Prevention of Postpartum Hemorrhage: Implementing Active Management of the Third Stage of Labor (AMTSL)

Facilitator’s Guide

2007

Prevention of Postpartum Hemorrhage Initiative (POPPHI)
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Acknowledgements

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- Proofreader Mary Lou Austin.

About POPPHI

The Prevention of Postpartum Hemorrhage Initiative (POPPHI) is a USAID-funded, five-year project focusing on the reduction of postpartum hemorrhage, the single most important cause of maternal deaths worldwide. The POPPHI project is led by PATH and includes four partners: RTI International, EngenderHealth, the International Federation of Gynaecology and Obstetrics (FIGO), and the International Confederation of Midwives (ICM).

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Acronyms

AMTSL  active management of the third stage of labor
BPP    birth-preparedness plan
CRP    complication-readiness plan
FIGO   International Federation of Gynaecology and Obstetrics
HLD    high-level disinfection
ICM    International Confederation of Midwives
IM     Intramuscular
IU     international units
MTCT   Mother-to-child transmission of HIV/AIDS
PMTSL  physiologic management of the third stage of labor
POPHI  Prevention of Postpartum Hemorrhage Initiative
PPH    postpartum hemorrhage
PPPH   prevention of postpartum hemorrhage
USAID  United States Agency for International Development
WHO    World Health Organization
Introduction

Each year, hundreds of thousands of women and babies die or become disabled due to complications of pregnancy and childbirth; half of these maternal deaths occur within 24 hours of childbirth.\(^1\) Postpartum hemorrhage (PPH) is the leading direct cause of maternal death in developing countries and most often results from problems during and immediately after the third stage of labor.\(^2\) PPH is an unpredictable and rapid cause of maternal death worldwide, with two-thirds of women with PPH having no identifiable risk factors. Seventy to ninety percent of immediate PPH is attributed to uterine atony (failure of the uterus to properly contract after birth).\(^3,4\)

Fortunately, research shows that using simple, low-cost interventions can help avoid most of these tragic outcomes. Current evidence indicates active management of the third stage of labor (AMTSL) (administration of uterotonic drugs, controlled cord traction, and fundal massage after delivery of the placenta) can reduce the incidence of postpartum hemorrhage by up to 60 percent in situations where:

- National guidelines support the use of AMTSL.
- Health workers receive training in using AMTSL and administering uterotonic drugs.
- Injection safety is ensured.
- Necessary resources (uterotonic drugs and cold chain for storage of uterotonic drugs; equipment, supplies, and consumables for infection prevention and injection safety) are available.\(^5\)

Ongoing research in various settings continues to identify the best approaches for preventing and managing postpartum bleeding and its complications. By developing national guidelines, training skilled birth attendants, improving work environments of skilled providers, and supporting the development of improved access to care, more women will have access to this lifesaving intervention.

About this training

POPHI developed this guide and the accompanying training materials—about the prevention of PPH and implementing AMTSL—for skilled birth attendants who provide services to women during labor, childbirth, and the immediate postpartum period. This course offers participants the knowledge and skills to provide the crucial care needed to prevent PPH, improve clinical services, and train other providers. This training will equip participants to:

- Provide safe, respectful, and friendly care to women, newborns, and their families, thereby encouraging mothers and families to utilize the health care system with confidence.
- Follow an evidence-based protocol for safe care during AMTSL and during the immediate postpartum period, including clear guidelines on when to refer mothers with complications, ensuring timely action is taken.
• Provide greater protection from infection for their clients and themselves.
• Store uterotonic drugs to maintain their potency.

Training objectives

This three-day clinical training provides the information needed to perform AMTSL and help prevent PPH and focuses on the following core topics:

• Review of the third stage of labor and evidence for use of AMTSL.
• Causes and prevention of postpartum hemorrhage.
• Uterotonic drugs.
• AMTSL.

Additional topics that some countries may include during the training include:

• Infection prevention.
• Birth preparedness and complication readiness.
• Managing complications during the third stage of labor.

Participants are encouraged to apply their knowledge and skills to improve clinical services and train other providers. Ultimately, this training will help improve the quality of care for women—mothers, wives, and vital members of the community—and help them stay healthy.

Materials

The **Reference Manual** contains the theoretical content for the training course. It has three sections:

• **Core topics:** The theoretical base for preventing postpartum hemorrhage is included in the core topics: (1) review of the third stage of labor and evidence for use of AMTSL, (2) causes and prevention of PPH, (3) uterotonic drugs, and (4) steps in AMTSL. All prevention of postpartum hemorrhage (PPH) training programs should include the core topics and training for competency in AMTSL.

• **Additional topics:** Theoretical content is included in additional topics that countries can include in training programs based on their particular needs: (1) infection prevention, (2) birth preparedness and complication readiness, and (3) management of selected complications during the third stage of labor.

• **Appendices:** Appendices provide additional information for providers and decision-makers.

The **Facilitator’s Guide** assists facilitators working in PPH initiatives. The purpose of this guide is to help facilitators do their job when conducting PPH training programs that include training for competency in AMTSL. The guide has the following components:

• General information to assist the facilitator in conducting a training session in AMTSL.
• An agenda for the training program.
• Lesson plans for each session to be presented.
• Questionnaire and learning activity answers.
• Model forms to fill in for the training report.
Pre- and mid-course questionnaire forms are in the **Facilitator’s Guide**. Print enough copies of these forms for each participant before the training program begins.

