



## Core Topic 3: Uterotonic Drugs

**90 min.**

### Summary

In this section, you will review and compare the main drugs used to stimulate uterine contractions during third stage. There will also be an overview of the stability, storage, and costs of uterotonic drugs.

The injection of a uterotonic drug immediately after birth of the baby and before delivery of the placenta is one of the most important ways to prevent PPH. The most commonly used uterotonic drug, oxytocin, has proven to be very effective in both reducing the incidence of PPH and shortening the third stage of labor.

### Objectives

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

- Identify uterotonic drugs used in the third stage of labor.
- Explain advantages/disadvantages of the four major uterotonic drugs.
- Compare the stability of oxytocin and ergometrine in hot climates.
- Explain at least three ways to store oxytocin to keep it effective.
- Describe how to decide what uterotonic drug to use for AMTSL.

### Materials/resources needed for the session

- Reference Manual, Participant's Notebook, and Facilitator's Guide.
- Flipchart, flipchart stand, markers, and flipchart tape.

### Facilitator's notes

- This session contains detailed information on the major uterotonic drugs. Review the session content, especially regarding drug dosage/administration and storage to be sure that these correspond with country-specific or local guidelines. Adapt or revise information as needed.
- Samples of the drugs used in your region may be useful as teaching aids (use expired drug vials, for example, or pictures of these vials or tablets).
- Consider making separate handouts for each of the three drugs with detailed information from the chart. This may make the information easier to read and country-specific information can be included.

# Lesson Plan

**Uterotonic drugs**

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



**Flipcharts / Overheads / PowerPoint slides 1 and 2****Time: 5 min.****Activity:** Review objectives of the session.**Objective:** Present an overview of the session.**Note to the facilitator:**

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

Objectives	CT3-1
By the end of this topic, learners will be able to:	
<ul style="list-style-type: none"><li>• Identify uterotonic drugs used in the third stage of labor.</li><li>• Explain advantages/disadvantages of the 4 major uterotonic drugs.</li><li>• Compare the stability of oxytocin and ergometrine in hot climates.</li><li>• Explain at least 3 ways to store oxytocin to keep it effective.</li><li>• Describe how to decide what uterotonic drug to use for AMTSL.</li></ul>	

**Notes to the facilitator:**

- Begin the session by giving a clear definition of a uterotonic.
- Ask participants if they have questions about the definition before continuing.

Definition	CT3-2
<ul style="list-style-type: none"><li>• <b>Uterotonics:</b> substances that stimulate uterine contractions and increase uterine tone</li></ul>	

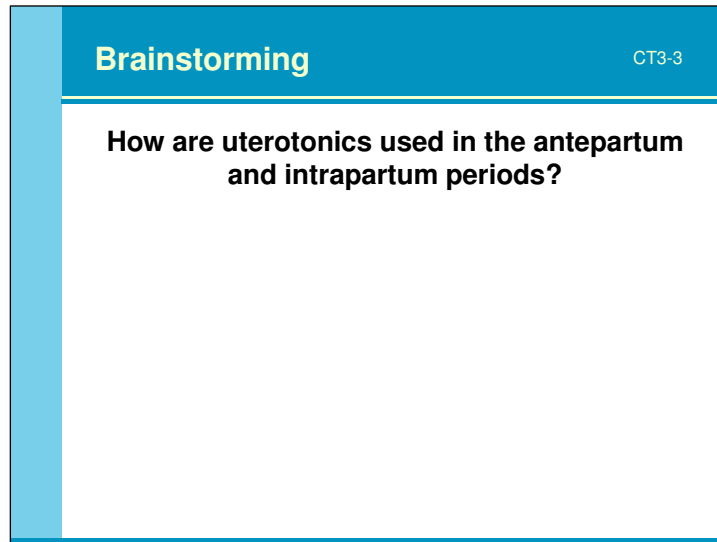
## Flipcharts / Overheads / PowerPoint slides 3 and 4

**Time: 10 min.**

**Activity:** Brainstorming and discussion to review indications and dangers of administering uterotonic drugs during the intrapartum period.

### Objectives:

- Review uses and contraindications for uterotonic drugs.
- Review dangers of uterotonic drug abuse.



**Brainstorming** CT3-3

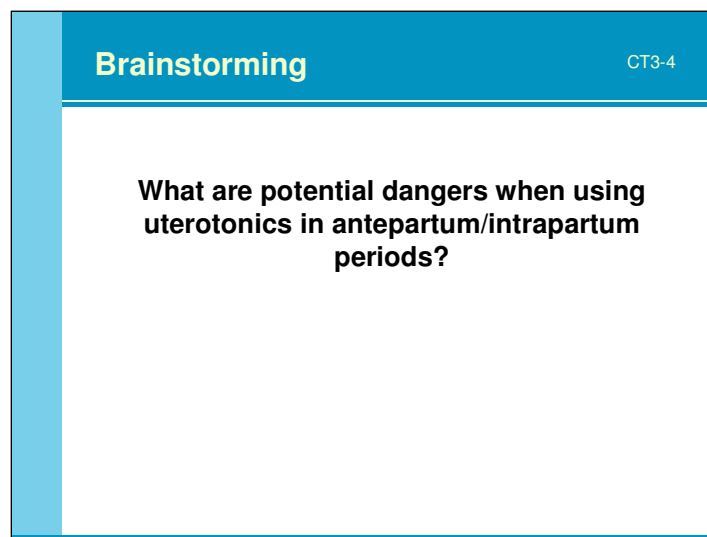
**How are uterotonics used in the antepartum and intrapartum periods?**

### Notes to the facilitator:

- Ask participants to list potential uses of uterotonic drugs before the woman has given birth.
- Write their answers on the flipchart. These may include cervical ripening, induction of labor, and augmentation of labor.

### Notes to the facilitator:

- Ask participants to list potential dangers of uterotonic drugs when used before the woman has given birth.
- Write their answers on the flipchart. These should include fetal distress, intrauterine fetal demise, and uterine rupture. In addition, induction/augmentation of labor contributes to uterine atony in the postpartum period.
- Brainstorm ideas on how to prevent or minimize potential dangers of using uterotonic drugs in the antepartum/intrapartum periods. These may include: only induce/augment labor when all indications are met, only induce/augment labor in facilities where there is an operating theatre, carefully monitor maternal/fetal conditions when inducing/augmenting labor.



**Brainstorming** CT3-4

**What are potential dangers when using uterotonics in antepartum/intrapartum periods?**



## Flipcharts / Overheads / PowerPoint slides 5 and 6

**Time: 5 min.**

**Activity:** Question-and-answer to review uterotonic drugs available in health facilities.

### Objectives:

- Identify uterotonic drugs that participants are familiar with.
- Link trade names of uterotonic drugs with their generic names.

### Notes to the facilitator:

- Draw a table with five rows and two columns. Put titles on the columns: *Trade Name* and *Generic Name*.
- Ask participants to brainstorm a list of uterotonic drugs used in their practice. As they list a uterotonic, write it in either the column "*trade name*" or "*generic name*."
- If a participant lists a uterotonic by the trade name, ask if participants know the generic name, and vice versa.

List of Uterotonics		CT3-5
Trade Name	Generic Name	

### Notes to the facilitator:

- Briefly review the trade and generic names for the uterotonic drugs most commonly used.

