAL SPECIALTY

Family Practice
Nursing
Nutrition
Obstetrics and Gynecology
Pediatrics
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Dietitians
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To update the 1994 recommendations made by the Canadian Task Force on Preventive Health Care (CTFPHC) on breast-feeding promotion and counseling
- To present evidence on interventions that improve the initiation or duration (or both) of breast-feeding in the Canadian health care setting

TARGET POPULATION

Antepartum, postpartum, and breast-feeding women in Canada

INTERVENTIONS AND PRACTICES CONSIDERED

Interventions to Promote Breast-Feeding

1. Breast-feeding education (individual or group instruction with structured content including practical skills training)
2. Breast-feeding support involving telephone support and/or in-person visits
3. Written education materials (not recommended)
4. Peer counseling
5. Rooming-in, and early maternal-infant contact
6. Use of commercial discharge packets (not recommended)
7. Advice by primary obstetric or pediatric provider (insufficient evidence to make recommendation)

MAJOR OUTCOMES CONSIDERED

- Rate of breast-feeding initiation
- Duration of breast-feeding

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Searches were performed of MEDLINE (1966-2000), HealthSTAR, the Cochrane Database of Systematic Reviews, the National Health Service Centre for Reviews and Dissemination Databases, and bibliographies of identified trials and review articles.

Randomized clinical trials (RCTs) of any counseling, behavioral, or environmental interventions to improve breast-feeding initiation, duration, or both were chosen, where possible. If no randomized clinical trials were available, a system of "best available evidence" was used, whereby non-randomized concurrently controlled trials were included. Other inclusion criteria were: 1) English-language articles, 2) originated from a clinician's practice but could be implemented by any provider in any setting, 3) study took place in a developed country. Community-based or peer-originated interventions were not included.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence - Research Design Rating

I: Evidence from randomized controlled trial(s)

II-1: Evidence from controlled trial(s) without randomization

II-2: Evidence from cohort or case–control analytic studies, preferably from more than one centre or research group

II-3: Evidence from comparisons between times or places with or without the intervention; dramatic results from uncontrolled studies could be included here

III: Opinions of respected authorities, based on clinical experience; descriptive studies or reports of expert committees

Levels of Evidence - Quality (Internal Validity) Rating

Good: A study that meets all design- specific criteria* well.

Fair: A study that does not meet (or it is not clear that it meets) at least one design-specific criterion* but has no known "fatal flaw."

Poor: A study that has at least one design-specific* "fatal flaw," or an accumulation of lesser flaws to the extent that the results of the study are not deemed able to inform recommendations.

**Design specific criteria are outlined in Harris et al, Current methods of the U.S.PSTF. Am J Prev Med 2001;1:70-78*.

METHODS USED TO ANALYZE THE EVIDENCE

Meta-Analysis of Randomized Controlled Trials
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Two reviewers independently reviewed all abstracts and titles for inclusion, and independently abstracted, from each study, assessment of pre-specified quality criteria and data to evidence tables.

In addition to the qualitative review of studies, three meta-analyses of randomized controlled trials (RCTs) were performed to examine the influence of specific components of counseling interventions on rates of 1) initiation of breast-feeding; 2) breast-feeding duration of 1 to 3 months; and 3) breast-feeding duration of 4 to 6 months. Included were trials that offered education, interventions using in-person or telephone support, or both. Within these categories, the effect of using written materials as a co-intervention was examined.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Evidence for this topic was presented by the lead author(s) and deliberated upon during meetings in October 2002 and February 2003. (The evidence included a systematic evidence review undertaken in collaboration with the United States Preventive Services Task Force [USPSTF], as well as key evidence published by the USPSTF after the review´s completion.)

During the meetings, expert panelists addressed critical issues, clarified ambiguous concepts, and analyzed the synthesis of the evidence. At the end of this process, the specific clinical recommendations proposed by the lead author were discussed, as were issues related to clarification of the recommendations for clinical application and any gaps in evidence. The results of this process are reflected in the description of the decision criteria presented with the specific

recommendations. The group and lead author(s) arrived at final decisions on recommendations unanimously.

Subsequent to meetings of the Task Force to review the draft recommendations, the lead author revised the manuscript accordingly. After final revision, the manuscript was sent by the Task Force to two experts in the field (identified by Task Force members at the meeting). Feedback from these experts was incorporated into a subsequent draft of the manuscript.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Recommendations Grades for Specific Clinical Preventive Actions

A The Canadian Task Force (CTF) concludes that there is **good** evidence to recommend the clinical preventive action.

B The CTF concludes that there is **fair** evidence to recommend the clinical preventive action.

C The CTF concludes that the existing evidence is **conflicting** and does not allow making a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D The CTF concludes that there is **fair** evidence to recommend against the clinical preventive action.

E The CTF concludes that there is **good** evidence to recommend against the clinical preventive action.

I The CTF concludes that there is **insufficient** evidence (in quantity and/or quality) to make a recommendation; however, other factors may influence decision-making.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

External Review

After final revision, the manuscript was sent by the Task Force to two experts in the field (identified by Task Force members at the meeting). Feedback from these experts was incorporated into a subsequent draft of the manuscript.