The **Participant’s Notebook** assists participants in PPH training programs. The purpose of the notebook is to assist participants to become more knowledgeable about PPH and become competent in performing AMTSL. The notebook has the following components:

- General information to assist the participant through the PPH training program.
- Training program agenda.
- Learning activities for each topic.
- Answers for learning activities.
- Practice checklist for AMTSL.
- Evaluation checklist for AMTSL.
- Training evaluation form.

If possible, each participant should receive a copy of the **Participant’s Notebook** and **Reference Manual** on the first day of training activities. Each facilitator needs a copy of the **Facilitator’s Guide**.

**Responsibilities of a facilitator**

Carefully selected facilitators are essential for a successful training program. An ideal facilitator should be a practicing nurse, midwife, or physician competent and confident in performing a clean and safe delivery, including AMTSL, who is also:

- Trained in competency-based training and participatory learning methods.
- Trained in conducting clinical training programs.
- Able to use learning principles for an effective clinical training program.
- Able to perform AMTSL according to the checklist.
- Competent in the practice of AMTSL.

Facilitators should meet before training activities begin to discuss and assign the following administrative responsibilities:

1. Arrange participant program schedule (meetings, demonstrations, return demonstrations, on-call) and make team assignments.
2. Photocopy pre- and mid-course questionnaire forms (found at the back of the **Facilitator’s Guide**).
3. Help establish a healthy learning environment in the classroom and clinical settings.
4. Coordinate facilitation of teaching sessions, demonstrations, return demonstrations, and clinical practice with other facilitators.
5. Teach, observe, and evaluate participants in the clinical areas. If the facilitator is not in the clinical area, assign other staff to do this.
6. Provide information during classroom sessions according to content found in the **Reference Manual**.
7. Guide and support one participant at a time.
Assessments of participants

Facilitators evaluate the participants’ knowledge and skills during the training program using a checklist to evaluate performance of tasks, skills, or activities and pre- and mid-course questionnaires to evaluate knowledge. Each topic has a set of learning activities, enabling the participant to practice applying the presented information.

The facilitator records pre- and mid-course questionnaire scores in the Participant’s Notebook, dates the participant was found competent in a simulated setting and in the clinical practicum, and final recommendations.

**Pre-course questionnaire**

Prior to beginning the training program, participants should complete the pre-course questionnaire.

| Note: To save time, consider administering the pre-course questionnaire the evening before the first day of the training program. |

The objectives of this questionnaire are to:

- Assess what the participant knows about the course topics.
- Identify topics that may need additional emphasis during the course.
- Alert the participant to the content that will be presented in the course.

Facilitators and participants may correct the pre-course questionnaire together using the answers found in the key in the Facilitator’s Guide.

**Mid-course questionnaire**

After completing the session objectives, the facilitator will administer the mid-course questionnaire. The objectives of this questionnaire are similar to the pre-course questionnaire:

- Assess what the participant has learned about the course topics.
- Identify topics that may need additional emphasis during the clinical practicum.
- Identify each participant’s individual learning needs.

Facilitators and participants may correct the mid-course questionnaire together using the answers found in the key in the Facilitator’s Guide.

Participants should be encouraged to review course content for the questions they answered incorrectly and to talk with facilitators if they have questions about any of the answers.

Participants who do not achieve a score of at least 80% on the mid-course questionnaire will have a second chance to take it on the last day of training activities. All participants must achieve a score of at least 80% to receive certification.

**Assessment in a simulated setting (i.e., on anatomic models)**

After completing the mid-course questionnaire and before going to the clinical area, the facilitator will use the evaluation checklist to evaluate each participant on an anatomic model. When the facilitator determines a participant can competently perform the newly acquired skills on a model, the participant can practice the skill in the clinical area to gain competency and proficiency in the skills acquired.
Clinical skills at the training site

After demonstrating their skills in a simulated situation (i.e., on models), participants will spend time in the clinical area to observe and—when possible—apply the newly gained knowledge and skills in a clinical setting. Ward staff and clinical preceptors are vital to a high-quality learning environment. Clinical preceptors will supervise the training, but ward staff will be guiding, coaching, and mentoring participants through the training. Ward staff must practice the skills according to standards agreed upon in the training program to ensure consistency and improve the chances that the participant will be competent in the newly acquired skills.

Participants and facilitators keep track of progress in the clinical area by using the evaluation checklist found in the Participant’s Notebook.

Clinical training program for AMTSL

Assignment of a facilitator to participants

Each participant will be assigned a facilitator who will take primary responsibility for that participant throughout the training program. It is the duty of each facilitator to follow the participant’s progress closely and meet regularly to discuss progress and difficulties. This includes acting as a role model and mentor for the participants and advocating on their behalf within the hospital system. Other hospital staff (doctor, nurse, and midwife) will also be available to work with the participant in the clinical area.