List of Uterotonics		CT3-6
Trade Name	Generic Name	
Syntocinon® / Pitocin	Oxytocin	
Methergine®	Ergometrine	
Syntometrine®	Ergometrine + Oxytocin	
Misoprostol (Cytotec®)	E1 analog prostaglandin	

**Flipcharts / Overheads / PowerPoint slides 7 and 8**

**Time: 15 min.**

**Activity:** Small group work to analyze characteristics of uterotonic drugs.

**Objective:** Explain the advantages and disadvantages of uterotonic drugs used for AMTSL.

**Notes to the facilitator:**

- Ask participants to refer to the classroom learning activity #1 for Core Topic 3: Uterotonic Drugs in the **Participant’s Notebook**.
- Ask participants to work in groups of two. Give them 2-3 minutes to study Table 3. Uterotonic drugs for AMTSL in the **Reference Manual**. They should decide which of the uterotonic drugs:
  - (1) works the fastest;
  - (2) has the longest action;
  - (3) causes tonic contractions;
  - (4) has a common side effect of shivering and elevated temperature;
  - (5) has a common side effect of headache;
  - (6) is contraindicated in women with or having history of hypertension, heart disease, retained placenta, preeclampsia, and eclampsia;
  - (7) has no contraindications when administered in the postpartum period.

Answers			
	Oxytocin	Ergometrine	Misoprostol
Works the fastest.	X		
Has the longest action.		X	
Causes tonic contractions.		X	
Has a common side effect of shivering and elevated temperature.			X
Has a common side effect of headache.		X	
Is contraindicated in women with or having history of hypertension, heart disease, retained placenta, pre-eclampsia, eclampsia.		X	
Has no contraindications when administered in the postpartum period.	X		

**Small Group Work** CT3-8

**Review of Uterotonics**

Find one partner to work with.

- Refer to classroom learning activity 1 for Core Topic 3: Uterotonic Drugs in the **Participant’s Notebook**.
- Answer the questions about uterotonics in learning activity 1 by studying Table 3, Uterotonic drugs for AMTSL, in the **Reference Manual**.

**Notes to the facilitator:**

- After participants have had a chance to look through the table and answer the questions, call the group together. Read each sentence in the first column and ask participants to call out the answer. Put an “x” in the appropriate column.
- Review drug action/effectiveness and side effects/cautions for each uterotonic drug.

- Emphasize the following points:
  - If all injectable uterotonic drugs are available, skilled attendants should offer oxytocin to all women in preference to ergometrine/methylethergometrine or oral misoprostol (600 mcg)
  - In the absence of AMTSL, a health worker trained in the use of a uterotonic drug (oxytocin or misoprostol) should offer use of a uterotonic without controlled cord traction to all women



## Flipcharts / Overheads / PowerPoint slides 9 and 10

**Time: 10 min.**

**Activity:** Small group work to analyze the stability of uterotonic drugs when exposed to heat and light.

**Objective:** Compare the stability of oxytocin and ergometrine in hot climates.

### Notes to the facilitator:

- Ask participants to refer to classroom learning activity #2 for Core Topic 3: Uterotonic Drugs in the **Participant's Notebook**.
- Ask participants to work in groups of two. Give them 2–3 minutes to refer to the sections "Keeping uterotonic drugs effective" and "Tips to increase uterotonic drug effectiveness" within Core Topic 3: Uterotonic Drugs in the **Reference Manual**. They should rank the uterotonic drugs by:
  - Their stability when exposed to heat. They should give a "1" to the most stable and a "3" to the least stable (misoprostol 1, oxytocin 2, ergometrine 3).
  - Their stability when exposed to light. They should give a "1" to the most stable and a "3" to the least stable (misoprostol 1, oxytocin 2, ergometrine 3).

**Small Group Work**
CT3-9

**Review of uterotonics**

- Find one partner to work with.
- Refer to classroom learning activity 2 for Core Topic 3: Uterotonic Drugs.
- Answer the questions about stability of uterotonics in learning activity 2 by studying sections *Keeping uterotonic drugs effective* and *Tips to increase uterotonic drug effectiveness* within Core Topic 3: Uterotonic Drugs in the **Reference Manual**.

### Notes to the facilitator:

- After participants have had a chance to look through the table and answer the questions, call the group together. Read each sentence in the first column and ask participants to call out the answers. Write the rank number in the appropriate column.
- Summarize this part of the session by emphasizing that while neither ergometrine nor oxytocin is stable when exposed to heat, oxytocin is much more stable than ergometrine when exposed to either heat or light.
- Re-emphasize that while misoprostol is more stable than oxytocin, oxytocin is still the uterotonic of choice because of its effectiveness, action, lack of contraindications in the postpartum period, and cost.

**Answers**
CT3-10

	Oxytocin	Misoprostol	Ergometrine
Stability when exposed to heat*	2	1	3
Stability when exposed to light*	2	1	3

\*Most stable: 1; Least stable: 3

## Flipchart / Overhead / PowerPoint slide 11

**Time: 30 min.**

**Activity:** Case studies to review storage of uterotonic drugs in different situations.

**Objective:** Explain at least three ways to store oxytocin to keep it effective.

### Notes to the facilitator:

- Divide participants into four groups to work on case studies.
- Assign each group one of the four case studies found within the classroom learning activities for Core Topic 3: Uterotonic Drugs in the **Participant's Notebook**.
- Give each group 10 minutes to work through the case study, using Table 4, Recommended guidelines for transport and storage of uterotonic drugs, and the section "Tips to keep uterotonic drugs as effective as possible" in the **Reference Manual** as a guide.
- After 10 minutes, bring all the groups together and ask each group to present their case study. Suggested answers can be found in the **Participant's Notebook** and **Facilitator's Guide**.
- Facilitate a group discussion if there is controversy.
- Summarize the case study exercise by emphasizing that importance or proper storage of uterotonic drugs.

Small Group Work	
Storage of uterotonics	
CT3-11	<ul style="list-style-type: none"><li>• Divide into 4 groups to work on case studies found within the classroom learning activities for Core Topic 3: Uterotonic Drugs in the <b>Participant's Notebook</b>.</li><li>• Group 1 – work on case study #1; Group 2 – work on case study #2; Group 3 – work on case study #3; Group 4 – work on case study #4.</li><li>• Each group has 10 minutes to work through the case study. Use <i>Table 4, Recommended guidelines for transport and storage of uterotonic drugs</i>, and the section <i>Tips to keep uterotonic drugs as effective as possible</i> in the <b>Reference Manual</b> for guidance.</li></ul>

## Flipchart / Overhead / PowerPoint slide 12

**Time: 5 min.**

**Activity:** Group discussion to choose the most appropriate uterotonic for AMTSL.

**Objective:** Describe how to decide what uterotonic drug to use for AMTSL.

### Notes to the facilitator:

- Facilitate a discussion to decide which of the uterotonic drugs should be the uterotonic of choice for AMTSL. Participants should consider the issues listed in the slide / flipchart / overhead on the left.
- Summarize this section of the session by explaining that oxytocin is the uterotonic of choice for AMTSL because it is very effective, acts the quickest, has minimal or no side effects, has no contraindications in the postpartum period, is more stable than ergometrine when exposed to heat and light, and is relatively inexpensive.

Choice of uterotonic when practicing AMTSL	
CT3-12	<p><b>Considerations:</b></p> <ul style="list-style-type: none"><li>• Effectiveness</li><li>• Action</li><li>• Side effects</li><li>• Contraindications</li><li>• Stability when exposed to heat</li><li>• Stability when exposed to light</li><li>• Cost</li></ul>



**Flipcharts / Overheads / PowerPoint slides 13 and 14****Time: 10 min.****Activity:** Summary.**Note to the facilitator:**

- Summarize the session by asking participants to answer the three questions listed on the flipchart / overhead / PowerPoint slide.