Comparison with Guidelines from Other Groups

Recommendations from the following organizations regarding promotion of breast-feeding were also reviewed:

- United States Preventive Services Task Force (USPSTF)
- Joint statements by the Canadian Paediatrics Society (CPS), Dietitians of Canada, Health Canada, and the Society of Obstetricians and Gynaecologists of Canada (SOGC)
- College of Family Physicians of Canada (CFPC)
- World Health Organization
- American Academy of Pediatrics

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Recommendation grades [**A, B, C, D, E, I**] and levels of evidence [**I, II-1, II-2, II-3, III; good, fair, poor**] are indicated after each recommendation. Definitions for these grades and levels are provided following the recommendations.

Education programs and post-partum support to promote breast-feeding*: There is good evidence to recommend provision of structured antepartum educational programs and postpartum support (Canadian Task Force on Preventive Health Care, 1994) to promote breast-feeding initiation and duration. [**A recommendation**]

- **Education**. Structured antepartum breast-feeding education improves both initiation and continuation of short-term breast-feeding rates post-partum, compared with usual care.* (Duffy, Percival, & Kershaw, 1997; Pugh & Milligan, 1998; Hill, 1987; Kistin, Benton, & Rao, 1990; Brent et al., 1995; Redman et al., 1995) [**Level of Evidence: I-fair**]; (Sciacca et al., 1995; McEnery & Rao, 1986; Rossiter, 1994; Wiles, 1984; Reifsnider & Eckhart, 1997); [**Level of Evidence: I-poor**]
- **Education + support**. In-person or telephone support strengthens the effect of education, leading to an additional 5 to 10% increase in breast-feeding initiation and short-term duration. In-person or telephone support by itself may increase both short- and long-term breast-feeding rates. (Pugh & Milligan, 1998; Brent et al., 1995; Redman et al., 1995; Oakley, Rajan & Grant, 1990; Frank et al., 1987; Serafino-Cross & Donovan, 1992) [**Level of Evidence: I-fair**]; (Sciacca et al., 1995; Jones & West, 1985) [**Level of Evidence: I-poor**]

Peer counseling to promote breast-feeding: There is fair evidence to recommend peer counseling to promote initiation and maintenance of breast-feeding. [**B recommendation**]

- Peer counselors had a significant effect on breast–feeding rates and duration. (Dennis et al., 2002) [**Level of Evidence: I-fair**]; (Sciacca et al., 1995) [**Level of Evidence: I-poor**]; (Caulfield et al., 1998; Schafer et al., 1998;

Kistin, Abramson, & Dublin, 1994; McInnes, Love, & Stone, 2000) [**Level of Evidence: II-1-poor**]

Provision of written materials to new mothers to promote breast-feeding: There is good evidence to recommend against providing written materials alone to promote breast-feeding. [**D recommendation**]

- There is no benefit when written materials are used alone. (Curro et al., 1997) [**Level of Evidence: I-good**]; (Hill, 1987; Redman et al., 1995; Frank et al., 1987) [**Level of Evidence: I-fair**]; (Rossiter, 1994; Kaplowitz & Olson, 1983; Loh et al., 1997; Grossman et al., 1990) [**Level of Evidence: I-poor**]

Primary health care provider (physician or midwife) advice to expectant or new mothers to promote breast-feeding: There is insufficient evidence to make a recommendation regarding advice by primary health care providers to promote breast-feeding. [**I recommendation**]

- Effectiveness is unknown [no studies found]

Provision of commercial discharge packages to new mothers: There is good evidence to recommend against providing commercial discharge packages to new mothers. [**E recommendation**]

- Women receiving commercial discharge packages had lower breast-feeding rates than patients not receiving packages. (Donnelly et al., 2001) [**Level of Evidence: I** (systematic review)-**good**]

Rooming-in and early maternal contact to promote breast-feeding: There is good evidence to recommend rooming-in and early maternal contact to promote breast-feeding (The 1994 recommendations of the task force reviewed "good" level I evidence. Those recommendations, which were classified as grade A, are not overturned by the evidence reviewed here.) [**A recommendation**]

- **Rooming-in**. The sole new study of rooming-in included multiple interventions, and conclusions could not be drawn. (Winikoff et al., 1987) [**Level of Evidence: I-fair**]
- **Early maternal contact**. New data regarding early maternal contact are insufficient. (De Chateau & Wiberg, 1977; Salariya, Easton ,& Cater, 1978; Thomson, Hartsock, & Larson, 1979; Taylor, Maloni, & Taylor, 1985) [**Level of Evidence: I** (individual studies and meta-analysis)-**good**)]

*In the studies reviewed, these interventions were usually provided in the clinical setting by lactation specialists or nurses, and consisted of individual or group instruction about breast-feeding knowledge, practical skills, and problem-solving techniques.

<u>Definitions</u>:

Recommendations Grades

A: The Canadian Task Force (CTF) concludes that there is good evidence to recommend the clinical preventive action.

B: The CTF concludes that there is fair evidence to recommend the clinical preventive action.

