Effective Perinatal Care (EPC) training package

2nd Edition 2015

EPC MANUAL

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Contents

Main abbreviations

EPC= Effective Perinatal Care

EAPPC= Effective antenatal, perinatal and post-partum care

ENCBF = Effective newborn care and breastfeeding

MPS= Making Pregnancy Safer

MOH= Ministry of Health

UNICEF = United Nations Children's Fund

UNFPA = United Nation Population Fund

USAID = United State Agency for International Development

WHO= World Health Organization

Preface

Progress in maternal and neonatal health outcomes are regarded as insufficient in many settings, despite the increasing access to institutional births, thus suggesting deficiencies in hospital quality of perinatal health care (1-4). The WHO Multicountry Survey on Maternal and Newborn Health - which examined data from more than 300,000 women attending 357 health care facilities in 29 countries - found a poor correlation between coverage of "essential health care interventions" and maternal mortality in health facilities. This very large survey showed that high coverage by itself is not enough to decrease mortality and that to achieve a substantial reduction in maternal and neonatal mortality and morbidity quality improvements in the whole continuum of care around birth are needed (2).

In the European Region, gaps in the quality of maternal and newborn health care, with huge differences in the quality of care among different countries, have been highlighted in a number of reports, including direct in-country assessments (3-7).

WHO, in collaboration with several other partners, has developed a set of tools and strategies for quality improvement relevant to perinatal care, including:

i) tools for assessment of quality of maternal and newborn health care at hospital level (8-9) and at outpatient level (10);
ii) tools for assessing the performance of the health system in proving maternal, newborn, child and adolescent health (11,12);
iii) perinatal health care training packages (13);
iv) strategies for clinical case reviews such as confidential enquiries into maternal deaths at national level and near-miss case reviews at facility level (14,15);
v) evidence based clinical guidelines for case management of maternal and newborn conditions (16, 17).

Effective Perinatal Care (EPC) is a training package developed by WHO Regional Office for Europe in the framework of the Making Pregnancy Safer (MPS) strategic approach (18). The EPC package focuses on seven main steps, similar to a quality improvement process:

1) effectively teaching evidence-based recommendations;
2) developing practical skills;
3) improving providers' attitude towards health services users, respect of rights to care, and overall equity in service delivery;
4) stimulating critical thinking;
5) facilitating the identification and prioritisation of local problems;
6) drawing a plan for action for quality improvement;
7) starting implementing changes in real practice.

The EPC package was designed to be used mainly by professionals directly involved in perinatal care, namely midwives, obstetrician-gynaecologists, neonatologists, paediatric nurses and managers. Contents include essentials of clinical midwifery, obstetric and neonatal care, as well as principles of evidenced-based medicine and epidemiology, theoretical elements on quality of care, and on service users' rights.

The course includes theoretical sessions, role plays, group work, and many hours (usually one week) - of "hands on" clinical practice. This practical part of the EPC course is compulsory and aims to put into practice the new knowledge, develop practical skills, improve the attitude of staff and start implementing changes.

The training methods of EPC course promote the building of a "perinatal team" of local health professionals and multidisciplinary collaboration is promoted throughout the course. At the end of each EPC course, priorities for quality improvement on perinatal care at health facility level are identified, concrete actions, responsible people and timelines are agreed and made explicit. First steps toward the implementation of these changes are made during the practical week of the course itself.

Previous experience with the use of EPC training package

The first version of the EPC package was based on existing materials developed and used by WHO Regional Office for Europe and partners (Effective Antenatal, Perinatal and Post-partum Care/EAPPC and Effective Newborn Care and Breastfeeding/ENCBF), together with the experience gained in several countries of the European Region since the 1990s. The maternal and the newborn component were integrated by WHO Regional Office for Europe in collaboration with John snow International (JSI) and USAID (first edition of EPC).

During the period 2003-2013 the course was delivered in a number of countries and regions within the WHO European Region: Albania, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Kosovo*[1], Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan (19). Additional countries where the need for EPC training has been recently identified include: Bulgaria, Montenegro, and Romania (19). Agencies utilizing the EPC package (besides WHO) include: UNICEF, UNFPA, USAID, and others (19).

The EPC package has been utilized widely within projects aiming at improving the quality of perinatal health care, where the EPC component was either the main component or one out of several components within a more comprehensive quality improvement intervention (19-23). Examples of the impact of EPC training course were published in peer-review journals as well as in other technical reports (20-23). Together with the introduction of maternal and perinatal audit, the package has been demonstrated to lead to better, healthier childbirth (20-24).

[1] * Kosovo (in accordance with Security Council resolution 1244 (1999))

Guiding principles of the EPC training package

The EPC training package aligns with the principles of the WHO Regional Committee for Europe *Health 2020: A European policy framework and strategy for the 21st century* (24), which recommends investing in pregnancy and early child development, as windows of opportunity for future health outcomes and wellbeing. The EPC training package, in consistency with the Health 2020 strategy, focuses on "improving performance of the existing health workforce, as this immediately affects health service delivery and, ultimately, population health" (24). EPC training course also contributes, as recommended by Health 2020, to a "move toward a more evidence-informed, and people-centred approach and team-based delivery of care" (24), and in "promoting the appropriate use of medicines and health technologies which will enhance the quality of care and make more efficient use of scarce health care resources" (24).

The EPC training package is based on the fundamentals and principles of the Making Pregnancy Safer programme, as defined by WHO Regional Office for Europe (25).

Making Pregnancy Safer – fundamentals and principles

Fundamentals:

- Care for pregnancy and childbirth calls for a holistic approach
- Pregnancy and childbirth is an important personal, familial, and social experience
- In pregnancy and childbirth there should be a valid reason to interfere with the natural process
- Medical interventions for pregnant women, mothers and newborns, if indicated, need to be available, accessible, appropriate and safe

Principles**:**

Based on these fundamentals, the care for pregnancy and childbirth should:

- be based on scientific evidence and cost/effective
- be family centred, respecting confidentiality, privacy, culture, belief and emotional needs of women, families and communities
- ensure involvement of women in decision-making for options of care, as well as for health policies
- ensure a continuum of care from communities to the highest level of care, including efficient regionalization, and multidisciplinary approach.

During the years, with growing experience in the use of the EPC package together with the development of new tools and strategies for quality improvement (8), a series of principles guiding its structure, contents and teaching methods have been more explicitly identified (Box 1).

In this second edition of the EPC package the component of quality improvement has been better structured. In the actual version, the EPC course is very much designed to encourage health workers and policy-makers to enter into a quality improvement process. The EPC training material includes tools to allow the health care providers to question and in some cases discard routine practices which are identified as not effective or not safe. As the process of changing and discarding old and familiar methods of working requires the knowledge of reference standards, practical skills, and a constructive open-minded problem-solving attitude, the course aims at developing all these capacities. Emphasis is given to putting in practice newly acquired knowledge and skills, and on developing a clear plan for action for quality improvement at facility level.