Working in teams

During training participants are asked to work together in teams to help each other during practice in the classroom and when working with a woman in the clinical area. Each team may have two to four participants. During classroom practice, each team member must take a turn to carry out each responsibility noted in the chart below. Therefore, if there are four team members, the practice must be done four times so each team member has the chance to practice attending a delivery. This helps participants participate more actively in all experiences and learn more from each experience. The responsibilities of each team member include the following:

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>In classroom, role-plays as the woman in labor.</td>
</tr>
<tr>
<td>2</td>
<td>Attends the birth.</td>
</tr>
<tr>
<td>3</td>
<td>Supports the person who is attending the birth.</td>
</tr>
<tr>
<td>4</td>
<td>Supports the woman in labor.</td>
</tr>
<tr>
<td>5</td>
<td>Observes the entire process using the skills checklist for AMTSL.</td>
</tr>
<tr>
<td>6</td>
<td>Observes the entire process, noting the timing of the following events:</td>
</tr>
<tr>
<td></td>
<td>• Baby born.</td>
</tr>
<tr>
<td></td>
<td>• Oxytocin given.</td>
</tr>
<tr>
<td></td>
<td>• Cord clamped and cut.</td>
</tr>
<tr>
<td></td>
<td>• Placenta delivered.</td>
</tr>
<tr>
<td></td>
<td>• Uterus massaged.</td>
</tr>
</tbody>
</table>
After each member has attended a birth either in the classroom, in a simulated situation (i.e., using anatomic models), or in the clinical area, give feedback immediately using the checklist as a guide:

- Always start feedback with one or two positive comments on what was done correctly.
- The team member who is attending the birth gives feedback on his/her performance.
- Observers give feedback.
- Then, if a facilitator is present, the facilitator gives feedback on any missed points.
Meetings with participants

First meeting: orientation and schedule
The initial meeting will take place on the first day of training. During this meeting, the facilitator will:

- Distribute the training materials
- Review the different sections of the Participant’s Notebook
- Review the agenda and topics to be covered
- Describe how participants’ knowledge and skills will be evaluated
- Assign participants to teams, explain the “team system,” and designate a facilitator for each team/ participant.

Pre-clinical meeting
Before beginning clinical practice, the facilitator meets individually with each participant. During this meeting, the facilitator will:

- Ensure that each participant competently performs all the skills on models.
  - Each participant must be found competent in a simulated situation (i.e., on anatomic models) before beginning clinical practice. When the participant is found competent on the model, the facilitator will mark the date and sign the participant’s evaluation form (found in the Participant’s Notebook).
  - If the participant has not yet been found competent in a simulated situation (i.e., on anatomic models) at the time of the pre-clinical meeting, the facilitator will work with the participant and perform another assessment in a simulated situation.
- Plan the participant’s clinical schedule. The participant and facilitator will discuss the participant’s clinical schedule for the remainder of the training program. The facilitator will encourage the participant to continue practicing on models, if needed; read all of the material presented in the Reference Manual; and complete learning activities in the Participant’s Notebook.
- Review the participant’s checklists to verify that the participant understands how and why the checklist is used and to identify areas the participant needs to focus on.
- Conduct a tour of the clinical site to become familiar with the facilities and accommodations, and to meet the hospital staff.

Final meeting
The last meeting between the facilitator and participant will take place after completing the clinical experience. The purpose of this meeting is to review the participant’s progress, verify that the participant is competent on models and in the clinical area, make a plan for applying the new skills and knowledge in the workplace, and make a plan for follow-up after the training program is completed.

The facilitator and participant together develop final recommendations at the end of the training program and record them in the Participant’s Notebook.
Managing the participant’s clinical experience

To make the best use of the limited number of clinical experiences, participants must always be present on the unit when there are women in labor. Since there is often a small number of clients, the following structure is useful in maximizing learning from each experience.

1. Meet with staff at the clinical site before training begins to enlist their support and discuss how facilitators and site staff can work together during training activities.

2. Complete classroom sessions, demonstrations, and return demonstrations with models prior to beginning the clinical experience. Evaluate each participant’s competence in a simulation situation (i.e., on anatomic models) before clinical practical experience begins.

3. Conduct a meeting with participants at the clinical site at the beginning of each clinical block. During this meeting discuss how to proceed with each experience, review skills as necessary, answer any questions the participants may have, and designate which participants (teams) will get the first clinical experience.

4. Use the “team system.” Teams of two will work with one woman at a time. One of the participants performs AMTSL while the other assists and provides reminders about missed steps. Each of these activities provides valuable learning experiences.

5. When possible, only two participants should be present in the labor room. If there is a limited number of births at the facility, more than two participants may observe a birth if the woman gives permission.

6. Review the participant’s previous performance. Review any steps that caused trouble and set goals for this clinical case.

7. Ask for the woman’s permission for participants to perform AMTSL. Explain the role of the facilitator, the participant performing AMTSL, and the participant serving as the assistant. Make sure the woman understands that she has the right to refuse a participant’s presence at her birth and that a refusal will not negatively affect her care.

8. Review the participant’s performance immediately after practicing AMTSL. First, ask for comments on the participant’s performance, then provide constructive feedback and set goals for the next performance.

9. Conduct a post-clinical meeting with all participants in the clinical area to debrief on clinical cases, answer any questions, and prepare for the next clinical experience.

10. Use the exercises included in the Participant’s Notebook to facilitate assimilation of concepts taught in the classroom. Participants may complete these exercises while in the clinical area when there are no clients. Participants may correct their exercises themselves, as a group, or with the facilitator by referring to answers found in the Participant’s Notebook.

