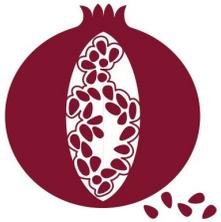


Hemorrhage

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 that 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.

- Review Placenta module.
- Review Third Stage module.
- Identify the basic structures of the cardiovascular system.
- Describe the process of blood coagulation.
- Define Hemorrhage.
- Identify the possible sequelae to maternal hemorrhage, including ischemia, organ damage, and DIC.
- Understand the relationship between anemia and decreased tolerance for hemorrhage.
- Identify causes of and times when hemorrhage may occur: antepartum, Intrapartum, postpartum.
- Identify different hemorrhage patterns.
- Accurately assess blood loss.
- Identify labor patterns and other specifics that may precede hemorrhage.
- Learn specific verbal communication for use in hemorrhage situations that involve the woman/gestational parent's own ability to stop their bleeding.
- Identify herbs and homeopathic remedies to avoid and control hemorrhage.
- Demonstrate external and internal bimanual compression.
- Review Pharmacology for Midwives module.
- Identify the proper use of Pitocin and Methergine in response to hemorrhage.
- Identify the risks of manual removal of the placenta.
- Demonstrate manual removal of placenta.
- Identify and demonstrate treatment for shock.
- Identify the appropriate application of IV therapy in response to hemorrhage.
- Identify concerns regarding ischemia and use of blood transfusion.
- Review universal precautions.
- Review Transport module
- Review Suturing module.
- Identify immediate support measures to recover from excessive blood loss.
- Identify support measures for full recovery in the days and weeks following hemorrhage.
- Create practice guidelines for managing hemorrhage and the requisite postpartum care.
- Demonstrate management of excessive blood loss.



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.

Oral Tradition and Living Knowledge is critical for study in this area.

- Human Anatomy and Physiology, Marieb
- Understanding Diagnostic Tests in the Childbearing Year, Frye
- Heart and Hands, Davis
- Holistic Midwifery, Vol. I, II, Frye
- Varney's Midwifery
- Myles Textbook for Midwives
- Birth Emergency Skills Training, Gruenberg
- Herbal for the Childbearing Year, Weed

Optional

Hemorrhage Midwifery Today Publication

- See NMI website Hemorrhage module web resources for additional information and up-to-date sources



Related Topics

- Placenta
- Third Stage
- Pharmacology for Midwives
- Transporting
- Suturing
- Cesarean and VBAC
- Basic Life Science
- Nutrition
- Postpartum Care
- Shoulder Dystocia



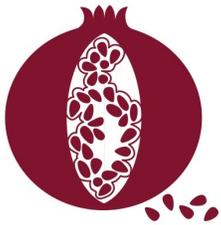
Short Answer Questions

1. Describe the basic structures of the cardiovascular system.
2. Describe the process of blood coagulation.
3. What is the expected increase in blood volume during pregnancy? When does this occur?
4. What protective measures can be built in prenatally to help prevent postpartum hemorrhage?
5. Why might excessive blood loss occur:
 - a. prenatally?
 - b. during labor?
 - c. after birth, before the placenta is born?
 - d. after third stage?
6. What is the largest single cause of third stage hemorrhage?
7. Which blood clotting disorders may result in postpartum hemorrhage? How would you identify this to be the problem?
8. Discuss blood loss volume and hemorrhage.
 - a. What amount of blood loss is considered a “hemorrhage” at birth?
 - b. How does this volume differ for cesarean section birth?
 - c. How does this volume differ for a pregnancy loss, ectopic pregnancy, or other antepartum hemorrhage?
 - d. How may this differ for individual bodies?
 - e. What signs are you looking for in a birthing person’s wellbeing to lend more information?
9. One cup is equivalent to _____ cc.
10. How does hemorrhage endanger someone’s well being?
11. Define DIC.
12. Describe the cyclical relationship of hemorrhage and DIC.
13. Define ischemia.
14. What may result from prolonged ischemia?
15. What are the signs and symptoms of hypovolemic shock?
16. Define hemostasis.

