

PN-ACC-294
97152

Lactational Amenorrhea Method (LAM) Self-Study Module

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May 1996

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Support for this project was provided by the Institute for Reproductive Health, Georgetown University, under Cooperative Agreement with the United States Agency for International Development (A.I.D.) (DPE-3061-A-00-1029-00) The views expressed by the authors do not necessarily reflect the views of A I D or Georgetown University

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ACKNOWLEDGMENTS

We thank our colleagues at the American College of Nurse-Midwives/Special Projects Section for their critiques and suggestions for improvement. We also thank the Uganda Private Midwives Association for pioneering the integration of the Lactational Amenorrhea Method (LAM) into their Maternity and Family Planning services and their role in piloting this module. The efforts of the Ghana Registered Midwives Association for providing the opportunity to formulate the first draft of this document, as well as the public sector midwives of Ghana for their efforts to pilot the document and assist with revisions are greatly appreciated. From Georgetown University/Institute for Reproductive Health we would like to thank Miriam Lobbok and Clifford Sanders.

We welcome your comments for continuing improvement. Please send your comments to:

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
COC.....	Combined Oral Contraceptive
DMPA	Injectable Hormone (Depo-Provera)
FP	Family Planning
FSH.....	Follicle Stimulating Hormone
HIV	Human Immunodeficiency Virus
IUD	Intrauterine Device
LAM.....	Lactational Amenorrhea Method
LH.....	Luteinizing Hormone
MCH	Maternal and Child Health
NFP	Natural Family Planning
POP	Progestin-Only Pill
STD.....	Sexually Transmitted Disease
VSC.....	Voluntary Surgical Contraception

d

GLOSSARY

Term	Definition
<i>Amenorrhea</i>	absence of menstruation.
<i>Breastfeeding</i>	suckling at the breast (by the infant) or suckling an infant at one's breast (by the mother or surrogate).
<i>Breastmilk feeding</i>	feeding the infant expressed breastmilk.
<i>Child spacing</i>	the practice of delaying the next pregnancy for at least 2 years.
<i>Complementary methods</i>	contraceptive methods that do not interfere with continued breastfeeding.
<i>Exclusive Breastfeeding</i>	infant receives all nourishment from breastmilk, no other liquids or solids are given.
<i>Full or nearly full breastfeeding</i>	breastfeeding whenever the baby desires, that is whenever s(he) shows rooting behavior or makes sucking sounds. There should not be more than 4 hours between any 2 daytime feeds and no more 6 hours between any 2 nighttime feeds. Small quantities of supplementary foods or liquids may be given occasionally, but are not recommended during the first 6 months.
<i>Immunologic</i>	relating to a mechanism that protects against disease, especially an infectious disease.
<i>Lactation</i>	production of breastmilk.
<i>On demand</i>	without following a rigid schedule; allowing the infant to suckle freely, paying attention to infant cues, such as rooting behaviors or sucking sounds.
<i>Osteoporosis</i>	a bone condition characterized by reduced density and increasing brittleness, causing more frequent fractures in women who have passed menopause.
<i>Physiologic</i>	characteristic of or promoting normal or healthy functioning.
<i>Supplementation</i>	the practice of giving foods and/or liquids other than breastmilk (including water, teas, and milks) to an infant.

INTRODUCTION

Purpose

The purpose of developing this Self-Study Module is to provide the practicing family planning (FP) trained nurse or midwife with current and accessible information about a specific FP practice, the Lactational Amenorrhea Method (LAM). It is also intended that the nurse or midwife completing this module will incorporate the content into her Maternal and Child Health/Family Planning (MCH/FP) services.

The module has a pre- and post-test as well as study questions following each of the four sections which are designed to monitor learning. Ideally, the pre-test should be taken before beginning the module. This will indicate any areas that may need special attention. Next, study the four sections of the module using the study questions at the end of each section to measure comprehension of new concepts. Finally, complete and score the post-test. Learning progress can be measured by comparing answers from the pre-and post-tests. **Difficulty answering the study questions, or a score on the post-test of less than 75 out of the possible 100 points may indicate a need to review the entire module again.**

Objectives

Upon completing this module, the nurse or midwife should be able to:

- (1) define the Lactational Amenorrhea Method (LAM).
- (2) explain the physiology (mechanism of action) for LAM.
- (3) state the effectiveness of LAM.
- (4) list 3 advantages and 2 disadvantages of using LAM.
- (5) state the 3 criteria and the 4th parameter for using LAM.
- (6) explain the criteria for changing from LAM to a complementary method of contraception.
- (7) counsel the breastfeeding client on other appropriate contraceptive methods when she chooses not to use or can no longer rely on LAM.
- (8) describe the procedure for initiating a client on LAM.
- (9) describe the procedure for initiating a client on a complementary contraceptive method.
- (10) state 3 of the 6 ways to integrate LAM into MCH/FP services.

