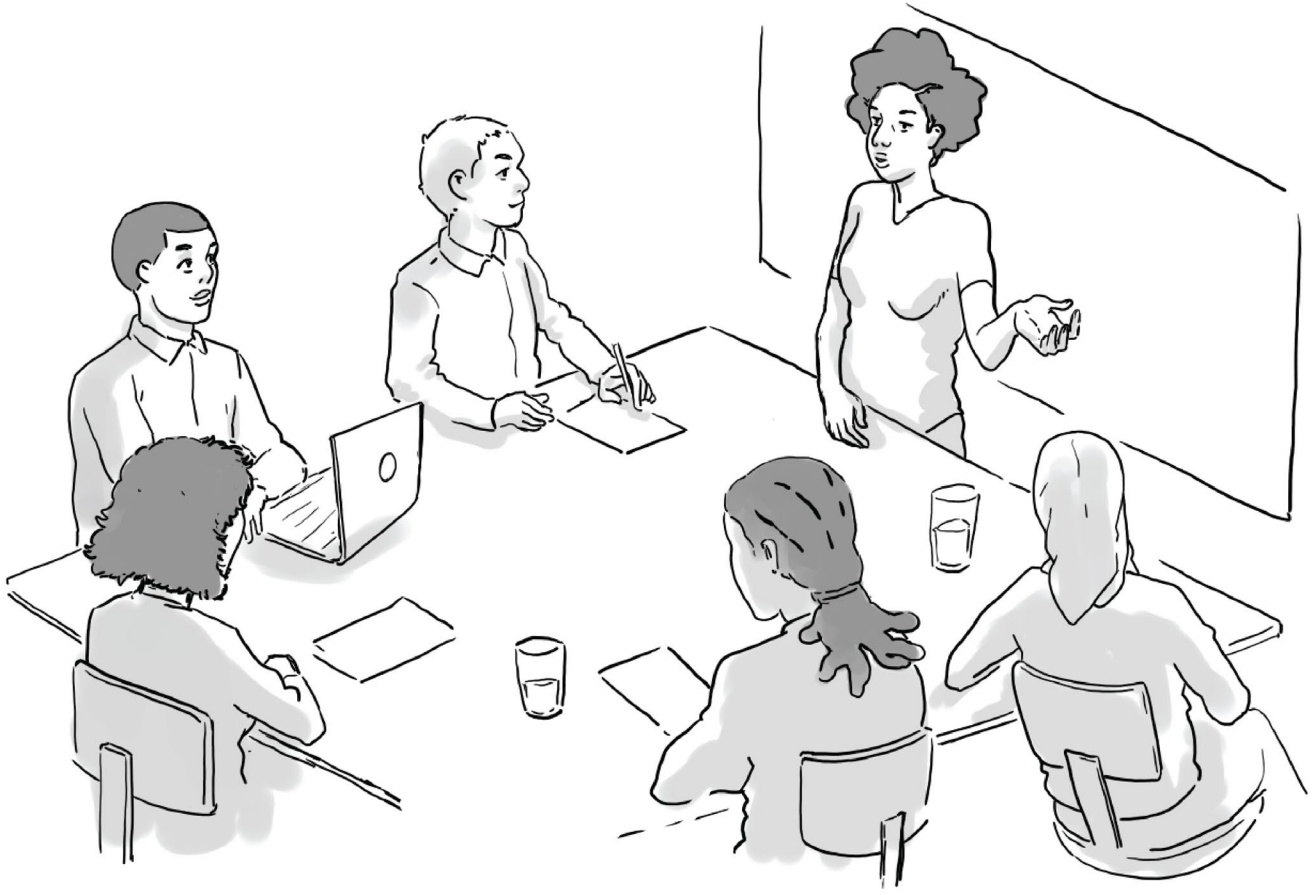
BASIC EMERGENCY OBSTETRIC AND NEWBORN CARE IN CRISIS SETTINGS: SELECT SIGNAL FUNCTIONS

FACILITATOR'S GUIDE

Clinical Outreach Refresher Training Module for Health Care Providers Implementing the Minimum Initial Service Package (MISP) for Sexual and Reproductive Health



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In 2020, funding from the Netherlands Ministry of Foreign Affairs allowed for this module to be updated to align with the 2018 revised *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*. The 2020 revision was led by Sheena Currie with review and technical inputs provided by Dr. Blami Dao and Alemnesh Reta. Alison Greer provided a review and edits. The training materials were designed by Mikhail Hardy and Chelsea Ricker. IAWG is immensely grateful for their contributions.

Content for this training is based on World Health Organization guidelines and the *Inter-Agency Field Manual*. Various materials have been adapted with permission from Helping Mothers Survive modules:

Pre-eclampsia and eclampsia 2016 (hms.jhpiego.org/pre-eclampsia_eclampsia)
Post-partum hemorrhage 2017 (hms.jhpiego.org/bleeding-after-birth-complete)

Content from Helping Babies Survive has also been adapted, and videos from Global Health Media, Medical Aid Films, and White Ribbon Alliance incorporated into this module.

LIST OF ABBREVIATIONS

AMTSL	Active management of the third stage of labor
BEmONC	Basic emergency obstetric and newborn care
BP	Blood pressure
EmONC	Emergency obstetric and newborn care
IARH	Inter-Agency Emergency Reproductive Health (Kits)
IAWG	Inter-Agency Working Group (on Reproductive Health in Crises)
IM	Intramuscular
IP	Infection prevention
IU	International units
IV	Intravenous
MCG	Microgram
$MGSO_4$	Magnesium sulphate
MISP	Minimum Initial Service Package (for Sexual and Reproductive Health)
NASG	Non-pneumatic anti-shock garment
NS	Normal saline
ORS	Oral rehydration solution
OSCEs	Objective structured clinical examinations
PPE	Personal protective equipment
PPH	Postpartum hemorrhage
PROM	Premature rupture of membranes
RAM	Rapid assessment and management
RL	Ringer's lactate
RMC	Respectful maternity care
S-CORT	Sexual and reproductive health clinical outreach refresher training
TBA	Traditional birth attendant
TXA	Tranexamic acid
UBT	Uterine balloon tamponade
WHO	World Health Organization

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THE MISP FOR SEXUAL AND REPRODUCTIVE HEALTH AND S-CORTS

This guide provides what we hope is a simple and user-friendly set of instructions to plan, conduct, and evaluate a clinical refresher training. Throughout this document, additional notes to help you as a facilitator are marked using the symbol to the left. You will also find more details about the design and use of this guide below in the section marked "Description of Facilitator's Guide."

INTRODUCTION

The Minimum Initial Service Package (MISP) for Sexual and Reproductive Health is a priority set of lifesaving activities to be implemented at the onset of every emergency. The 2018 MISP has six objectives and another priority activity:

1. Ensure the health sector/cluster identifies an organization and a sexual and reproductive health coordinator to lead and coordinate the implementation for the MISP.
2. Prevent sexual violence and respond to the needs of survivors.
3. Prevent the transmission of and reduce morbidity and mortality due to HIV and other sexually transmitted infections.
4. Prevent excess maternal and newborn morbidity and mortality.
5. Prevent unintended pregnancies.
6. Plan for comprehensive sexual and reproductive health services, integrated into primary health care as soon as possible.

Other priority: It is also important to ensure that safe abortion care is available, to the full extent of the law, in health centers and hospital facilities.

Neglecting the MISP for Sexual and Reproductive Health in humanitarian settings has serious consequences: preventable maternal and newborn deaths; sexual violence and subsequent trauma; sexually transmitted infections; unwanted pregnancies and unsafe abortions; and the possible spread of HIV.

Nurses, midwives, and physicians working in emergencies provide the sexual and reproductive health services needed to achieve the objectives of the MISP. IAWG has designed a series of short clinical outreach refresher trainings (S-CORTs) in order to reinforce previously acquired knowledge and skills of health care staff tasked with providing these priority services. *Basic Emergency Obstetric and Newborn Care in Crisis Settings, Select Signal Functions* is one of these modules. Please visit www.iawg.net/scorts to access all training materials in the series and more information on their use.

Additional resources for implementing sexual and reproductive health services in crisis settings are available on the IAWG site at iawg.net/resources. In particular, facilitators and participants in this training may also want to explore :

- *The Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*
- *IAWG Programmatic Guidance for Sexual and Reproductive Health in Humanitarian and Fragile Settings During COVID-19 Pandemic*
- *Adolescent Sexual and Reproductive Health Toolkit for Humanitarian Settings: 2020 Edition*
- *Inter-Agency Emergency Reproductive Health Kits for Use in Humanitarian Settings Manual*. 6th Edition

FURTHER READING/RESOURCES:

- American Academy of Pediatrics. *Helping Babies Breathe*. 2nd Edition. Facilitator Flip Chart, 2016.
- American Academy of Pediatrics. *Helping Babies Survive*, various trainings and resources.
- Inter-Agency Working Group on Reproductive Health in Crises. *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, Chapters 3 & 9. 2018.
- Inter-Agency Working Group on Reproductive Health in Crises. *Newborn Care Supply Kits for Humanitarian Settings Manual: DRAFT*. 2018.
- Inter-Agency Working Group on Reproductive Health in Crises. *Newborn Health in Humanitarian Settings: Field Guide*, 2018.
- Jhpiego. *Breaking Tradition: Translating Evidence into Effective Learning*, 2019.
- Jhpiego. *Helping Mothers Survive*, various trainings and resources.
- Laerdal Global Health, Save the Children, Maternity Foundation. *Training and Tools for Improving Newborn Care in Humanitarian Settings*. 2020.
- World Health Organization. *Integrated Management of Pregnancy and Childbirth*. 2nd Edition. 2017.

These and other publications can be downloaded through the links provided, at www.iawg.net, or by contacting info.iawg@wrcommission.org.

UNIVERSAL ACCESS: ENSURING SERVICES THAT ARE FREE OF STIGMA AND DISCRIMINATION

Words matter when describing and caring for individuals who need access to health care information and services and, in particular, the services presented in the S-CORT series. Language can have a significant impact on sexual and reproductive health and wellbeing as well as access to related information and services. At times, the terminology used in guidance, programs, and policies can be discriminating, stigmatizing, and dehumanizing. Conscious of the tensions that can arise when trying to use inclusive and appropriate language and, at the same time, be concise and efficient, especially in publications, the language used in the S-CORT series was guided by the following considerations:

- **On gender**. Throughout the S-CORT series, the terms "women," "girls," and, at times, the gender-neutral "person," "people," "client," "patient," or "individual" refer to those who use the services presented in the S-CORT. However, the authors recognize and emphasize that:
  - Not only cis-gendered women (women who identify as women and were assigned the female sex at birth) can get pregnant and have rights to quality health care, to be treated with dignity and respect, and to be protected from stigma, discrimination, and violence in all settings. Persons who are trans men/transmasculine, intersex, non-binary, and gender non-conforming can experience pregnancy and face unique barriers to accessing sexual and reproductive health information and services. The S-CORT language strives to reflect this diversity whenever possible but for ease of reference and use, "women" or "women and girls" may be often applied.
  - Sexual violence "survivors" can be women, men, trans, intersex, non-binary, gender non-conforming individuals, and individuals of all ages.
- **On age**.[1] Adolescents—girls, boys, trans, intersex, non-binary, and gender non-conforming—have unique sexual and reproductive health needs and should not be discriminated against in terms of access to SRH information, services, care, and support. Equally important are the sexual and reproductive health needs of older persons. The S-CORT language strives to reflect this age diversity whenever possible, but for ease of reference and use, it often does not use age-specific terminology.
- **On disability.** The sexual and reproductive health needs of persons living with disabilities have been widely neglected. They should not be discriminated against regarding access to sexual and reproductive health information, services, care, and support. While for ease of reference and use disability-specific terminology is not always applied, the S-CORTS were developed using universal design principles to ensure accessibility of these materials. Facilitators and organizations are encouraged to take into consideration the accessibility needs of participants in these trainings and persons living with disabilities in the communities they serve.
- **On diversity**. All individuals, no matter how diverse their personal, social, cultural, and economic background, have a right to access sexual and reproductive health information, services, care, and support free from stigma, discrimination, and violence. Images and language in this guide have been designed with diversity in mind, however, the S-CORT language is not always able to reflect the rich diversity of individuals who access sexual and reproductive health information, services, care, and support.

S-CORT facilitators should keep these inclusive considerations of gender, age, disability, and diversity in mind when rolling out these trainings to further universal access to sexual and reproductive health information, services, care, and support.

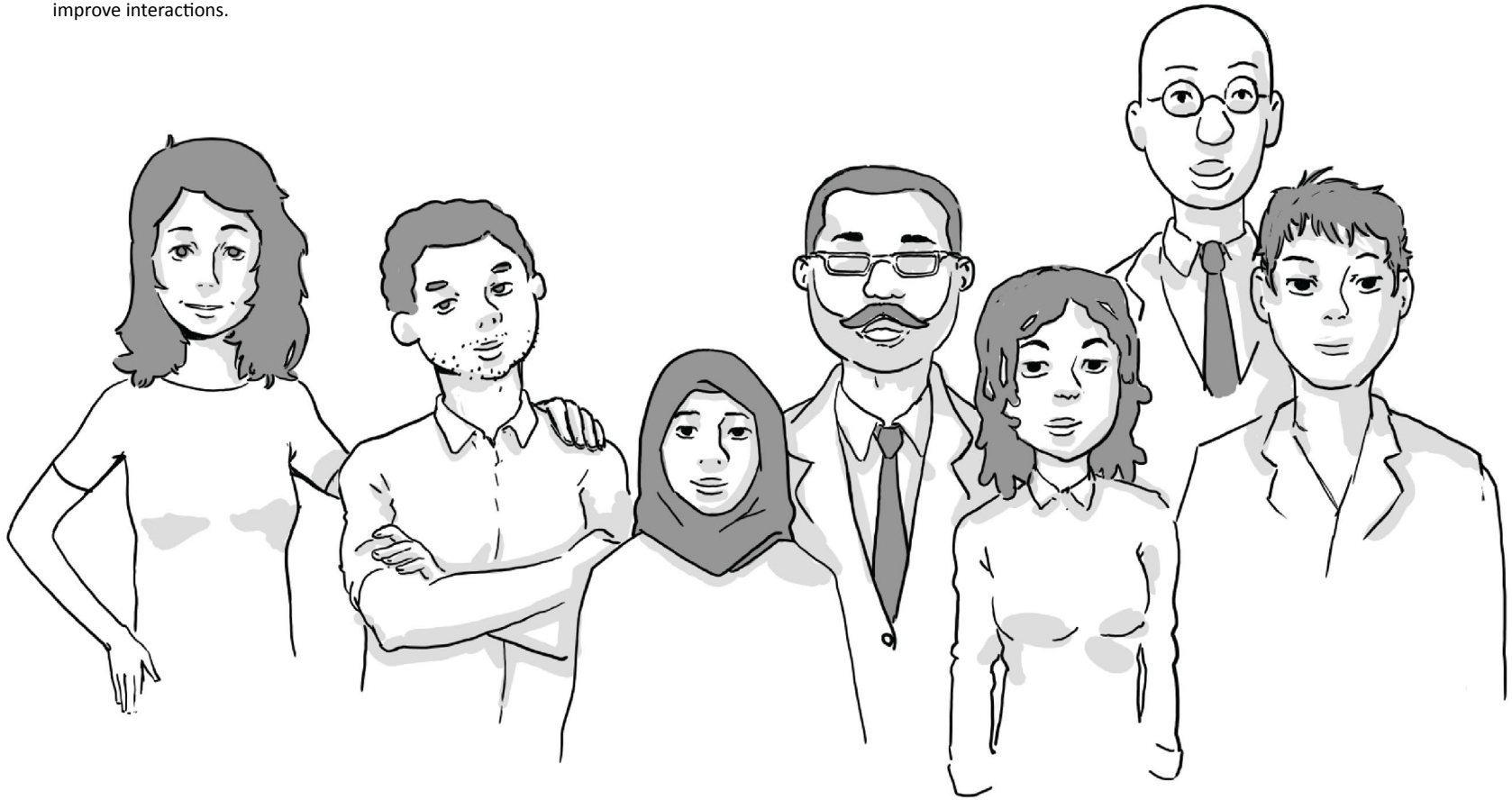
WHAT CAN HEALTH STAFF DO?