11. When not in the clinical area, participants may continue practicing on the anatomic models.
Conducting classroom sessions

Using the *Facilitator’s Guide*

**Before the training begins:**

- Read the **Reference Manual** thoroughly to be sure that it is in agreement with current policies and practice guidelines in your country. The manual is based on globally accepted, evidence-based information that countries should strive to adopt in their guidelines. However, if this has not yet occurred for your setting, revisions may need to be made.
- If only the core topics are included, this course can be completed in three days. Adjust the time needed according to your training situation. For example, you may need less time if fewer participants attend or if this training is part of an on-the-job learning program.
- Review the Facilitator’s Tools (in the Facilitator’s Guide) for other preparation details.
- If any participants already have AMTSL experience, consider evaluating their skills before the first day of training.
- Make a copy for each participant of the:
  - **Participant’s Notebook**.
  - Pre- and mid-course questionnaire forms (in the *Facilitator’s Guide*).
  - Registration forms (in the *Facilitator’s Guide*).
  - Training evaluation forms (in the **Participant’s Notebook** and the *Facilitator’s Guide*).

**Before each session:**

- Read the content of each session thoroughly.
- Review any learning activities (case studies, role-plays, etc.) and skill learning checklists for the session.
- Review the materials and resources needed for the session and make sure they are available.
- Review the suggested lesson plan and learning objectives for the session. The lesson plan builds on the knowledge from the suggested readings in the **Reference Manual**. Use those parts of the lesson plan that are relevant to your participants’ learning needs. This will depend on the experience, skill, and knowledge level of the participants and how much time is available.
- Plan how much time to devote to each learning activity; lesson plans are included for your guidance.

**Lesson plans**

Preparation of what you will teach and how you will teach is just as important as the actual teaching. Even though it takes time to do the preparation, it will help you to feel not just *competent*, but also *confident*. Using a lesson plan can help to organize all of the details of teaching. Reviewing a lesson plan will also help you discover what you know and what you may have forgotten. It is your responsibility as a facilitator to ensure your knowledge and skills are up to date. Review both your *knowledge* and *skill* by teaching yourself again, or find someone who can help you.
There is a lesson plan for each of the sessions. The lesson plan is simply a guide and should be adapted based on the needs or experience of the participants. For example, some groups may need a more thorough infection prevention review. Make these decisions in advance, so an appropriate training plan and schedule can be developed.

**Lesson plan format**

<table>
<thead>
<tr>
<th>First page of the lesson plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic</strong></td>
</tr>
<tr>
<td><strong>Time</strong></td>
</tr>
<tr>
<td><strong>Summary</strong></td>
</tr>
<tr>
<td><strong>Session or topic objectives</strong></td>
</tr>
<tr>
<td><strong>Materials/resources needed for the session</strong></td>
</tr>
</tbody>
</table>

**Lesson plan**

- **Time:** How long each step will last.
- **Objectives, activities, and learning methods**
- **Flipchart / Overhead / PowerPoint slide:** Provides an example of a flipchart, overhead, or PowerPoint slide the facilitator can use to guide the classroom session. The facilitator determines the medium used (flipchart, overhead, or LCD) based on locally available materials.
- **Notes to the facilitator:** Everything needed to teach a particular topic or session. This may include technical resources (such as texts), handouts, or basic instructions on facilitating the learning session.
## Training schedule

**Sample schedule for core curriculum**

<table>
<thead>
<tr>
<th>Day 0</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opening</strong></td>
<td><strong>Opening</strong></td>
<td><strong>Mid-course questionnaire</strong></td>
<td><strong>AMTSL in the clinical area</strong></td>
</tr>
<tr>
<td>• Welcome</td>
<td>• Overview of the course</td>
<td>• Pre-clinical meeting (assessing competency on models before beginning clinical practice)</td>
<td></td>
</tr>
<tr>
<td>• Participant introductions</td>
<td>• Goals, objectives, schedule</td>
<td></td>
<td>When clients are not present, participants may work on learning activities in the clinical area.</td>
</tr>
<tr>
<td>• Participant expectations</td>
<td>• Approach to training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Workshop norms</td>
<td>• Review of course materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pre-course questionnaire</strong></td>
<td><strong>Session 1</strong>: Review of the third stage of labor and evidence for use of AMTSL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tea Break</strong></td>
<td><strong>Session 2</strong>: PPH causes and prevention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Session 3</strong>: Uterotonic drugs</td>
<td><strong>AMTSL in the clinical area</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Session 4</strong>: AMTSL</td>
<td>When clients are not present, participants may work on learning activities in the clinical area.</td>
<td></td>
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<tr>
<td><strong>Tea Break</strong></td>
<td><strong>Session 4</strong>: AMTSL (continued)</td>
<td><strong>Final meeting</strong></td>
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<tr>
<td>Review frequently asked questions (FAQs)</td>
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<td><strong>Retake mid-course questionnaire</strong> (if needed)</td>
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<td><strong>Break</strong></td>
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<tr>
<td><strong>Homework</strong></td>
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<td><strong>Workshop evaluation</strong></td>
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<tr>
<td>Read core topics 1-4.</td>
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<td>Closing session</td>
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<tr>
<td>Work on learning activities for core topics 1-4.</td>
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<tr>
<td>Prepare for mid-course questionnaire.</td>
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* If additional topics are included in the training program, the agenda may need to be revised accordingly.
Core Topic 1: Review of third stage of labor and evidence for use of AMTSL

60 min.