SELF-STUDY MODULE PRE-TEST

Name: _____

Date: _____

1. At a Breastfeeding and Health presentation that you are giving to a village women's group, one of the women in the audience says that she has heard that breastfeeding is now being used as a contraceptive. She asks you to explain how it works and how effective it is.

You explain to her:

2. During the session with the women, the group wants to know the advantages and disadvantages of LAM.

(a) Can you tell them at least 3 advantages?

(b) Can you tell them at least 2 disadvantages?

SECTION ONE

Definition

The **Lactational Amenorrhea Method (LAM)** is a short-term contraceptive method which can be initiated at the moment of birth or during the first 6 months postpartum, if the client meets the 3 criteria. This method is based on the physiologic infertility experienced by breastfeeding women, especially during the early postpartum months.

Physiology (Mechanism of Action)

The physiology of breastfeeding is stimulated by suckling, which in turn sends messages to the hypothalamus and anterior pituitary in the brain. The suckling messages result in changed levels of follicle stimulating hormone (FSH) and luteinizing hormone (LH) which prevent ovulation. High levels of hormones can be maintained if the infant suckles frequently, with no more than 4-6 hours passing between any 2 breastfeeds. Factors that cause reduced suckling, leading to decreased milk production and the return of ovulation, may include: the use of dummies (pacifiers), supplementary bottle feeds, introduction of other foods or liquids, long intervals between feedings, stress, and maternal or child illness.**