Box 1. Guiding principles for EPC course structure, contents and teaching methods

1	The health and wellbeing of the mothers and their babies are closely connected. *EPC course aims at improving team working attitudes through the building of multidisciplinary "perinatal teams". The course is particularly devoted to working in teams both in the first week (theoretical week) and in the second week (clinical practice).*
2	Focusing on single key interventions is not enough; quality perinatal care requires systematic attention to all main components that guarantee a continuum of care. *EPC package addresses all core aspects of perinatal health care at different time points of care. This includes care of normal birth (which is the most frequently required type of care), management of complications, monitoring, and discharge and follow up. Emphasis is given to the need for coordination across different services (maternal and newborn wards, social services etc).*
3	Providing knowledge per se is not enough to ensure that practices will change accordingly; application of this knowledge is also necessary. *The EPC package aims at drawing a plan for action for quality improvement, and at starting implementing changes.*
4	Quality care should ensure that the rights of women, children and their families are met. *EPC training give emphasis to the concept and practice of delivering safe, effective and culturally appropriate interventions in a respectful way.*
5	Both capacities and commitment are needed to improve quality of care. *EPC training is also a motivational activity; best practices are presented with a peer-to-peer approach, giving emphasis to motivating to a quality improvement process*
6	A constructive problem-solving attitude needs to be encouraged for facilitating implementation of changes. The focus of EPC is on the system/team, and not on the individual, with a non–blaming, supportive problem solving approach. A blaming/punitive attitude, which is a common issue in many countries, is explicitly discouraged as this causes denial and /or hiding of problems, decreases work satisfaction and motivation, and increases barriers to quality improvement.
7	To effectively change real practices a critical mass is needed. *EPC methods aim at involving in the quality improvement process decision makers together with local opinion leaders within a critical mass of health workers who routinely deliver clinical care.*
8	Health system factors need to be considered when planning quality improvement interventions. *EPC call the attention of the staff to health system factors. Selected modules of EPC package have been developed more specifically for managers.*

Technical update for the 2014 edition

This is the second edition of the EPC package. It was updated during January – September 2014 under the coordination of the WHO Collaborating Centre in Mother and Child Health, Trieste, Italy, in collaboration with a multidisciplinary team of WHO experts with long-term experience in the use of EPC package in the WHO European Region. The update process included these main steps:

1) Review of main lessons learnt with previous use of EPC training package
2) Definition of guiding principles
3) Definition of the new structure of the course, and additional contents needed
4) Systematic review of scientific sources to be used as reference standards
5) Development of the first draft
6) External review by a panel of international experts
7) Finalization of the course material
8) Field testing

In selecting reference standards, priority was given to WHO guidelines and recommendations. When no guideline or recommendation from WHO was identified during the search process, references were evaluated using the following pre-defined order of importance:

- other high quality evidence based guidelines;
- Cochrane reviews or other high quality systematic reviews;
- primary studies.

When no research evidence was available, position papers or other official guidance documents from international societies or other accountable agencies were used. In a very few instances expert opinion was adopted when none of the previous evidence was available.

Main changes in this 2nd edition of EPC training package

Substantial changes were made in all modules of this second edition of EPC (2014) compared to the first edition. The most relevant changes in this 2nd edition of EPC compared to the 1st edition are:

- All clinical content of EPC was technically updated in line with new existing recommendations.
- Consequently, most references were changed. Detailed references are provided all through the course material (i.e. under each recommendation/slide).
- In many cases the structure of the module was reorganised, together with its content.
- In each module, a number of practical exercises were added.
- Emphasis was given in each module to the rights of women, children and their families.
- A new module on supportive care for the newborn was added (8C).

- A new module providing the theoretical basis on quality improvement (Module 15C) was added to the training package. This module aims to provide key concepts, methods and tools on quality improvement, and to guide the development of a local plan for action.
- The manual for the course (i.e. this manual) was also completely reorganised and updated.
- Specific tools for the course evaluations were added.
- Additional annexes for the course director and the course facilitators were added.

The structure and content of this second edition of the tool are explained in detail in the following section.

Structure and content of EPC training package

The EPC package was designed to be used for improving the quality of perinatal health care at facility level. It is dedicated to training midwives, obstetrician-gynaecologists, neonatologists, and paediatric nurses involved in care during childbirth. Selected components of EPC have been developed for an audience which includes hospital managers (module 1C and 15C).

The EPC package is arranged in a modular form (see Box 2 below). Briefly, EPC is composed of:

- this manual;
- 30 modules divided into "common modules" (15 modules), "newborn modules" (8 modules) and "obstetrics" modules (7 modules);
- additional annexes and tools for the course director, facilitators, and participants;

Key contents of the EPC training package include: essential components of epidemiology; up to date recommendations and evidenced-based management on all aspects of perinatal care; fundamentals of mother and newborn' rights in hospital. Additional contents of EPC package include: a concise overview on the state of maternal and newborn health worldwide and in the European region, together with examples of existing strategies/programmes adopted by WHO and its partners for improving perinatal health outcomes (module 1C); key concepts on quality of care and quality improvement strategies, methods and tools (module 15C).

Each EPC modules is composed of a variable number of slides (usual range from 30 to 60 slides). Modules are available as power point presentations to be used by facilitators, and as PDF files (including both slides and notes) to be used for printouts for participants. Annexes for facilitators are also provided, with recommendations on how to deliver the module, additional information on each exercise, and additional resources such as a list of relevant scientific literature, videos and WHO manuals.

Great emphasis is given in the EPC course in developing practical skills and in translating knowledge into practice. To achieve these objectives, each EPC module contains both slides with the theoretical background i.e. the latest up to date recommendations/good practices, and a series of practical exercises (on average from 3 to 6 exercises in each module) aimed at putting the new knowledge into practice. Exercises are to be used both at the end of the theoretical lessons (first week), and in the practical week (second week).

A template agenda is provided within the EPC package as a practical example on how to organize a programme for a two weeks EPC course (see Annex 1. Template Programme).

Flexibility for local adaptation

Given its structure, EPC allows flexibility for local adaptation, such as adaptation to the local needs for training, or to the local epidemiology. Local adaptation should be considered before delivering the EPC course. On this aspect, see also the following section: *How to implement the EPC in practice: Step 2, Local adaptation*.

Usual duration of the EPC training course (full course) is two weeks, divided in one week of theoretical lessons, and one week of practice in the clinical wards.

However, based on local needs/opportunities (i.e. when the full course of 2 weeks is not a priority, or when it is not feasible due to other reasons) selected parts of EPC can be delivered separately to focus on single aspects of care. In this case the duration of the EPC course will change accordingly.

Selected modules of the EPC package are usually identified for the follow up and reinforcement training after the first official EPC training course.

Selected modules/content of EPC can also be identify for additional complementary activities such for training a particular audience, such as managers, members of academia or others.

Box 2. EPC package

Manual Annexes	
Annex 1	Template Programme for the course
Annex 2	Checklist of materials needed for all theoretical sessions
Annex 3	Checklist of materials for practical exercises
Annex 4	Recommendation for course opening
Annex 5	Conduct daily facilitators' meetings
Annex 6	Recommendation for course evaluation and closure
Annex 7	Knowledge and comprehension test
Annex 8	Template for reporting on test for skills in clinical practice
Annex 9	Feedback from participants
Annex 10	Content overview and Programme Planner (separate Excel file)
Additional material for facilitator's training[2]	
1FT	Effective Perinatal Care (EPC)
2FT	Education of healthcare providers
3FT	Specifics of Effective Perinatal Care course & facilitators' responsibilities
4FT	How to use visual aids
5FT	Developing effective presentations
6FT	Checking participants' understanding

[2] The materials for the training of facilitators are separate files (power point presentations). They have not been updated after the first release of EPC.