Summary	
	CT3-13
<ul style="list-style-type: none"><li>• Why is oxytocin the uterotonic of choice for the practice of AMTSL?</li><li>• If your health facility does not have oxytocin, which uterotonic should you use for the practice of AMTSL?</li><li>• Why is misoprostol not recommended as a first line drug for use with AMTSL?</li></ul>	

**Note to the facilitator:**

- Summarize the session by reviewing FIGO/ICM recommendations from November 2006.

FIGO/ICM Recommendations	
	CT3-14
<ul style="list-style-type: none"><li>• If all injectable uterotonics are available, skilled attendants should offer oxytocin to all women in preference to ergometrine / methylergometrine or oral misoprostol (600 mcg).</li><li>• If oxytocin is not available, skilled attendants should offer ergometrine / methylergometrine or the fixed drug combination of oxytocin and ergometrine to women without hypertension or heart disease.</li><li>• In the absence of AMTSL, a health worker trained in the use of a uterotonic drug (oxytocin or misoprostol) should offer use of a uterotonic without controlled cord traction to all women (uterine massage should still be performed).</li></ul>	

## Flipchart / Overhead / PowerPoint slide 15

### Notes to the facilitator:

- Encourage participants to work on learning activities found in the **Participant's Notebook** for Core Topic 3.
- 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

CT3-15

- Please complete learning activities found in the **Participant's Notebook** for Core Topic 3.
- 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.



## Core Topic 4: Steps in active management of the third stage of labor

**3 hours, 30 min.**

### Summary

In this section, you will teach/demonstrate the steps in active management of the third stage of labor. After a demonstration of the steps of AMTSL, you will work with participants as they practice on a model to prepare for practice in the clinical area.

### Objectives

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

- Describe the steps of AMTSL.
- Correctly demonstrate the steps of AMTSL using a checklist.

### Materials/resources needed for the session

- CD-ROM demonstrating the steps in AMTSL, television, and DVD player (or computer and LCD if a television is not available).
- Reference Manual, Participant's Notebook, and Facilitator's Guide.
- Flipchart, flipchart stand, markers, and flipchart tape.
- Bed (gurney or table are acceptable if a bed is not available), pillow, and bed sheets.
- Obstetric and newborn models (if obstetric models are not available, volunteers can act as the woman in labor and a doll with placenta can be used to simulate delivery of the placenta), 2 cloths for the newborn, 1 cloth for the woman's abdomen, delivery kit (1 scissors, 2 clamps), cord ties or clamps, and kidney basin or bowl to collect the placenta.
- Infection protection equipment and supplies: protective gear (glasses, plastic apron, shoe covering), bucket, chlorine, water, sterile and exam gloves, soap, towels, waste bin, and utility gloves.
- Oxytocin, syringe, needle, alcohol and cotton swabs, and sharps disposal box.

### Facilitator's notes

Demonstration and practice stations need to be set up ahead of time. Ideally, there will be at least one facilitator for every four participants practicing. You may choose to teach the infection prevention topic here so that participants can incorporate it while practicing the new skills.

## Lesson Plan

Steps in active management of the third stage of labor (AMTSL)

**Name of presenter**  
*Prevention of Postpartum Hemorrhage Initiative (POPPHI) Project*  
PATH

 **USAID**  
FROM THE AMERICAN PEOPLE

 **POPPHI**  
Prevention of Postpartum Hemorrhage Initiative

### Flipchart / Overhead / PowerPoint slide 1

**Time: 5 min.**

**Activity:** Present an overview of the session.

**Objective:** Review objectives 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** CT4-1

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

- Describe the steps of AMTSL
- Correctly demonstrate the steps of AMTSL using a checklist



## Flipchart / Overhead / PowerPoint slide 2

**Time: 20 min.**

**Activity:** Small group work to review routine care for the woman and newborn.

**Objective:** Review routine care for the woman and newborn.

### Notes to the facilitator:

- Introduce this session on AMTSL by emphasizing that AMTSL is only one part of care for the woman and newborn. Encourage the provision of quality care, good client-provider communication, and application of infection prevention practices. Remind participants that they should be aware of and follow national guidelines for the prevention of mother to child transmission of HIV/AIDS.
- Divide the participants into 4 groups. Assign one subject (care of the woman, care of the newborn, preparations for AMTSL, and monitoring the woman and newborn after delivery of the placenta) to each of the groups.
- Each group should refer to the **Reference Manual** and prepare a brief summary of their topic. Give them 10 minutes to prepare their presentation.
- Ask each group to present a brief summary.
- Facilitate a discussion about the importance of quality care.

Small Group Work Maternal and newborn care	CT4-2
<ul style="list-style-type: none"> <li>• Group 1: Describe care of the woman (refer to the Reference Manual).</li> <li>• Group 2: Describe care of the newborn (refer to the Reference Manual).</li> <li>• Group 3: Describe preparations for AMTSL (refer to the Reference Manual).</li> <li>• Group 4: Describe how to monitor the woman and newborn after delivery of the placenta (refer to the Reference Manual).</li> </ul>	

## Flipchart / Overhead / PowerPoint slide 3

**Time: 30 min.**

**Activity:** Reminder that PMTCT interventions need to be integrated into care during labor and childbirth

**Objective:** Explain that PMTCT activities need to be integrated into care for newborns and women during third stage and the immediate postpartum period.

Integration of PMTCT activities	CT4-3
<ul style="list-style-type: none"> <li>• Apply national guidelines for PMTCT for the woman and newborn <b>in addition to</b> routine care during labor, childbirth, and in the immediate postpartum</li> </ul>	

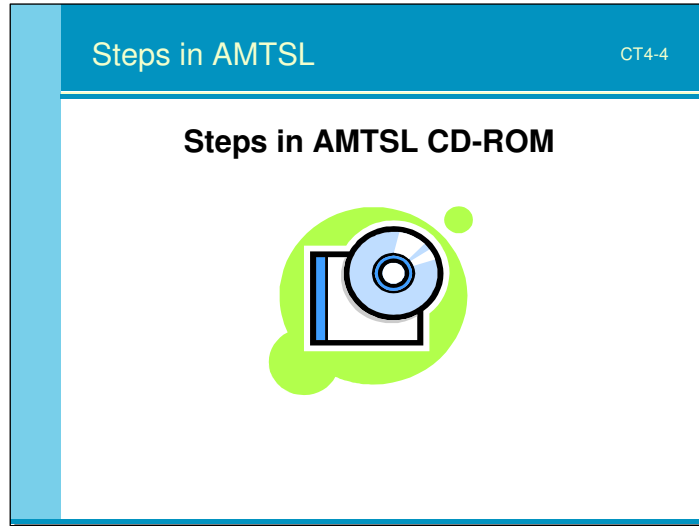
### Notes to the facilitator:

- Explain that a detailed description of PMTCT interventions is beyond the scope of this training. However, participants need to refer to national guidelines for PMTCT interventions and apply them appropriately.
- Remind participants that PMTCT interventions need to be integrated into care during third stage and the immediate postpartum.

**Flipchart / Overhead / PowerPoint slide 4**

**Time: 30 min.**

**Activity:** *If possible*, view the CD-ROM with a demonstration of the steps of AMTSL (<http://www.pphprevention.org/amtslweb-en/index.html>).



**Objective:** Describe the steps of AMTSL.

**Notes to the facilitator:**

- Show the CD-ROM with the demonstration of AMTSL.
- Ask if participants have questions and show the CD-ROM as many times as necessary.