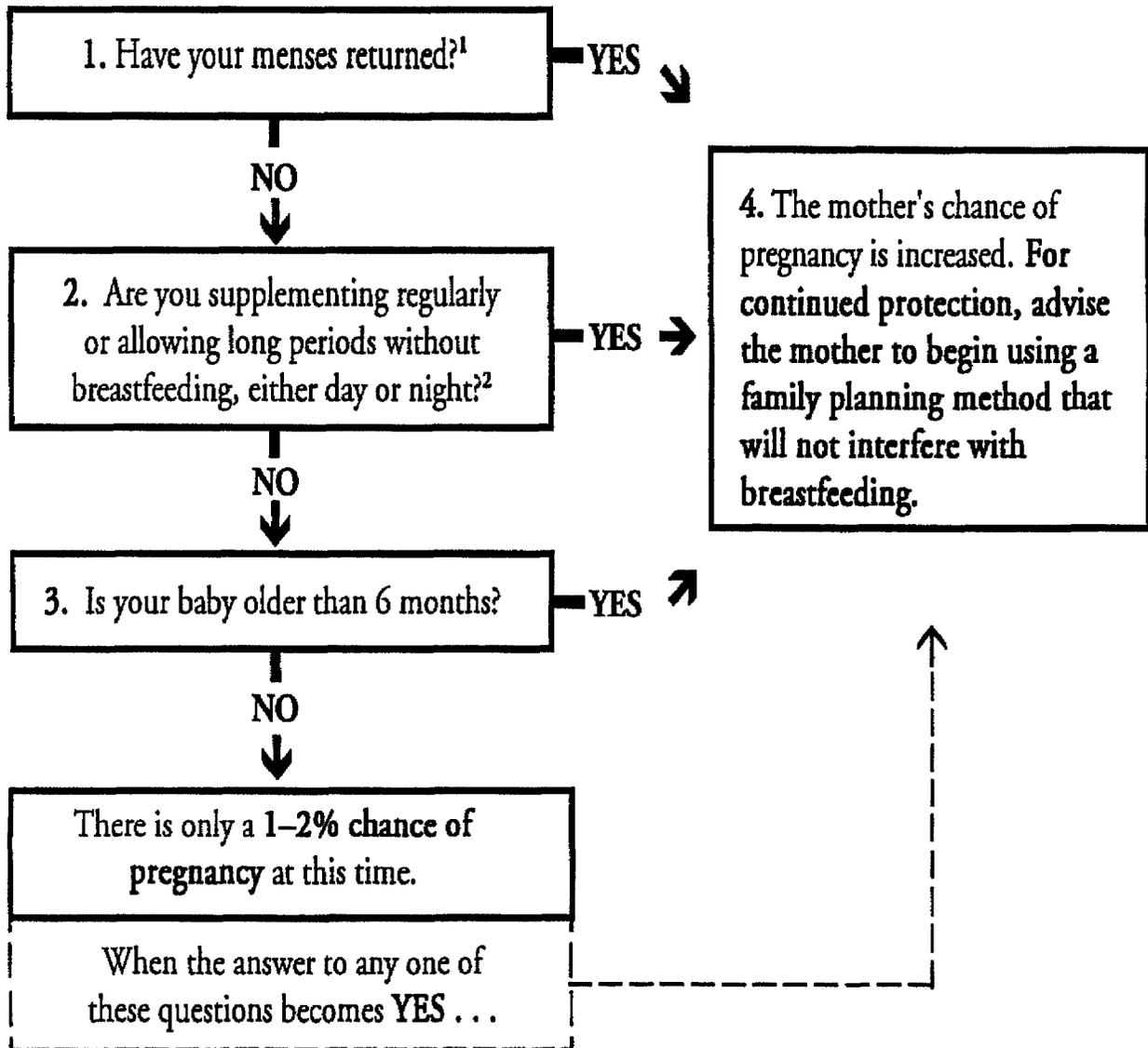
Effectiveness

Research has proven that a woman who meets the 3 LAM criteria (amenorrheic, fully or nearly fully breastfeeding, and less than 6 months postpartum) is 98% or more protected from pregnancy. It is important to note that regular supplementation or disruption of the fully or nearly fully breastfeeding pattern increases a woman's chance of pregnancy.

***Women with HIV infection need to seek additional counseling and medical attention.*

LAM Algorithm

Ask the mother these 3 questions:



¹ Spotting or bleeding during the first 56 days postpartum is **not** considered a menstrual bleed.

² Intervals between breastfeeds **should not exceed** 4 hours during the day, or 6 hours at night. Supplemental foods and liquids should not replace a breastfeed.

Advantages and Disadvantages of LAM

Like any contraceptive method, LAM has its **advantages**.

- a) It can be conveniently started immediately after delivery and requires no prescription.
- b) It is very effective.
- c) It is economical and easily available.
- d) It has no hormonal side effects.
- e) It does not require preparation at the time of intercourse.
- f) It improves breastfeeding practices and therefore enhances maternal and child survival.

However, there are also **disadvantages** to its use.

- a) It is a short-term method (up to 6 months) that can be used only by breastfeeding women.
- b) It requires breastfeeding "on demand" which can be inconvenient for some women.
- c) It does not protect against sexually transmitted diseases or HIV.**

***LAM does not provide any protection against sexually transmitted diseases or the Human Immunodeficiency Virus (HIV). A woman using any non-barrier method should also use a condom for protection against infection.*

Breastfeeding Benefits

Because women who use LAM practice fully or nearly fully breastfeeding they also enjoy the many health benefits of breastfeeding for both mother and infant

The **benefits of breastfeeding for the mother** are numerous and frequently overlooked. Breastfeeding immediately after the infant's birth decreases the mother's chances of postpartum hemorrhage. Infant suckling causes the release of oxytocin which causes the uterus to contract, thus preventing hemorrhage. Also, women who breastfeed are at a reduced risk of developing breast and ovarian cancer, as well as postpartum infection. Recent studies suggest that breastfeeding may offer some protection against anemia and osteoporosis later in a woman's life. Lastly, but not of small importance, breastfeeding can offer the mother time to rest, as she is not likely to become involved in doing other things while she feeds.

Studies show that **infants who are breastfed** receive immunity factors in the colostrum and breastmilk which protect against many diseases, including those of the respiratory system. Diarrhea is often prevented by exclusive breastfeeding and, if it should occur, it is less severe. Breastmilk offers complete nutrition and adapts to the child's needs as (s)he grows. It also promotes good eyesight and growth of the brain. Breastmilk protects against allergies, and the suckling motion assists in the development of the mouth and jaw. Other benefits include decreased incidence of ear infections (otitis media) and dental caries.

Breastfeeding enhances maternal and child bonding which also contributes to child survival. Breastfeeding keeps infants warm, is easily digested, never sours or spoils, is clean and warm, is always available, and it is easy to provide feeds during the night and travel.