7FT	Conducting role plays
8FT	Group work & discussion
9FT	How to keep participants' attention
10FT	Preparation of teaching environment
Common modules (C modules)	
1C	Safe motherhood and effective perinatal care
2C	Introduction to evidence-based medicine
3C	Communication skills in maternal and neonatal care
4C	Assessment of foetal well-being during pregnancy and labour
5C	Management of normal labour and birth
6C	Care of the neonate at birth
7C	Breastfeeding
8C	Postpartum care of mothers and newborns
9C	Neonatal resuscitation
10C	Infections in pregnancy, childbirth and postpartum
11C	Health care associated infections (HCAI)
12C	Preterm labour
13C	Support during traumatic birth or death of a newborn
14C	Postpartum mood disorders
15C	Improving the quality of maternal and newborn care
Midwifery and obstetric modules (MO modules)	
1MO	Antenatal care
2MO	The use of the partograph
3MO	Hypertension in pregnancy
4MO	Postpartum haemorrhage
5MO	Prelabour rupture of membranes (PROM)
6MO	Induction of labour
7MO	The unsatisfactory progress of labour
Neonatology modules (N modules)	
1N	Complete examination of a newborn
2N	Post-resuscitation neonatal care
3N	Breathing difficulty in the newborn
4N	Neonatal jaundice
5N	Neonatal infections
6N	Care of a newborn with birth defects, congenital malformations or birth trauma
7N	Pre-term baby low-birth-weight baby
8N	Supportive care to sick newborn

How to use the EPC package

Main objectives of EPC training course

The primary aim of EPC training course is to aid Ministries of Health (MoHs), key partners and stakeholders to improve quality of perinatal health care at facility level. The EPC package focuses on seven main steps need for implementing a quality improvement process:

1) effectively teaching evidence-based recommendations;
2) developing practical skills;
3) improving providers' attitude towards health services users, respect of rights to care, and overall equity in service delivery;
4) stimulating critical thinking;
5) facilitating the identification and prioritisation of local problems;
6) drawing a plan for action for quality improvement;
7) starting implementing changes in real practice.

The EPC package is a component of the existing WHO strategies and tools for improving quality of health care for mothers and children, such as:

i) tools for assessment of quality of maternal and newborn health care at hospital level (8-9) and at outpatient level (10);
ii) tools for assessing the performance of the health system in proving maternal, newborn, child and adolescent health (11,12);
iii) perinatal health care training packages (13);
iv) strategies for clinical case reviews such as confidential enquiries into maternal deaths at national level and near-miss case reviews at facility level (14,15);
v) evidence based WHO guidelines for case management of maternal and newborn conditions (16, 17).

Main uses of EPC training package

The ideal use of the EPC package is within the frame of a national quality improvement strategy in perinatal health care, aiming at improving quality of care both at facility and community level. However, based on local needs/opportunities, EPC package can also be used for other relevant purposes, such as training in a single facility.

EPC course is usually implemented at country level starting with a pilot phase and then scaling up. The pilot phase aims at acquiring relevant experience and at developing local capacity for the following scale up. Main aspects of EPC course implementation are described below.

- The pilot EPC course is usually based in a large maternity hospital involving the health workers from the hospital, plus, if appropriate, teams from 1-2 other hospitals.
- About 6-8 months after the first EPC course it is recommended to provide a follow up visit to assess changes in practices and attitudes, identify most common local barriers and strategies to overcome them, including reinforcement of critical area. Relevant modules or relevant slides in each module and key practical exercises are used for this purpose.

- When pilot is successful, scaling up can be planned and implemented, organising similar training courses in other maternities.
- For scaling up at a larger level, capacity building of national trainers is recommended. Future national trainers are usually selected from participants of the first courses who have successfully implemented EPC recommendations and who have other relevant characteristics to act as national trainers.

Careful planning and strong administrative support are essential before, during, and after the EPC training course. Main steps for the organisation of EPC are described in the following section.

How to implement the EPC training course in practice

Step 1. Agreement with Ministry of Health, local authorities and partners

- The EPC training package is used in collaborative projects between WHO Regional and Country offices and MoH. EPC course is usually implemented in partnership with other international agencies -such as UNICEF, UNFPA, USAID- as well as NGOs, academia and others. It is recommended to get in touch with WHO Regional Office for Europe before using EPC package in order to get advice on the course implementation. WHO is also interested in receiving feedbacks in regards to the course implementation and its impact.
- Possible partners to support the activity should be identified, contacted and involved at an early stage. General timelines for the activity and facilities to be involved should be discussed at this stage, together with formal arrangements. In several countries in the WHO European Region a written order from the MoH (and sometimes from local authorities) it is usually needed to allow activities to be implemented.
- It is suggested that a representative from the MoH takes part at least at the opening ceremony of the EPC course, in order to provide support to the approach and its implications. Similarly, if the training is organized by other agencies or bodies, the participation of their representatives in key parts of the course will facilitate the overall coordination of the process, as well as contacts with key people involved (for example, future national trainers).
- All involved parties needs to be aware that the EPC course has two main components: theoretical and practical. In addition to daily classroom work, participants will work in clinical departments, where they will practice the EPC principles and clinical skills with women and newborns. Clinical practice is an essential part of the EPC course, so that participants can apply these skills correctly after the course in their own departments.
- In some instances written agreement would be needed from regional/local health administration in order to run the supervised clinical training.
- A dialogue between the organizing parties (WHO or other agencies), the course director, and the MoH/local authorities is needed to ensure an appropriate choice of course sites and participants, with the objective of optimizing the effectiveness of the course.

- When the MoH and/or local health authorities plan to implement a series of EPC courses, a training plan would need to be defined, including all issues relevant to the training cascade, such as: training needs assessment, careful selection of future trainers, training of trainers, and all related logistical arrangements.

Step 2. Local adaptation and translation

- EPC course contains evidence-based practices and international recommendations relevant to perinatal health care. It may need to be adapted to the local epidemiology and health system structure at country level. The adaptation process should include the selection of modules/sections of EPC package based on local needs. For example, the section on malaria will be dropped where malaria is not be relevant based on the local epidemiology.
- Any proposal on local adaptation should be in line with evidence-based practices, or otherwise justified by local epidemiology or other sound reasons, and it should be discussed and agreed with the course director and facilitators.
- If translation of the course into the local language is needed, make sure that translation is performed by a professional with experience in the health sector. During the pilot phase make note of any errors in translation and seek to correct it.