The use of inclusive, appropriate, and respectful language is a cornerstone of reducing harm and suffering. All terminology requires contextualization to the local language and socio-cultural environment as well as a pragmatic approach, but one that should not sacrifice the promotion and use of stigma-free and all-gender-age-disability-diversity inclusive language. To help mainstream such language, health staff should consider the following principles to guide the way they speak, write, and communicate among themselves and with and about the persons accessing sexual and reproductive health information and services. These principles can help health staff prioritize the use of terminology that adheres to their professional mandate: caring for all people.

- **Engage and ask people and respect their preferences.** As terminology requires adaptation in local languages and cultures, each linguistic and professional community should be engaged in discussing and contextualizing diversity-inclusive terms so that they are acceptable in the circumstances they are to be used. For example, avoid assuming the person's gender ("Miss" or "Mister") and ask instead: "Hello and welcome. My name is B and I am your provider today. Could you please tell me how I should address you?".
- **Use stigma-free, respectful, and accurate language.** Avoid using judgmental terms that are not person-centered. Favor the use of humane and constructive language that promotes respect, dignity, understanding, and positive outlooks (for example, prefer "survivor of sexual violence" to "victim").

1. For updated resources and support for organizations supporting adolescents, see the updated IAWG Adolescent *Sexual and Reproductive Health (ASRH) Toolkit for Humanitarian Settings*: 2020 Edition, available at: iawg.net/resources/adolescent-sexual-and-reproductive-health-asrhtoolkit-for-humanitarian-settings-2020-edition.

- **Prioritize the individual.** It is recommended to place individuals at the center, and their characteristics or medical conditions second in the description (i.e. persons living with disability or persons living with HIV). Therefore, the use of person-centered language should be preferred to describe what people have, their characteristics, or the circumstances in which they live, which in the end should not define who they are and how health staff should treat them.
- **Cultivate self-awareness**. Professionals working with persons from diverse backgrounds should be conscious of the language they use as it can convey powerful images and meanings. They should develop cultural humility and self-reflection, be mindful, and refrain from repeating negative terms that discriminate, devalue, and perpetuate harmful stereotypes and power imbalances. They should also encourage colleagues, friends, and their community to do so. Values clarification workshops for health (and non-health) staff working with people with diverse backgrounds and characteristics could be transformative in clarifying values and changing attitudes to improve interactions.



FACILITATOR'S GUIDE AND TRAINING PLAN OVERVIEW

OBJECTIVE

The objective of the *Basic Emergency Obstetric and Newborn Care in Crisis Settings, Select Signal Functions: Facilitator's Guide* is to guide clinical trainers in conducting short face-to-face trainings on key components of basic emergency obstetric and newborn care. The trainings are intended for crisis settings and to refresh health care providers' knowledge and skills. They can be onsite or offsite in nearby referral facility.

TARGET AUDIENCE

This training module is designed for clinical service providers, including midwives, nurses, general practice physicians, obstetrician/gynecologists, and others who are currently attending or will attend births in the acute phase of an emergency response.

PARTICIPANT PREREQUISITES

For optimal results, it is important to ensure the correct participants participate in these trainings. The training is sequenced to build on what participants already know. Only fully qualified and competent clinical service providers who are currently attending normal and complicated births are eligible for this short refresher course. In many countries these providers are considered skilled birth attendants, although there may be some differences in the scope of practice related to what they have the responsibility to perform competently and safely.

When considering participants for this training, managers should check that they are competent in lifesaving skills and if gaps in their performance have been identified. At a minimum, participants should be able to:

- Perform person-centered care, including a complete medical and obstetrical assessment.
- Support safe and clean birth, and provide immediate postnatal care for the woman and essential newborn care.
- Recognize and provide initial management of common peripartum complications.
- Establish intravenous (IV) access, and safely administer IV and intramuscular (IM) medicines.

If you find that there is a need for basic obstetric training for clinicians with limited or no experience:

- Advise the participants' organization to plan for an extended basic emergency obstetric and newborn care training.
- Contact the IAWG Training Partnership Initiative Coordinator by emailing info.iawg@wrcommission.org.

Note: In crisis settings, refresher courses typically take place on-site. Be sure to bring all supplies to the training, including paper certificates, copies of the participant workbook or handouts, and additional resources in paper format or on a USB key. The IAWG S-CORTs site (www.iawg.net/scorts) provides recommendations for additional resources to download for participants. Bring paper copies of slides with notes for your use and extra flip chart paper as a backup in case a projector or electricity is not available. A flexible approach to facilitation will be needed to help you adapt to the context and participants' needs.

ACCOMPANYING PARTICIPANT WORKBOOK

One of the lessons learned from piloting S-CORT series is that participants preferred to have the materials shared with them in advance of the training to review and help them prepare.

The accompanying *Participant Workbook* includes copies of the relevant materials that pertain to each section of the training and provide additional background. These materials should be shared with participants as soon as possible, but at least 2-3 weeks before the training, in hard or soft copy. **In addition, participants should become certified in the *MISP for Sexual and Reproductive Health Distance Learning Module* (available at www.iawg.net/misp-dlm). This will help to provide a foundation prior to the training.**

DESCRIPTION OF THE FACILITATOR'S GUIDE

This facilitator's guide includes facilitation notes, case studies, clinical simulation activities, and supporting resources. It provides information on the necessary skills and professional behaviors for handling common obstetric emergencies at multiple levels of care, including postpartum infection, pre-eclampsia/eclampsia, and postpartum hemorrhage. The content is based on the most recent clinical evidence by the World Health Organization (WHO) and IAWG's 2018 *Inter-Agency Field Manual for Reproductive Health in Humanitarian Settings*. Elements of essential

newborn care and newborn resuscitation are included in this training. However, if participants are proficient in newborn resuscitation, time can be allocated to practicing other lifesaving skills and/or actual clinical practice (supervised) with clients, if the opportunity arises.

This training module is divided into eleven units, which include the following:

1. **Timing and methodology:** An estimate of how long it will take to complete the unit, its components, and the training methodology used
2. **Objectives:** Specific learning objectives to be met by participants by the end of each unit
3. **Materials:** Copies of all participant materials for distribution and answer keys for facilitators, color-coded and highlighted to identify materials you will need to print, download, or gather
4. **Preparation:** Instructions regarding information, activities, and materials to be prepared ahead of time
5. **Detailed session guide:** Step-by-step guidance on how to facilitate interactive participatory learning

Facilitators are highly encouraged to adapt the units to fit local training needs and objectives. The nature of the competency-based activities and concurrent simulation sessions requires more than one trainer to successfully implement the course. The recommended ratio is one facilitator per 4-6 participants. The recommended maximum number of participants is 16.

In addition to this guide, facilitators will use and will want to familiarize themselves with the accompanying slide presentations, which include additional notes on the content and suggestions for engaging with participants. Presentations are intended to include key information on the topic and are short. Participants are encouraged to read around topics and suggested references are included in the participant workbook. Where they exist, relevant national clinical guidelines and protocols should be used as a reference in the training. Facilitators may want to note for participants where the national guidelines are not up to date with recent evidence.

DOCUMENTATION AND CERTIFICATE

Facilitators should document participants' attendance and present certificates of attendance at the end of the course. A sample certificate template is included in the training package.

COMPETENCY ASSESSMENT

This module is a refresher training course for health service providers with existing essential and emergency maternal and newborn care competencies. Facilitators should assess both knowledge and skills to determine the competency of each participant in key clinical topics. Participants are required to complete a multiple-choice pre-test and post-test on their knowledge with a recommended passing mark of 80%.

The checklists contained in this module have been modified slightly to assess skills during simulated practice using Objective Structured Clinical Examinations (OSCEs). These include crosscutting professional behaviors (attitudes), such as good interpersonal communication and demonstrating respect and kindness, which are equally important as the provision of care. Basic infection prevention is also included and must be practiced to standard.

Note: Depending on the context, there may need to be additional attention to serious infections such as Coronavirus (COVID-19) or Ebola. Please refer to national clinical guidance. At all times, ensure adherence to standard precautions for infection control.

Suggested skills for OSCE assessment are:

1. Bimanual compression of the uterus
2. Newborn resuscitation
3. Administering the loading dose of magnesium sulfate

By the end of the training, facilitators should identify participants deemed competent to perform the key skills using OSCEs and those who require further support, such as coaching or mentoring, prior to performing the intervention safely and respectfully on clients. After the training, it is also important to conduct a follow-up visit of participants at their workplace. If in-person follow-up by the facilitator is not possible, consider remote modes of follow-up. Further guidance on best practices for post training follow-up is included in Unit 11.

PARTICIPANT EVALUATION

Facilitators should conduct an informal process evaluation at the end of each workshop day to assess progress and participant satisfaction with the topics and activities. At the end of the course, participants should complete the final evaluation to provide feedback for further trainings.

PREPARATION FOR THE TRAINING

Facilitators should go through the sample agenda (Annex 1), facilitation plan, and tables below that outline the preparatory work that must be undertaken to successfully implement this course.

COURSE MATERIALS

The written or digital materials and complementary resources for this training are freely available for download at www.iawg.net. In advance of the course, it is recommended to download all the materials and resources to be used during the training, including all handouts, slide presentations, videos noted, and certificates of completion. These materials can be stored on a USB key for use during the training and while offline. Copies of the materials can be shared with participants and other colleagues who are interested.

MATERIALS LIST

This training module is designed to demonstrate and practice use of the supplies included in, but not limited to, the Inter-Agency Emergency Reproductive Health (IARH) Kits. These supplies should be available in the setting where the participants are working at the time of the course.
The following is a complete list of the maternal and newborn health training supplies needed for the successful implementation of the training. Each unit specifies from these lists which materials to print, download, or gather for that topic. Verify which supplies are already available at the training venue and make arrangements to bring any missing supplies with you. Some materials can be simulated, such as medicines.

COURSE MATERIALS CHECKLIST: ITEMS TO GATHER

Unit	Materials	Quantity	Check
All	A projector compatible to a computer with sound	1	
All	Light source / flashlights	2-3	
All	Flip charts with paper	2	
All	Markers in various colors	3-4 per table	
All	Post-it notes in various colors	Several packs	
All	Power supply & extension cord	1	
All	Room for 15 participants with 2 tables, preferably at the work site. Each participant needs a chair and desk/firm surface to write on.	1	
All	Simple notebooks and pen or pencil; a simple folder if available	1 per person	
All	Hand or liquid soap and hand gel, if available	6	
All	Handouts as indicated in the Advance Preparation Checklist (see below)	1 per person	
All	Wall clock	1	
All	Index cards / paper	1-2 packs	
All	Small container	1	
	ACTUAL OR SIMULATED MEDICATIONS		
5	Oxytocin, misoprostol, tranexamic acid, and ergometrine; ampicillin and metronidazole; diazepam	2-3	
6	Diazepam, Oxytocin, Ampicillin and Metronidazole injections and/or tablets	2-3	
7	Oxytocin	2-3	
8	Antibiotics	2-3	
9	Magnesium Sulfate, 1 or 2% Lignocaine, Calcium Gluconate, and Hydralazine or other hypertensive medications	2-3	
	CLINICAL SUPPLIES		
4-10	Gloves – sterile and non-sterile	1-2 boxes	
4-10	Personal Protective Equipment (PPE) – mask, goggles, aprons, gowns	2 full sets for demonstration	
4-10	Simple buckets for clinical waste and solutions for instrument processing per national guidelines	4	
4-9	Sharps boxes	2	
4-8	IV infusion giving set, fluids, cannula, and tape	10	

Unit	Materials	Quantity	Check
4, 9, 10	Blood pressure cuff (sphygmomanometer) and stethoscope	2-3	
4, 5, 7, 9	Urinary (Foleys) catheter and bag	2	
4	Blanket / sheet	1	
4	Thermometer	2	
4	Oxygen mask and tubing	1 of each	
5	Condoms and cord tie, strong thread or black silk sutures (for uterine balloon tamponade) *optional	3 of each	
5	Sims speculum	2	
5	Ring or sponge forceps	2	
5, 6	Povodone iodine (Betadine) or another antiseptic	2 bottles	
5, 6, 9	Syringes and needles mixed (at least 4 x 20 mL syringes)	10	
5, 6, 10	Delivery kits (2 clamps, cord ties, scissors)	4	
5, 10	Childbirth and neonatal simulators or local alternative	2 of each	
6	Gauze and cotton swabs and/or cotton balls	4 packets	
6	Bowl/dish for placenta	2	
7	Non-pneumatic anti-shock garment (optional)	1	
9	Reflex hammer	2	
9	Urine dipsticks	2	
9	Melon or other local fruit	5-6	
10	Newborn ambu bag and mask 0 and 1	2	
10	Simple suction / mucous extractor	2	
10	Baby hats	2	
10	Dry clean fabric or towel to dry and wrap the baby	6 pieces	
10	Wall clock, watch, or timer with second hand	1	
	BLOOD ESTIMATION MATERIALS		
5	Red dye (food coloring) or other appropriate simulated blood: • White towel with 600 cc simulated blood • Gauze bandage with 100 cc simulated blood • 300 cc simulated blood as liquid in a basin • 500 cc red fruit jam (1 jar)	1 of each	

ADVANCE PREPARATION CHECKLIST: ITEMS TO DOWNLOAD, PRINT, AND PREPARE

Use the following checklist to ensure that all the necessary materials are prepared in the weeks before the training:

Unit	Description	Completed? (Yes/No)
General	Check projector/LCD for image and sound quality of videos and presentations	
General	Review and contextualize all slide presentations; hide any optional slides if not applicable to the context	
General	Download all videos and check sound	
General	Review the instructions and answer keys for all activities	
General	Check that all course materials are available and ready to use	
General	Ensure access to childbirth and newborn simulators (clean and complete) and comfort with all functionalities	
General	Flip chart sheets on: Ground rules, Garden, Icebreaker (if adapting)	
General	Gather all materials listed for the course	
1	Questions and answers for "Getting to Know Each Other" activity, if using	
1	Any special requests for formal opening remarks	
5	Set up blood estimation exercise materials	
7	Research national or other relevant referral forms and familiarize yourself with local standards	
9	Ensure you are confident to explain and demonstrate the formulation of magnesium sulfate and dosage concentrations	
10	Setup OCSE Stations	
	DOWNLOAD AND PRINT THE FOLLOWING HAND-OUTS, ONE FOR EACH PARTICIPANT:	
1	*Course Agenda*	
1	*Pre-test*	
2	*MISP Checklist*	
10	*OSCE 1: For Atonic PPH / Bimanual Compression of the Uterus*	
10	*OSCE 2: Helping Babies Breathe*	
10	*OSCE 3: Administering the Loading Dose for $MGSO_4$*	
11	*Post-test*	
11	*Certificate of Attendance (to be personalized)*	
11	*Course Evaluation*	

Unit	Description	Completed? (Yes/No)
	DOWNLOAD AND PRINT THE *PARTICIPANT WORKBOOK*, ONE FOR EACH PARTICIPANT	
	DOWNLOAD THE VIDEOS USED IN THE TRAINING	
3	*Respectful care: A tool for Healthcare workers*. White Ribbon Alliance. Available: www.youtube.com/watch?v=aStnrRu_VrQ&t=30s	
5	*Bleeding After Birth*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/bleeding-after-birth/?portfolioCats=191%2C94%2C13%2C23%2C65	
5	Optional: *How to Use the Uterine Balloon Tamponade*. Medical Aid Films. Available: www.youtube.com/watch?v=0ycliSjvcF4	
7	Optional: *Inserting an IV*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/inserting-an-iv-2/?portfolioCats=191%2C94%2C13%2C23%2C65	
7	Optional: *Using an Anti-Shock Garment*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/using-an-anti-shock-garment/?portfolioCats=191%2C94%2C13%2C23%2C65	
9	Optional: *Taking a Blood Pressure*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/taking-a-blood-pressure/?portfolioCats=191%2C94%2C13%2C23%2C65	
9	*Severe Pre-Eclampsia*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/severe-pre-eclampsia/?portfolioCats=191%2C94%2C13%2C23%2C65	
10	*Helping Babies Breathe at Birth*. Global Health Media. Available: globalhealthmedia.org/portfolio-items/helping-babies-breathe-at-birth/?portfolioCats=191%2C94%2C13%2C23%2C65	

CHARACTERISTICS OF EFFECTIVE TRAINING[2]

The following recommendations are necessary to ensure effective transfer of information during adult learning:

- Clearly communicate the purpose of the training to both facilitators and learners.
- State exactly what learners are expected to do at the end of the course.
- Use training methods that build on participants' existing skills and experience, enabling them to meet the objectives. Present new knowledge and skills in a relevant context.
- Actively engage learners in the process.
- Use an effective mix of training methods to meet the needs of different learning styles.
- Offer learners the opportunity to practice applying new knowledge and skills.
- Provide learners with constructive feedback on their performance.
- Allow enough time for learners to meet the training objectives.
- Offer facilitators and learners the opportunity to evaluate the course, which includes measuring the extent to which facilitators and learners met the training objectives, and accepting feedback from learners to make improvements to the course.