SECTION ONE: STUDY QUESTIONS

Select or fill in the best answer based on the content from pages 4-7.

(1) Lactational Amenorrhea Method (LAM) is a:

- (a) contraceptive method based on the fertility suppressing effects of breastfeeding.
- (b) method of feeding the baby for maximum health benefits.

(2) LAM is:

- (a) 98% effective even with regular supplementation.
- (b) 85% or more effective during the first 6 months postpartum.
- (c) 98% or more effective for up to 6 months postpartum.

(3) LAM prevents pregnancy by:

- (a) having the woman stay with her parents during the time that she is breastfeeding.
- (b) infant suckling which causes hormonal changes in the woman, thereby preventing ovulation.

(4) Three advantages of LAM are:

- (a)
- (b)
- (c)

(5) Two disadvantages of LAM are:

- (a)
- (b)

(6) List 2 ways breastfeeding benefits the mother:

- (a)
- (b)

SECTION ONE: ANSWER KEY

(1) Lactational Amenorrhea Method (LAM) is a:

- (a) **contraceptive method based on the fertility suppressing effects of breastfeeding.**
- (b) method of feeding the baby for maximum health benefits.

(2) LAM is:

- (a) 98% effective even with regular supplementation.
- (b) 85% or more effective during the first 6 months postpartum.
- (c) **98% or more effective up to 6 months postpartum.**

(3) LAM prevents pregnancy by:

- (a) having the woman stay with her parents during the time that she is breastfeeding.
- (b) **infant suckling which causes hormonal changes in the woman, thereby preventing ovulation.**

(4) Three advantages of LAM are: (any 3 from below)

- * **LAM can be conveniently started immediately after delivery.**
- * **LAM does not require a prescription or physical exam.**
- * **LAM is very effective.**
- * **LAM is economical.**
- * **LAM is easily available.**
- * **LAM improves breastfeeding habits.**
- * **LAM has no hormonal side effects.**
- * **LAM does not require preparation at time of intercourse.**

(5) Two disadvantages of LAM are: (any 2 from below)

- * **LAM is short-term and only effective in breastfeeding women up to 6 months postpartum (as weaning foods are then introduced in addition to breastfeeding).**
- * **LAM requires breastfeeding on demand which can be inconvenient for some women.**
- * **LAM does not provide any protection against sexually transmitted diseases or HIV.**

(6) List 2 ways breastfeeding benefits the mother: (any 2 from below)

- **BF decreases chance of postpartum hemorrhage.**
- **BF reduces risk of breast cancer.**
- **BF reduces risk of ovarian cancer.**
- **BF may offer protection against anemia and osteoporosis.**

SECTION TWO

LAM Criteria and Instructions for Use

As mentioned previously, LAM is 98% effective when the woman meets all of the 3 criteria for its use. When describing the method to a client, the nurse or midwife should verify the following information:

1. **The mother's menses have not returned.** (Note: Lochial discharge or bleeding during the first 8 weeks postpartum is not considered menstrual bleeding. After this time period, 2 consecutive days of bleeding or spotting or the woman's perception that her menses have returned, whichever of the two comes first, can be assumed to be her menses.)
2. **The baby is fully or nearly fully breastfeeding.** This is defined as:
 - Baby feeds on demand during the day and night. When the baby is very young this may be every 2-3 hours or more.
 - Baby is breastfed frequently with no more than 4-hour gaps between feeds during the day, and no more than 6 hours between any two night feeds.
 - Baby is not receiving other foods or liquids regularly. Although small tastes or sips of food and liquids given occasionally will not interfere with breastfeeding, it is not recommended during the first 6 months.
3. **The baby is less than 6 months old.** At 6 months of age, the baby should begin receiving supplementary foods. This usually results in decreased breastfeeding, thus LAM becomes less effective.

The method also includes a fourth parameter which recommends that a contraceptive method that does not interfere with breastfeeding (complementary method) be started immediately when any one of the 3 criteria changes or when the woman wishes to discontinue LAM.

Again, instructions for LAM are easy to remember and follow. Simply stated, the only instructions are:

1. • No return of menses, and
 - The baby is fully or nearly fully breastfeeding, and
 - The baby is less than six months old.
2. A woman who no longer meets one of the LAM criteria or wishes to begin another FP method should be counseled on the complementary methods.