## Flipcharts / Overheads / PowerPoint slides 5, 6, 7, 8, 9, 10, 11, and 12

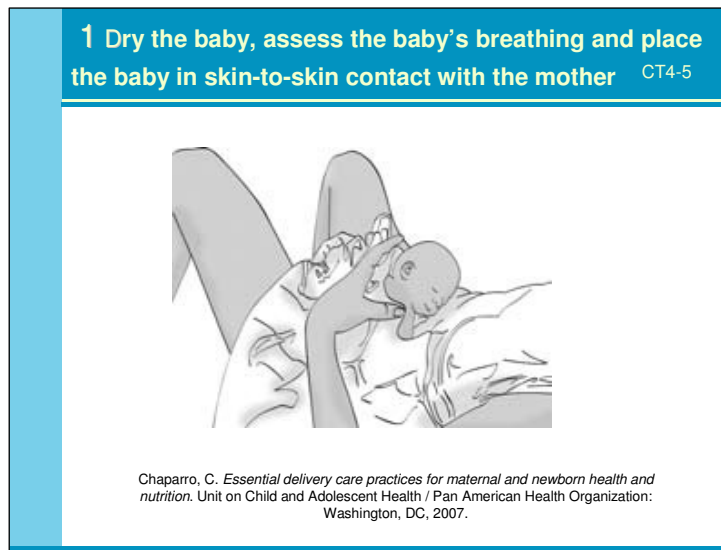
**Time: 10 min.**

**Activity:** Illustrated lecture.

**Objective:** Discuss the steps of AMTSL.

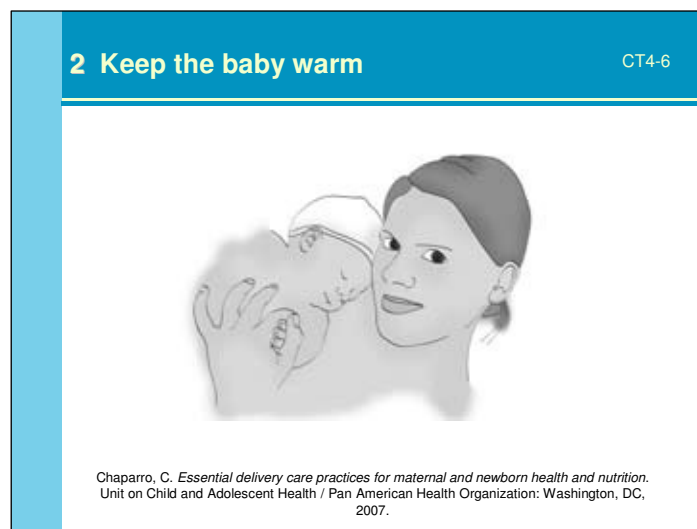
### Notes to the facilitator:

- Ask participants to turn to the section "Steps for AMTSL" in Core Topic 4: AMTSL in the **Reference Manual**. Review the components of AMTSL integrated with immediate newborn care together.
- After delivery, immediately dry the infant and assess the baby's breathing. Then place the reactive infant, prone, on the mother's abdomen.\* Remove the cloth used to dry the baby and keep the infant covered with a dry cloth or towel to prevent heat loss.



### Notes to the facilitator:


- Place the infant directly on the mother's chest, prone, with the newborn's skin touching the mother's skin.
- While the mother's skin will help regulate the infant's temperature, cover both the mother and infant with a dry, warm cloth or towel to prevent heat loss.
- Cover the baby's head with a cap or cloth.



**Notes to the facilitator:**

- Give a uterotonic drug within 1 minute of childbirth (oxytocin 10 IU IM is the uterotonic of choice), after ruling out the presence of another baby.
- A uterotonic stimulates uterine contractions, which will, in turn, speed up separation of the placenta from the uterine wall.
- A uterotonic will help prevent uterine atony after delivery of the placenta.
- Ruling out the presence of another baby before giving a uterotonic drug will prevent the potential complication of a trapped twin.

**3 Give uterotonic drug (oxytocin 10 IU IM is the uterotonic of choice) within 1 minute of childbirth, after ruling out the presence of another baby.** CT4-7

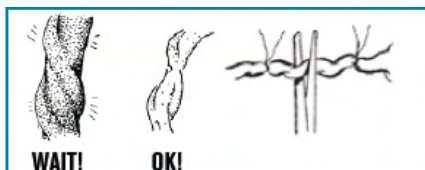


2005. Active Management of the Third Stage of Labor: A Demonstration [CD-ROM]. Copyright © 2005 JHPIEGO.

**Notes to the facilitator:**

- Wait to clamp and cut the cord until the cord ceases to pulsate or 2–3 minutes after the baby’s birth, whichever comes first. Studies now show that delayed clamping and cutting of the umbilical cord is helpful to both term and preterm babies.

**4 Cut the umbilical cord** CT4-8



Chaparro, C. *Essential delivery care practices for maternal and newborn health and nutrition*. Unit on Child and Adolescent Health / Pan American Health Organization: Washington, DC, 2007.





### Notes to the facilitator:

**5** Deliver the placenta by controlled traction on the umbilical cord and counterpressure to the uterus. CT4-9



2005. Active Management of the Third Stage of Labor: A Demonstration [CD-ROM]. Copyright © 2005 JHPIEGO.

towards the woman's head. Supporting or guarding the uterus (sometimes called "counter-pressure" or "countertraction") helps prevent uterine inversion during controlled cord traction.

- Controlled cord traction should only be done during a contraction.

- Controlled cord traction involves pulling with a firm, steady tension on the cord in a downward direction during contractions. Controlled cord traction helps the placenta descend into the vagina and facilitates its delivery. The uterus cannot contract efficiently if the placenta is still inside.
- When performing controlled cord traction, the uterus needs to be supported by applying pressure on the lower segment of the uterus in an upward direction

### Notes to the facilitator:

- **Massage the uterus immediately** after delivery of the placenta and membranes until it is firm.
- Massaging the uterus stimulates uterine contractions and helps to prevent PPH. Uterine atony is the leading cause of PPH.
- After you stop massage, it is important to make sure that the uterus does not relax again.
- Teach the woman how to massage her own uterus and ask her to call if her uterus is soft.

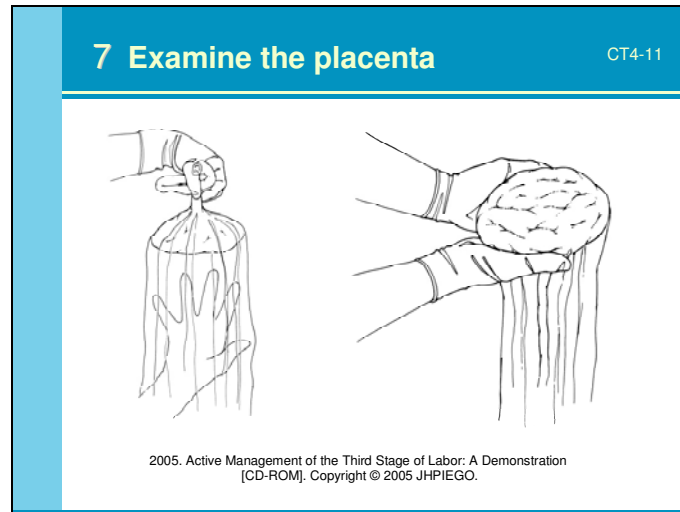
**6** Massage the uterus through the abdomen after delivery of the placenta. CT4-10