Summary

In this section, you will:

- Review the structure and function of the uterus during the third stage of labor.
- Compare physiologic management of the third stage of labor (PMTSL) and AMTSL.
- Review evidence that supports the practice of AMTSL.
- Explain why it is important to include AMTSL in your practice.

Objectives

By the end of this topic, participants will be able to:

- Describe the anatomy of the uterus.
- Explain how the structure of the uterus helps stop bleeding.
- Define AMTSL.
- Define PMTSL.
- Compare AMTSL and PMTSL.
- Discuss evidence to support AMTSL.
- Explain why AMTSL can save lives.

Materials/resources needed for the session

- Anatomical posters or models can help participants with this topic. Often pre-service programs in medicine, nursing, or midwifery are willing to lend these items for training.
- National statistics on maternal mortality rates and causes.
- Flipchart, flipchart stand, markers, and flipchart tape.
Lesson Plan

Review of third stage of labor and evidence for use of active management of the third stage of labor (AMTSL)

Name of presenter
Prevention of Postpartum Hemorrhage Initiative (POPHI) Project
PATH

Flipchart / Overhead / PowerPoint slide 1
Time: 5 min.

Activities:
• Review objectives of the session.
• Present an overview of the session.

Notes to the facilitator:
• Introduce the session by presenting the objectives: read the objectives, briefly summarize, or ask a participant to read them aloud.

Objectives

By the end of this topic, participants will be able to:
• Describe the anatomy of the uterus.
• Explain how the structure of the uterus helps stop bleeding.
• Define active management of the third stage of labor (AMTSL).
• Define physiologic management of the third stage of labor (PMTSL).
• Compare AMTSL and PMTSL.
• Discuss evidence to support AMTSL.
• Explain why AMTSL can save lives.
Flipcharts / Overheads / PowerPoint slides 2 and 3

**Time:** 10 min.

**Activity:** Interactive presentation

**Objectives:**
- Describe the anatomy of the uterus.
- Describe the structure and function of the uterus in the immediate postpartum period.

**Notes to the facilitator:**
- Have one participant read the paragraph on significance of the third stage of labor in the Reference Manual.
- Show participants the diagram of how uterine muscle fibers are arranged.
- Emphasize how the “cross-hatch” pattern surrounds maternal blood vessels.
- Ask participants: What causes contractions?
- Review definitions of contraction and retraction.
- Explain what happens as the uterus contracts and retracts.

![Muscle fibers of the uterus](http://library.med.utah.edu/nmw/mod2/Tutorial2/uterine_vessels_fig71.html)

![Placental attachment to uterus showing maternal blood vessels](Life-Saving Skills Manual for Midwives, Draft, 4th edition)
Flipchart / Overhead / PowerPoint slide 4
Time: 5 min.
Activity: Interactive presentation
Objective: Explain how the structure of the uterus helps to stop bleeding.
Notes to the facilitator:
- Using the diagram of the placenta, show the attachment to the uterine wall.
- Describe how the uterine muscle fibers constrict the blood vessels where the placenta was attached. This helps control bleeding at the placental site.
- Explain how, after separation, the placental site is rapidly covered by a fibrin net and clot formation in the torn vessels is strengthened, leading to decreased bleeding from the site.
- The uterus continues to contract after placental separation, forcing the placenta to fall into the lower uterine segment.
- Complete this part of the session by reviewing the fact that 90 percent of placentas are delivered within 15 minutes and that when the third stage of labor lasts longer than 30 minutes, PPH occurs six times more often than it does among women whose third stage lasted less than 30 minutes.
Flipcharts / Overheads / PowerPoint slides 5 and 6
Time: 15 min.
Activities:

- Brainstorming to identify how participants manage the third stage of labor in their workplace.
- Interactive presentation to compare the elements of AMTSL and PMTSL.

<table>
<thead>
<tr>
<th>AMTSL or Physiologic Management (PMTSL)?</th>
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<td>PMTSL</td>
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Notes to the facilitator:

- Ask participants to refer to Table 1 in their Reference Manual, which compares AMTSL and PMTSL.
- Together analyze whether the elements written on the flipchart are part of AMTSL or PMTSL, then write the element in the appropriate column—AMTSL or PMTSL.
- If certain elements of either AMTSL or PMTSL were not mentioned, complete the list using Table 1.
- Ask for questions before proceeding.
Flipcharts / Overheads / PowerPoint slides 7 and 8
Time: 5 min.
Activity: Individual work and group discussion to compare advantages and disadvantages of AMTSL and PMTSL.
Objective: Compare AMTSL and PMTSL.
Notes to the facilitator:
• Give participants 2 to 3 minutes to review the advantages and disadvantages of AMTSL and PMTSL listed in Table 1 in the Reference Manual.
• Ask volunteers first to describe advantages and then disadvantages of each type.
• Complete the list if any of the advantages or disadvantages are not mentioned.

Individual Work

• Task 1:
  Describe advantages and disadvantages of AMTSL (Table 1 in the Reference Manual).
• Task 2:
  Describe advantages and disadvantages of PMTSL (Table 1 in the Reference Manual).

Notes to the facilitator:
• End this part of the session by reviewing the three components of AMTSL.

The components of AMTSL are:
• Administration of a uterotonic agent within one minute after the baby is born (oxytocin is the uterotonic of choice).
• Controlled cord traction while supporting and stabilizing the uterus by applying countertraction.
• Uterine massage after delivery of the placenta.
Facilitator’s Guide

Prevention of Postpartum Hemorrhage: Implementing Active Management of the Third Stage of Labor

Flipcharts / Overheads / PowerPoint slides 9 and 10

Time: 10 min.