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17. Describe the role of uterine tone in the immediate postpartum and postpartum hemorrhage.
18. Describe postpartum fundal massage and its appropriate use.
19. List the reasons that the uterus may not contract enough to control bleeding from the placental site.
20. Describe manual removal of the placenta. When would it be indicated at a home birth? What are the associated risks?
21. How does a full bladder affect the uterus postpartum? How does this contribute to hemorrhage?
22. What is a trickle bleed? What might it indicate?
23. Describe the importance of inspecting the placenta once it's born in regards to hemorrhage.
24. Describe the importance of inspecting the perineum and vaginal vault in regards to hemorrhage.
25. List herbal and other non-allopathic remedies might you use for hemorrhage. Also include:
 - a. when each remedy is used (i.e. before or after placenta).
 - b. how each remedy works.
 - c. if you have personally seen it used in practice.
26. List manual or device interventions that may be used in treatment of postpartum hemorrhage.
 - a. when is each intervention indicated?
 - b. how does each work?
 - c. have you personally seen each in practice?
27. List pharmacological medicines used in treatment of postpartum hemorrhage.
 - a. what order would you use these medications in? Why?
 - b. what contraindications do these medications have?
 - c. are you currently able to access these medications?
28. If the placenta is delivered and a hemorrhage occurs, how can the placenta itself be used to manage hemorrhage?
29. Describe the role of breastfeeding to help prevent hemorrhage.
30. Describe the steps of Active Management of the Third Stage of Labor (AMSTL). How and why was AMSTL developed?
31. At what point in managing a hemorrhage would you call EMS? At what point would you transfer care?

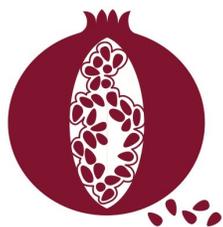
32. If hemorrhage results in transport, what are the likely treatments at the hospital, and their risks and benefits?
33. Discuss delayed postpartum hemorrhage.
- How is it defined?
 - How common is it?
 - What are the causes of delayed postpartum hemorrhage?
 - How would you address it?
34. What is the process of a blood transfusion? How long will it take from arriving at your local hospital to receive a blood transfusion?



Questions Requiring Longer, Thoughtful Answers & Explanations

35. Discuss the midwifery concerns regarding prenatal bloodwork and postpartum hemorrhage.
- what is the connection between prenatal anemia and postpartum hemorrhage?
 - how do you “correct” prenatal anemia to prepare for birth?
 - what is prenatal thrombocytopenia?
 - what is the connection between prenatal thrombocytopenia and postpartum hemorrhage?
 - how do you “correct” prenatal thrombocytopenia to prepare for birth?
36. Identify labor patterns and other factors that may precede hemorrhage.
37. Describe the physiologic processes involved from placental separation to hemostasis.
38. Midwives often share stories of how their clients seemed to control their own bleeding. What have you personally observed? Why might this be an tool to use postpartum?
39. Identify immediate support measures to recover from excessive blood loss.
40. Describe the treatment for shock.
41. What can you recommend in the first days and weeks postpartum for a woman/gestational parent recovering from excessive bleeding?
42. Your client calls at 38 weeks to report she is bleeding from her vagina. What is your differential diagnosis, and what are your next steps?

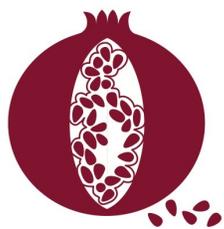
43. Your client calls at 13 weeks to report excessive bleeding from their vagina.
- What is your differential diagnosis?
 - What are your next steps?
 - Your clients opts for a viability ultrasound and confirms they are having a miscarriage. They call you soaking through a maxi pad every 20 minutes. Now what are your next steps?
44. Your client has had a fast labor. She pushed a couple of times and her baby was born easily. Your glancing assessment is that he weighs about 9 pounds. Even though her baby's heart rate was normal and regular during second stage, he is not taking his first breath. Your client is worried and voices her concern as you give the baby a few ventilations. Now he is crying and turning pink. You are watching her with her baby and realize there is a large, expanding puddle of blood under her butt. What do you do?
45. The placenta is now born and bleeding stabilizes. You take another look at the baby and step back when you assess he is also stable. A few minutes later, you see another puddle forming under her butt. Now what do you do?
46. What things in the above scenario could alert you to a possible hemorrhage? Explain why each of these things could contribute to excessive bleeding.



Projects

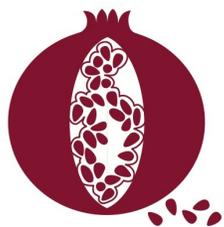
Send completed projects with the rest of your course work for this module.