Life-Saving Skills Manual for Midwives, Draft, 4th edition  
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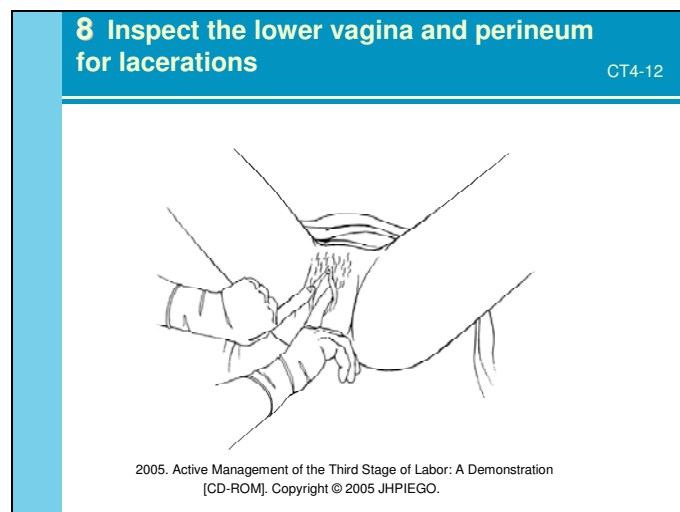
**Notes to the facilitator:**

- Check fetal and maternal sides of the placenta and membranes to be sure they are complete.
- Even a small amount of placental tissue or membranes can prevent uterine contractions and cause PPH.
- Retained placenta is the third leading cause of PPH.



**Notes to the facilitator:**

- Gently separate the labia and inspect the lower vagina and perineum for lacerations that may need to be repaired to prevent further blood loss.
- Tears in the birth canal are the second leading cause of PPH.





## Flipcharts / Overheads / PowerPoint slides 13, 14, and 15


**Time:** 10 min.

**Activity:** Illustrated lecture.

**Objective:** Discuss monitoring the woman and newborn the first two hours after childbirth.

**Notes to the facilitator:**

Encourage breastfeeding within 1 hour after birth, if that is her choice
CT4-13



Chaparro, C. *Essential delivery care practices for maternal and newborn health and nutrition*. Unit on Child and Adolescent Health / Pan American Health Organization: Washington, DC, 2007.

- If the woman has chosen to breastfeed, the mother and baby may need assistance to breastfeed within the first hour after the birth and before transferring them out of the delivery room.
- Assess readiness of the woman and newborn to breastfeed before initiating breastfeeding; do not force the mother and baby to breastfeed if they are not ready.

**Notes to the facilitator:**

- Remind participants to follow national guidelines for the prevention of mother-to-child transmission of HIV/AIDS.
- During the first two hours after the delivery of the placenta, monitor the woman at least every 15 minutes (more often if needed) during the first hour after birth:
  - Palpate the uterus to check for firmness.
  - Massage the uterus until firm.
  - Check for excessive vaginal bleeding.
  - Ask the woman to call for help if bleeding increases or her uterus gets soft.
  - If excessive bleeding is detected, take action to evaluate and treat PPH immediately.
  - Make sure the uterus does not become soft after you stop massaging.
  - Teach the woman how the uterus should feel and how to massage it herself.

Monitor the woman closely after delivery of the placenta
CT4-14

- During the first 2 hours after delivery of the placenta, monitor the woman at least every 15 minutes (more often if needed) during the first hour after birth:
  - Palpate the uterus to check for firmness.
  - Massage the uterus until firm.
  - Check for excessive vaginal bleeding.
  - Ask the woman to call for help if bleeding increases or her uterus gets soft.
  - If excessive bleeding is detected, take action to evaluate and treat PPH immediately.

**Notes to the facilitator:**

- Remind participants to follow national guidelines for the prevention of mother-to-child transmission of HIV/AIDS.
- Check the baby at the same time you check the mother, every 15 minutes during the first two hours after childbirth:
  - Check the baby's breathing.
  - Check the baby's color.
  - Check warmth by feeling the baby's feet.
  - Check the cord for bleeding.
  - Take immediate action if a problem is detected.

<b>Monitor the newborn closely</b>		CT4-15
<ul style="list-style-type: none"><li>• Check the baby at the same time you check the mother, every 15 minutes during the first 2 hours after childbirth:<ul style="list-style-type: none"><li>• Check the baby's breathing.</li><li>• Check the baby's color.</li><li>• Check warmth by feeling the baby's feet.</li><li>• Check the cord for bleeding.</li><li>• Take immediate action if a problem is detected.</li></ul></li></ul>		



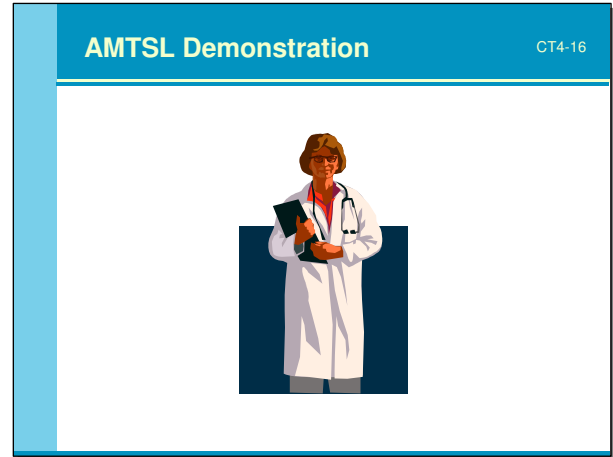
### Flipchart / Overhead / PowerPoint slide 16

**Time: 15 min.**

**Activity:** Demonstration of the steps of AMTSL following the Practice Checklist.

#### Notes to the facilitator:

- Ask participants to stand around the table where you are performing the demonstration. Make sure that everyone can see.
- Ask participants to follow the demonstration with the practice checklist in the **Participant's Notebook**.
- One facilitator will play the role of the woman and the other the role of the provider.
- Ask a volunteer to read the steps in the practice checklist as the facilitators perform the demonstration. It is important that you follow the steps as they are listed in the practice checklist.
- Provide information about AMTSL as you are performing the demonstration. Avoid giving a lecture.
- Ask participants if they have questions, and repeat as many of the steps as necessary.



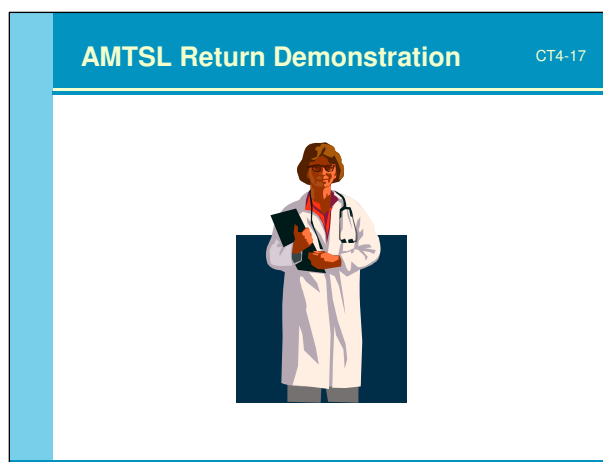
### Flipchart / Overhead / PowerPoint slide 17

**Time: 15 min.**

**Activity:** Return demonstration—AMTSL and examination of the placenta.

#### Notes to the facilitator:

- Ask two participants to volunteer performing a return demonstration of AMTSL. One volunteer will perform the skill as the other volunteer reads the steps in the learning guide. The other participants should follow the steps using the practice skill checklist.
- Ask the volunteer to provide feedback on his/her own performance, then ask other participants to provide feedback, and finally provide constructive feedback on the volunteer's performance.
- Ask participants if they have questions and repeat as many of the steps as necessary.