Activity: Interactive presentation to present scientific evidence to support AMTSL.

Objectives:
- Discuss how active management affects the length of third stage labor.
- Explain why AMTSL can save lives.

Notes to the facilitator:
- Present an illustrated lecture explaining the scientific evidence supporting the practice of AMTSL.
- Give participants a minute to weigh advantages and disadvantages of each type of management of the third stage of labor and decide which type appears to be more beneficial for the woman.
- After a minute or less, ask participants who think AMTSL is more beneficial for the woman to stand.
- Ask one or two of the participants standing to explain their reasoning for choosing AMTSL.
- If any participants are still seated, ask them to explain why they thought PMTSL was more beneficial for the woman. Answer any questions.

Scientific Evidence to Support AMTSL

Controlled trials have consistently shown that AMTSL decreases:
- Incidence of postpartum hemorrhage.
- Length of third stage of labor.
- Percentage of third stages of labor lasting longer than 30 minutes.
- Need for blood transfusion.
- Need for uterotonic to manage postpartum hemorrhage.

In trials comparing active and physiologic management:
- No uterine inversions were observed.
- Trials using oxytocin alone showed reduced rates of manual removal of the placenta.
- Concerns regarding an increased risk of cord rupture were not substantiated.

Notes to the facilitator:
- End this part of the session by pointing out that controlled trials comparing AMTSL and PMTSL did not show an increase in obstetric complications related to AMTSL.
- Ask for questions before proceeding.
Flipcharts / Overheads / PowerPoint slides 11 and 12
Time: 5 min.
Activity: Illustrated lecture to present national maternal mortality statistics.
Objective: Discuss how PPH affects maternal mortality.
Notes to the facilitator:
• Present national statistics on maternal mortality.
• Emphasize the percentage of maternal deaths due to PPH.

National statistics for maternal mortality

• Maternal mortality ratio: ______ maternal deaths per 100,000 live births (in yyyy)
• ____% of maternal deaths in yyyy were due to PPH

Notes to the facilitator:
• Explain that each birth attendant has a role to play in reducing maternal deaths due to PPH.
• Ask for questions before proceeding.

Because AMTSL can prevent PPH, all skilled birth attendants should provide AMTSL to every woman . . . at every birth.
Facilitator’s Guide

Flipchart / Overhead / PowerPoint slide 13

Time: 5 min.

Activity: Summary

Objective: Emphasize the major points of the session.

Notes to the facilitator:
- Review the most important points of the session by asking the three questions on the flipchart/overhead/PowerPoint slide.
- Involve participants as much as possible in the summary.

Summary of Core Topic 1

- What are the major differences between active and physiologic management of the third stage of labor?
- What are the benefits of performing AMTSL?
- How can health care costs be reduced if all women are offered AMTSL?

Flipchart / Overhead / PowerPoint slide 14

Notes to the facilitator:

Learning activities

- Please complete learning activities found in the Learner’s Guide for Core Topic 1.
- You may work individually or in groups on the learning activities during breaks, in the evening, or in the clinical area when there are no clients.
- You may correct your answers individually or with another participant or the facilitator.
- See a facilitator if you have questions.

• Encourage participants to work on learning activities found in the Participant’s Notebook for Core Topic 1.
• Participants may work individually or in groups on the learning activities during breaks, in the evening, or in the clinical area when there are no clients.
• Participants may correct their learning activities by referring to suggested answers found in the Participant’s Notebook and the Facilitator’s Guide. Facilitators should make themselves available to work with participants to review answers for learning activities.
Core Topic 2: Causes and prevention of PPH

60 min.

Summary
Preventing postpartum hemorrhage can reduce the number of women who die or suffer each year because of excessive bleeding related to pregnancy. It is possible to prevent a majority of the postpartum hemorrhages that occur. This brief section gives an overview of postpartum hemorrhage; its causes; and finally, the actions women, families, and health care providers can take to prevent it from occurring.

Objectives
By the end of this topic, participants will be able to:
• Define postpartum hemorrhage (PPH).
• Describe factors that contribute to PPH.
• Describe the causes of PPH.
• Explain ways to prevent PPH.
• Explain ways to ensure timely diagnosis and management of PPH when it occurs.

Materials/resources needed for the session
• Anatomical posters or models can help participants with this topic. Often pre-service programs in medicine, nursing, or midwifery are willing to lend these items for training.
• Flipchart, flipchart stand, markers, and flipchart tape.
• 500 mL container and water.
• Large cloth, sarong, sari, or towel.
Lesson Plan

Causes and prevention of PPH

Name of presenter
Prevention of Postpartum Hemorrhage Initiative (POPHI) Project
PATH

Flipchart / Overhead / PowerPoint slide 1
Time: 5 min.

Activities:
• Review objectives of the session.
• Present an overview of the session.

Notes to the facilitator:
• Introduce the session by presenting the objectives: read the objectives, briefly summarize or ask a participant to read them aloud.

Objectives

By the end of this topic, participants will be able to:
• Define postpartum hemorrhage (PPH).
• Describe factors that contribute to PPH.
• Describe the causes of PPH.
• Explain ways to prevent PPH.
• Explain ways to ensure timely diagnosis and management of PPH when it occurs.
Flipchart / Overhead / PowerPoint slide 2
Time: 5 min.
Activity: Interactive presentation on the definition of PPH.
Objective: Define postpartum hemorrhage (PPH).
Notes to the facilitator:
• Briefly review the magnitude of PPH globally.