ALERT: IMPORTANT RECOMMENDATIONS FOR BEFORE AND AFTER THE TRAINING

This module is designed to be a minimum 3-day clinical refresher training for health care service providers working in maternal and newborn health care in crisis-affected contexts. The IAWG Training Partnership Initiative conducted research about the barriers and facilitators to its implementation during the pilot phase, and have the following recommendations **for trainers and program managers**.

Before the training:

- Limit the selection of participants to those who meet the specified pre-requisite qualifications in the facilitator's guide.
- Assess qualified participants' learning needs to prepare for how best to address knowledge gaps. To do so, use the pre-test included in the *Select Signal Functions of Basic Emergency Obstetric and Newborn Care* module or interview participants.
- Based on identified trainees' needs, provide additional training resources to expand the training as needed.
- Ensure that participants become certified in the *MISP for Sexual and Reproductive Health Distance Learning Module* (available at www.iawg.net/misp-dlm) as a foundation prior to the training.

After the training:

- Discuss and possibly organize a logbook and a calendar of opportunities for trainees to continue practicing updated skills and behaviors at their institution.
- Regularly schedule ongoing support and post training follow up for the providers as soon as the security situation allows. Also encourage participants to use the learning materials and continue to work with their peers (on models if available) as they build their competence and confidence.

SENSITIVITY AND FLEXIBILITY IN A CRISIS SETTING

Sensitivity and flexibility are crucial when organizing a refresher training on basic emergency obstetric and newborn care in a crisis setting. When planning this training, keep the following points in mind:

- Minimize the time providers spend away from their duty stations. This can be addressed by conducting the training at the facility, if possible.
- Be sensitive to long hours and double shifts health care providers may be working.
- Remember that some participants may have long travel times or have competing priorities at home that may prevent them from completing advanced reading or other assignments.
- Be prepared for participants with a range of abilities and experiences – some participants may be very new to the setting.
- Attendees will most likely be a range of nurses, midwives, physicians, and clinical officers.
- Be sensitive to the emotional needs of health care providers/participants in a crisis setting.
- Some providers may be experienced in providing basic emergency obstetric and newborn care, but inexperienced doing so in a crisis setting with limited resources and within a different structure.

FEEDBACK ON THE TRAINING MATERIALS

The IAWG Training Partnership Initiative is interested in hearing from you. Please share any questions or feedback to info.iawg@wrcommission.org regarding the training materials and their use in your context.

2. Adapted from Ipas. (2014). *Woman-centered, comprehensive abortion care: Trainer's manual* (second ed.) K.L. Turner & A. Huber (Eds.), Chapel Hill, NC: Ipas.

UNIT 1 COURSE OVERVIEW

Time:
30 minutes

Unit Objectives:

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

- Introduce each other and facilitators.
- Reflect on their expectations of the training.
- Explain the objectives of the training.
- Agree on the ground rules/norms of the training.
- Describe training materials and key teaching and learning approaches, including guided reading /self-study and assessment of training.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 10 minutes: Ice-breakers/Introductions
- 15 minutes: Housekeeping, Ground Rules, Expectations, and Agenda
- 15 minutes: Knowledge Assessment*

*Note: Participants can begin the knowledge assessment during registration and finish during this session to save time.

PREPARATION

- Print, download and gather materials as listed below
- Prepare two flip charts: One titled "Ground Rules" and one titled "Garden"
- Place the *Course Agenda*, markers, and Post-it notes on the tables for the participants. There may be some formal opening requests from national dignitaries. Please try to accommodate such requests in the shortest time possible
- **If using**, prepare a series of short questions and answers on maternal and newborn health (see examples below). Write the questions and answers on separate pieces of paper and mix these up in a container. The number of questions and answers must be equal to the number of people participating in the session

  Example Q: What is the drug of choice for preventing postpartum hemorrhage?

  Example A: Oxytocin

PRINT:
Handouts, one per participant:
- ☐ Course Agenda
- ☐ Pre-Test

DOWNLOAD:
Presentation:
- ☐ Slides 1 and 3

GATHER:
- ☐ Projector and computer with sound
- ☐ Flip charts and markers
- ☐ Post-it notes in various colors
- ☐ Markers for tables
- ☐ Small index cards/sheets of paper and container

DETAILED SESSION GUIDE

INTRODUCTION/ICEBREAKER

Option 1: **Ask** participants to divide into pairs and interview each other. Then, participants should **introduce** each other by name, where they are from, and any unique characteristics (e.g., favorite music). The facilitators should also be involved in this activity.

Option 2: Using the prepared simple questions and answers on maternal and newborn health, **ask** each participant and facilitators to randomly pick a piece of paper from the container. **Explain** that half the room has questions and the other half have the answers, and **ask** participants to **find** the correct partner for their question or answer. For example:
Q: What is the drug of choice for preventing post-partum hemorrhage?
A: Oxytocin.

GROUP DISCUSSION: HOUSEKEEPING, GROUND RULES, EXPECTATIONS, AND AGENDA

Tell participants where the restrooms are and encourage them to leave the training room quietly, if needed. **Mention** that there will be morning and afternoon breaks with lunch in between and where these will take place. **Note** any relevant safety and security information, such as safe areas and available phones.

Note: Consider setting up a WhatsApp group or similar group platform for communication for all participants. This will help with sharing key training and security information.

Present the flip chart entitled "Ground Rules." **Explain** that ground rules are mutually agreed-upon guidelines to help the group work together, create a safe and respectful learning environment, and accomplish tasks efficiently.

Ask participants to suggest ground rules. **Write** their suggestions on the flip chart. Possible ground rules may include active participation, listening respectfully, speaking one at a time, turning off cell phones and pagers, respecting others' ideas/opinions, maintaining confidentiality, and being on time. Times of training and for breaks can be negotiated.

Ask each participant to write one expectation of what they hope to learn during the course on each Post-it note and share one to three expectations. **Have** the participants put the notes on the wall or a flip chart at the front of the room. **Review** and group the expectations and briefly go through the agenda. **Explain** the objectives of the training and which expectations can and cannot be addressed.

Present the flip chart entitled "Garden." **Explain** that questions that arise during the course that cannot be immediately addressed will be put in the "Garden." Throughout the course, questions will be referred to and addressed when they are most relevant.

KNOWLEDGE ASSESSMENT

Note: To save time, you can distribute the Pre-test during registration. Participants can begin answering the questions and finish once the activities above have been completed.

Distribute the Pre-test handout. **Say** participants have about 15 minutes to respond to the questions. **Prepare** small pieces of paper with numbers on them. **Ask** each participant to pick a number. **Explain** that this number will be used for tests and other assessments throughout the training. **Note for yourself** the participants' names and numbers, then **ask** participants to write their numbers on their tests. **Allow** 15 minutes to complete tests and collect them all the end of the allotted time. This allows for results to be shared anonymously.

Either **grade** the tests or **redistribute** tests to participants to grade each other's, while you share the correct answers verbally. **Aim** to share pre-test scores by lunchtime.

Note the weakest areas of knowledge for the group and ensure these are given sufficient attention during the training.

UNIT 2 WHAT IS EMERGENCY OBSTETRIC AND NEWBORN CARE (EMONC) AND WHY IS IT NEEDED?

Time:
30 minutes

Unit Objectives:

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

- Explain the principles of preventing excess maternal and newborn mortality and morbidity in humanitarian settings.
- Discuss how basic emergency obstetric and newborn care (BEmONC) supports the implementation of the MISP for Sexual and Reproductive Health in an emergency.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 30 minutes: Facilitator Presentation and Group Discussion

PREPARATION

- Print, download, and gather materials as listed below

PRINT:
- ☐ *MISP Checklist*

Participant Workbook:
- ☐ *MISP for Sexual and Reproductive Health Reference*

DOWNLOAD:
Presentation:
- ☐ Slides 4 through 12

GATHER:
- ☐ Projector and computer with sound
- ☐ Flip charts and markers

DETAILED SESSION GUIDE

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Begin by **asking** participants: Why is maternal and newborn mortality higher in crisis settings? **Note** responses on the flip chart. Discuss what can be done to address these.

Facilitate the slide presentation and **emphasize** the notes listed below the slides. **Review** the main direct causes of maternal death and **highlight** many (~80%) of these are preventable with access to quality lifesaving services.

COVID-19 and EmONC

Continuing essential sexual and reproductive health services and programs is critical during the COVID-19 response. Ignoring health care for women and newborns risks and overburdened health system at a later date and consequently poorer health outcomes. Pregnant women are more likely to die from non-COVID-19 related causes.[3]

Remember, in situations where COVID-19 is present: screening, detecting, and triaging all clients presenting for care remains a priority to reduce the risk of spread. Good infection prevention (e.g., handwashing for clients and providers and wearing masks), physical distancing, and other standard precautions are the foundation for all health services.

For regular updates on COVID-19 visit: www.who.int/emergencies/diseases/novel-coronavirus-2019

For more information about adaptations for EmONC and other MISP for Sexual and Reproductive Health services and programming, please see the *MISP Considerations Checklist for Implementation During COVID-19* and other resources available at www.iawg.net/covid-19.

3. Roberton, Timothy, Emily D Carter, Victoria B Chou, Angela R Stegmuller, Bianca D Jackson, Yvonne Tam, Talata Sawadogo-Lewis, and Neff Walker. "Early Estimates of the Indirect Effects of the COVID-19 Pandemic on Maternal and Child Mortality in Low-Income and Middle-Income Countries: A Modelling Study." *The Lancet Global Health* 8, no. 7 (July 2020): e901–8. doi.org/10.1016/S2214-109X(20)30229-1.

UNIT 3 RESPECTFUL MATERNAL AND NEWBORN CARE IN EMERGENCIES

Time:
45 minutes

Unit Objectives:

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

- Discuss issues that contribute to the mistreatment of women and newborns.
- Share examples of mistreatment.
- Explain the concept of respectful maternity care as a component of quality care.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 30 minutes: Facilitator Presentation and Group Discussion
- 15 minutes: Video and Group Discussion

PREPARATION

- Print, download, and gather materials as listed below

PRINT:
Participant Workbook:
□ *Respectful Maternity Care Charter*

DOWNLOAD:
Presentation:
□ Slides 13 through 20

Video:
□ *Respectful Care: A Tool for Healthcare Workers* (White Ribbon Alliance, 2015) 6:05 minutes

GATHER:
□ Projector and computer with sound

FACILITATOR PRESENTATION AND CASE STUDIES

Facilitate the slide presentation and **emphasize** the notes and activities listed below the slides. **Review** the rights of childbearing people and newborns to respectful maternity care.

Facilitate a short discussion with participants on how they can ensure women are more aware of their rights. **Refer** participants to or **distribute** copies of the White Ribbon Alliance's *Respectful Maternity Care Charter* (2019) to aid this discussion.

VIDEO AND GROUP DISCUSSION

On slide 19, **show** the White Ribbon Alliance video/animation on *Respectful Care: A Tool for Healthcare Workers*. Invite a discussion on the content of the video, for example:

- What behaviors or practices are common in your hospital that could be mistreatment?
- How can these behaviors be positively changed?
- How might we improve empathy in health care?

Ask the group to stand in a circle and join hands. **Ask** each person to make a commitment to ending the mistreatment of pregnant patients and newborns.

End by **emphasizing** that all pregnant people and newborns everywhere deserve respect.

UNIT 4 RAPID ASSESSMENT AND MANAGEMENT

Time:
60 minutes (1 hour)

Unit Objectives:

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

- Quickly identify and treat an obstetric emergency.
- Initiate treatment of shock.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 15 minutes: Facilitator Presentation and Group Discussion
- 45 minutes: Role Play and Skills Practice

PREPARATION

- Print, download, and gather materials as listed below

PRINT:

DOWNLOAD:
Presentation:
- ☐ Slides 21 through 27

GATHER:
- ☐ Projector and computer with sound
- ☐ IP and PPE supplies
- ☐ Sharps boxes
- ☐ Blanket/sheet
- ☐ Urinary catheter and bag
- ☐ IV fluids, giving set, cannula, and tape
- ☐ Simulated medications
- ☐ Thermometer
- ☐ Stethoscope
- ☐ Blood pressure machine
- ☐ Oxygen mask and tubing
- ☐ Tape

DETAILED SESSION GUIDE

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Explain that this unit will discuss the rapid assessment and management of a patient presenting with an unknown obstetric emergency. **Emphasize** that it is important to perform a rapid assessment of the patient at the first meeting to quickly identify conditions requiring referral. An initial rapid assessment and management upon arrival will help you decide whether you are able to treat her at the health center level, or if she needs immediate referral to a higher level of care.

Ask: What are some signs of an obstetric emergency? Possible answers may include:

- Unconscious
- Convulsing
- Headache
- Visual disturbances
- Bleeding
- Difficulty breathing
- Fever
- Severe vomiting
- Severe abdominal pain

Remind participants that the above list is not a comprehensive list of obstetric emergencies. Using slides 23-27, **walk** the participants through the identification and treatment of shock. **Explain** that this type of obstetric emergency must be quickly identified, initial treatment provided rapidly, and referral completed as soon as possible. **Discuss** the signs of shock, including rapid pulse, low blood pressure, pallor, and sweating, as well as the principles of management. **Emphasize** that, regardless of the circumstance of the patient and her family, she must be treated respectfully.

ROLE PLAY AND SKILLS PRACTICE

Request four volunteers to role play a case of managing shock. **Instruct** one to take on the role of the patient and one her support person or a relative, while the other two play the roles of providers working as a team. **Ensure** all emergency supplies are available. **Ask** for examples of a case from the participants' experience, such as bleeding during pregnancy, or provide a scenario.