Below are several breastfeeding practices that offer the maximum health benefits to the infant and support the successful use of LAM.** These include:

- Encourage the mother to begin breastfeeding within the first few minutes after birth or as soon as the baby is alert. The milk produced during the first few days is good food and also acts as the baby's first vaccination, helping to protect her or him against sickness.
- Breastfeed whenever the baby wants. When the baby is very young this may be every 2-3 hours, sometimes even more. Babies will indicate when they are hungry by snuggling at the breast, rooting, by making sucking sounds, or sucking on their hands.
- Breastfeed exclusively for the first 6 months. Breastmilk is the perfect food and is all the baby needs to eat or drink during this time.
- Start feeding the baby other foods when (s)he is about 6 months old. At each feeding, the baby should be breastfed first and then given other foods and liquids
- Breastfeed until the baby is 2 years old or older. Breastmilk is still good food and keeps protecting the baby from diseases.
- Do not use bottles or pacifiers. They pass germs and sickness to the baby. Also, the baby may refuse the breast if (s)he gets used to the nipple on bottles and pacifiers.
- Breastfeed even when mother or baby are sick. If the mother is sick, her breastmilk will not change or make her baby sick. If her baby is sick, breastmilk helps her or him get better.
- If separated from the baby, express breastmilk as frequently as she would breastfeed. Breastmilk can be stored safely at room temperature for several hours.
- Encourage the mother to eat and drink enough to satisfy her needs. She does not need special foods, but a wide variety of available foods is good. She needs to take care of herself and get extra rest if possible.

***Not all of these behaviors are required for LAM to be effective.*

SECTION TWO: ANSWER KEY

- (1) State the 3 criteria and 4th parameter for LAM:
- (a) menses have not yet returned;
 - (b) infant is fully or nearly fully breastfeeding;
 - (c) infant is less than 6 months of age;
 - (d) when any one of the 3 criteria changes, the woman should start using a complementary FP method immediately for continued protection.
- (2) Define full or nearly full breastfeeding:
- The baby is breastfed on demand during the day and night.
 - Intervals between breastfeeds should not exceed 4 hours during the day and 6 hours during the night.
 - The baby does not receive other foods or liquids regularly.
- (3) List 3 breastfeeding practices that offer maximum health benefits to the infant and support the successful use of LAM: (any 3 from below)
- (a) Begin breastfeeding as soon as possible postpartum, preferably immediately after delivery.
 - (b) Exclusively breastfeed the baby for the first 6 months of life.
 - (c) Continue to breastfeed even if the mother or baby becomes ill.
 - (d) Avoid using dummies, bottles or other artificial nipple.
 - (e) Mothers should eat and drink sufficient quantities to satisfy their hunger and thirst.
 - (f) If separated from the baby, express breastmilk as frequently as you would breastfeed.
 - (g) Breastfeed frequently whenever the infant is hungry, both day and night.
 - (h) After the first 6 months, when supplemental foods are introduced, breastfeeding should precede supplemental feedings.
 - (i) Continue to breastfeed up to 2 years and beyond.

SECTION THREE

Complementary Family Planning Methods

LAM should be discontinued when any one of the following occurs:**

1. the woman has resumed menstruation; OR
2. the woman is no longer fully or nearly fully breastfeeding, that is, she begins supplementing regularly or has intervals of more than 4-6 hours between breastfeeding; OR
3. the baby is more than 6 months old.

For continued contraceptive protection, the mother will need to start complementary contraception immediately. The goal of counseling the breastfeeding woman is to give her the necessary information to choose a contraceptive method that will provide her with the desired protection, and that has no negative effects on her breastmilk production or on the child's health.

Not all contraceptive methods are fully compatible with breastfeeding. As a result, contraceptive methods are categorized into 3 groups. The first group consists of the **non-hormonal methods** which have no effect on the production of breastmilk. These include:

- Condom
- IUD
- NFP
- Vaginal Spermicide
- Diaphragm
- Voluntary Surgical Contraception (VSC)

The second group consists of **progestin-only hormonal methods**. Because these methods may interfere with breastfeeding for some women, it is not recommended to begin using them for at least 6 weeks postpartum (as per World Health Organization Guidelines). These methods include:

- Progestin-only Pills
- Progestin-only Injectable (e.g. Depo-Provera)
- Norplant

The third group includes **hormonal methods containing estrogen** such as combined oral contraceptive pills. Estrogen may reduce the production of milk. Consequently, this would be the last choice recommended for a breastfeeding woman, particularly during the first 6 months (per World Health Organization Guidelines). Women should be cautioned against using combined OCs unless no other options are available and her breastfeeding pattern has been well established. However, if a woman chooses an estrogenic method, she should be encouraged to continue breastfeeding.

