Meconium

Study Group Module

**Learning Objectives**

Review the following Learning Objectives as an organized beginning to your study of this module. As you read the Learning Objectives, note key words which will aid you in finding the information in the texts. When you complete the module, revisit this list and check for areas that require further investigation.

* Understand what meconium is.
* Understand how meconium gets into the amniotic fluid.
* Understand the distinctions between thin, moderate, thick and particulate meconium.
* Understand the link between meconium and fetal distress.
* Understand the link between meconium and post dates babies.
* Review Newborn Apnea/Hypoxia/Respiratory Distress Syndrome module.
* Understand the risk of meconium aspiration neonatal pneumonia.
* Identify meconium aspiration syndrome.
* Identify methods of reducing the risk of meconium aspiration.
* Identify the medical treatment for meconium aspiration syndrome.
* Identify and define PPHN.
* Identify you local hospitals’ protocol regarding meconium and the newborn care period.
* Practice using a DeLee suction device.
* Review universal precautions.
* Review the concepts of informed consent/informed choice.
* Review Homeopathy module.
* Identify the expected timing of passage of meconium post partum.
* Identify meconium ileus.
* Identify diapering support measures for newborn meconium cleanup.
* Draft practice guidelines for responding to meconium aspiration risk in your own practice.
* Demonstrate your ability to respond to meconium in the context of your preceptor’s practice.

**Study Sources**

The following texts are recommended for completion of this module. Use them to cross reference and build a more comprehensive understanding.

Using key words from the Learning Objectives, search the index. Read those pages listed, and read the chapter in which they are found. Establish a context for the information so that you understand how other topics are related. In addition, read the chapter headings in the Table of Contents, and flip through each text to familiarize yourself with the content of chapters. As you work through Study Group modules, you will eventually read each text in its entirety.

* Assessment and Care of the Well Newborn, Thureen, Deacon, O’Neill, Hernandez
* Varney’s Midwifery
* Myles Textbook for Midwives
* Holistic Midwifery, Vol. II, III (when available), Frye
* Human Anatomy and Physiology, Marieb
* Homeopathic Medicines for Pregnancy and Childbirth, Moskowitz

**Related Topics**

* Newborn Apnea/Hypoxia/Respiratory Distress Syndrome
* Breech
* informed Consent/Informed Choice
* Rupture of Membranes
* Gestational Age
* Fetal Heart Rate Patterns
* Fetal Distress
* Homeopathy
* Breastfeeding

Post Partum Care**Meconium Questions**

1. Where does meconium originate?
2. Does meconium contain e. coli?
3. What is the incidence of visible meconium during labor and birth?
4. Define meconium aspiration syndrome.
5. What is the incidence rate of meconium aspiration syndrome?
6. What is the medical treatment for meconium aspiration syndrome?
7. Describe the symptoms of meconium aspiration in a newborn.
8. Why does meconium cause neonatal pneumonia?
9. What does the acronym PPHN represent? Define it.
10. Why does fetal hypoxia increase the risk of meconium aspiration?
11. What do you need to determine when you see meconium?
12. Which babies are especially at risk for passing meconium into their amniotic fluid?
13. What is terminal meconium?
14. What homeopathic remedy is well suited for a baby with meconium stained fluid?
15. What does the DeLee suction device allow you to do?
16. When using a DeLee suction, do you first suction the nose or mouth?
17. There is thick meconium when your client’s water breaks; she is about 5 cm dilated. Fetal heart rates have been normal and continue to be normal after the water breaks. What is your response?
18. Your client has been pushing for an hour and 45 minutes. As the baby’s head passes under the pubic bone, her water bag breaks and there is moderate meconium. It is greenish fluid but no particulate matter can be seen. Describe what you do now.
19. It’s later that same week. Another client calls to tell you her water broke. She thinks it’s sort of clear, but there are some dark brown clumpy parts, too. What do you do?
20. Your client is having her fourth baby. Her water breaks and she calls you right away. You arrive at her house and her partner tells you,”There’s this muddy stuff coming out now.” You walk into the bedroom and you see thick black meconium coming out of your client’s vagina. What might you suspect?
21. What does pea-soup meconium look like?
22. Define meconium ileus.
23. What are the symptoms of meconium ileus?
24. What may the presence of meconium ileus also indicate in a newborn?
25. When do newborns normally pass meconium?
26. How do you instruct parents to clean meconium off their newborn’s skin?