Step 3. Selection of the course director

- It is recommended to choose an experienced international expert as course director for the initial EPC courses.
- He/she must have a background in perinatal health care, and should have strong experience in clinical care and implementation of evidence based practices. The director must have core midwifery skills and should have either a midwifery, obstetric or neonatal professional background.
- He/she should be an experienced trainer with previous experience in EPC training and implementation. Knowledge and practice of adult teaching methodologies are a must.
- He/she should have excellent organizational and communication skills.
- He/she must be confident in clinical setting and be able to provide supportive supervision during the clinical practice.
- He/she must have the energy and motivation to work a long day with participants and then organize and attend a facilitators' meeting to review the day's work and prepare for the next day.
- He/she must serve as an example of behaviour.
- The director should have a good knowledge of the health system and the specific situation of the region and country.
- It is preferable (although it is not a must) that he/she is able to speak the local language.

Roles and responsibilities of the course director

The director of the course has overall responsibility for the planning, running and evaluation of the EPC course. Main roles and responsibilities of course director are listed below.

Before the start of the course

- To coordinate with the organisation/s requesting the EPC training course, and with local authorities and managers.

- To contribute in the selection of facilitators, following the recommendations given in this manual.
- To contribute to the selection of the maternity facility where the EPC training will be based. If needed, to make a preliminary visit to the teaching venue (maternity facility) and meet the local manager/s and staff.
- To develop the programme for the EPC course. This includes both week 1 (mostly theoretical lessons) selecting key modules to be delivered according to local needs, and week 2 (clinical practice). The course director should also divide responsibilities (module sections, practical exercises) among facilitators, with their agreement. A template programme is provided as Annex 1 and a planning guide as Annex 10.
- To participate, guide and support the selection of relevant content, slides and exercises within modules.
- To contribute to the selection of participants, following recommendations.
- To collaborate with the organizer to ensure that all the logistical aspects (course materials, transportation, board and lodging, meals and other breaks, interpreter etc.) are planned and ready for the course. The course director is not directly responsible for all logistical aspect, but he/she can ask questions to ensure that appropriate arrangements are being made, or can assign someone responsibility for making them. A list of material needed for the theoretical lessons and practical exercises is provided in Annex 2 and 3. It is recommended to check these lists well in advance of the course start as this may have an impact on the budget of the course.
- To liaise with local organisers and the maternity facility management to ensure that all participants are exempted from clinical work to allow their full participation in the course.
- To discuss before the start of the course the clinical responsibilities of the participants during the clinical week, including in case of emergency situations. Note that usually international facilitators cannot legally provide care in other country, their role is to facilitate learning of course participants.
- To coordinate with the organisers who will open and close the course.

During the course

- To offer help or advice whenever needed at any time during the course (the course director must be present throughout the entire course), and to ensure that all the guiding concepts of the EPC package are followed, including the Making Pregnancy Safer fundamentals and principles.
- To coordinate, brief and supervise the team of facilitators and co-facilitators.
- To follow the timetable to ensure all the contents are covered and to manage any necessary changes.
- To hold daily facilitators' meetings and give feedback to facilitators at the end of each day of the course, and to discuss and solve any conflict situations between participants and/or facilitators.
- To liaise with staff managers in case any difficulty emerges during the practical sessions.
- To ensure that the tests are performed to check the impact of the EPC package.
- To ensure that priorities for quality improvement are discussed, and a plan for action is drafted.

After the course

- To prepare a report for the course organisers.
- To follow up with any other activity, as initially planned or as emerging during/after the course.

Step 4. Selection of the maternity facility

- It is critical to base the EPC training course in a facility where both the theoretical and the practical clinical part of EPC can be held.
- The maternity facility should have, in principle, at least 1500 births per year, to ensure feasibility of practical sessions with an adequate number of clinical cases.
- Within or immediately adjacent to the maternity facility there should be a large auditorium that could accommodate all course participants (about 25-30 persons) and two-three smaller areas for small group work. These areas should be, as much as possible given local resources, calm and quiet.
- The director of the maternity facility should be willing for groups of participants to hold the practical sessions in the labour, delivery area, postpartum and neonatal wards during a period of about 1 week.
- The dates of the course should be acceptable to the maternity facility director.
- Some supplies are needed for clinical practice; Annex 2 and 3 provides a checklist. It is recommended to check these lists well in advance of the course start.
- The clinic director and staff should be generally open to start a quality improvement process, and to implement evidence based recommendations included in the EPC course.
- The maternity facility should be within a reasonable distance of lodging and classrooms. If any transportation is needed, it will need to be properly planned and arranged.
- One or more persons, responsible for local logistics should be identified and readily available all over the course.

Step 5. Selection of the facilitators

- It is recommended to choose experienced international facilitators for the initial EPC courses. They must have a background in perinatal health care, and should have strong experience in clinical care and implementation of evidence based practices.
- The team of facilitators is usually composed of 3-5 people with a balanced mix of expertise: midwifery, obstetrics and neonatology. In addition, co-facilitators can be used to help supervising participants.
- Facilitators must be very familiar with the EPC course content, references, principles and methods.
- Facilitators must have good communication skills, including the ability to explain things clearly and simply to others.
- Knowledge and practice on adult teaching methodologies is a requirement.
- Facilitators must be confident in clinical case management, and be able to provide supportive supervision during clinical practice.
- They must have the energy and motivation to work a long day with participants and then attend a facilitators' meeting to review the day's work and prepare for the next day.
- They must provide an example of expected behaviour.

Roles and responsibilities of the facilitators

The facilitators of the course have overall responsibility for the delivering the course. Main roles and responsibilities of course facilitators are listed here:

Before the start of the course

- To coordinate with the course director in finalizing the programme for the first week, including selection of contents (slides, exercise etc.) within each module.
- To coordinate with the course director in finalizing the schedule for the clinical practice.
- To contribute to the discussion of the tasks, and their division among the team.
- To collaborate with the course director in ensuring the overall logistic aspects of the course.
- To prepare all material for the course, as agreed with the course director.

During the course

- To be available during the entire course.
- To present selected modules, to organize role plays, group work discussions and exercises, as agreed with the course director.
- To supervise the participants in the maternity facility during the clinical practice, by ensuring they are managing clinical cases in line with EPC recommendations.
- To ensure the all principles of the EPC package are followed, including the Making Pregnancy Safer fundamentals and principles.
- To coordinate, brief and supervise the co-facilitators, in collaboration with the course director.
- To follow the timetable to ensure all the contents are covered in an effective way, while allowing flexibility on the course delivery based on local needs; discuss and provide any necessary change.
- To participate to daily meetings with the course director and contribute to the discussion.
- To discuss and solve any conflict situations among participants.
- To coordinate with the course director to liaise with staff managers in case that any difficulty emerges during the practical sessions.
- To collaborate with the course director in ensuring that priorities for quality improvement are discussed, and a plan for action is drafted.

After the course

- To help the course director in evaluating the course.
- To collaborate with the course director in the report preparation.

How to build national capacity for the facilitator role

Any EPC course is an opportunity to identify potential new national facilitators. International facilitators should identify participants who could become skilled national facilitators themselves. International facilitators and the course director should point out to the course organisers/health authorities participants who:

- understand the modules easily
- understand the principles of evidence-based medicine
- critically examine clinical practice
- perform well in the clinical sessions
- communicate clearly
- show an open and constructive attitude
- help others and work well with others in their group

Another key occasion to identify potential candidates for national facilitators is the EPC follow-up. On that occasion the international team can identify people who, beside the above mentioned characteristics, have effectively contributed in implementing EPC in their own maternity facility.