*** Even if a woman stops using LAM, she should be encouraged to continue breastfeeding for its many health benefits.*

SECTION THREE: STUDY QUESTIONS

Select or fill in the best answer based on the content from page 14.

- (1) LAM should be discontinued when any one of the following occurs:
 - (a)
 - (b)
 - (c)

- (2) When a woman discontinues LAM and she desires continued contraceptive protection she should:
 - (a) immediately begin using a contraceptive method.
 - (b) immediately begin using a complementary contraceptive method.
 - (c) immediately begin using a complementary contraceptive method and continue breastfeeding her infant.

- (3) List 4 non-hormonal contraceptive methods that are compatible with breastfeeding:
 - (a)
 - (b)
 - (c)
 - (d)

- (4) Why are these non-hormonal methods compatible with breastfeeding?

- (5) List the hormonal contraceptive methods which are compatible with breastfeeding:

- (6) What is the recommendation for use of these methods by the breastfeeding woman?

- (7) Name the contraceptive hormone that may interfere with breastfeeding and explain why:

SECTION THREE: ANSWER KEY

(1) LAM is discontinued when any one of the following occurs:

- (a) The woman's menses return, OR
- (b) Fully or nearly fully breastfeeding pattern changes, including increased supplementation or longer intervals between feeds, OR
- (c) The infant is 6 months or older.

(2) When a woman discontinues LAM and she desires continued contraceptive protection she should:

- (a) immediately begin using a contraceptive method.
- (b) immediately begin using a complementary contraceptive method.
- (c) immediately begin using a complementary contraceptive method and continue breastfeeding her infant.

(3) List the non-hormonal contraceptive methods that are compatible with breastfeeding:

- * Condom
- * IUD
- * Diaphragm
- * Vaginal Spermicide
- * Natural Family Planning
- * Voluntary Surgical Contraception (VSC)

(4) Why are these non-hormonal methods compatible with breastfeeding?

Answer: Non-hormonal methods have no effect on the production of breastmilk.

(5) List the hormonal contraceptive methods that are compatible with breastfeeding:

- * Progestin-only Pills
- * Progestin-only Injectable (e.g. Depo-Provera)
- * Norplant

(6) What is the recommendation for use of these methods by the breastfeeding woman?

Answer: Progestin-only methods generally do not have a negative effect on the production of breastmilk, but it is recommended that their use be delayed at least 6 weeks.

(7) Name the contraceptive hormone that may interfere with breastfeeding and explain why:

Answer: Estrogen often interferes with breastfeeding because it reduces a woman's milk supply. This reduction can lead to earlier discontinuation of breastfeeding in some women. If a woman chooses this method she should be advised to delay its use for at least 6 months and to continue breastfeeding.

SECTION FOUR

Integration of LAM into Maternal and Child Health and Family Planning Services

As a nurse or midwife providing maternal child health/family planning (MCH/FP) services that include LAM, the following may be implemented:

- (a) Begin giving clients health messages during antenatal care that promote breastfeeding as the optimal choice for infant feeding and support optimal breastfeeding practices. Assist them with learning how to achieve these behaviors.
- (b) Begin giving clients health messages during antenatal care that promote child spacing of at least 2 years and information about contraceptive methods.
- (c) Towards the latter part of the second trimester of pregnancy, begin counseling clients in preparation for selecting a postpartum contraceptive method, including LAM.
- (d) During the intrapartum period:
 - 1) assist the mother to breastfeed shortly after delivery or at least within the first half hour;
 - 2) encourage the mother to breastfeed her baby on demand;
 - 3) if the mother has accepted LAM, provide instructions for the method and verify that she understands how it works and when she will need to begin complementary contraception;
 - 4) give the mother a follow-up appointment to monitor her recuperation, infant growth, breastfeeding practices, and LAM.
- (e) When providing postpartum care to breastfeeding clients who have not decided on a contraceptive method, ask the following questions during the history:
 - 1) Have your menses returned?
 - 2) Are you supplementing your baby's diet with other foods or liquids regularly or allowing long periods without breastfeeding, either day or night?
 - 3) Is your baby more than 6 months old?

If the mother answers "no" to all 3 questions, she can use LAM and should be given instructions. She is 98% or more protected from another pregnancy at this time.