Example Scenario: Maria, a 22-year-old para 1, is admitted with heavy vaginal bleeding and lower abdominal pain at 14 weeks gestation. She has not received any antenatal care.

Role Play Steps

1. Assist the woman to lie down and cover her with a blanket
2. Explain all procedures to the woman and provide emotional support and reassurance
3. Wash and dry hands
4. Check the woman's vital signs:
   - Temperature
   - Pulse
   - Blood pressure
   - Respiration
5. Turn the woman onto her side and give oxygen if available (6-8 L per minute)
6. Insert IV of normal saline or Ringer's lactate and rapidly infuse (1 L in 15-20 minutes)
7. Perform sterile bladder catheterization
8. Continue to monitor blood pressure and pulse, level of consciousness
9. Check for bleeding; if heavy bleeding is seen, take steps to stop the bleeding
10. Perform the necessary history, physical examination, and tests to determine cause of shock if not already known
11. Record all vital signs, fluids, urine output, and any drugs given
12. Allow the companion/family member to stay with her throughout
13. Stop the role-play and explain that the woman will now be prepared for referral to higher-level care

Ask volunteers to role play a rapid assessment based on the case provided or scenario. **Ensure** that they include all steps from the *Role Play Steps*. **Allow** pauses or breaks in the role play to answer questions or take suggestions from other participants. After, **debrief** with participants. **Discuss** using the following questions:

- What went well? Were there any areas for improving practice such as teamwork, communications, essential supplies?
- Have you ever seen someone die from bleeding in pregnancy (or other complication)?
- What happened and what was learned from that experience?

Emphasize that ongoing, regular practice and facility preparedness are key to quickly identifying and treating life-threatening emergencies. Women with shock may not present frequently in a care setting, but when they do, the severity of their condition needs a prompt response.

Explain that there will be an opportunity to continue to practice and support skills retention for managing shock on Day 2, including a review of administering IV fluids.

UNIT 5 PREVENTION AND MANAGEMENT OF POSTPARTUM HEMORRHAGE

Time:
2 hours 30 minutes

Unit Objectives:

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

- Demonstrate active management of the third stage of labor.
- Accurately identify normal and abnormal postpartum blood loss.
- Identify and manage the most common causes of postpartum hemorrhage following a normal vaginal birth.
- Utilize supplies available, including those in the Inter-Agency Emergency Reproductive Health Kits, to treat postpartum hemorrhage.
- Identify and appropriately refer patients requiring a higher level of care.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 45 minutes: Role Play and Demonstration: Active Management of the Third Stage of Labor
- 15 minutes: Video and Group Discussion
- 30 minutes: Blood Estimation Exercise
- 10 minutes: Facilitator Presentation and Group Discussion
- 30 minutes: Case Study and Small Group Work
- 20 minutes: Demonstration and Practice: Bimanual Compression and Uterine Balloon Tamponade (optional)

PREPARATION

- Print, download, and gather materials as listed below
- Set up room with projector screen and childbirth simulator visible to all participants
- Set up four stations on a table outside or in the back of the room showing blood loss in different ways
- Label the stations A, B, C, D with:
  A. 100 cc water with red coloring: gauze bandage in small bowl
  B. 300 cc water with red coloring: liquid in a basin
  C. 500 cc of red fruit jam: large 'blood' clot in a basin
  D. 600 cc water with red coloring: white towel in a basin
- Review case studies and demonstrations
- If using, print *Uterine Balloon Tamponade Checklist* and set up materials for demonstration and practice

PRINT:
Participant Workbook:
- ☐ *Active Management of Third Stage of Labor Skills Checklist*
- ☐ *Case Study – Postpartum Hemorrhage*
- ☐ *Bimanual Compression of the Uterus Checklist*
- ☐ *Optional: Uterine Balloon Tamponade Checklist*

DOWNLOAD:
Presentation:
- ☐ Slides 28 through 43

Videos:
- ☐ *Bleeding After Birth* (Global Health Media) 13:02 minutes
- ☐ Optional: *How to Use the Uterine Balloon Tamponade* (Medical Aid Films, 2017) 8:55 minutes

GATHER:
- ☐ Projector and computer with sound
- ☐ Post-its
- ☐ Flip Charts
- ☐ Blood estimation materials (see Course Materials list)
- ☐ Normal birth supplies (see Course Materials list)
- ☐ Sharps boxes
- ☐ Childbirth simulator (if not available, small empty bottles about 500 mL can be used for simulation of uterine balloon tamponade)
- ☐ Antiseptic solution
- ☐ Syringes and needles
- ☐ Simulated medications – oxytocin, misoprostol, tranexamic acid, ergometrine, ampicillin
- ☐ IV fluids, giving set, cannula, and tape
- ☐ Sims speculum
- ☐ Ring or sponge forceps
- ☐ Foley catheters
- ☐ Optional: Condoms, strong thread, or black silk sutures

DETAILED SESSION GUIDE

DEMONSTRATION: ACTIVE MANAGEMENT OF LABOR

Begin by **role playing** a patient who is actively laboring and arriving at the facility close to delivery using a childbirth simulator or other available supplies. **Explain** that the patient is actively laboring and arrives close to the second stage of labor. **Ask** the second facilitator or a participant to follow the *Role Play Steps* to model appropriate respectful maternity care, and the steps of a normal vaginal birth followed by a postpartum hemorrhage.

Stop the role-play and address the participants indicating the mother has too much bleeding. **Discuss** the role play with the participants by asking if anyone would be comfortable sharing about a time they experienced a patient die from bleeding after birth. What happened? With the group, **brainstorm** ideas for what else could have been done if the patient had been somewhere else.

Review slides 30 to 31. **Exlain** that active management of the third stage of labor is a central component of reducing postpartum hemorrhage. It has been shown to reduce postpartum haemorrhage in over 60% of women and decreases the risk of retained placenta.

Demonstrate the steps of active management using the childbirth simulator or similar. **Refer** participants to the *Active Management of Third Stage of Labor Skills Checklist* and make sure to **clearly demonstrate** each step listed. **Remember** to emphasize good communication and standard infection prevention measures throughout all procedures. **Review** the steps of active management of third stage of labor with participants.

Role Play Steps

1. Deliver baby onto mother's stomach.
2. Dry baby thoroughly and assess for crying or breathing; cover with a dry cloth and place on mother's chest.
3. Check for a second baby; If none, then continue with third stage care while continuing to observe the baby.
4. Give a uterotonic (oxytocin or misoprostol) within one minute of delivery.
5. While awaiting the placenta, remove first pair of gloves if double-gloved, or change gloves and clamp and cut the cord between 1-3 minutes after birth.
6. Perform controlled cord traction during contractions.
7. Feel the uterus once the placenta delivers and massage if soft.

Active Management of The Third Stage of Labor (AMTSL) Skills Checklist	Yes	No
Following birth of the infant, provider checks for a second baby		
Tells the woman what medication she is being given and why		
Gives uterotonic medication within 1 minute of birth of the infant		
Changes or takes off the first pair of gloves		
Cuts the cord after 1-3 minutes		
Explains to the woman what s/he is doing and applies counter-pressure while performing controlled cord traction		
Performs controlled cord traction when the uterus is well contracted		
Uses both hands to catch the placenta at the vulva		
Gently turns the placenta while it is being delivered		
Assesses fundal tone immediately following the delivery of the placenta and massages if soft		
Inspects the placenta and membranes for completeness		
After explaining to the woman, gently checks perineum for any lacerations		
Ensures the woman is clean and comfortable and the newborn is skin-to-skin; assists with breastfeeding		

Discuss with participants:

- Do you routinely practice active management of the third stage of labor in your work settings?
- Are there any changes that can be made to the care provided based on the resources available?
- What is needed to provide active management of the third stage of labor for all patients?

VIDEO AND GROUP DISCUSSION

Introduce the video *Bleeding After Birth* on slide 32 as a refresher to the key steps of preventing and managing postpartum hemorrhage. Ask participants to note any questions during the video and **discuss** these after the video.

BLOOD ESTIMATION EXERCISE

Give participants Post-its (4 each). **Direct** participants to walk through the blood estimation exercise set up on the tables. **Instruct** participants to label Post-its with A, B, C, and D, and record on each their estimates for the amount of blood on the corresponding table. While participants are making their estimates, **label** flip charts with A, B, C, and D. **Ask** participants to put their estimates on the corresponding flip chart. **Review** the estimates with the participants and discuss how easy it can be to underestimate blood loss, using these key points:

- Blood loss can appear in different ways: watery, clots, towel soaked with blood.
- It is difficult to precisely estimate blood loss; blood is mixed with urine, amniotic fluid, or stool and can soak into towels, drapes, and clothes.
- It does not matter how the blood is lost or collected, if the mother bleeds too much she can die.
- Visual estimation of blood loss is a difficult skill.
- Decision-making should be guided based on the mother's vital signs and level of consciousness. A pulse greater than 110 beats per minute; systolic blood pressure less than 100 mmHg; cold, clammy skin; maternal anxiety; and/or loss of consciousness are signs of shock and advanced help and care are needed.

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Present slides 33 through 39 using the discussion notes included in the presentation. **Pause** for questions and discussion before moving on to the next activity.

CASE STUDY AND SMALL GROUP WORK: POSTPARTUM HEMORRHAGE

Refer participants to *Case Study: Postpartum Hemorrhage*. **Instruct** participants to work in small groups to review the case study and respond to the questions. Responses can be noted on flip chart paper, if available.

Come back together after 30 minutes. **Review** the case study answers and **give** feedback on the general principles of postpartum hemorrhage management to the group. **Encourage** participants to note the answers on their handouts (or in their participants' manuals, if using) for reference later. **Ensure** respectful maternity care is highlighted. **Ask** the participants what they learned from the case study.

Case Study Answers

Farida is a 20-year-old para 1. She was brought to the health center by the local traditional birth attendant (TBA) because she has been bleeding heavily since childbirth at home 2 hours ago. The TBA reports that the birth of a full-term newborn was normal. Farida and the TBA report that the duration of labor was 12 hours. They also said the placenta was delivered spontaneously 20 minutes after the birth of the newborn, who was breastfeeding at the time.

ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, SCREENING PROCEDURES/LABORATORY TESTS)

1. What will you include in your initial assessment of Farida? Why?
- Vital signs
- Uterine tone
- Amount of vaginal bleeding
- Status of the placenta
- Medications or herbs given

2. What particular aspects of Farida's physical examination will help you make a diagnosis or identify her problems/needs? Why?
- Fundal tone
- Amount of vaginal bleeding
- Presence of vaginal trauma
- Presence of symptoms of shock

DIAGNOSIS (IDENTIFICATION OF PROBLEMS/NEEDS)

You have completed your rapid assessment of Farida. Your main findings include the following:

History: The TBA says that she thinks the placenta and membranes were delivered without difficulty and were complete.

Physical examination: Farida's temperature is 36.8° C, her pulse rate is 108 per minute, her blood pressure is 80/60, and her respirations are 24 per minute. She is pale and sweating. Her uterus is soft and does not contract with fundal massage. She has heavy, bright red vaginal bleeding. On inspection, there is no evidence of perineal, vaginal, or cervical tears.

3. Based on these findings, what is Farida's diagnosis (problem/need)? Why?

- Postpartum hemorrhage with uterine atony
- Shock

CARE PROVISION (PLANNING AND INTERVENTION)

4. Based on your diagnosis (problem/need identification), what is your plan of care for Farida. Why?

- Give uterotonic IM / orally and tranexamic acid, if available
- IV fluids with uterotonics
- Catheterize
- Perform bimanual compression of the uterus
- Keep warm
- Monitor carefully, stabilize, and refer with newborn

DEMONSTRATION: BIMANUAL COMPRESSION OF THE UTERUS

Showing slide 40 on *Bimanual Compression*, **demonstrate** this skill on a model. **Refer** participants to *Bimanual Compression of the Uterus Checklist*.

Optional Video and Skills Practice: Uterine Balloon Tamponade

Using slides 41 and 42, **explain** that uterine balloon tamponade may be inserted prior to transfer to higher level care if bleeding persists and it is included in national clinical protocols. **Show** the video *How to Use the Uterine Balloon Tamponade*. Then **demonstrate** uterine balloon tamponade using the *Uterine Balloon Tamponade Checklist* and **encourage** participants to practice. **Emphasize** that if postpartum hemorrhage is due to vaginal, perineal, or cervical lacerations and participants are competent to suture these, they should complete suturing. **Remind** participants of the need to ensure good infection prevention practices and respectful care with use of lignocaine 0.5 or 1%.

End the session on slide 43 by **emphasizing** ongoing care of women after postpartum hemorrhage:

- Ensure all women who experience a postpartum hemorrhage (or other serious complication) are debriefed so they understand what happened
- Monitor vital signs, uterine tone, and blood loss
- Provide support with breastfeeding and newborn care (family can assist)
- Outline postnatal counseling: maternal and newborn danger signs, self-care, breastfeeding, hygiene, contraceptive options
- Give iron tablets for 3 months
- Schedule a follow-up visit at the health facility or at home

UNIT 6 MANUAL REMOVAL OF THE PLACENTA

Time:
45 minutes

Unit Objectives:

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

- Recognize indications for manual removal of the placenta at multiple levels of care.
- Perform manual removal of the placenta.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 20 minutes: Facilitator Presentation and Group Discussion
- 25 minutes: Demonstration

PREPARATION

- Print, download, and gather materials as listed below

PRINT:
Participant Workbook:
- ☐ *Manual Removal of the Placenta Skills Checklist*

DOWNLOAD:
Presentation:
- ☐ Slides 44 through 49

GATHER:
- ☐ Projector and computer with sound
- ☐ IP and PPE supplies (elbow length gloves if available)
- ☐ Normal birth supplies (see Course Materials list)
- ☐ Syringes and needles
- ☐ Sharps boxes
- ☐ Antiseptic solution
- ☐ IV fluids, giving set, cannula, and tape
- ☐ Gauze swabs
- ☐ Bowl/dish for placenta
- ☐ Medicines: Diazepam, Oxytocin, Ampicillin and Metronidazole injections and/or tablets

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Using slides 44 through 49, **start** this unit by reviewing active management of the third stage of labor (AMSTL) and the signs of placental separation if AMSTL is not done. **Emphasize** that heavy bleeding can occur before or after the birth of the placenta, and with or without AMTSL. Briefly **review** the slides on indications for manual removal of the placenta and follow-up care after manual removal. **Ask** the participants:

- Have you had experience with removing the placenta manually?
- Is it within your approved scope of practice?
- Are the resources available at your respective facilities for managing this emergency?
- If not, then where would the woman be transported?

DEMONSTRATION

Demonstrate the steps of manual removal of placenta using the childbirth simulator or similar. Make sure to clearly **demonstrate** each step listed on the *Manual Removal of Placenta Skills Checklist*. **Emphasize** that manual removal of the placenta should only be performed to save the mother's life in an emergency by competent staff.