47. Draft practice guidelines for responding to antepartum bleeding in your own practice. Include consult and transport details. Submit this draft along with this module, and include it later in your Practice Guidelines projects (in the Charting and Practice Guidelines Module.)
48. Draft practice guidelines for responding to intrapartum and immediate postpartum hemorrhage in your own practice. Include use of anti-hemorrhagics, manual maneuvers, use of oxygen and IV therapy, consultation and transport details. Submit this draft along with this module, and include it later in your Practice Guidelines projects (in the Charting and Practice Guidelines Module.)
49. Draft practice guidelines regarding postpartum care for a client who is recovering from excessive blood loss in your own practice. Submit this draft along with this module, and include it later in your Practice Guidelines projects (in the Charting and Practice Guidelines Module.)



Learning Activity

50. Estimate blood loss using “Blood Recipe” below:
- Blood Recipe: one quart liquid starch mixed with one or two ounces red food coloring.
 - Measure the following amounts: 1/2 cup, 1 cup, 1 1/2 cups and 2 cups. Pour portions of the “Blood Recipe” onto chux pads, observing how it accumulates to the total that you measured. (For instance, divide the 1 cup amount into several smaller puddles, then consider the amounts together). Observe the quantities as they appear on the chux pads and how the quantity may seem different than when it is in a container.
 - Consider pouring various amounts into the toilet, bathtub, shower, and other places clients may give birth. How well do you estimate the amount of bloodloss?



Skills Review

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 forms *Form 52 - Assessment of Student’s Midwifery Skills* and : *Form 53 - Student Self-Assessment of Midwifery Skills*.

- Midwifery Counseling, Education and Communication:
 - Provides education, counseling and/or referral, where appropriate for:
 - Complications
- General Health Care Skills:
 - Demonstrates Universal Precautions
 - Uses alternate health care practices (non-allopathic treatments) and modalities
 - Herbs
 - Hydrotherapy (baths, compresses, showers, etc.)
 - Treats for shock by:
 - Recognizing the signs and symptoms of shock, or impending shock
 - Assessing the cause of shock
 - Assessing the cause of shock and providing treatment for shock by:
 - Positioning mother flat, legs elevated 12 inches
 - Keeping the mother warm, avoiding overheating
 - Administering/using non-allopathic remedies
 - Encouraging deep, calm, centered breathing
 - Administering oral isotonic/electrolyte fluids
 - Activating emergency medical services

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- g) Preparing to transport
- K. Administers the following pharmacologic (prescriptive) agents:
 - 2. Medical oxygen
 - 3. Methergine
 - 5. Pitocin ®
- 3. Maternal Health Assessment:
 - L. Establishes and follows emergency contingency plans for mother and/or newborn
 - E. Assists in placental delivery and responds to blood loss by:
 - 6. Responding to a trickle bleed by:
 - a) Assessing the origin of the blood,
 - b) responding to uterine bleeding with:
 - 1) nipple stimulation breastfeeding,
 - 2) fundal massage,
 - 3) assessment of fundal height and uterine size,
 - 4) non-allopathic treatments,
 - 5) Administration of medication,
 - 6) expression of clots,
 - 7) emptying the bladder,
 - 8) assessment of vital signs,
 - c) Responding to vaginal tear and bleeding with:
 - 1) application of direct pressure on tear,
 - 2) suturing,
 - 3) continued assessment of blood color and volume,
 - 4) non-allopathic treatments
 - 7. Responding to postpartum hemorrhage with:
 - a) fundal massage,
 - b) external bimanual compression,
 - c) internal bimanual compression,
 - d) manual removal of clots,
 - e) administration of medication,
 - f) non-allopathic treatments,
 - g) maternal focus on stopping the bleeding:tightening the uterus,
 - h) administration of oxygen,
 - i) administration of IV fluids or appropriate referral for IV fluids,
 - j) treatment for shock,
 - k) consulting and/or transferring,
 - l) activating emergency backup plan



Study Group Module Evaluation Sheet

We'd like to know what you think of the course work we ask you to complete. Please comment on this module and return this form to NMI along with your completed module.

Name of Module: Hemorrhage

Your Name: _____

1. What did you like about this module?
2. Were there any surprises for you in this module?
3. Was there anything in this module that was particularly challenging for you?
4. What will completing this module bring to your midwifery practice?
5. Do you feel you met this module's stated learning objectives?
6. Did the learning activities enable you to meet the learning objectives?
7. Were the suggested learning resources (books and materials) adequate to meet the learning objectives?
8. Did you utilize additional resources?
9. Any comments/Suggestions for improving this module?

Thank you!