If the mother answers “yes” to any one of these questions:

- 1) her chance of pregnancy is increased;
 - 2) recommend that she use a complementary contraceptive method immediately;
 - 3) encourage her to continue breastfeeding for the child’s health;
 - 4) counsel her about complementary contraceptive methods using the guidelines for complementary methods.
 - 5) give mothers follow-up appointments based on their need, or in accordance with service protocols.
- (f) When breastfeeding women discontinue LAM or choose to use another contraceptive method, counsel them to select and use a complementary method which will not interfere with their ability to continue breastfeeding, while receiving adequate contraceptive protection for their individual needs.

SECTION FOUR: STUDY QUESTIONS

Fill in the best answers based on the content from pages 18-19.

- (1) List 3 ways that a nurse or midwife should promote breastfeeding or LAM during antenatal care.
 - (a)
 - (b)
 - (c)

- (2) What are 4 messages that a nurse or midwife should include during intrapartal care that support the successful use of LAM?
 - (a)
 - (b)
 - (c)
 - (d)

- (3) What are the 3 questions that should be asked of a client when trying to determine if LAM is an appropriate family planning method for her?
 - (a)
 - (b)
 - (c)

- (4) If the woman answers “no” to all of the questions, what will be your management?

- (5) If the woman answers “yes” to any one of the questions, what will be your management?

SECTION FOUR: ANSWER KEY

- (1) List 3 ways that a nurse or midwife can promote breastfeeding or LAM during antenatal care.
- (a) **Begin giving clients health messages during antenatal care:**
 - promote breastfeeding as the optimal choice for infant feeding;
 - support optimal breastfeeding practices; and
 - assist her with learning how to achieve these behaviors.
 - (b) **Begin giving clients health messages that promote child spacing of at least 2 years and information about contraceptive methods.**
 - (c) **Towards the latter part of the second trimester of pregnancy, begin counseling clients in preparation for selecting a postpartum contraceptive method, including LAM.**
- (2) What are 4 messages that a nurse or midwife should include during intrapartal care that will support the successful use of LAM?
- (a) **Assist the mother to breastfeed shortly after delivery or at least within the first half hour.**
 - (b) **Encourage the mother to breastfeed her baby on demand.**
 - (c) **If the mother has accepted LAM, provide instructions for the method, verify that she understands how it works and when she will need to begin using complementary contraception.**
 - (d) **Give the mother a follow-up appointment to monitor maternal recuperation, infant growth, breastfeeding practices, and LAM.**
- (3) What are the 3 questions that should be asked of a client when trying to determine if LAM is appropriate to use?
- (a) **Have your menses returned?**
 - (b) **Are you giving your baby other foods or liquids regularly or allowing long periods without breastfeeding, either day or night?**
 - (c) **Is your baby more than 6 months old?**

(4) If the woman answers “no” to all of the following questions, what will be your management?

- (a) Have your menses returned?
- (b) Are you giving your baby other foods or liquids regularly or allowing long periods without breastfeeding, either day or night?
- (c) Is your baby more than 6 months old?

Answer:

- Tell her she’s eligible for LAM;
- provide instructions for use; and
- arrange a follow-up appointment.

(5) If the woman answers “yes” to any one of the above questions, what will be your management?

Answer:

- (a) Recommend starting a complementary contraceptive method;
- (b) counsel appropriately and provide the chosen method;
- (c) arrange a follow-up appointment; and
- (d) encourage continued breastfeeding.

CONCLUSION

LAM is a very effective (98%) contraceptive method and should be included in the family planning methods offered to all postpartum women. For the health of the mother and infant, midwives and nurses strongly support and encourage good breastfeeding practices. With good breastfeeding practices, the new mother is an ideal candidate for **LAM** if:

1. she is amenorrheic, **AND**
2. she is fully or nearly fully breastfeeding, **AND**
3. her baby is younger than 6 months old.

When any of the 3 criteria changes, a complementary contraceptive method should be started immediately.

This self-study training module provides all the information needed by midwives and nurses to begin offering **LAM** as a contraceptive choice to women. The module is also designed to help a midwife or nurse assess whether she has learned the essential knowledge and makes it easy to review material not understood or forgotten. Additionally, suggestions are made on ways to integrate **LAM** into MCH and family planning services.

It is envisioned that the information on breastfeeding and **LAM** in this **Self-Study Module** will be incorporated into the services provided by midwives and nurses who use this training material.