## Flipchart / Overhead / PowerPoint slide 18

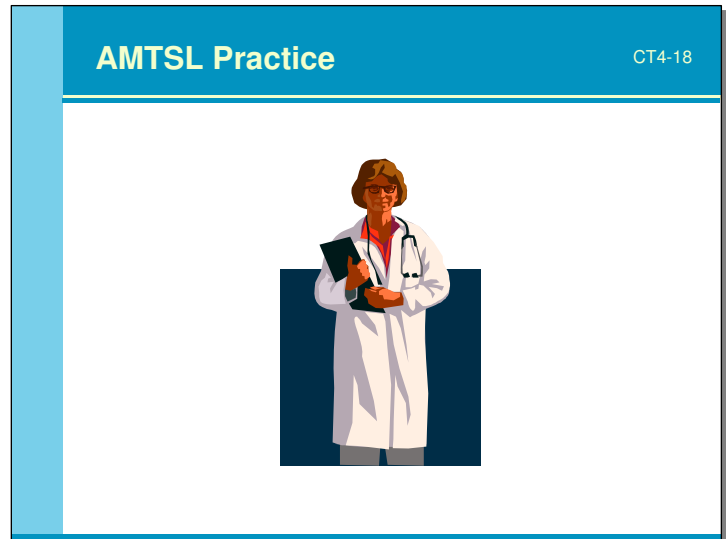
**Time: 1 hour 30 minutes**

**Activity:** Practice skills on models—AMTSL and examination of the placenta.

**Objective:** Correctly demonstrate the steps of AMTSL using the learning guide.

### Notes to the facilitator:

- Ask participants to work together in their teams to help each other learn the skill.
- One team member will perform the skill as the learning partner reads the steps in the learning guide.
- Explain how to fill in the practice skill checklist developed for use when practicing on models.
- Encourage learning partners to provide constructive feedback to each other in order to improve performance.
- Circulate around the classroom to provide assistance and feedback to participants as they practice AMTSL on a model.



## Flipchart / Overhead / PowerPoint slide 19

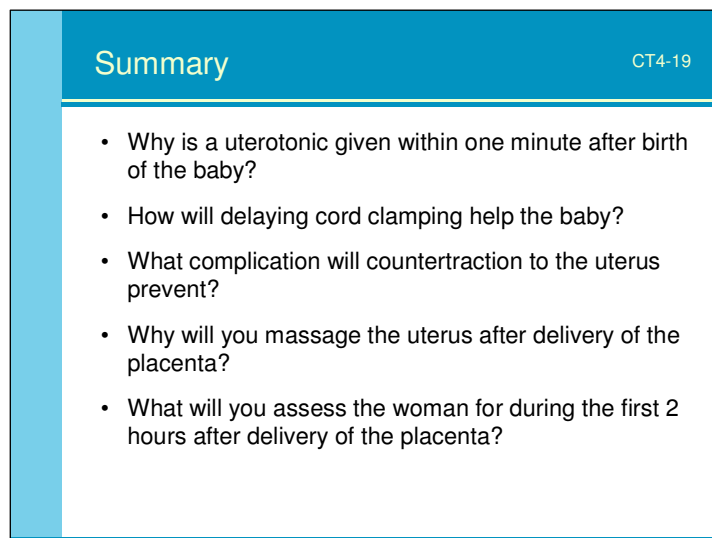
**Time: 5 min.**

**Activity:** Summary.

**Objective:** Review the most important points in the session.

### Notes to the facilitator:

- Review the most important points of the session by asking participants the questions listed on the flipchart / overhead / PowerPoint slide.
- Involve participants as much as possible in the summary.
- Ask for questions.



**Flipchart / Overhead / PowerPoint slide 20****Notes to the facilitator:**

- All participants will need to be evaluated and found competent in simulations before they can begin clinical practice with clients.
- Encourage participants to practice their skills on the model.

Practicing skills on model	
	CT4-20
<ol style="list-style-type: none"><li>1. Practice AMTSL using the practice checklist with your partner.</li><li>2. When you can perform the skill on a model without looking at the practice checklist, ask a facilitator to evaluate your performance on the model.</li></ol>	

**Flipchart / Overhead / PowerPoint slide 21****Notes to the facilitator:**

- Encourage participants to work on learning activities found in the **Participant's Notebook** for Core Topic 4.
- 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	
	CT4-21
<ul style="list-style-type: none"><li>• Please complete learning activities found in the <b>Participant's Notebook</b> for Core Topic 4.</li><li>• 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.</li><li>• You may correct your answers individually or with another participant or the facilitator.</li><li>• See a facilitator if you have questions.</li></ul>	







## Learning the steps in AMTSL: Instructions for using checklists

There are two types of checklists: practice and evaluation checklists.

- **Practice checklist:** While learning and practicing the skills being taught in this course, the participant will use the practice checklist. The practice checklist contains the individual steps or tasks in the sequence required to perform all the skills or activities being taught in a standardized way. Because the practice checklist is used to assist in developing skills, it is important that the rating (scoring) be done carefully and as objectively as possible.
- **Evaluation checklist:** The evaluation checklist is less detailed than the practice checklist and is used to evaluate the participant's ability to competently complete the skills being taught in this course.

### Instructions:

This checklist is written as if the provider were conducting the birth alone. Ideally, though, an assistant gives the oxytocin injection after the provider checks that there is not another baby and while the provider assesses and dries the baby. The assistant then assists the mother with the baby.

- Fill in the date in the correct column at the right side of the checklist.
- When filling in the evaluation checklist, indicate if the participant is being evaluated using a model or in the clinical area with a real patient by writing an "M" if the participant is evaluated on a model or a "C" if the participant is evaluated in the clinical area.
- Give points to each step of the skill:

1 = Performs the step or task completely and correctly.

0 = Unable to perform the step or task completely or correctly.

0 = Not observed: Step, task, or skill not performed by participant during evaluation by facilitator.

N/A (Not applicable) = Step is not needed.

- At the end of each performance, using the learning guide:
  - Ask participant to provide feedback about his/her own performance.
  - Praise the participant for steps that were proficiently or competently performed.
  - Work out a plan to improve performance on steps that need improvement.
- Before practicing on a model or in the clinical area, review the participant's previous performance, answer any questions the participant may have, ask how the participant plans to work on steps he/she had difficulty with during the last performance, and plan for the practice session.

- When the participant is ready to be evaluated using the **evaluation checklist**, the facilitator will calculate a percentage score using the following formulas:
  - Add total points achieved for each step/activity.
  - Add total points achieved for all steps/activities and fill in at end of the checklist (A).
  - Add total points that were N/A for all steps/activities (B).
  - Subtract B from 44 (the total possible points) to calculate the possible points for the case observed (C).
  - Obtain the participant's score by dividing A by C and multiplying by 100.



## Practice Checklist for Active Management of Third Stage of Labor

Training facilitators or participants can use the following checklist to gauge progress while learning to perform AMTSL.