Manual Removal of Placenta Skills Checklist	Completed? (Yes/No)
PREPARATION	
1. Explain the procedure to the woman and provide emotional support	
2. Insert an IV line with fluids rapidly infusing (with oxytocin if active bleeding)	
3. Assist the woman onto her back, ensure covered for privacy and warmth	
4. Give diazepam *5/10 mg IM/IV	
5. Give prophylactic antibiotics *Ampicillin 2g IV or IM and metronidazole 500 mg IV or 1 g by mouth, once (250 mg x 4)	
6. Clean the vulva and perineal area	
7. Ensure the bladder is empty; catheterize if necessary	
8. Wash hands and forearms well and put on sterile gloves (long if available)	
TECHNIQUE	
1. With one hand, hold the umbilical cord at the clamp; pull the cord gently until horizontal	
2. Insert the other hand into the vagina and follow the cord up into the uterus	
3. Drop the cord with the external hand and hold the fundus and provide counter-traction and prevent inversion	
4. Move fingers of the internal hand sideways to locate the edge of the placenta	
5. Keep fingers tightly together and use the edge of the hand to gradually make space between the placenta and uterine wall	
6. Proceed gradually until the entire placenta is detached from the uterine wall	
7. Withdraw the internal hand from the uterus gradually, bringing the placenta with it	
8. Use the internal hand to explore inside of the uterine cavity to ensure all placental tissue has been removed	
9. Examine the uterine surface of the placenta to ensure lobes and membranes are complete	
10. Safely dispose of materials and sharps, and clean and process instruments according to local infection prevention guidelines; wash and dry hands	
11. Continue to monitor bleeding, blood pressure, and pulse, and ensure that the uterus is well-contracted; complete the woman's records	

UNITS 5+6 SKILLS PRACTICE

Time:
90 minutes (1 hour 30 minutes)

Unit Objectives:

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

- Demonstrate active management of the third stage of labor.
- Demonstrate manual removal of the placenta.
- Demonstrate bimanual compression of the uterus.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 75 minutes: Group Skills Practice
- 15 minutes: Group Discussion and Debrief

PREPARATION

- Print, download, and gather materials as listed below
- Set up three stations, one for each skill
- *Optional*: If of interest and the participants are allowed to perform this intervention in their context, set up a fourth station to practice insertion of uterine balloon tamponade

PRINT:

Participant Workbook:

- ☐ *Active Management of the Third Stage of Labor Skills Checklist* (see Unit 5)
- ☐ *Manual Removal of the Placenta Skills Checklist* (see Unit 6)
- ☐ *Bimanual Compression of the Uterus Checklist* (see Unit 5)
- ☐ Optional: *Uterine Balloon Tamponade Checklist* (see Unit 5)

DOWNLOAD:

GATHER:

- ☐ Clinical supplies for each skill (see supplies in Units 5 and 6)

DETAILED SESSION GUIDE

GROUP SKILLS PRACTICE

Divide the participants into three groups. **Ensure** each participant has a copy of their *Participant's Workbook* or printed copies of each of the three checklists listed above. Individuals in each group will take turns doing a demonstration of:

1. Active management of the third stage of labor while their performance is assessed on the *Active Management of Third Stage of Labor Skills Checklist*.
2. Manual removal of the placenta while their performance is assessed on the *Manual Removal of the Placenta Skills Checklist*.
3. Bimanual compression of uterus while their performance is assessed on the *Bimanual Compression of the Uterus Checklist*.

If in a context where uterine balloon tamponade is practiced, **divide** participants into four groups to include practice with the *Uterine Balloon Tamponade Checklist*.

Explain to participants that they will be assessed for competency on these skills on Day 3 using the checklists. If any participant feels confident and there is time, s/he can be assessed for competency during this session. **Allow** 25 minutes for groups to practice at each station and then instruct groups to **rotate** to practice each skill. **Coach** and support participants as needed.

GROUP DISCUSSION AND DEBRIEF

Conclude the session with a group **debrief** of the skills practiced. **Discuss** any issues arising in managing postpartum hemorrhage.

UNIT 7 TRANSPORT AND REFERRAL

Time:
45 minutes

Unit Objectives:

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

- Safely stabilize and prepare a woman for transport after postpartum hemorrhage.
- Practice IV access and fluid administration.
- Describe how to ensure effective communication with the facility receiving the referred woman or newborn.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 20 minutes: Facilitator Presentation and Group Discussion
- 25 minutes: Demonstration: IV Insertion

PREPARATION

- Print, download, and gather materials as listed below
- Research national or other relevant referral forms and familiarize yourself with local standards

PRINT:
- ☐ *National Referral Forms*

Participant Workbook:
- ☐ *Referral Checklist*
- ☐ *Insertion IV Skills Checklist*

DOWNLOAD:
- ☐ Slides 50 through 56

Videos:
- ☐ Optional: *Inserting an IV* (Global Health Media) 6:34 minutes
- ☐ Optional: *Using an Anti-Shock Garment* (Global Health Media) 10:23 minutes

GATHER:
- ☐ Projector and computer with sound
- ☐ IV fluids, giving set, cannula, and tape
- ☐ Medicines: Oxytocin
- ☐ Urinary catheter and bag
- ☐ Optional: Non-pneumatic anti-shock garment (NASG)

DETAILED SESSION GUIDE

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Explain that this unit addresses how to safely transport and refer a woman to a higher level of care during or after a postpartum hemorrhage, and that principles of transport and referral for other serious pregnancy-related complications or newborns requiring higher level care are the same. **Emphasize** that the ability to safely transfer care of a woman experiencing an obstetric emergency needs to be addressed for each of the conditions discussed in this module. **Tell** participants that this unit serves as a thorough review of the process and it will subsequently be returned to for discussion with other conditions as the module progresses.

Start this unit with a discussion about transport. **Ask**:

- Where do women go if they have an obstetric emergency?
- Who arranges transportation?
- Is there a protocol in place at the facility for transferring a woman and newborn?
- If not, who would be responsible for setting up this system?

Move through slides 50 to 53, addressing principles of effective referral. **Review** copies of the *Referral Checklist* with participants and discuss how this can be used to improve the referral process. Also **review** examples of national referral forms and **discuss** the importance of correct documentation.

Referral Checklist

STEP	ACTION
1	Provide appropriate clinical care to stabilize the woman and the newborn
2	Explain to the woman (if she is conscious) and her family what is happening and that she or the newborn needs higher-level services
3	Organize secure and reliable transportation for the woman/newborn
4	Notify the referral site about the woman/newborn using a phone: • Explain her condition/diagnoses • Describe the care already provided • Give the estimated time of arrival
5	Ensure that the woman/newborn is accompanied by a family member and/or a potential blood donor
6	Assign a skilled care provider to attend the mother and/or the newborn during the transfer
7	Prepare all essential supplies and materials needed during the transfer. This includes: • Supplies for clean and safe birth (if undelivered) • Emergency supplies (IV fluids, medicines e.g., oxytocin, magnesium sulphate) • Dry blankets and towels to keep the woman and the newborn warm • If transferring mother with newborn, practice skin-to-skin contact
8	Complete referral record with: • Name of referring and referral facility • General information (name, age, address) • Obstetric history (parity, gestational age, complications in pregnancy) • Relevant past obstetric complications (e.g., previous cesarean section, postpartum hemorrhage) • The specific problem for which she is referred • Treatment initiated and the results of treatments • Name and signature of the provider • Give the referral record to the skilled care provider assigned to the transfer
9	Record referral in the appropriate register
10	Ensure that the assigned skilled provider obtains feedback from the referral center and ensures that the woman/newborn has a follow-up management plan
11	Ensure that in the case of maternal or newborn death during referral, the assigned skilled provider reports and records details of mortality; this will help improve services

DEMONSTRATION: IV INSERTION

Using slides 54 and 55, **discuss** IV fluid administration, which is crucial for safely transporting women with active bleeding. **Demonstrate** how to appropriately start an IV by walking through the steps of the *IV Skills Checklist* below or watch the video on *Inserting an IV*.

Insertion Intravenous (IV) Fluids Checklist	
STEP	**ACTION**
1	Explain the procedure to the woman and provide emotional support
2	Gather all supplies • IV fluids and giving set • IV cannulae • tape • skin antiseptic and swab or cotton balls • tourniquet
3	Wash hands with soap and water; wear clean gloves
4	Open the package of sterile tubing and attach it to the fluids using sterile technique
5	Hang the bag of solution up high enough to let it flow to the end of the tubing
6	Tie the tube off at the end to prevent fluid waste
7	Use a cloth or rubber tourniquet on the upper arm
8	Identify a vein and clean the skin with available antiseptic
9	Hold the vein steady between the first finger and thumb with one hand and carefully insert the needle into the vein with the other hand; look for blood in the needle hub; lay the needle almost flat and slide it the rest of the way into the vein
10	Remove tourniquet and attach the fluid tube to the needle
11	Use tape to hold the needle in place
12	Regulate the amount and speed of IV fluid flow depending on medical condition
13	Dispose sharps safely and carefully; wash and dry hands
14	Start an input/output chart to closely monitor fluid balance

Ask the participants how frequently they start IVs to gauge their experience with this skill. **Assure** participants that there is time built into the end of the day for skills building for IV administration as needed. **Complete** a skills checklist for each participant if the participants state that they do not feel confident with IV administration.

Optional Video: Using a Non-Pneumatic Anti-Shock Garment

If of interest and time allows, show the video on slide 56: *Using an Anti-Shock Garment*. Explain to participants that if they have access to a NASG, they should consider using this prior to referral. Emphasize that it helps maintain blood flow to essential organs. The NASG is available in IARH Kit 6A.

If it is not possible to watch the video, invite a participant to have the NASG applied and demonstrate using the steps below.

1. As you explain what you are doing and why, place the woman on an open NASG. The top of the NASG is at the lowest rib and the pressure ball at the level of umbilicus.
2. Close each segment pair beginning at the ankles and ending with the 6th segment using 1 or 2 people. Use as much strength as possible, while ensuring the woman can breathe normally.
3. To ensure proper fit, place 1 or 2 fingers under the top of each closed segment. Pull up on the fabric and let go. If there is no snapping sound, tighten the segment.

UNIT 8 PREVENTION AND MANAGEMENT OF PERIPARTUM INFECTION

Time:
90 minutes (1 hour 30 minutes)

Unit Objectives:

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

- Review and apply prevention, assessment, diagnosis, treatment, and evaluation of peripartum infection.
- Identify and refer women to higher level of care for severe infection (sepsis).

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 10 minutes: Role Play and Group Discussion
- 20 minutes: Facilitator Presentation
- 60 minutes: Case Study and Small Group Work

PREPARATION

- Print, download, and gather materials as listed below

PRINT:
Participant Workbook:
- ☐ *Case Study: Fever After Childbirth*

DOWNLOAD:
- ☐ Slides 57 through 67

GATHER:
- ☐ Projector and computer with sound
- ☐ Simulated Medications: Antibiotics
- ☐ IV fluids, giving set, cannula, and tape
- ☐ Sharps boxes

DETAILED SESSION GUIDE

ROLE PLAY AND GROUP DISCUSSION

Open this unit with a brief role-play. **Play** the part of a postpartum woman: come in acting very ill and complain of pain and fever. **Ask** a participant to act as your mother who is carrying the baby. **Explain** that you gave birth at home two days ago with the traditional birth attendant. **Act** minimally responsive and weak. **Have** the co-facilitator do a quick check and state that an IV is needed, then call for help and support you (the woman) into a bed.

Ask the participants:

- Have you ever seen women come who are very sick with possible sepsis after having a baby at home?
- What happened?
- If the woman had given birth in a hospital, could infection have been prevented?
- Is there access to IV supplies at your health facilities 24/7?

FACILITATOR PRESENTATION

Wrap up the discussion and **start** the slide presentation. Go through slides 57 through 67 and discuss the related notes. **Finish** the slides that related to treatment at the referral level of care. **Emphasize** that antibiotic resistance is a public health issue and antibiotics should only be given per the recommendations listed on the slide.

Note to facilitator: Depending on the context, there may need to be additional attention to serious infections such as Coronavirus (COVID) or Ebola. Refer to national guidance on these. At all times, ensure adherence to standard precautions for infection control.

CASE STUDY AND SMALL GROUP WORK

Divide participants into small groups of two to three. **Ask** participants to go through the case study together. **Read** the questions and any information about the case. **Give** 30 minutes for the groups to go over the case study. Then come back together as a group to discuss. Encourage participants to **note** the answers to the case study questions in their Participant Workbooks as you **review**.

Case Study Answers

Elizabeth is a 35-year-old para three. Elizabeth's husband has brought her to the health center today because she has had fever and chills for the past 24 hours. She gave birth to a full-term boy at home 72 hours ago. Her birth attendant was the local traditional birth attendant (TBA). Labor lasted two days and the TBA inserted herbs into Elizabeth's vagina to help speed up the childbirth. The newborn breathed spontaneously and appears healthy. The baby is with his older sister outside the facility.

ASSESSMENT (HISTORY, PHYSICAL EXAMINATION, SCREENING PROCEDURES / LABORATORY TESTS)

1. What will you include in your initial assessment of Elizabeth? Why?
- History of labor/birth
- Presence of chills/fever/pain/vaginal bleeding
- History of malaria, HIV, or anemia
- Vital signs
- Uterine tone and tenderness

2. What particular aspects of Elizabeth's physical examination will help you make a diagnosis or identify her problems/needs? Why?
- Fever greater than 38°C
- Chills or malaise
- Uterine tenderness or sub-involution
- Purulent or foul lochia
- Signs of shock

DIAGNOSIS (IDENTIFICATION OF PROBLEMS/NEEDS)

You have completed your assessment of Elizabeth and your main findings include the following:

History
- Elizabeth admits that she has felt weak and lethargic, has abdominal pain, and has noticed a foul-smelling vaginal discharge. She does not have pain when she urinates and does not live in an area with malaria. She had a tetanus immunisation and a booster 3 years ago. It is unknown whether her placenta was complete.

Physical Examination

- Vital signs: temperature 38.8°C, pulse 116 beats per minute, respirations 24 per minute
- Pale, lethargic, and slightly confused
- Tender uterus
- Foul-smelling vaginal discharge, no tears or lesions

3. Based on these findings, what is Elizabeth's diagnosis (problem/need)? Why?

- Puerperal sepsis due to elevated temperature and abdominal tenderness. The lethargy and confusion raise suspicion for sepsis.

CARE PROVISION (PLANNING AND INTERVENTION)

4. Based on your diagnosis (problem/need identification), what is your plan of care for Elizabeth? Why?

- Draw/send blood cultures if lab facilities are available
- Start IV fluids, first dose antibiotics and prepare to transport/refer
- Plan on IV antibiotics until 48 hours fever free

5. Based on these findings, what is your continuing plan of care for Elizabeth? Why?

- Antipyretics while febrile
- Explain continuing antibiotics and the importance of completing the course
- Uterine evacuation if needed
- Provide support with breastfeeding and newborn care (family can assist)
- Provide routine postnatal counseling: maternal & newborn danger signs, self-care, breastfeeding, hygiene, postpartum contraceptive options
- Give iron tablets for 3 months
- Schedule routine follow-up visit at the health facility or at home

UNIT 9 PREVENTION AND MANAGEMENT OF SEVERE PRE-ECLAMPSIA AND ECLAMPSIA

Time:
240 minutes (4 hours)

Unit Objectives:

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

- Explain the classification of hypertensive disorders in pregnancy.
- Demonstrate ability to accurately measure and record blood pressure.
- Demonstrate ability to assess for severe pre-eclampsia and eclampsia in limited resource settings.
- Demonstrate ability to safely prepare and administer magnesium sulfate for intramuscular and IV administration.
- Discuss treatment protocols for anti-hypertensive medication administration.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 10 minutes: Role Play and Group Discussion
- 15 minutes: Facilitator Presentation and OPTIONAL Skills Practice: Blood Pressure Measurement
- 20 minutes: Paired Role Play Activity
- 40 minutes: Demonstration and Skills Practice: Preparing and Administering Magnesium Sulfate
- 10 minutes: Video and Discussion: Severe Pre-Eclampsia
- 10 minutes: Facilitator Presentation and Group Discussion: Antihypertensives
- 60 minutes: Clinical Simulation and Debrief
- 75 minutes: Continued Skills Practice

PREPARATION

- Print, download, and gather materials as listed below
- Ask host organization for sample client record
- Set up tables in back of training space with stations for skills practice on preparing and administering magnesium sulfate. Each station should have: magnesium sulfate (at least 3 10 mL vials), lignocaine, sterile water (20 mL), 20 cc syringes (at least 3), IM needles (at least 3), IV normal saline or Ringers Lactate, IV infusion set and IV start kit, calcium gluconate, hollowed out melon or other local fruit with skin (at least 1), sharps container, and a patella hammer

PRINT:
Sample client record

Participant Workbook:
- ☐ *$MgSO_4$ Dosing and Monitoring Checklist*
- ☐ *Pre-Eclampsia and Eclampsia Medication Table*
- ☐ *HMS PE-E Action Plan 1*
- ☐ *HMS PE-E Action Plan 2*

DOWNLOAD:
Presentation:
- ☐ Slides 68 through 86

Videos:
- ☐ *Severe Pre-Eclampsia* (Global Health Media) 9:41 minutes
- ☐ Optional*: Taking a Blood Pressure* (Global Health Media) 10:06 minutes

GATHER:
- ☐ Projector and computer with sound
- ☐ IP and PPE Supplies
- ☐ Simulated Medications: Magnesium Sulfate, 1 or 2% Lignocaine, Calcium Gluconate, and Hydralazine or other hypertensive
- ☐ Needles and Syringes (10 mL, 20 mL) for IM injection (3 per station)
- ☐ Sharps boxes
- ☐ Urinary catheter and bag
- ☐ Reflex hammer
- ☐ Urine dipsticks
- ☐ Melon or other local fruit
- ☐ Optional: Blood Pressure Machine and Stethoscope (1 for every 2 participants)

DETAILED SESSION GUIDE

ROLE PLAY AND GROUP DISCUSSION

Open this unit with a **role play** of a one-day postpartum woman complaining of a severe headache who begins to convulse and loses consciousness. You can **perform** this role play or **ask** a participant in advance to play the woman. **Ask** for help from the participants, but do not interfere.