SELF-STUDY MODULE POST-TEST

Name: _____

Date: _____

1. At a Breastfeeding and Health presentation that you are giving to a village women's group, one of the women in the audience says that she has heard that breastfeeding is now being used as a contraceptive. She asks you to explain how it works and how effective it is.

You explain to her:

2. During the session with the women, the group wants to know the advantages and disadvantages of LAM.

(a) Can you tell them at least 3 advantages?

(b) Can you tell them at least 2 disadvantages?

SELF-STUDY MODULE POST-TEST: ANSWER KEY

Total points = 100

1. At a Breastfeeding and Health presentation that you are giving to a village women's group, one of the women in the audience says that she has heard that breastfeeding is now being used as a contraceptive. She asks you to explain how it works and how effective it is. (15 points)

You explain to her:

LAM is a family planning method based on breastfeeding's fertility suppressing effect. A woman can use LAM if:

- 1) she is amenorrheic, AND
- 2) she is not regularly supplementing her infant's diet with other foods or liquids or allowing long periods without breastfeeding, either day or night, AND
- 3) her baby is less than 6 months of age.

LAM is 98% or more effective against preventing pregnancy. Pregnancy is prevented by the infant's suckling which causes changes in the woman's reproductive hormones that in turn prevents ovulation (release of an egg). If no egg is released, pregnancy cannot occur.

2. During the session with the women, the group wants to know the advantages and disadvantages of LAM.
 - (a) Can you tell them at least 3 advantages? (15 points)

Any 3 of the following:

- a) requires no action at the time of intercourse;
- b) no supplies or prescriptions are needed;
- c) can be started immediately after delivery;
- d) very effective up to 6 months postpartum;
- e) economical and available;
- f) no hormonal side effects; and
- g) does not require a physical examination.

- (b) Can you tell them at least 2 disadvantages? (10 points)

Any 2 of the following:

- a) a short-term method (up to 6 months) that can be used only by breastfeeding women;
- b) requires breastfeeding on demand which can be inconvenient for some women;
- c) does not protect against sexually transmitted diseases or HIV.

3. After your presentation, one of the women from the audience comes to your maternity to find out more about using LAM. What 3 questions will you ask her? Give the reason for each question. (15 points)

Answer:

- a) Have your menses returned?

Reason - Return of menses indicates increased fertility and increased risk of pregnancy.

- b) Are you supplementing (giving the baby other foods or liquids besides breastmilk) regularly or allowing long periods without breastfeeding, either day or night?

Reason - When a baby receives other foods or liquids they generally suckle less at the breast. A decrease in suckling at the breast may cause ovulation prior to menses and a shorter period of amenorrhea.

- c) Is your baby older than 6 months old?

Reason - Research indicates that the risk of ovulation increases over time. Six months is selected because weaning should begin at this time, which will cause longer intervals between breastfeeds. The introduction of weaning foods may cause decreased suckling at the breast which in turn increases the chance of ovulation.

4. Another woman from the audience who is using LAM comes to you to ask when she will need to change to another contraceptive method. What is the criteria for changing to another contraceptive method? (15 points)

Answer: The criteria for changing to another family planning method are:

- 1) when menses return; OR
- 2) when an infant is given other foods or liquids regularly or allowed long periods without breastfeeding, either day or night; OR
- 3) when the baby is 6 months old.

When one or more of these criteria are met, the woman's chance of pregnancy is increased. For continued protection the woman should be advised to begin using a complementary family planning method and continue breastfeeding for the child's health.

5. Your client no longer wants to rely on LAM for contraceptive protection but plans to continue breastfeeding her baby. What would you tell this client about the various contraceptive methods and how they may affect breastfeeding? (30 points)

Answer: FP methods for the client who plans to continue breastfeeding are categorized in 3 groups:

- a) *non-hormonal*: these do not enter the mother's system and so do not interfere with breastfeeding. They include condoms, vaginal spermicide, diaphragm, IUD, vasectomy, tubal ligation, and natural family planning.

b) *progestin-only*: these contain only progestin which, in some women, may affect their milk supply. They include progestin-only pills (POPs), injectable (Depo-Provera), and implants (Norplant)

c) *methods containing estrogen*: these contain estrogen which may reduce breastmilk supply. In some women, decreased milk supply can lead to earlier discontinuation of breastfeeding. These methods are combined oral contraceptives (COCs) and the combined injectable.

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