**Checklist directions**

Rate the performance of each step or task using the following rating scale:

**1** = Performs the step or task completely and correctly.

**0** = Unable to perform the step or task completely or correctly or the step/task was not observed.

**N/A** (not applicable) = Step was not needed.

<b>Practice checklist: AMTSL steps</b>	<b>Date</b>				
<b>Rating</b>					
<b>Emotional support</b>					
1. Explain to the woman and her support person what will be done, and encourage their questions.					
2. Listen to what the woman and her support person have to say.					
3. Provide emotional support and reassurance, and keep the woman and her family informed throughout birth and during the immediate postpartum period.					
<b>Preparation</b>					
1. Wear a clean plastic or rubber apron, rubber boots, and eye goggles.					
2. Wash hands thoroughly with soap and water, and dry them with a clean, dry cloth (or air dry).					
3. Use sterile or high-level disinfected (HLD) surgical gloves on both hands.					
4. Place a sterile drape from the delivery pack under the woman’s buttocks, another over her abdomen, and use a third drape to receive the baby.					
5. Prepare uterotonic drug (oxytocin is the uterotonic of choice).					
6. Prepare other essential equipment for the birth before onset of the second stage of labor.					
7. Ask the woman to empty her bladder when second stage is near (catheterize only if the woman cannot urinate and bladder is full).					
8. Assist the woman to assume the position of her choice (squatting, semi-sitting) and allow her to change position according to what’s most comfortable for her.					

Practice checklist: AMTSL steps	Date				
	Rating				
<b>Immediate care of the newborn</b>					
1. Place the baby on the mother's abdomen. Thoroughly dry the baby while assessing the baby's breathing.					
2. If the baby is not crying or breathing at least 30 times per minute within 30 seconds of birth, <b>call for help</b> and begin resuscitation. Otherwise, the baby should remain with the mother.					
3. Place the baby in skin-to-skin contact with the mother to maintain warmth, and cover the baby—including the head—with a clean, dry cloth while keeping the face unobstructed.					
4. If the <b>mother is not able to hold the baby</b> , ask her companion or an assistant to care for the baby.					
<b>AMTSL step 1: Administration of a uterotonic drug</b>					
1. Palpate the uterus to make sure no other baby is present.					
2. If no other baby is present, administer a uterotonic drug (oxytocin 10 IU IM is the uterotonic of choice) within one minute of delivery. <sup>1</sup>					
<b>AMTSL step 2: Controlled cord traction</b>					
1. Wait approximately 2–3 minutes after the birth, then place one clamp 4 cm from the baby's abdomen. <sup>2</sup>					
2. Gently milk the cord towards the woman's perineum and place a second clamp on the cord approximately 1 cm from the first clamp.					
3. Cut the cord using sterile scissors, covering the scissors with gauze to prevent blood spurts. Tie the cord after the provider performs AMTSL and completes initial care of the mother and baby.					
4. Place the palm of the other hand on the lower abdomen just above the woman's pubic bone to assess for uterine contractions (do not massage the uterus before the placenta is delivered).					
5. Keep slight tension on the cord and await a strong uterine contraction (2–3 minutes).					
6. When there is a uterine contraction, apply countertraction to the uterus with the hand above the pubic bone (apply pressure on the uterus in an upward direction—towards the woman's head).					
7. While applying countertraction to the uterus, apply firm, steady traction to the cord, pulling downward on the cord following the direction of the birth canal.					
8. If the <b>placenta does not descend</b> during 30 to 40 seconds of controlled cord traction and there are no signs of placental separation), stop controlled cord traction.					

1 If a woman has an IV, an option may be to give her 5 IU of oxytocin by slow IV push.

2 This action allows red blood cells to transfer from the placenta to the baby, decreasing the incidence of infant anemia.



Practice checklist: AMTSL steps	Date				
	Rating				
9. Gently hold the cord and wait until the uterus is well contracted again. If necessary, clamp the cord closer to the perineum as it lengthens.					
10. When there is another contraction, repeat steps 6 through 9.					
<b>Delivery of the placenta</b>					
1. As the placenta delivers, hold it in both hands and gently turn it until the membranes are twisted.					
2. Slowly pull to complete the delivery. Move membranes up and down until they deliver.					
3. If the <b>membranes tear</b> , gently examine the upper vagina and cervix wearing sterile or HLD gloves and use a sponge forceps to remove any remaining pieces of membrane.					
4. Place the placenta in the receptacle provided (for later examination).					
<b>AMTSL step 3: Uterine massage</b>					
1. Immediately massage the fundus of the uterus through the woman's abdomen until the uterus is contracted (firm).					
2. Check that the uterus is firm after uterine massage is stopped. If the uterus is soft, repeat massage.					
3. Instruct the woman on how the uterus should feel and how to perform uterine massage.					
<b>Examining the birth canal</b>					
1. Direct a strong light onto the perineum.					
2. Gently separate the labia and inspect the lower vagina for lacerations.					
3. Inspect the perineum for lacerations.					
4. Repair lacerations if necessary.					
<b>Examining the placenta</b>					
1. Hold the placenta in the palms of the hands, with maternal side facing upwards.					
2. Check whether all of the lobules are present and fit together.					
3. Hold the cord with one hand and allow the placenta and membranes to hang down.					
4. Insert the other hand inside the membranes, with fingers spread out.					
5. Inspect the membranes for completeness.					
6. If membranes or placenta are not complete, take immediate action.					
7. Consult the woman about her cultural practices, and then dispose of the placenta according to national protocols.					

Practice checklist: AMTSL steps	Date				
	Rating				
<b>Making the woman comfortable</b>					
1. Rinse gloves with soap and water, if needed.					
2. Wash the woman's perineum, buttocks, and back gently and dry her with a clean, soft cloth.					
3. Place a clean cloth or pad on the woman's perineum.					
4. Remove soiled bedding and make the woman comfortable.					
5. Estimate and record blood loss.					
<b>Infection prevention and decontamination</b>					
1. While still wearing gloves, rinse outside surface of gloves with decontamination solution, then:					
• Dispose of gauze swabs and other waste materials in a leak-proof container or plastic bag.					
• Dispose of needles and sharps in a sharps-disposal container.					
• Clean apron with decontamination solution.					
• Place instruments in 0.5 percent chlorine solution for 10 minutes for decontamination.					
2. Immerse both gloved hands in 0.5 percent chlorine solution:					
• Remove gloves by turning them inside out.					
• If disposing of gloves, place in leak-proof container or plastic bag.					
• If reusing surgical gloves, submerge in 0.5% chlorine solution for 10 minutes to decontaminate.					
3. Wash hands thoroughly with soap and water and dry them.					
<b>Documentation</b>					
1. Record relevant details on the woman's record:					
• Time the baby is born.					
• Duration of third stage.					
• AMTSL details (including name of the provider, route and dosage of uterotonic drug used).					
<b>Care after placenta is delivered</b>					
1. If breastfeeding is the woman's choice for infant feeding, help the woman and baby to begin breastfeeding within one hour of birth.					
2. Monitor the woman at least every 15 minutes (more often if needed) during the first two hours after birth:					
• Palpate the uterus to check for firmness.					
• Massage the uterus until firm.					



Practice checklist: AMTSL steps	Date				
	Rating				
<ul style="list-style-type: none"> <li>• Check for excessive vaginal bleeding.</li> </ul>					
<ul style="list-style-type: none"> <li>• Ask the woman to call for help if bleeding increases or her uterus becomes soft.</li> </ul>					
<ul style="list-style-type: none"> <li>• If excessive bleeding is detected, take action to evaluate and treat PPH immediately.</li> </ul>					
3. Check the baby at the same time you check the mother—every 15 minutes for the first two hours after childbirth—to monitor:					
<ul style="list-style-type: none"> <li>• Baby’s breathing.</li> </ul>					
<ul style="list-style-type: none"> <li>• Baby’s color.</li> </ul>					
<ul style="list-style-type: none"> <li>• Warmth, by feeling the baby’s feet.</li> </ul>					
<ul style="list-style-type: none"> <li>• Bleeding at the cord site.</li> </ul>					
<ul style="list-style-type: none"> <li>• If a problem is detected, take action immediately.</li> </ul>					
4. Continue with normal care for the woman and newborn, including exclusive breastfeeding within the first 30 to 60 minutes, if this is the woman’s choice for infant feeding, and interventions for prevention of mother-to-child transmission of HIV/AIDS.					
5. Review possible danger signs with the woman and her family.					
6. Document all findings.					
7. Document all care provided.					