After the role-play, **guide** the discussion:

- Has anyone seen an eclamptic convulsion or a woman die from eclampsia?
- What happened?
- Was there anything that could have helped?

Note: This refresher training assumes a baseline level of familiarity with management of pre-eclampsia and eclampsia. If the need for further training on these issues is identified, give appropriate feedback to the training coordinator.

Optional Blood Pressure Measurement Activity

Ask participants to work in pairs to practice blood pressure (BP) measurement. Make sure you have a stethoscope and BP machine for each pair. Pay attention to the participants' techniques. Provide supportive correction as needed. Once the first participant has taken a reading, ask each pair to share their measurements. Note if 120/80 or 130/80 are overrepresented. If so, ask the participants if they note anything unusual about the BPs. Encourage them to become "expert" BP takers and then have them switch roles.

***Optional*: Watch the video on *Taking a Blood Pressure*.**

FACILITATOR PRESENTATION

Start the presentation by reviewing slides 68 through 71 using the notes included in the presentation. **Explain** that this module will review the management of severe pre-eclampsia and eclampsia using magnesium sulfate and anti-hypertensives. If including optional blood pressure activity, **pause** at slide 72 about accurate blood pressure measurement and conduct activity.

Review slides 73 through 76 on the classification of pre-eclampsia, severe pre-eclampsia, and eclampsia and the treatment of severe pre-eclampsia/eclampsia using the notes included in the presentation. On the *Role play* slide 77, **explain** the activity listed below to the participants.

ACTIVITY: PAIRED ROLE PLAY

Divide the group into pairs. **Ask** one participant to play the role of the woman. **Ask** the other participant to play the role of the provider. Have those playing the role of the woman come to one side of the room to receive instructions privately. **Ask** them to **bring** paper and pencils to record their measurements.

Give the participants playing the woman this information privately:

- 25 year old gravida 1 para 0 (G1P0) at 37 weeks gestation
- BP is 160/102
- Urine 2+ protein
- Danger signs: no headache, no visual changes, no right upper quadrant pain, no difficulty breathing.

Tell participants only to provide this information in response to the measurements taken by the "providers." **Tell** participants playing the role of providers that they must take the actual measurements during the role play, not simply talk about what they would do. **Send** all participants back to their stations where they will present for care.

Read the following paragraph before the activity begins:

Efe is presenting to you in very early labor. Please interview her and proceed normally for a routine labor evaluation. If you are taking her blood pressure or measuring her urine protein, then do so. Your patient will tell you the measurement.

Observe the role plays. **Ensure** that participants stay on track, but do not correct or interrupt the role play. When all the teams are done with the assessment, **debrief** with the participants:

- What is your most likely diagnosis? Why?

The correct answer is severe pre-eclampsia, because the blood pressure is in the severe category and she has 2+ protein.

DEMONSTRATION AND SKILLS PRACTICE: PREPARING AND ADMINISTERING MAGNESIUM SULFATE

Bring the group back together and show the slide presentation on use magnesium sulfate beginning with slide 78. It is important to **emphasize** the safety concerns around giving magnesium sulfate. However, at lower level facilities giving the first/loading dose BEFORE referral can be lifesaving. Slide 80 on the formulation of magnesium sulfate available in the IARH Kits, discusses the difference between IM and IV solution concentrations.

Using slide 81, **review** how to prepare a loading dose of magnesium sulfate ($MgSO_4$). **Refer** participants to the *$MgSO_4$ Dosing and Monitoring Checklist*. **Remind** participants of the importance of washing hands thoroughly with soap and water and preparing all supplies on a clean area. **Demonstrate** how to draw up the loading dose of magnesium sulfate:

- For IM injection, appropriately **draw** 10 mL of the 50% solution = 5g and 1 mL of 2% lignocaine in the same syringe. **Demonstrate** where the injection is given in the upper outer buttock. **Repeat** on the other buttock.
- **Ask** a volunteer or **have** the cofacilitator set up the IV infusion set. **Demonstrate** how to prepare and administer a dose of 4 grams $MgSO_4$ (12 mL sterile water plus 8 mL 50% $MgS0_4$ solution). **Inject** the dose slowly over 5 minutes. **Demonstrate** how to first dilute the $MgSO_4$ with sterile water prior to IV injection.

Continue through slides 82 to 84. **Review** the IV administration of a repeat dose of magnesium sulfate and the indications to give or hold the subsequent dose. **Refer** to the *$MgSO_4$ Dosing and Monitoring Checklist*. **Ask** for two volunteers to **demonstrate** how to assess patella reflexes.

Discuss with the participants how they safely monitor IV infusions in their facility. If IV pumps are unavailable, it is best to use the IM regimen of 4 hourly maintenance doses. **Ask** where they will refer a woman after the loading dose.

Showing slide 84, briefly **discuss** the recommended use of diazepam as a secondary medication if magnesium sulfate is not available or convulsions recur after a second dose of IV $MgSO_4$. **Explain** that calcium gluconate is the antidote to magnesium sulfate. If the woman suffers respiratory arrest during the administration of magnesium sulfate, stop the infusion immediately and then give 1 gram of calcium gluconate IV over 10 minutes.

Ask: Where are the magnesium sulfate and calcium gluconate stocked in your facility? How is it monitored?

Using the *$MGSO_4$ Dosing and Monitoring Checklist*, **invite** participants to the stations. **Have** them work in small groups to **practice** using magnesium sulfate IM and IV. **Use** the melon or other local fruit to practice deep IM injection.

Bring the group back together after the magnesium sulfate activity.

VIDEO AND DISCUSSION: SEVERE PRE-ECLAMPSIA

Show and **discuss** the video on *Severe Pre-Eclampsia* together as a group.

FACILITATOR PRESENTATION AND GROUP DISCUSSION: ANTIHYPERTENSIVES

Show and discuss slide 85. **Refer** participants to the *Helping Mothers Survive Pre-Eclampsia & Eclampsia Medication Table*. **Emphasize** that it is important to control high blood pressure. **Remind** participants that antihypertensives are recommended if systolic blood pressure is 160 mmHg or higher and/or diastolic 110 mmHg or higher. Hydralazine 5 mg IV over 1 to 2 minutes is the first-line recommendation. It is currently available in IARH Kit 11.

Discuss with the participants which anti-hypertensives are available in their setting. Other medications that may be available include:

- Nifedipine immediate-release only – 5-10 mg by mouth or bitten then swallowed. Repeat every 30 minutes until target BP is achieved. Maximum dose is 30 mg.
- Labetalol oral – 200 mg by mouth, repeat every one hour if needed to achieve goal. Maximum dose is 1200 mg in 24 hours.
- Labetalol IV – 10 mg IV over, double dose every 10 minutes to 80 mg until goal achieved. Maximum dose is 300 mg. Then switch to oral, but do not use if congestive heart failure, asthma, or hypovolemic shock.

Address any outstanding questions on the administration of magnesium sulfate or antihypertensives for severe pre-eclampsia and eclampsia. **Refer** participants to *HMS PE-E Action Plan I* in the *Participant Workbook* and **ask** for a volunteer to review the key steps in initial management of severe pre-eclampsia/eclampsia with the group. **Clarify** any steps as needed. **Encourage** participants to use the *Action Plan* in their facilities.

CLINICAL SIMULATION AND DEBRIEF

Introduce the group to the clinical simulation. **Tell** participants that they will be participating in a simulation where you will be the patient, Mrs. C. **Assign** up to 3 participants to **act** as if they are providing care for a real patient. The remaining participants will be observers to **provide** feedback. **Allow** 15 minutes for this activity. The goal is for participants to diagnose and initiate treatment of Mrs. C, who has severe pre-eclampsia even though she has no danger signs and appears to be normal. Her BP is dangerously high and the team needs to identify this and begin treatment quickly. The providers are working in a health clinic in a rural area. **Read** the following scenario to the group:

I am Mrs. C., 27 years old, and 39 weeks pregnant with my first baby. I have attended 4 antenatal care visits with no problems and I think I am in labor. Please begin your assessment and tell me what you are doing. If you choose to assess something, please do so and I will give you the results.

Give the following information, but **only** if and when assessed:

- BP 178/112
- No danger signs
- Urine protein 2+
- Fetal heart rate 140 beats per minute, fetal movement present
- Vaginal exam: cervix is 4 cm dilated
- Contractions every 4 minutes lasting 35 seconds
- All other measurements are normal

Bring the group together to **debrief** after the clinical simulation is complete and all participants had a chance to participate. Be sure to **include** feedback about communication and respectful maternity care.

- **Include** the following points:
  - Confirm correct diagnosis and treatments: severe pre-eclampsia.
  - Mrs. C. urgently needs full $MgSO_4$ loading dose (IV and IM) and antihypertensive.
- **Ask**:
  - Why this diagnosis?
  - What went well?
  - Did you miss anything?
  - How did the team function?
  - What did you learn and will remember the next time?
  - Was care coordinated?
- **Remind** participants that women can have severe pre-eclampsia without danger signs. The team must move quickly from assessment and diagnosis to management. Be sure to address any communication gaps. Were all team members comfortable working together and delegating? As the patient, share how you felt. Did they delegate, communicate, and provide respectful maternity care?
- **Discuss** what went well and what could have been done differently.
- **Wrap up** by emphasizing that effective and prompt management of severe pre-eclampsia and eclampsia will help reduce preventable maternal and perinatal deaths.

End with a **review** of the steps for an effective referral on slide 86. **Refer** participants to *HMS PE-E Action Plan 2* in their workbooks for an overview of continuing care at more advanced levels. **Emphasize** that this is for information and reference, and that participants are not expected to provide advanced care.

Follow this unit with an opportunity for open skills practice/simulations, as needed, on managing severe pre-eclampsia, eclampsia, and shock. **Ensure** checklists and job aids are used and **coach** participants as needed.

Wrap up by asking for reflections on the use $MgSO_4$ and other skills. What were the key learnings? Do participants feel more confident to use magnesium sulfate?

UNIT 10 ESSENTIAL NEWBORN CARE AND NEWBORN RESUSCITATION

Time:
240 minutes (4 hours)

Unit Objectives:

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

- Discuss the main causes of newborn deaths and challenges for newborn care in humanitarian settings.
- Explain essential newborn care.
- Perform newborn resuscitation using a bag and a mask.

This unit was extracted from Unit 4, Practical Session C in the *Assisted Vaginal Delivery via Vacuum Extraction* clinical refresher training module by the IAWG Training Partnership Initiative. It has been updated in line with Helping Babies Breathe 2.0 and includes an overview of essential newborn care.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 45 minutes: Facilitator Presentation and Group Discussion
- 45 minutes: Video and Demonstration: Essential Newborn Care
- 60 minutes: Demonstration and Skills Practice: Newborn Resuscitation
- 90 minutes: Objective Structured Clinical Examinations

PREPARATION

- Print, download, and gather materials as listed below
- Prepare two identical workstations in one room with the newborn simulators and all necessary equipment as listed and shown in the action plan. A clock or timer should be visible from each. Ensure ample space between the two demonstration sites
- Set up three Objective Structured Clinical Examination stations with all supplies and print copies of OSCE forms (1 for each participant). Participants will rotate around the 3 stations. One facilitator should be responsible for timing these as noted on the OSCE forms:
  - OSCE 1: Bimanual Compression of the Uterus
  - OSCE 2: Newborn Resuscitation
  - OSCE 3: Pre-eclampsia/Eclampsia: Administering $MgSO_4$ Loading Dose

PRINT:
- ☐ *OSCE 1: Bimanual Compression of the Uterus*
- ☐ *OSCE 2: Newborn Resuscitation*
- ☐ *OSCE 3: Pre-Eclampsia and Eclampsia*

Participant Workbook:
- ☐ *Checklist for Newborn Resuscitation*
- ☐ *Helping Babies Breathe Action Plan*
- ☐ *Job Aid: Reprocessing Neonatal Resuscitation Equipment*

DOWNLOAD:
Presentation:
- ☐ Slides 87 through 92

Videos:
- ☐ *Helping Babies Breathe at Birth* (Global Health Media) 9:23 minutes

GATHER:
- ☐ Projector and computer with sound
- ☐ Normal birth supplies (see Course Materials list)
- ☐ Newborn simulators (2)
- ☐ Neonatal bag and masks
- ☐ Mucus extractor or other simple neonatal suction apparatus
- ☐ Fabric or towels to dry and wrap the baby
- ☐ Baby hat if available
- ☐ Stethoscope
- ☐ Wall clock, watch, or timer with second hand
- ☐ Examination gloves and other IP supplies

DETAILED SESSION GUIDE

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Facilitate the presentation on an overview of newborn care in humanitarian settings using the talking points on slides 87 through 92. **Discuss** issues arising, including challenges and solutions. **Emphasize** that immediate essential newborn care does not require many supplies, such as skin-to-skin contact and early breastfeeding. These are lifesaving high impact interventions.

VIDEO AND DEMONSTRATION

Show the video on *Helping Babies Breathe at Birth*. **Discuss** any issues that arise. Some newborns will need higher level care. If referral is needed, they should be transported with the mother skin-to-skin and covered well.

Ask for a volunteer to **demonstrate** the key steps of immediate newborn care following birth. This can be integrated with managing the third stage of labor. Refer to the *Helping Babies Breathe Action Plan* and follow key steps for a newborn who is crying.

DEMONSTRATION AND SKILLS PRACTICE: NEWBORN RESUSCITATION

Demonstrate newborn resuscitation following the steps in the *Checklist for Newborn Resuscitation*. Refer to the action plan from *Helping Babies Breathe*.

Divide participants into two groups. **Instruct** participants to take turns using the *Checklist for Newborn Resuscitation* to check the skills of a peer performing the simulation. Each participant should **perform** the entire process of newborn resuscitation with a newborn simulator at least once during the practical session. Participants performance will be formally assessed in the following session. **Supervise** the session and **provide** feedback to the group.