The process of building capacity in national facilitators usually includes the training of trainers, more in depth training on selected modules, and practical experience through acting as a co-facilitator during some EPC courses.

National facilitators should also be selected based on their availability to teach in subsequent courses over the next period. A maternity facility with a large delivery department may have several staff who can be trained and then serve as facilitators on a rotating basis.

Step 6. Selection of participants

- It is recommended to have not more than 25-30 participants in a single course. The optimum facilitator/participant ratio is 1 facilitator (or co-facilitators) per 5 participants (maximum acceptable ratio is 1:7).
- Participants are usually selected from 1-3 other maternities facility as this will allow their participation in the course full time. More than one course/retraining may be needed to reach the "critical mass" for implementing changes in practice in each maternity facility.
- To change practices in a facility it is important to involve decision makers (managers, heads of department), opinion leaders, (influential people), as well as an adequate number of health workers for each facility.
- The total group should be multidisciplinary. Obstetricians, neonatologists, midwives and nurses in charge of newborn care, with an equal distribution. Attention should be given to always involving an adequate number of midwifes and nurses. It is important to include anaesthesiologists and a sanitary epidemiologist in the group of the course participants, whenever it is possible. Manager/s and people in charge of training should be involved in key parts of the EPC course, such as the opening, selected common modules, planning, course evaluation and closure.
- Course participants should be chosen among staff working actively in the labour room, birth room, postpartum and neonatal wards. People with no direct involvement in clinical practices should not be selected as primary participants for the EPC course (managers and people involved in training should participate in the module 1C and 15 C).
- During the planning phase, a draft list with the full names of participants and their position should be made available for the course director and discussed with him/her.

- When ECP course is adapted for use for a training or workshop dedicated only to managers or to other people, such as academics, the selection of participants will follow other criteria for the specific course/workshop objectives.

Step 7. Course implementation

- The course is generally organized in two parts: part 1 (about 1 week) of theoretical lectures, group work, role plays, interactive sessions held in classrooms; part 2 (usually another week) held in clinical setting. An example of the programme for the theoretical part and schedule for clinical practice is provided in the Annex 1.
- The two parts of the EPC (theoretical and practical) are both compulsory, i.e. the clinical practice should never be skipped.
- A checklist for the material for the course is provided as Annex 2 and 3.
- At the opening of the course it is critical to present the overall structure of the course as well as the general objectives, which is improving the quality of care. The fact that the course will include a participatory process to draw a plan for action for quality improvement should be mentioned at the beginning of the course. Additional remarks on the course opening are presented in Annex 4.
- A Pre-test can be given to the participants to assess their existing knowledge and to highlight gaps that may need extra attention during the course. The questionnaire provided as Annex 7 can be used as both a pre-test and a post-test and the scores compared.
- Some suggestions on facilitators meetings are provided in Annex 5.
- For recommendations on teaching methods, see the section Recommendations on how to deliver effectively EPC.

How to organise the clinical practice

- Practical sessions will be conducted in the labour and birth rooms, and in the pregnancy, postpartum and neonatal wards, including surgical areas (i.e. Caesarean section), during the second week of the training. This part of the EPC course aims to practice the EPC guiding concepts and clinical skills just learned during the first part of the course.
- During clinical practice the team offers care and aiming to put into practice all the EPC principles and recommendations. Participants to the EPC course will assist women and newborns, under the direct supervision of the EPC trainers.
- The participants are divided into perinatal teams (including midwives, neonatologist, obstetrician, nurses). These teams should seek to work together as in the usual collaboration expected for the care of a woman or a newborn.
- Each facilitator will supervise health workers based on their expertise: i.e. the facilitator with midwifery expertise will supervise midwives, while the facilitator with neonatology expertise will supervise the participant working with newborns.
- Shifts can be of either 8, 10, or 12 hours. Depending on the situation in the labour room the Course Director or responsible facilitator can allow flexibility to stay in the ward longer with those participants involved in the case management (for example, during ongoing labour, to ensure continuity of care until the birth of the baby and the immediate postpartum period).

- It is suggested to focus the first session on analysing and reorganizing the layout of the labour and birth rooms (for examples by seeking to reorganize service in a way that each woman is assigned to an individual room for labour and birth, allowing space for a companion in a mother/family friendly setting).
- Priority shall be given to attending births. The team will provide care for women with a normal pregnancy expected to go through physiological birth. A team member should approach the woman/family members (preferably at time of admission), explain that training is going on in the hospital following international WHO recommendations, and seeking her/their consent/s to be assisted according to such recommendations. Adequate explanation needs to be given to the woman/her partner/family in regard to procedures that may be new in respect to traditional practices (such as the presence of the partner during childbirth, active management of third stage of labour, skin to skin contact, rooming-in etc.). In principle, women in labour should be attended by a midwife.

  Example: if the facilitator with midwifery expertise has to supervise 6 midwives she/he will divide the 6 midwives to attend 3 women (2 participants for each woman). Midwives will attend the women under the supervision of the facilitator with midwifery expertise. The obstetrician and neonatologist (from the same sub-group) will be called to attend the birth as per indications (i.e. complicated birth).
- If direct observation of case management it is not possible for some conditions, time should be used efficiently in the clinical settings with different activities: reorganizing physical structures, discussing cases, doing practical exercises, discussing new practices with staff, or delivering theoretical lessons with emphasis on practicing skills. Each module contains several suggestions for practical exercises in the practical week.

Step 8. Planning actions for quality improvement

- It is recommended to make clear from the presentation of the ECP course that the final objective of the course is supporting a quality improvement process.
- During the course ensure that all the following aspects are covered:
  - providing some core theoretical basis on quality improvement;
  - confronting real practices with existing standards and recommendations;
  - supporting participants in practicing their skills;
  - providing practical examples on practices that can be improved;
  - developing a plan for action for quality improvement.
- Ensure that decision makers (hospital managers, head of departments) are involved in this quality improvement process. They should be involved as much as possible in the practical identifications of problems and in the definitions of possible solutions.
- The theoretical basis for quality improvement cycle and tools are presented in Module 1C and 15C. Module 15C provides a simple matrix that can be used to list priority problems, suggested action for quality improvement, people in charge and timelines.
- After each module, and each day after the end of the practical part, it is suggested to provide a brief summary including a review of the learning objectives and any important points that may have been raised during the course. Every day during the practical week it is suggested to fill the planning matrix provided in Module 15C (identify problems and possible solution /actions for quality improvement).

- Note that some of these actions, such those that do not need additional resources but only reorganization of services (e.g. the reorganization of the birthing room), can/should be implemented in "real time" during the practical week. This will serve to provide practical examples of practices that can be improved and to strengthen the idea that changes can happen.
- At the end of the practical week it is suggested to dedicate adequate time (up to half a day) to discuss all findings and ideas and to finalize the action plan at each facility level to improve quality of care.
- The development of the draft action plan should be facilitated by helping the local staff in identifying and prioritizing:
  a) what can be done based on the existing resources, and
  b) what will need additional resources and will require that steps are taken with higher authorities in charge.
- The draft action plan should include the identification of staff members in charge of specific actions, a timeline, and the commitment of hospital managers to provide support and the necessary authorizations.
- Adequate time (2 to 4 weeks) should be allowed for discussion and agreement with all maternity staff and managers, finalising the plan and presenting it to relevant authorities. A responsible person to finalise the plan should be identified, and timelines for follow up should be agreed.
- The action plan should be regarded as the basis for any future follow up.