## Evaluation Checklist for Active Management of Third Stage of Labor

The facilitator or **clinical preceptor** will use the following checklist to evaluate participants' performance (competency) of **AMTSL** on obstetric models and in the clinical area.

### Checklist directions

Rate the performance of each step or task using the following rating scale:

**1** = Performs the step or task completely and correctly.

**0** = Unable to perform the step or task completely or correctly or the step/task was not observed.

**N/A (not applicable)** = Step was not needed.

Evaluation Checklist: AMTSL					
Steps	Rating				
Date					
Evaluation type: model (M) or clinical practice (C)					
<b>Emotional support (2 points)</b>					
1. Explains to the woman and her family what will happen.					
2. Provides emotional support and reassurance, and keeps the woman and her family informed throughout birth and during the immediate postpartum.					
<b>Points for skill/activity</b>					
<b>Preparation (6 points)</b>					
1. Prepares uterotonic drug (oxytocin is the uterotonic of choice) and other essential equipment for the birth before onset of second stage of labor.					
2. Wears a clean plastic or rubber apron, rubber boots, and eye goggles.					
3. Washes hands thoroughly with soap and water and dries them with a clean, dry cloth (or air-dries hands).					
4. Wears sterile surgical or HLD gloves on both hands.					
5. Asks the woman to empty her bladder when second stage is near (catheterizes only if the woman cannot urinate and bladder is full).					
6. Assists the woman to assume the position of her choice (squatting, semi-sitting).					
<b>Points for skill/activity</b>					
<b>Immediate newborn care (3 points)</b>					
1. Thoroughly dries the baby while assessing the baby's breathing.					

<b>Evaluation Checklist: AMTSL</b>					
<b>Steps</b>	<b>Rating</b>				
2. If the baby is not crying or breathing at least 30 times per minute within 30 seconds of birth, <b>calls for help</b> and begins resuscitation.					
3. Places the baby in skin-to-skin contact with the mother and covers with a clean, dry cloth; covers head.					
<b>Points for skill/activity</b>					
<b>AMTSL step 1: Administration of a uterotonic drug (2 points)</b>					
1. Palpates the uterus to make sure no other baby is present.					
2. If no other baby is present, administers uterotonic drug (oxytocin 10 IU IM is the uterotonic of choice) within one minute of delivery (if a woman has an IV infusion, an option is giving oxytocin 5 IU IV bolus slowly).					
<b>Points for skill/activity</b>					
<b>AMTSL step 2: Controlled cord traction (9 points)</b>					
1. Clamps and cuts the cord approximately 2–3 minutes after the birth.					
2. Places the palm of the other hand on the lower abdomen just above the woman’s pubic bone.					
3. Keeps slight tension on the cord and awaits a strong uterine contraction.					
4. Applies gentle but firm traction to the cord during a contraction, while at the same time applying countertraction abdominally.					
5. Waits for the next contraction and repeats the action if the maneuver is not successful after 30–40 seconds of controlled cord traction.					
6. As the placenta delivers, holds it in both hands.					
7. Uses a gentle upward and downward movement or twisting action to deliver the membranes.					
8. If the <b>membranes tear</b> , gently examines the upper vagina and cervix.					
9. Places the placenta in the receptacle (e.g., kidney basin) provided.					
<b>Points for skill/activity</b>					



<b>Evaluation Checklist: AMTSL</b>					
<b>Steps</b>	<b>Rating</b>				
<b>AMTSL step 3: Uterine massage (4 points)</b>					
1. Immediately massages the fundus of the uterus through the woman's abdomen until the uterus is contracted (firm).					
2. Ensures the uterus does not become relaxed (soft) after stopping uterine massage.					
3. If the uterus becomes soft after massage, repeats uterine massage.					
4. Teaches the woman how to massage her uterus.					
<b>Points for skill/activity</b>					
<b>Immediate postpartum care (7 points)</b>					
1. Inspects and repairs lacerations or tears (if necessary) of the lower vagina and perineum.					
2. Repairs episiotomy (if performed).					
3. Examines the maternal surface of the placenta and membranes for completeness and abnormalities.					
4. Disposes of the placenta.					
5. Removes soiled bedding and makes the woman comfortable.					
6. Estimates blood loss.					
7. If breastfeeding is the woman's choice for infant feeding, assists the woman and baby to begin breastfeeding within the first hour after birth.					
<b>Points for skill/activity</b>					
<b>Infection prevention (6 points)</b>					
1. Before removing gloves, disposes of gauze swabs and other waste materials in a leak-proof container or plastic bag.					
2. Disposes of needles and sharps in a sharps disposal container.					
3. Cleans apron with decontamination solution.					
4. Places instruments in 0.5 percent chlorine solution.					
5. Decontaminates and disposes of gloves.					
6. Washes hands thoroughly with soap and water and dries them.					
<b>Points for skill/activity</b>					

<b>Evaluation Checklist: AMTSL</b>					
<b>Steps</b>	<b>Rating</b>				
<b>Care after placenta is delivered (5 points)</b>					
1. Monitors the woman at least every 15 minutes (more often if needed) during the first 2 hours after birth.					
2. Monitors the baby every 15 minutes for the first 2 hours after birth.					
3. Continues with normal care for the mother and newborn, including interventions for prevention of mother-to-child transmission of HIV/AIDS.					
4. Documents all findings.					
5. Documents all care provided.					
<b>Points for skill/activity</b>					
<b>A: Total points for case observed</b>					
<b>B: Total points that were N/A</b>					
<b>C: Total possible points for the case observed = 44 minus B</b>					
<b>Score = (A divided by C) multiplied by 100</b>					

# Job Aid: Active Management of the Third Stage of Labor (AMTSL)

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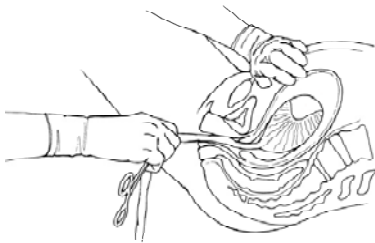
**1:** Dry the baby, assess the baby's breathing and perform resuscitation if needed, and place the baby in skin-to-skin contact with the mother

**2:** Place the infant directly on the mother's chest, prone, with the newborn's skin touching the mother's skin. Cover the baby's head with a cap or cloth.



**3:** Administer a uterotonic (the uterotonic of choice is oxytocin 10 IU IM) immediately after birth of the baby, and after ruling out the presence of another baby.

**4:** Clamp and cut the cord after cord pulsations have ceased or approximately 2-3 minutes after birth of the baby, whichever comes first.



**5:** Perform controlled cord traction while, at the same time, supporting the uterus by applying external pressure on the uterus in an upward direction towards the woman's head.

**6.** Massage the uterus immediately after delivery of the placenta membranes until it is firm.



During recovery, assist the woman to breastfeed if this is her choice, monitor the newborn and woman closely, palpate the uterus through the abdomen every 15 minutes for two hours to make sure it is firm and monitor the amount of vaginal bleeding. Provide PMTCT care as needed.