Debrief with participants on key issues arising during this session and any new learnings on essential newborn care and newborn resuscitation. **Refer** the participants to the job aid on *Reprocessing Neonatal Resuscitation Equipment* in the *Participant Workbook*.

Note the importance of complying with this guidance to ensure each time they are preparing for a birth and therefore newborn resuscitation, that equipment is clean and ready to use.

Checklist For Newborn Resuscitation (Many of the following steps/tasks should be performed simultaneously)[4]
GETTING READY (Prepare for a birth)
1. Ensure that the area for newborn resuscitation is prepared and that a mucus extractor, self-inflating bag, correct-sized masks for ventilation, and pediatric stethoscope are clean and ready to use for every birth. Provider should have washed hands and put on sterile gloves, and checked bag and mask.
2. Tell the woman (and her support person) what is going to be done and encourage them to ask questions.
3. Provide continual emotional support and reassurance, as feasible.
IMMEDIATE NEWBORN CARE
1. When a baby is born, place immediately on mother's abdomen and dry the baby quickly and thoroughly with a dry cloth. Note the time of birth.
2. Assess the baby's crying and breathing efforts. If crying or breathing normally, continue with routine care. If not crying or breathing normally, go to "Initial Resuscitation Step #1."
3. Remove the wet cloth and place baby skin-to-skin on the mother's chest, covering with a warm, dry cloth. Cover the head with a cap or cloth.
4. Clamp and cut cord within 1-3 minutes or after pulsations have ceased.
5. Continue to observe the baby's breathing/crying as you proceed with the other steps of the birth.
INITIAL RESUSCITATION STEPS (If the baby does not cry or not breathing normally)
1. Dry the baby quickly and thoroughly. Remove the wet cloth.
2. Clear the airway if needed; position the head and suction mouth and nose only if secretions seen. (Do not suction mouth and nose routinely.)
3. Stimulate breathing by rubbing the back 2-3 times.
4. If the baby cries or breathes normally, place the baby skin-to-skin on mother's chest, covering with a warm, dry cloth. Cover head with cap or cloth.
5. If the baby does not breathe after stimulation, quickly clamp and cut the cord, place the baby on a clean, dry surface in the resuscitation area/beside the mother, and cover with a hat and dry cloth, leaving the chest exposed.
6. Proceed with ventilation using a bag and mask within one minute after birth.

4. Adapted from Jhpiego. 2015. *Emergency Obstetric Care for Midwives and Doctors* course. Updated and aligned with *Helping Babies Breathe 2.0*.

RESUSCITATION USING BAG AND MASK
1. Position the baby's head in a slightly extended position to open the airway.
2. Place the mask on the baby's face so that it covers the chin, mouth, and nose. Form a seal between the mask and face and begin ventilation.
3. Ensure that the chest is rising with each ventilation. Ventilate at a rate of 40 breaths/ minute for 1 minute.
4. If the baby cries or starts breathing, keep the baby warm skin-to-skin, and continue with essential newborn care.
5. If the baby is still not breathing, call for help and improve ventilation. • Head – reposition, reapply mask • Mouth – clear secretions, open mouth slightly • Bag – squeeze harder and continue ventilation
6. If not breathing well, palpate the umbilical cord or listen to the heart rate with a stethoscope. • If the heart rate is more than 100, continue ventilation. • If the baby is breathing spontaneously and there is no in-drawing of the chest and no grunting, put the baby in skin-to-skin contact with the mother. • Monitor with the mother.
7. If breathing is less than 30 breaths per minute, heart rate is less than 100 beats per minute, or severe chest in-drawing is present, continue ventilating (with oxygen if available) and arrange for immediate referral for advanced care.
8. If the baby does not breathe spontaneously and has no detectable heart rate after 10 minutes of ventilation, resuscitation should be stopped.
9. If the baby has a heart rate below 60 beats per minute and no spontaneous breathing after 20 minutes of ventilation, resuscitation should be stopped.
POST-PROCEDURE TASKS
1. Wipe the equipment with clean gauze soaked in chlorine solution 0.5%. Then clean and process.
2. Wash hands thoroughly.
3. Ensure that the mother is aware of the outcome of the resuscitation and provide support as necessary.
4. Record pertinent information on the mother's/newborn's record.

OBJECTIVE STRUCTURED CLINICAL EXAMINATIONS

After the participants have each practiced newborn resuscitation, **move** to assessing selected competencies of each participant using Objective Structured Clinical Examinations (OSCEs). **Direct** participants to the 3 OSCE stations and rotate participants so each completes each skill once. **Use** the *OSCE forms* for each skill to **grade** each assessment with a passing (competent) score of 80%. Other skills can assessed as needed. **Provide** feedback to participants on overall strengths and weaknesses observed during OSCEs and areas that need ongoing practice, for example: communicating with clients.

UNIT 11 NEXT STEPS AND CLOSING

Time:
120 minutes (2 hours)

Unit Objectives:

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

- Complete a knowledge assessment.
- Discuss options for ongoing skills practice and post-training activities (such as peer to peer, clinical drills, mentorship).
- Explain training resources and job aids.
- Develop a simple action plan for improving facility readiness for BEmONC.
- Explain how the training met their expectations and course objectives.

UNIT OVERVIEW

TIMING AND METHODOLOGY

- 30 minutes: Knowledge Assessment
- 30 minutes: Facilitator Presentation and Group Discussion
- 45 minutes: Group Discussion and Action Planning
- 15 minutes: Course Evaluation and Closing

PREPARATION

- Print, download, and gather materials as listed below
- Prepare Certificates of Completion for all participants in advance

PRINT:
- ☐ *Post-test*
- ☐ *Course Evaluation*
- ☐ *Certificate of Completion*

Participant Workbook:
- ☐ *Action Plan*

DOWNLOAD:
Presentation:
- ☐ Slides 93 through 98
- ☐ *Breaking Tradition: Translating Evidence into Effective Learning* (Jhpiego, 2019)

GATHER:
- ☐ Flip chart paper and markers

DETAILED SESSION GUIDE

KNOWLEDGE ASSESSMENT

Distribute copies and **ask** participants to take 15 minutes to complete the *Post-test*. After **completing**, **grading**, and **discussing** the post-test results, continue with **discussing** next steps after training.

FACILITATOR PRESENTATION AND GROUP DISCUSSION

Review slides 93-97. **Explain** how to access the information learned during the training and where to find other helpful resources. **Discuss** ways these or other resources can be utilized and shared with colleagues.

GROUP DISCUSSION AND ACTION PLANNING

Explain that the information and skills have been introduced in a short time and it is important to **continue** practicing these to build confidence, support the transfer of learning, and help with skills retention. **Discuss** with participants what exists in their facilities now to support provider performance, such as supportive supervision, on-the-job training, or mentorship. **Brainstorm** how the participants can layer on continued practice in new skills and behaviors. This can include exercises, use of checklists (part or whole), and clinical drills from the training. A literature review of effective in-service training found that onsite learning, delivered to teams in small doses at higher frequency, and emphasizing practical skills and problem-solving, improves the performance and behavior of service providers. **Refer** to the *Recommendations for Evidence-Based Learning*.

Discuss who is best placed to champion and support ongoing training efforts and how to get management to support these. If connectivity permits and one has not yet been created, a WhatsApp group can be used to establish a support group and share information.

Ensure participants have all the resources from this training to share with other colleagues and to continue learning. These can be shared as a USB key and accessed at www.iawg.net/scorts, if not already included in the *Participant Workbook*.

Develop a simple action plan for improving readiness for BEmONC. Action plans can be shared with facility managers and used for follow-up and monitoring. **Encourage** participants to use the *Post-Training Action Plan* example in their workbook.

COURSE EVALUATION

End the training by **asking** participants to take 10 minutes to fill out the *Course Evaluation*. Evaluations should be summarized and included in the training report along with any qualitative feedback and training-related issues and recommendations. **Review** the course objectives and **revisit** participants' expectations. **Ensure** that all expectations have been addressed. **Thank** the participants for their participation in the short refresher training course. **Present** each participant with a prepared *Certificate of Completion* to wrap up the training.

ANNEX 1: SAMPLE COURSE AGENDA FOR 3-DAY TRAINING

This is an example of a 3-day agenda for this module. Facilitators may need to adjust the order of some content and the time allowed based on the setting and participants' experience and capacity. There is an adaptable and printable version of the course agenda on the IAWG website: www.iawg.net. Energizers and warm up activities can be added as needed. Lunch, morning, and afternoon breaks can be taken as convenient.

Unit	Timing	Content	Objectives At the end of the unit, participants will be able to:	Methodology
DAY 1				
	8:00-8:30 (30 min)	Registration of participants • Knowledge pre-test		Needs assessment
Introduction				
1	8:30-9:00 (30 min)	Welcome and introduction • Introductions/ Icebreaker • Expectations and ground rules • Overview of the training and training materials, objectives, and agenda	• Introduce each other and facilitators • Reflect on expectations of the training • Explain the objectives of the training • Agree on the ground rules/norms for the training • Describe training materials and key teaching and learning approaches, including guided reading/self-study and assessment of training	Presentation Discussion
Overview of Emergency Obstetric and Newborn Care (EmONC)				
2	9.00–9.30 (30 min)	• What is EmONC and why is it needed? • Minimum Initial Service Package (MISP) for Sexual and Reproductive Health	• Explain the principles of prevention of excess maternal and newborn mortality and morbidity in humanitarian settings • Discuss how basic emergency obstetric and newborn care (BEmONC) supports the implementation of the MISP for Sexual and Reproductive Health in an emergency	Interactive presentation
Respectful Maternity Care				
3	9:30-10:15 (45 min)	• Respectful maternal and newborn care in emergencies	• Discuss issues that contribute to the mistreatment of women and newborns • Share examples of mistreatment • Explain the concept of respectful maternity care as a core component of quality care	Presentation Video Discussion
10.15-10.30 (15 min) Tea Break (blood estimation exercises can be included here)				

Unit	Timing	Content	Objectives At the end of the unit, participants will be able to:	Methodology
Identification and Treatment of Shock				
4	10.30 - 11.30 (60 min)	• Rapid assessment and management • Identification and treatment of shock	• Quickly identify and treat an obstetric emergency • Initiate treatment of shock	Presentation Role play
Prevention and Management of Postpartum Hemorrhage				
5	11:30-12:30 (60 min)	• Preparing for safe birth • Identifying postpartum hemorrhage • Estimating blood loss • Management of postpartum hemorrhage	• Demonstrate active management of the third stage of labor • Identify and manage the most common causes of postpartum hemorrhage following a normal vaginal birth • Accurately identify normal and abnormal postpartum blood loss	Role play Interactive presentation Skill demonstration Video
5	12:30-13.00 (30 min)	• Oxytocic drugs • Appropriate use of oxytocic drugs	• Utilize supplies available including in the Inter-Agency Emergency Reproductive Health (IARH) Kits to treat postpartum hemorrhage	Exercise Interactive presentation Discussion
13.00-14.00 (60 min) Lunch				

5	14.00:14.45
	(45 min)
		• Management of postpartum hemorrhage continued:
		  • Bimanual compression uterus
		  • Clinical decision making
			• Identify and manage the most common causes of postpartum hemorrhage following a normal vaginal birth	Case study: Clinical Simulation on model and supplies
				Group debriefing

5	14.45 – 15.00 (15 min)	• Referral to a higher level of care • Ongoing care after postpartum hemorrhage	• Identify and appropriately refer women requiring a higher level of care	Documentation Interactive presentation Discussion
Manual Removal of the Placenta				
6	15.00 -15.45 (45 min)	• Manual removal of placenta	• Recognize indications for manual removal of the placenta at multiple levels of care • Demonstration manual removal of the placenta	Presentation Model and supplies
15:45-16:00 (15 min) Working Tea Break - show UBT Animation (optional skill)				
5+6	16.00-17.15 (75 min)	• Group 1: Active management of the third stage of labor • Group 2: Manual removal of placenta • Group 3: Bimanual compression	• Demonstrate active management of the third stage of labor • Demonstrate manual removal of the placenta • Demonstrate bimanual compression of uterus	Skills practice
5+6	17:15-17:30 (15 min)	• Group debrief of skills practice	• Discuss issues arising in managing postpartum hemorrhage	Discussion
5+6	17.30–17.45 (15 mins)	• Wrap up and guided reading	• Review Day 1 and prepare for Day 2 by reading about maternal sepsis and severe pre-eclampsia/eclampsia	

Unit	Timing	Content	Objectives At the end of the unit, participants will be able to:	Methodology
DAY 2				
Review and Day 2 Agenda				
5+6	8:15-8:45	• Review of previous day (quiz) *Note to facilitator: Prepare a few questions on new information from Day 1. Have group stand in a circle and toss a ball to each other – whoever catches ball answers question* • Review Day 2 agenda • Warm up – handwashing activity *Note to facilitator: Ask volunteer to lead group handwashing activity with hand gel*	• Review information from Day 1 • Discuss the agenda for Day 2 using a flip chart • Demonstrate proper handwashing technique	Quiz Activity
Transport and Referral				
7	8.45-9.30 (45 min)	• Transport and referral • Intravenous (IV) insertion and fluid administration	• Safely stabilize and prepare a woman for transport after postpartum hemorrhage • Practice IV access and fluid administration • Describe how to ensure effective communication with the facility receiving the referred woman or newborn • Practice use of the non-pneumatic anti- shock garment (*optional*)	Presentation Skills practice
7	9.30 – 10.30 (60 min)	• Open skills practice	• Managing postpartum hemorrhage – continue skills practice • Include uterine balloon tamponade, if used	Checklists All supplies
10:30-10.45 Tea Break – show video on infection prevention if time allows				
Prevention and Management Peripartum Infections				
8	10:45—11.15 (30 min)	• Identification and treatment of peripartum infections	• Review and apply prevention, assessment, diagnosis, treatment, and evaluation of peripartum infection • Identify and refer women to a higher level of care for severe infection (sepsis)	Presentation Discussion
8	11:15-12:15 (60 min)	• Case study • Group debrief		Learning activity Discussion
Prevention and Management Severe Pre-eclampsia/Eclampsia				
9	12:15-13.00 (45 min)	• Classifying hypertensive disorders of pregnancy • Accurate blood pressure and urine assessment • Quick check/Assess danger signs	• Explain classification of hypertensive disorders in pregnancy • Demonstrate ability to accurately measure and record blood pressure • Demonstrate ability to assess for severe pre-eclampsia and eclampsia in limited resource settings	Interactive Presentation and Discussion
13:00-14:00 (60 min) Lunch				

Unit	Timing	Content	Objectives At the end of the unit, participants will be able to:	Methodology
9	14:00-15:00 (60 min)	• Safe administration of magnesium sulfate • Safe administration of anti-hypertensive medications	• Demonstrate ability to safely prepare magnesium sulfate for intramuscular (IM) and IV administration • Discuss treatment protocols for anti-hypertensive medication administration	Presentation Video Skills practice
9	15:00-16:00 (60 min)	• Clinical Simulation • Debriefing - reflect on use $MgSO_4$ and other skills	• Diagnose and initiate treatment of a patient	Simulation in small groups and debriefing
16.00 – 16.15 Tea Break				
9	16.15 – 17.15 (60 min)	• Continued skills practice according to participant needs	• Manage severe pre-eclampsia/eclampsia through continued skills practice • Manage shock through continued skills practice	Skills practice
9	17.15 – 17.30	• Wrap up and guided reading	• Review materials on essential newborn care for Day 3	

Unit	Timing	Content	Objectives At the end of the unit, participants will be able to:	Methodology
DAY 3				
Essential Newborn Care and Newborn Resuscitation				
9	8:15-8:45 (30 min)	• Review of previous day (quiz) *Note to facilitator: Prepare a few questions on new information from Day 2. Have group stand in a circle and toss a ball to each other – whoever catches ball answers question* • Review Day 3 agenda • Warm up *Note to facilitator: Ask volunteer to lead group warm up energizer*	• Review information from Day 2 • Discuss the agenda for Day 3 using a flip chart • Demonstrate proper handwashing technique with hand sanitizer	Quiz Activity Flip chart
10	.45- 9.30 (45 min)	• Overview newborn mortality and essential newborn care	• Discuss the main causes of newborn deaths and challenges for essential newborn care in humanitarian settings	Interactive Presentation Discussion
10	9.30 – 10.15 (45 min)	• Essential newborn care	• Explain essential newborn care	Skills demonstration
10.15- 10.30 Tea Break				
10	10.30 – 11.30 (60 min)	• Newborn resuscitation	• Demonstrate newborn resuscitation using a bag and a mask • Perform newborn resuscitation using a bag and mask	Skills demonstration and practice
10	11.30 – 13.00 (90 min)	• Competency assessments for postpartum hemorrhage, pre-eclampsia/eclampsia, and newborn resuscitation	• Demonstrate competency in postpartum hemorrhage, pre-eclampsia/eclampsia, and newborn resuscitation	Skills assessment
13.00 – 14.00 Lunch break				
11	14.00 – 14.30 (30 min)	• Post-test and results	• Assess the information learned over the three-day training	Post-test
11	14:30-15:00 (30 min)	• Review and sharing of available resources	• Explain how to access and use training resources and job aids	Discussion
11	15:00-15:45 (45 min)	• Ongoing education and practice exercises • Develop action plan	• Identify strong clinical leaders to champion ongoing practice in the health care facility • Discuss options for ongoing skills practice and post-training activities • Develop a simple action plan for improving readiness for BEmONC	Discussion Activity
11	15:45-16:00 (15 min)	• Course evaluation • Closing/Certificates	• Explain how the training met their expectations and course objectives	Discussion Evaluation Certificates
Summary and Closing				

Note: If time and facilities permit, participants can stay and apply the new learnings in actual clinical care. Complications may be infrequent. Emphasize that continuing practice in pairs or small groups on models supports skill retention.