C: The CTF concludes that the existing evidence is conflicting and does not allow making a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D: The CTF concludes that there is fair evidence to recommend against the clinical preventive action.

E: The CTF concludes that there is good evidence to recommend against the clinical preventive action.

I: The CTF concludes that there is insufficient evidence (in quantity and/or quality) to make a recommendation; however, other factors may influence decision-making.

Levels of Evidence

I: Evidence from randomized controlled trial(s)

II-1: Evidence from controlled trial(s) without randomization

II-2: Evidence from cohort or case–control analytic studies, preferably from more than one centre or research group

II-3: Evidence from comparisons between times or places with or without the intervention; dramatic results from uncontrolled studies could be included here

III: Opinions of respected authorities, based on clinical experience; descriptive studies or reports of expert committees

Quality (Internal Validity) Rating

Good: A study that meets all design- specific criteria* well.

Fair: A study that does not meet (or it is not clear that it meets) at least one design-specific criterion* but has no known "fatal flaw."

Poor: A study that has at least one design-specific* "fatal flaw," or an accumulation of lesser flaws to the extent that the results of the study are not deemed able to inform recommendations.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

Summary of Key Evidence for Interventions to Promote Breastfeeding

Maneuver: Individual or group educational sessions
Level of Evidence: Level I, fair (6 studies) poor (5 studies).

Maneuver: In-person or telephone support by itself
Level of Evidence: Level I, fair (6), poor (2).

Maneuver: In-person or telephone support plus education´
Level of Evidence: Level I, fair (4).

Maneuver: Use of written materials
Level of Evidence: Level I, good (1), fair (3), poor (4).

Maneuver: Peer counseling
Level of Evidence: Level I, fair (1), poor (1), level II-1, poor (4).

Maneuver: Rooming-in and early maternal contact
Level of Evidence: level I, meta-analysis indicating no effect of early maternal contact; no adequate studies for rooming in.

Maneuver: Primary provider counseling (no adequate studies).

Maneuver: Commercial discharge packages
Level of Evidence: Level I, good, Cochrane review of 9 RCTs.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Infant Benefits

- Reduced risks of overall illness, gastrointestinal tract infections, and atopic eczema
- Probably reduced risks of asthma, otitis media, and respiratory disease requiring hospitalization
- Benefits to neurological development

Maternal Benefits

- More rapid postpartum return of uterine tone
- Weight loss
- Delay of ovulation
- Decreased risk of breast, ovarian, and endometrial cancers

POTENTIAL HARMS

Infant Harms

- Transmission of virus from human immunodeficiency virus (HIV)-positive mothers
- Polychlorinated biphenyls (PCBs) in breast-milk are not clearly related to effects on neurological development.

Maternal Harms

Temporary outcomes such as sore nipples and mastitis

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Palda VA, Guise JM, Wathen CN. Interventions to promote breast-feeding: applying the evidence in clinical practice. CMAJ 2004 Mar 16;170(6):976-8. [45 references] PubMed

ADAPTATION

The guideline is an update of recommendations by the Canadian Task Force on Preventive Health Care (CTFPHC) made in 1994.

DATE RELEASED

2004 Mar 16

GUIDELINE DEVELOPER(S)

Canadian Task Force on Preventive Health Care - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

The Canadian Task Force on Preventive Health Care (CTFPHC) is funded through a partnership between the Provincial and Territorial Ministries of Health and Health Canada.

GUIDELINE COMMITTEE

Canadian Task Force on Preventive Health Care (CTFPHC)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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Resource People: Nadine Wathen, Coordinator; Ruth Walton, Research Associate; and Jana Fear, Research Assistant, Canadian Task Force on Preventive Health Care, Department of Family Medicine, The University of Western Ontario, London, Ont.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Competing interests: none declared

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GUIDELINE AVAILABILITY

Electronic copies: Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.

Print copies: Available from Canadian Task Force on Preventive Health Care, Clinical Skills Building, 2nd Floor, Department of Family Medicine, University of Western Ontario, London, Ontario N6A 5C1, Canada.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Palda, V.A., Guise, J.M., Wathen, C.N., and the Canadian Task Force on Preventive Health Care. Interventions to Promote Breast-feeding: Updated Recommendations from the Canadian Task Force on Preventive Health Care. CTFPHC Technical Report #03-6. October 2003. London, ON: Canadian Task Force.
- V.A. Palda, MD, MSc, FRCPC, J-M. Guise, MD, MPH, and C.N. Wathen, MA, with the Canadian Task Force on Preventive Health Care. Recommendation table. Ottawa: Health Canada, 2003 Feb. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.
- Stachenko S. Preventive guidelines: their role in clinical prevention and health promotion. Ottawa: Health Canada, 1994. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.
- CTFPHC history/methodology. Ottawa: Health Canada, 1997. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.
- Quick tables of current recommendations. Ottawa: Health Canada, 1997. Available from the Canadian Task Force on Preventive Health Care (CTFPHC) Web site.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on August 13, 2004. The information was verified by the guideline developer on September 15, 2004.

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Date Modified: 10/6/2008