Magnitude of the problem

- There are an estimated 14 millions cases of pregnancy-related hemorrhage every year. Of these women:
  - At least 150,000 die from the hemorrhage.
  - Those that survive PPH will suffer from severe anemia and other major health problems.

Flipchart / Overhead / PowerPoint slide 3
Time: 5 min.
Activity: Interactive presentation on the definition of PPH.
Objective: Define postpartum hemorrhage (PPH).
Notes to the facilitator:
- Before showing the definition, ask participants to explain how they define PPH.
- Briefly explain the definitions of PPH and severe PPH.

Definition of PPH

- PPH: Vaginal bleeding in excess of 500 mL after childbirth
- Severe PPH: Vaginal bleeding in excess of 1,000 mL after childbirth
Flipchart / Overhead / PowerPoint slide 4
Time: 5 min.
Activities:
- Brainstorming to get an idea of how participants estimate blood loss.
- Demonstration showing how 500 mL and then 1,000 mL of liquid looks on a sarong/cloth/sari.

Notes to the facilitator:
- Ask participants to explain how they estimate blood loss after childbirth.
- Discuss the difficulties in estimating blood loss after childbirth.
- Perform a demonstration of PPH by pouring first 500 mL and then 1,000 mL of liquid on a sarong/cloth/sari.

Flipchart / Overhead / PowerPoint slide 5
Time: 5 min.
Activity: Interactive presentation to discuss how the traditional definitions of PPH may not be appropriate for all women.

Notes to the facilitator:
- Discuss why it may be better to define PPH as “any amount of bleeding that causes a change in the woman’s condition.”
- Ask participants how this definition may affect treatment protocols.
- Ask for questions before proceeding.

Define PPH as “any amount of bleeding that causes a change in the woman’s condition”
Because:
- It is difficult to measure blood loss accurately.
- Nearly half of women who deliver vaginally often lose at least 500 mL of blood.
- For severely anemic women, blood loss of even 200 to 250 mL can be fatal.
Flipchart / Overhead / PowerPoint slide 6

Time: 5 min.

Activity: Interactive presentation to discuss why every woman should be offered AMTSL at every birth.

Notes to the facilitator:

- Ask providers to think about cases of PPH they have managed and to try to remember if the women had identifiable risk factors before having the PPH.
- Lead an interactive presentation on why identifying risk factors is not an efficient or effective way of preventing PPH (two-thirds of women who have PPH have no risk factors).
- Explain the rationale for considering that all women are at risk of PPH and for promoting interventions to prevent PPH for all women at every birth.

- Ask for questions before proceeding.

Flipcharts / Overheads / PowerPoint slides 7 and 8

Time: 5 min

Activity: Brainstorming to review the leading causes of PPH.

Objective: Describe the causes of PPH.

Notes to the facilitator:

- Ask participants to list the leading causes of PPH.
- Write their responses on a flipchart.

**Two-thirds of women who have PPH have no risk factors.**

_Therefore, all_ women should be considered at risk of PPH and hemorrhage prevention must be a part of _every_ birth.
Notes to the facilitator:
- Complete the participants’ list to ensure that the leading causes of PPH have been listed.
- Ask for questions before proceeding.

**Leading causes of PPH**

- Uterine atony (causes 70-90% of PPH cases).
- Genital lacerations (2nd leading cause).
- Retained placenta (3rd leading cause).
- Uterine rupture and inversion.
- Blood-clotting disorders (disseminated intravascular coagulopathy).

Flipcharts / Overheads / PowerPoint slides 9, 10, and 11

Time: 5 min.

Activities:
- Illustrated lecture to define uterine atony and explain how uterine contractions compress maternal blood vessels.
- Brainstorming to list the most important factors contributing to poor uterine tone in the postpartum period.

Objective: Describe factors that contribute to PPH.

Notes to the facilitator:
- Define uterine atony and explain how uterine atony causes PPH.

**Uterine atony**

- Uterine atony is a loss of tone in the uterine muscles.
- Uterine contractions after delivery of the placenta will compress maternal blood vessels at the placental site and stop bleeding.
- When the uterus does not have good tone, the woman will experience PPH because maternal blood vessels at the open placental site are not compressed.
Notes to the facilitator:
- Ask participants to list factors that may contribute to poor uterine muscle tone in the postpartum period.
- Write their responses on a flipchart.

Brainstorming

What factors contribute to poor uterine tone in the postpartum?

Notes to the facilitator:
- Complete the participants’ list to ensure that the most common factors contributing to poor uterine tone have been listed.
- Emphasize that while there are some known factors that contribute to uterine atony, two-thirds of PPH occurs in women who have absolutely NO risk factors.