ANNEX 2: PARTICIPANT PRE- AND POST-TEST ANSWER KEY

Note: The pre- and post-tests included in the annexes to this S-CORT use the same questions but in varied order. This key provides the correct responses, but facilitators should pay attention to the different order of the questions when grading participant responses

1. Interventions that have proven most successful in reducing maternal mortality include:
   a. The use of a skilled birth attendant who has access to emergency care.

2. Maternal and newborn mortality in humanitarian settings is usually lower than the global average.
   a. False

3. All women can make informed choices about the sexual and reproductive health services they receive, and the reasons for interventions or outcomes should be clearly explained.
   a. True

4. Women do not have a right to have a companion with them during labor and childbirth.
   a. False

5. Women and newborns have the right to remain together at all times, even if the newborn is small or premature.
   a. True

Emergency Obstetric and Newborn Care

6. Which of the following lists contain the three MAIN causes of bleeding after birth?
   a. Soft uterus, a retained placenta, and perineal tearing

7. Which of the following lists contain the three parts of active management of the third stage of labor?
   a. Give uterotonic, provide controlled cord traction, and check tone of the uterus

8. Which uterotonic medication does not have any temperature requirements for storage?
   a. Misoprostol

9. If you have not been trained to suture, and if the mother is bleeding from tears that you can see, which of the following actions is MOST correct?
   a. Use clean technique to apply steady pressure with clean gauze.

10. Criteria for diagnosing pre-eclampsia include which of the following? Select all that apply.
    a. Blood pressure greater than 140/90 mmHG on two occasions four hours apart
    b. Blood pressure greater than 160/100 mmHG on one occasion

11. Magnesium sulfate 50% solution must be diluted to a 20% solution prior to IV administration.
    a. True

12. What is the correct loading dose of magnesium sulfate?
    a. 4g of 20% solution IV slowly over 5 minutes AND 5g of 50% solution IM into each buttock

13. If a woman with severe pre-eclampsia does not have convulsions, when should birth take place?
    a. Within 24 hours of the onset of symptoms

14. Which of the following are signs of puerperal sepsis?
    a. Temperature 39° C, tender uterus, chills

15. Factors that may predispose to intrapartum and postpartum infection include:
    a. A and B

16. What is the preferred route of administration for antibiotics in the case of severe puerperal sepsis?
    a. Intravenous (IV)

17. If a patient is showing signs of hypovolemic shock, including rapid pulse and pallor, then it is best to administer intravenous fluids at a _____ rate.
    a. Rapid

18. Routine care for a healthy baby at birth includes:
    a. Drying, removing the wet cloth, and positioning skin-to-skin with the mother

19. A newborn who is born through meconium-stained amniotic fluid who starts breathing on their own needs routine suction.
    a. False

20. A baby's chest is not moving with bag and mask ventilation. What should you do?
    a. Reapply mask to get better seal

ANNEX 3: REFERENCES AND RECOMMENDED RESOURCES

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ANNEX 4:
OSCE 1 - FOR ATONIC PPH/BIMANUAL COMPRESSION OF UTERUS

Name of Facilitator (ID) _____

_____

Name / Number of Trainee (ID): _____

_____

Date of evaluation: (/ /) Place of training: _____

GUIDELINES TO BE READ TO PARTICIPANTS

- Assume you are in a rural health care facility with no surgical or blood transfusion capacity. You have all equipment and supplies necessary for a normal vaginal birth and basic emergency management. You have a fellow midwife who is on duty as well.
- All essential information will be provided to you at the start of each OSCE station.
- Ask the evaluator to clarify any questions prior to beginning. Once the OSCE has started, the evaluator will only provide information about the patient status.
- You will have **5 minutes** to complete this station.
- Talk to and care for the woman in front of you exactly as you would in real life. Do NOT talk to me as an examiner!
- Be explicit in verbalizing your clinical thinking and subsequent decisions.
- If you give a medication, you must state what you are giving, the dose, the route, and why you are giving it.

INSTRUCTIONS FOR THE FACILITATORS

- Review the instructions above for the participants.
- Start with birth simulator with the baby delivered and the placenta removed. Once time has begun, open the blood tank to full OR explain the woman is bleeding heavily from the vagina.
- Observe only; do not intervene in demonstration of the participant.
- In the items below you will see instructions to you in italics. Follow these instructions.
- The feedback will be given at the end of the assessment for all learners.

Read the following to the participant:

"You are in a rural facility at the start of this scenario. You have just conducted an uneventful birth about 10 minutes ago. You gave the woman 10 IU Oxytocin IM within 1 minute of birth. 10 minutes later, you delivered a complete placenta and the woman started bleeding heavily. You have massaged the uterus, given a repeat dose of 10 IU Oxytocin and your colleague has started an IV infusion of 20 IU Oxytocin in 1 liter IV infusion at 60 drops/min and catheterized the woman. What will you do now?"

Bimanual Compression of The Uterus	Yes (Performed to standard)	No (Did NOT perform to standard)
1. Tells the woman (and her support person) what is going to be done, listen to her, and respond attentively to her questions and concerns.		
2. Provides continual emotional support and reassurance, as feasible.		
3. Puts on personal protective barriers.		
4. Washes hands thoroughly and put on sterile surgical gloves (long if available).		
5. Cleans vulva and perineum with antiseptic solution.		
6. Inserts a hand into anterior vaginal fornix and form a fist, with the back of the hand directed posteriorly and the knuckles in the anterior fornix; apply pressure against the anterior wall of the uterus.		
7. Places the other hand on the abdomen behind the uterus; press the hand deeply into the abdomen and apply pressure against the posterior wall of the uterus.		
8. Maintain compression until bleeding is controlled and the uterus contracts. After 20 or 30 seconds say, it has now been 5 minutes and bleeding has slowed.		
9. Removes gloves and washes and dries hands.		
10. Monitors vaginal bleeding, takes the woman's vital signs and makes sure that the uterus is firmly contracted.		

Score: ____ / 10 Pass / Fail (circle one) Pass score = 8 / 10

OSCE 2[5] - HELPING BABIES BREATHE

Name of Facilitator (ID) _____

_____

Name / Number of Trainee (ID): _____

_____

Date of evaluation: (/ /) Place of training: _____

GUIDELINES TO BE READ TO PARTICIPANTS

- Assume you are in a rural health care facility with no surgical or blood transfusion capacity. You have all equipment and supplies necessary for a normal vaginal birth and basic emergency management. You have a fellow midwife who is on duty as well.
- All essential information will be provided to you at the start of each OSCE station.
- Ask the evaluator to clarify any questions prior to beginning. Once the OSCE has started, the evaluator will only provide information about the patient status.
- You will have **7 minutes** to complete this station.
- Talk to and care for the woman in front of you exactly as you would in real life. Do NOT talk to me as an examiner!
- Be explicit in verbalizing your clinical thinking and subsequent decisions.
- If you give a medication, you must state what you are giving, the dose, the route, and why you are giving it.

INSTRUCTIONS FOR THE FACILITATORS

- Read aloud to the learner the following instructions and the case.
- Provide prompts where noted in parentheses.
- As you observe the learner, tick the boxes "Done" or "Not Done" for each activity.
- Indicate the baby's response to the learner's actions using the neonatal simulator or words.
- Comment on the learner's performance only at the end of the case.

Note the time between birth and beginning ventilation and aim to share this with participant as a guide. It does not affect Pass / Fail.

Read the following to the participant:

"I am going to read a case. Please listen carefully, and then show me how you would care for this baby. I will indicate the baby's response with the simulator (OR in words). I will provide no other feedback until the end of the case."

"You are called to assist at the birth of 37 weeks gestation baby. You arrived 2 minutes prior to birth. Introduce yourself and show what you will do."

5. American Academy of Pediatrics. "Objective Structured Clinical Evaluations- Evaluation B." *Helping Babies Breathe*, 2nd Edition. www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/helping-babies-survive/Pages/Course-Materials.aspx.

		Done	Not Done
1	**Prepares for a birth. Identifies a helper, prepares the area for birth, cleans hands, prepares an area for ventilation and checks equipment**		
	Prompt: After 2 minutes the baby is born - give baby to learner and say, "The amniotic fluid is clear. Show how you will care for the baby."		
2	**Dries thoroughly and removes wet cloth, covers with dry cloth**		
3	**Evaluates crying -** *Prompt:* Show or say the baby is not crying.		
3.1	**Recognizes baby is not crying**		
4	**Clears airway and stimulates breathing**		
4.1	**Keeps warm, positions head, clears airway**		
4.2	**Stimulates breathing by rubbing the back**		
5	**Evaluates breathing**		
5.1	*** Recognizes baby is not breathing**		
6	**Ventilates with bag and mask**		
6.1	**Cuts cord and moves to area for ventilation OR ventilates by mother**		
6.2	**Starts ventilation within the Golden Minute SM (at _____seconds)**		
6.3	*** Ventilates at 40 breaths per minute** (30-50 acceptable)		
6.4	*** Looks for chest movement**		
7	**Evaluates breathing -** *Prompt:* Show or say the baby is not breathing.		
7.1	**Recognizes baby is not breathing**		
8	**Calls for help**		
9	**Continues ventilation**		
	Prompt: Say, "Please show what to do if the chest is not moving with ventilation." After one or more steps to improve ventilation, say "The chest is moving now."		
10	*** Improves ventilation. Head: repositions head, reapplies mask / Mouth: clears secretions, opens mouth slightly / Bag: squeezes bag harder**		
11	**Evaluates breathing and heart rate -** *Prompt:* Show or say the baby is not breathing; heart rate is normal.		
11.1	**Recognizes baby is not breathing but heart rate in normal**		
12	**Continues ventilation**		
	Prompt: After 3 minutes say, "The heart rate is 120 per minute and the baby is breathing."		
13	**Recognizes baby is breathing and heart rate in normal**		
14	**Stops ventilation; monitors baby and communicates with mother**		

Score: _____ / 18 Pass score 14 / 18 AND "Done" **must be ticked** for "Recognizes baby is not breathing", "Ventilates at 40 breaths per minute", "Looks for chest movement" and "Improves ventilation."

OSCE 3[6] - ADMINISTERING THE LOADING DOSE OF $MGSO_4$

Name of Facilitator (ID) _____

_____

Name / Number of Trainee (ID): _____

_____

Date of evaluation: (/ /) Place of training: _____

GUIDELINES TO BE READ TO PARTICIPANTS

- Assume you are in a rural health care facility with no surgical or blood transfusion capacity. You have all equipment and supplies necessary for a normal vaginal birth and basic emergency management. You have a fellow midwife who is on duty as well.
- All essential information will be provided to you at the start of each OSCE station.
- Ask the evaluator to clarify any questions prior to beginning. Once the OSCE has started, the evaluator will only provide information about the patient status.
- You will have **8 minutes** to complete this station.
- Talk to and care for the woman in front of you exactly as you would in real life. Do NOT talk to me as an examiner!
- Be explicit in verbalizing your clinical thinking and subsequent decisions.
- If you give a medication, you must state what you are giving, the dose, the route, and why you are giving it.

INSTRUCTIONS FOR THE FACILITATORS

Start with these supplies prepared and accessible to the participant: alcohol hand rub, exam gloves, at least three 20 mL syringes, sterile water for injection or normal saline IV bag, 16, 1g/2mL ampules of $MgSO_4$, 1 ampule 1 or 2% lignocaine, simulator for injection (small melon or other fruit), sharps container.

- Read prompts in italics but do not intervene in demonstration of the participant.
- The feedback will be held at the end of the assessment for all learners.

Read the following to the participant:

"Mrs. B has just presented to you at 38 weeks with a bad headache unrelieved by analgesics. You took her BP and it was 154/96 and she has 2+ protein per dipstick. You have called a nurse who came with these supplies and started an IV with normal saline. Demonstrate and verbalize what you would do next."

6. Helping Mothers Survive. "Pre-Eclampsia & Eclampsia OSCE 1: Administering the Loading Dose of $MgSO_4$," October 2018.

Checklist of Skills		Yes (Performed to standard)	No (Did NOT perform to standard)
1.1	**Ask:** *What is the diagnosis?* Severe pre-eclampsia.		
1.2	Washes hands with soap and water or uses alcohol hand rub.		
1.3	States and draws up 12 mL of sterile water or normal saline from IV for injection.		
1.4	States, draws up $MgSO_4$ 50% solution 4g (1g/2mL x 4) and adds to the 12 mL of water or saline to make 20mL of 20% solution.		
1.5	**Ask:** *Please show and say how you would administer this medication.* Provider demonstrates injecting IV slowly.		
1.6	Explains to patient what she is receiving and why.		
1.7	**Ask:** *Over how long are you administering this dose?* 5- 20 minutes. **State:** *The injection is complete. What will you do next?*		
1.8	States and prepares 2 syringes with: $MgSO_4$ 50% solution 5 g (1g/2mL x 5) + lignocaine 1or 2% 1mL EACH.		
1.9	Provider injects one syringe in each side of an object (fruit, box, or cup).		
1.10	Records details of drugs given and continue to closely monitor woman.		

Score: ____ / 10 Pass / Fail (circle one) Pass score = 8 / 10

Suggested citation:
Inter-Agency Working Group (IAWG) on Reproductive Health in Crises and Jhpiego. Clinical Management of Sexual Violence Survivors in Crisis Settings: A Training Course for Health Care Providers. New York: 2021.

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IAWG Inter-Agency Working Group on Reproductive Health in Crises

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