**Projects**

(send completed projects with the rest of your course work for this module)

1. Practice using a DeLee suction device by drawing water out of a glass. A student recommended: Once you do this with plain water, stir in a little yogurt to thicken and try suctioning again. What did you experience with this exercise?
2. What is available on the market for suctioning babies and maintaining universal precautions?
3. What is the current medical standard for response to meconium at birth?
4. Research the protocols of your local hospitals regarding meconium and the newborn care period. Specify the protocol for meconium during labor, birth, and routine care practices. Are babies routinely kept in the nursery for observation?
5. Draft practice guidelines for responding to meconium in your own practice. Include reference to labor and birth, informed consent, suctioning, and your transport plan. Submit this draft and include it later in your Practice Guidelines projects (in the Charting and Practice Guidelines Module.)

**Skills**

Following are excerpts from the NMI forms for assessment of midwifery skills, which include all skills identified and required by NARM. Review the following skills and consider how they each relate to the content of this module. If you are currently working with a preceptor, take this opportunity to focus on these areas. During Supervised Primary Care you will formally evaluate these skills together using the NMI form Preceptor Evaluation/Student Self-Assessment of Midwifery Skills.

1. Midwifery Counseling, Education and Communication:

A. Provides interactive support and counseling and/or referral services to the mother regarding her relationships with her significant others and other health care providers B. Provides education, support, counseling and/or referral for the possibility of less-than- optimal pregnancy outcomes

C. Provides education and counseling based on maternal health/reproductive/family history and on-going risk assessment

D. Facilitates the mother's decision of where to give birth

1. The advantages and the risks of different birth sites

2. The requirements of the birth site

3. How to prepare, equip and supply birth site

E. Educates the mother and her family/support unit to share responsibility for optimal pregnancy outcome

F. Educates the mother concerning the natural physical and emotional processes of pregnancy, labor, birth and post partum

G. Applies the principles of informed consent

H. Provides individualized care

1. Midwifery Counseling, Education and Communication:

I. Advocates for the mother during pregnancy, birth and postpartum

J. Provides education, counseling and/or referral, where appropriate for:

6. Situations requiring an immediate call to the midwife

8. Complications

2. General Health care Skills:

D. Demonstrates the use of instruments and equipment including:

4. Bulb syringe

7. DeLee ® (or other tube/mouth suction device)

12. Infant airway

E. Demonstrates the ability to recognize and respond to labor and birth complications such as:

1. Abnormal fetal heart tones and patterns

4. Labor, Birth and Immediate Postpartum

C. Demonstrates the ability to evaluate and support a laboring woman during the second stage of labor by:

11. Demonstrating the ability to recognize and respond to labor and birth complications such as:

b) Cord prolapse by:

1) changing maternal position to:

a) knee-chest,

b)Trendelenberg,

2) activating emergency medical services/medical backup plan,

3) applying counter-pressure to the presenting part, 4) placing cord back into vagina,

5) kepping the presenting cord warm, moist and protected,

6) monitoring FHT and cord for pulsation,

7) increasing mother’s oxygen supply,

8) facilitating immediate delivery, if birth is imminent, 9) preparing to resuscitate the newborn

d) Management of meconium stained fluids by:

1) eliciting the mother’s cooperation to deliver head quickly,

2) instructing the mother to stop pushing,

3) wiping out the inside of the baby’s mouth,

4) clearing the airway with suction of mouth and nose,

5) preparing to resuscitate the baby