Factors contributing to the loss of uterine muscle tone in the postpartum

- Retained placenta or placental fragments
- Overdistention of the uterus due to multiple gestation, excess amniotic fluid, very large baby or multiparity
- Prolonged labor
- Induction or augmentation of labor
- Precipitous labor (labor lasting less than 3 hours)
- Full bladder
Flipchart / Overhead / PowerPoint slide 12
Time: 5 min.
Activity: Illustrated lecture to present two strategies to prevent women from dying of PPH.
Notes to the facilitator:
- Begin this portion of the session by explaining that there are two ways to prevent death from PPH:
  1. Prevent PPH by providing high-quality care and performing AMTSL.
  2. Ensure timely diagnosis and management of PPH when it occurs.
- Explain that three factors will influence a woman’s prognosis when she has a postpartum hemorrhage:
  - her hemoglobin,
  - how quickly PPH is accurately diagnosed, and
  - how quickly PPH is treated/managed.

How can providers prevent a woman from dying of PPH?

- Prevent PPH by providing high-quality care and performing AMTSL AND
- Ensure timely diagnosis and management of PPH when it occurs

Flipcharts / Overheads / PowerPoint slides 13, 14, 15, and 16
Time: 5 min.
Activity: Question-and-answer to explain how certain strategies can prevent PPH and/or reduce the risk that a woman will die from PPH (ensure timely diagnosis and management of PPH if it occurs and prevent/treat anemia so that the woman can tolerate blood loss after giving birth).
Objective: Explain ways to prevent PPH.
Notes to the facilitator:
- Ask participants to refer to the section on “PPH prevention and early detection” in Core Topic 2: PPH causes and prevention in the Reference Manual.
- For each PPH prevention strategy, ask participants to try to provide an explanation of how the strategy may prevent PPH and/or decrease the likelihood that the woman will die if PPH occurs. Complete their responses as necessary.
- Ask for questions before proceeding.
Notes to the facilitator:

- Ask participants to refer to the section on “PPH prevention and early detection” in Core Topic 2: PPH causes and prevention in the Reference Manual.
- For each strategy, ask participants to try to provide an explanation of how the strategy may help prevent death from PPH. Complete their responses as necessary.

Prevention strategies – During labor and second stage

- Use a partograph.
- Ensure early referral when progress of labor is unsatisfactory.
- Encourage the woman to keep her bladder empty.
- Limit induction or augmentation use for medical and obstetric reasons.
- Limit induction or augmentation of labor to facilities equipped to perform a cesarean delivery.
- Do not encourage pushing before the cervix is fully dilated.
- Do not use fundal pressure to assist the birth of the baby.
- Do not perform routine episiotomy.
- Assist the woman in the controlled delivery of the baby’s head and shoulders.

Prevention strategies – During third stage

- Provide AMTSL.
- Do not use fundal pressure (apply pressure on a woman’s abdomen to help expel the placenta) to assist the delivery of the placenta.
- Do not perform controlled cord traction without administering a uterotonic drug.
- Do not perform controlled cord traction without providing countertraction to support the uterus.

Prevention strategies – After delivery of the placenta

- Routinely inspect the vulva, vagina, perineum, and anus to identify genital lacerations. Inspect the placenta and membranes.
- Massage the uterus at regular intervals after placental delivery to keep the uterus well contracted and firm (at least every 15 minutes for the first two hours after birth).
- Teach the woman to massage her own uterus to keep it firm. Instruct her on how to check her uterus and to call for assistance if her uterus is soft or if she experiences increased vaginal bleeding.
- Encourage the woman to keep her bladder empty during the immediate postpartum period.

Notes to the facilitator:

- Ask participants to refer to the section on “PPH prevention and early detection” in Core Topic 2: PPH causes and prevention in the Reference Manual.
- For each strategy, ask participants to try to provide an explanation of how the strategy may help prevent death from PPH. Complete their responses as necessary.
**Flipchart / Overhead / PowerPoint slide 17**

**Time:** 5 min.

**Activity:** Question-response to problem-solve how AMTSL prevents PPH.

**Objective:** Describe factors that contribute to PPH.

**Notes to the facilitator:**

- Ask participants to try to explain how each of the components of AMTSL helps to prevent PPH. Write their responses on the flipchart under each component.

- Complete their answers with the following explanations:
  - **Administration of a uterotonic** stimulates uterine contractions that 1) facilitate separation of the placenta from the uterine wall resulting in rapid delivery of the placenta and 2) compress maternal blood vessels at the placental site after delivery of the placenta.
  - **Controlled cord traction** facilitates rapid delivery of the placenta and emptying of the uterus.
  - **Uterine massage** stimulates uterine contractions and removes clots that may inhibit uterine contraction.

**Flipchart / Overhead / PowerPoint slide 18**

**Time:** 5 min.

**Activity:** Summary.

**Notes to the facilitator:**

- Ask participants to volunteer at least one new or interesting thing they learned during this session and to explain how it could be useful when returning to their work site.
- Ask for questions before proceeding.

**Summary**

Please list one interesting thing you have learned during this session and explain how it can be useful to you when you return to your work site.
Flipchart / Overhead / PowerPoint slide 19

Notes to the facilitator:

- Encourage participants to work on learning activities found in the Participant’s Notebook for Core Topic 2.
- Participants may work individually or in groups on the learning activities during breaks, in the evening, or in the clinical area when there are no clients.
- Participants may correct their learning activities by referring to suggested answers found in the Participant’s Notebook. Facilitators should make themselves available to work with the participants to review answers for learning activities.

Learning activities

- Please complete learning activities found in the Participant’s Notebook for Core Topic 2.
- You may work individually or in groups on the learning activities during breaks, in the evening, or in the clinical area when there are no clients.
- You may correct your answers individually or with another participant or the facilitator.
- See a facilitator if you have questions.