Step 9. Course evaluation and closure

- Evaluation of the EPC course should include testing for knowledge and comprehension, skills, and to evaluate the impact of EPC on changing practices. Additionally, feedback from participants can be collected. A series of templates is provided for this purpose.
- Recommendations on course evaluation and closure are in Annex 6.
- Testing for knowledge can be done either after the theoretical week or the day before the end of the course using the questionnaire provided as Annex 7. The questionnaires should be revised as necessary to ensure that it is appropriate for evaluating the course as it has been conducted (i.e. if any sections of modules were not used then do not test on these sections).
- Testing for skills can be done during the practical week with the templates provided as Annex 8a and 8b. Practical skill tests can be used for this purpose. At least ten key skills (e.g. newborn resuscitation, ensuring the "warm chain" etc.) should be selected and tested.
- Feedback from participants can be collected the day before end of the course using the template Annex 9.
- Changes already implemented, together with the action plan for future quality improvements should be presented, ideally by participants, at the end of the course.
- During the course closure it is suggested to:
  - give a brief summary of the entire course, achievements and challenges;
  - discuss results of the course evaluations;
  - reinforce the primary objective of the EPC course: after the course, participants should follow the EPC recommendations in every day practice, and involve colleagues;
  - discuss plans for follow-up after training;

- present course certificates to participants and facilitators, congratulating them on their hard work; this is another important motivational activity.

Step 10. Reporting and follow up

- Shortly after the first EPC course, a written report should be given to the EPC organizing bodies (who will be in charge of sharing it with hospital managers and local and national authorities). The report is usually written by the course directors, with contribution of the facilitators, and should include a copy the draft action plan.
- It is suggested to include results of the course evaluations in the final report. This includes:
    1) knowledge test;
    2) skills test;
    3) participants' feedback;
    4) actions already implemented and action plan.
- Supportive supervision at regular intervals should be provided based on local needs and resources. The follow-up visit will be an opportunity to obtain help in resolving those difficulties that the facility and participants have encountered. Internal mechanisms, such as quality improvement hospital teams could be created to foster the quality improvement process.
- Plan for scaling up should be based on experience gathered during the pilot EPC course.

Recommendations on how to deliver the EPC course effectively

Introduction

Adequate methods in delivering the course should be used by the team (facilitators and course director) in order to reach the expected EPC course objectives. This section includes some general recommendations on teaching methods for the course director and facilitator.

The methods of EPC training are based on multidisciplinary collaboration, adult learning methods, group work, and plenary sessions and supervised clinical practice.

Recommendations for the team of trainers

The team of trainers is composed of the facilitators and the course director. The role of the team of trainers is to collaborate to reach the objectives of EPC. In order to do this they have multiple tasks: effectively transmit EPC contents, encourage people to endorse the EPC guiding concepts, and motivate people to change and to support and initiate change.

The trainers assist the participants to share knowledge and skills, discuss updated international recommendations, examine care practices that may not be evidenced based, develop clinical skills, and determine what will work best in the participants' own working situations. A series of recommendations on effective teaching methods are reported below.

Work as a team with a common objective

- Maintain a constructive collaborative team attitude.
- Be flexible and able to adjust roles as needed.
- Share the work on each module in an organized way (each facilitator has a role in the exercise, discussion, presentation, etc.)
- Be polite and respectful when adding comments or making suggestions while another member of the team is leading.
- When leading, consider inviting other members of the team to add comments or an opinion.

Present clearly and effectively and engage participants

- Speak clearly, at a suitable pace, and keep time.
- Vary the tone in order to emphasize concepts.
- At the beginning of the presentation clearly explain the presentation outlines, while at the end clearly summarise key points.
- Be concise, precise, and responsive to the reactions of the participants.
- Use job aids, record ideas on a flipchart in a clear, useful manner (or work with co-facilitator to do this).

- Link information and activities to their use in practice. When appropriate, ask questions about the participants' own clinic and how the exercise applies to the situation there.
- Always look at participants. For example, when using slides or a flip chart take care to speak to the participants and not to face the screen/flip chart; another facilitator can assist by writing on the flip chart.
- Look for opportunities in the presentation to engage people in the presentation. In some instances, ask a question, listen to some responses and then present the information on the slide. Ask questions to check how participants understand the material and engage them into active comprehension of the covered material and how the material could be used in their workplace.
- The facilitator sets the tone for the course: listen to and have respect for each other's views, be open to new knowledge, actively participate.
- Remember that the level of knowledge in your audience may be heterogeneous. Acknowledge people's expertise, as many of the course participants may have knowledge and skills on some of the topics already.

Encourage active participation of attenders in the discussion

- Always remember that this course includes activities and not only listening to lectures. Participants learn more when they have opportunities to discuss how new knowledge fits with existing practices and their situations and can practice new skills in the classroom and in clinical practice.
- From the first day have individual conversations with each participant. This helps a participant to see that you are interested in their needs and that you are friendly and available. Also you can determine which participants may be shy, over-talkative, have language concerns, or may need specific assistance.
- Encourage questions and discussion while also keeping track of the time. Another facilitator can remind of the need to move on if necessary. In the classroom or group, give each person time to speak without interruptions from other participants and without allowing a participant to speak at length off the point of the module. Ask quiet participants by name to share their views.
- Keep your focus on the person speaking using verbal and non-verbal indications that you are listening and value the communication.
- Use open questions that require an expanded answer, more than "yes" or "no". Pause and give time for participants to think and to answer.
- Thank each participant for his/her contribution. Praise useful ideas, etc.
- Handle tactfully any incorrect or off-the-subject comments from participants.
- Respond adequately to unexpected questions; offers to seek answers if not known.
- When a participant ask a question, encourage other participants to offer an answer or their thoughts. When participants have commented, summarise/clarify the answer to the question as needed.
- Provide opportunities so that you can speak with an individual participant without others listening to discuss areas of difficulty or concerns.

Effectively facilitate exercises, group works and role plays

- Be available, interested, and willing to help throughout all the exercise/group work/role play.
- Observe participants as they work; offer individual help to participants who appear confused. Give individual help quietly, without disturbing others in the group.
- Clearly introduce exercise/group work/role play by explaining the purpose, the situation being enacted, background information, and the task of participants.
- Interrupt role play only if players are having tremendous difficulty or have strayed from the purpose.
- Guide discussion after the exercise/group work/role play so that feedback is supportive and includes things done well and things that could be improved.

Effectively facilitate the clinical part

- Supervision should not be intrusive during the practical part.
- Permission from women, or other caregivers when observing an infant, should be sought when attending real cases.
- Facilitators should always be respectful, keep silent, and try to make themselves unnoticed. They should keep individual feedback for a confidential discussion, and politely avoid engaging in dialogue/discussion with staff and managers during clinical practice. They should observe all people involved, exchanges, situations and actions, write some notes, and take some time to organize the feedback before the next observation.
- Try to get participants to comment and improve their own performances; provide assistance only as needed.
- Provide feedback on things done well and on things that need improvement
- Feedback should be specific and precise (i.e. with a clear reference to a particular moment or action), and clearly provide a reference to an international standard of care.
- Remember that a participatory approach is a key feature of the training process. During the clinical practice the local staff can raise issues/questions and facilitators should be prepared to discuss them.
- When there are not enough cases, find ways to use the time well (e.g. by conducting a practical teaching or an exercise or demonstration until more cases arrive).

Motivate and monitor progress of participants

- Observe participants' work and involvement regularly. Notice if they ask questions, participate in discussions, are using handouts and materials. Discreetly offer assistance.
- Notice progress, assistance to other participants, interaction with families and health workers during clinical practice, and reinforce these positive behaviours.
- If a participant's behaviour is detracting for their learning, the learning of others or good care to service users, discuss your concern with the team (other facilitators and the course director) and act to address the behaviour.
- Review if the participants think they are reaching the learning objectives of the module or clinical practice and see the relevance to their own work.

- Arrange to discuss any remaining learning gaps at another time (individually or in a small group as needed.)
- The EPC course aims to help participants compare their current practices to international standards, discuss factors that may hinder or facilitate improvements, and implement changes. Discuss possible challenges in implementing evidence-based practices.

Behaviours to AVOID

- During the time dedicated to the course do not do any work or discuss issues which are not related to the training course.
- While in discussion with the participants, avoid facial expressions or comments which may make them feel uncomfortable.
- Do not call out participants to answer questions in turns, thus creating awkward silence if the participant does not know the answer.
- Avoid turning the course into a performance. Enthusiasm (as well as keeping participants' interest) is important, but training is of higher importance.
- Do not blame participants. Instead, make sure that participants understand the material.
- Do not show condescension. In other words, do not treat the participants as children or inferior – they are adults and equals.
- Do not talk too much. Encourage participants to voice their opinions.
- Do not be shy, nervous or anxious when you speak. This manual will help you remember what you have to say. Use it!
- Avoid inappropriate behaviours, as suggested by local culture and traditions.

Examples of some problems in the classroom and possible suggested solutions

1) Some participants might talk too much, interfering with participation of others at the course.

Possible solutions:

- Do not call on such a participant immediately after putting a question to the group.
- After the participant had spoken for some time, say "You have explained your point. Let's listen what other participants may have to say about this". Then rephrase the question and offer other participants to answer or call out someone at once, for instance: "Dr. Samoilova, you raised your hand a few minutes ago."
- When a participant pauses, quickly ask the others "What do other members of the group think about this?"
- Record the main idea of the participant on a flip-chart. If (s)he keeps discussing his/her idea, point to a flipchart and say "Thank you, we have already recorded this idea". Then ask the group to generate other ideas.
- Do not put additional questions to a over-talkative participant. If (s)he keeps answering all questions addressed to a group, ask a particular participant or group of participants to answer (e.g. ask "Does anybody from this part of the table have any other ideas?")

2) Some people may have difficulties understanding or using the language used in the training course.

Possible solutions:

- Try to identify such participants.
- Speak slowly and clearly to make understanding easy; encourage participants' efforts to improve communication.
- Discuss with the Course Director any language problems which may prevent the participants from understanding the material or explanations. Perhaps a special participant's guide/help should be worked out.
- Discuss such participants with your fellow facilitator or Course Director (Course Director can discuss training material with such participant individually).

Suggested reading for facilitators

Effective teaching: A guide for educating healthcare providers. WHO/JHPIEGO (2005). This provides general information on facilitating learning most of which is relevant to perinatal care.

http://www.who.int/child_adolescent_health/documents/9241593806/en/index.html

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EPC training package Annexes

List of annexes

Annex 1. Template Programme for the course

A possible programme is on the next pages. When adapting this schedule, keep the following points in mind:

- Since groups will work at different paces, the schedule should be flexible. It should not list precise times for completion of modules but should indicate general time frames instead.
- Approximately eleven days of work are required for the participants to complete the modules and clinical practice. A possible schedule can assume that the course will run Monday through Saturday of the first week and Monday through Friday of the second week. However, based on local context adjust accordingly.
- Homework on exercises is not recommended for participants. The course work is tiring, so participants should not be asked to do additional work in the evenings.
- Schedule a specified time apart from regular course hours when at least one facilitator is available to discuss any problems or questions.
- During the second week of the training every day should include clinical practice. Clinical practice should be scheduled at the time of day when most women and newborns are available for practical work. If the maternity is extremely active, the number of births during a 12 hour shift will be enough to allow each participant to attend and manage at least two births. However as labour and birth can occur at any hour, a 24 hours schedule is proposed that includes coverage during the day and night.
- Schedule some free time for participants to go to the bank and post office, shopping, sight-seeing, etc.

Note for special courses: Occasionally the course may be used with special participants (managers or consultants) who already have a high level of clinical training but need to learn the EPC approach in order to teach others or begin plans for implementation of Effective Perinatal Care in their areas. These participants may need more technical background. If you as the Course Director feel that this type of technical information will be needed for your course, you may schedule technical seminars in the evenings or add time to the course (e.g. an extra half day at the beginning or end of the course). Do not shorten the actual course time to allow for these technical seminars.

A model of the training course programme

Time	Topic
DAY 1 Monday	
09:00-9:45	• Registration of participants • Opening • Greetings • Participants' introduction
9:45- 10.30	Pre test
10:30-11:30	Module 1C. Safe Motherhood and Effective Perinatal Care
11:30-12:00	Break
12:00-13:00	Module 2C. Introduction to Evidence-Based Medicine
13:00-14:00	Lunch

14:00-15:00	Module 15C. Quality improvement	
15:00-15:30	Break	
15:30-16:30	Module 3C. Communication Skills	
16:30-17:30	Group work on topics of the day	
17:30-18:00	Day summary by facilitators and group representatives	
DAY 2 Tuesday		
09:00-10:00	Module 11C. Health care associated infections	
10:00-11:00	Module 5C. Management of Normal Labour and Birth	
11:00-11:30	Break	
11:30-13:00	Module 5C. Management of Normal Labour and Birth (continuation)	
13:00-14:00	Lunch	
	Midwifery Group	*Neonatal Group*
14:00-15:00	Module 1MO. Antenatal Care	Module 1N. Examination of a Newborn
15:00-15:30	Break	
15:00-16:30	Module 2MO. The Use of Partograph	Module 8N. Care of the sick newborn
16:30-17:30	Group work on topics of the day	
17:30-18:00	Day summary by facilitators and group representatives	
DAY 3 Wednesday		
09:00-09:30	Group representative's report on topics of Day 2	
9:30-10:30	Module 4C. Foetal well being	
10:30-11:30	Module 6C. Newborn Care	
11:00-11:30	Break	
11:30-12:15	Module 7C. Breastfeeding	
12:15-13:00	Module 8C. Postpartum Care of Mother and Newborn	
13:00-14:00	Lunch	
14:00-15:00	Module 9C. Neonatal Resuscitation	
15:00-15:30	Break	
15:30-16:30	Module 9C. Neonatal Resuscitation (continuation)	
16:30-17:30	Group work on topics of the day	
17:30-18:00	Day summary by facilitators and group representatives	
DAY 4 Thursday		
09:00-09:30	Group representatives report on topics of Day 3	
9:30-11:00	Module 10C Infections in pregnancy and postpartum	
11:00-11:30	Break	
	Midwifery Group	*Neonatal Group*
11:30-12:15	Module 7MO. Slow Labour Progress.	Module 2N. Post-resuscitation neonatal care

12:15-13:00	Module 7MO. Slow Labour Progress (continuation)	Module 3N. Breathing
13:00-14:00	Lunch	
14:00-15:00	Module 12C. Preterm Labour	
15:00-15:30	Break	
15:30-16:30	Module 12C. Preterm Labour (continuation)	
16:30-17:30	Group work on topics of the day	
17:30-18:00	Day summary by facilitators and group representatives	
DAY 5 Friday		
09:00-09:30	Group representative's report on topics of Day 4	
	Midwifery Group	*Neonatal Group*
9:30-10:30	Module 5MO. Prelabour Rupture of Membranes	Module 7N. Preterm/LBWI
10:30-11:30	Module 6MO. Labor Induction	Module 5N. Neonatal infections
11:00-11:30	Break	
11:30-13:00	Module 4MO. Obstetric Haemorrhage	Module 4N. Jaundice
13:00-14:00	Lunch	
	Midwifery Group	*Neonatal Group*
14:00-15:00	Module 3MO. Hypertension in Pregnancy	Module 6N. Malformation/trauma
15:00-15:30	Break	
15:30-16:30	Module 14C. Mood disorders Module 13C. Death of a baby	
16:30-17:30	Group work on topics of the day	
17:30-18:00	Day summary by facilitators and group representatives	
DAY 6 Saturday		
09:00-09:30	Group representatives report on topics of Day 5	
9:30-10:30	Post-test : knowledge and comprehension test	
10:30-13:00	Practical work with models Final preparation for clinical week.	
DAY 7 - Sunday	DAY OFF	
DAY 8 to DAY 11 – – Monday to Thursday	CLINICAL WORK	

Participants need to be split in 2 groups according to type of work:

1) Midwifery: including obstetricians and midwives
2) Neonatal: including neonatologists and paediatric nurses

If there are too many people for a single group, subgroups should be formed. Subgroups can work in rotation, or in parallel, depending on the hospital size.
Suggested timing of work 08:00-20:00 with breaks as appropriate (consider alternative schedule including night shifts as more appropriate)

	Midwifery Group	*Neonatal Group*
DAY 8 to 11 (All days)	Activities in the labour and birth and postpartum areas including: - Observations of current practices and organisation of work - Management of clinical cases - Practical exercises related to the obs/midwifery modules - Analysis of clinical records: - Discussion of national and local data on maternal mortality and morbidity - Other activities as needed	Activities in the birth and neonatal areas including: - Observations of current practices and organisation of work - Management of clinical cases - Practical exercises related to the neonatal modules - Analysis of clinical records: - Discussion of national and local data on infant mortality and morbidity - Other activities as needed
From DAY 9 also	Participation in the morning clinical meeting Reports to all staff at the clinical meeting on EPC activities by group representatives (including reports on most relevant clinical cases)	

DAY 12 Friday	
9.00-10:30	Module 15C. How to Improve Existing Practices: Strategy of Changes - Report on practical week activity - Presentation of plan of actions
10:30-11:00	Break
11:00-12:00	Results of post tests on knowledge and comprehension Results of test on skills Feedback from participants
12:00-13:00	Course Closure - Certificates - Official closure

Annex 2. Checklist of materials needed for all theoretical sessions

ITEMS NEEDED	NUMBER NEEDED
EPC Manual	1 for each trainer (facilitator /course director)
Participant handout[1]	C Modules - 1 for each trainer and 1 for each participant MO Modules - 1 for each trainer and 1 for each participant of the obstetricians/ gynaecologists and midwives group N Modules - 1 for each trainer and 1 for each participant of the neonatologist and paediatric nurses group
LCD projectors and computers[2]	2
Flip chart paper and stand	3
Enlarged form of Partograph if possible	2
Markers	Sufficient number of various colours
Paper to make notes	As needed
Pencils and pens	1 for each trainer and 1 for each participant
Name tag and holder	1 for each trainer and 1 for each participant
USB with modules presentations	1 for each trainer and 1 for each participant
Additional material for the exercises as requested from the course director/facilitators	**Important: Develop a list together with the course director**

[1] Printed handouts are recommended. If this is not feasible, provide a USB copy of the module.

[2] If no LCD projector and computer are available 2 overhead projectors plus all material on transparencies will be needed.

Annex 3. Checklist of materials for practical exercises

Discuss these lists with the course director before the start of the course

Models

TYPE OF MODEL	DAY WHEN IT IS NEEDED
Baby doll (or a rolled up towel to represent a baby)	
Newborn resuscitation model	
Newborn Ambu mask and bag, bulb for newborn aspiration	
Pelvis and fetus model	
Model of female pelvis plus foetus with cord and placenta	
Breast model	
Others: specify	

Other items

ITEM NEEDED	NUMBER NEEDED
Liquid soap with dispenser	6-8
Paper towels	40-60
Wall clock (1 for each room)	2-3
Room thermometer (1 for each room)	2-3
Labour ball (gymnastic ball, 65-70cm diameter)	2-3
Rubber carpet (blanket) (such as used in bathroom, pool)	4
Electronic thermometer for newborn temperature check	2
Pinard stethoscope (obstetrical) 1 for each room	2-3
Adult sphygmomanometer	2
Non-sterile utility gloves	100
Plastic aprons	6
Sterile exam gloves	60-80
Sterile paired gloves (4-5 pairs for each delivery)	80-100
Sol. Sterilium 5.0 ltr. (hand disinfection liquid)	2
Adult blanket	8

Umbilicus cord clamp (sterile, single use)	20-25
Cap for newborn	20-25
Baby socks	20-25
Baby shirts	20-25
Neonatal Ambu bag and masks	3
Adult Ambu bag and masks	2
2-4 blankets to dry and cover newborn	64
Warm blanket to cover newborn	20
Adult blanket	8
Suturing absorbable synthetic material (Vicryl Rapid, Vicryl, Dexon 2.0 with single use needle 21-22 gauge)	30
Sterile needles	20+40
Oxytocin (5 or 10 unit ampoules)	32-40
Sterile syringes 2 ml, 10ml	32+20
Solution Lidocain 1% in ampoules (20 ml vials are needed)	20
I/v catheter	20
Single use, i/v sterile dropper system	20-40
Ung. Erythromycini 2%, Ung. Tetracyclini 0,1% (for newborn eyes, for Chlamydia & gonoblenorea prophylactics)	20
Sol. Vit. K 0,1% for newborn	20
Suction pump	2
Gastric tube for newborn	2
Small cups to demonstrate cup feeding	2

Annex 4. Recommendation for the course opening

Introductory Lecture

Introductory lecture is usually given by local authorities together with the course director. Below are described some key concepts which is useful to give at the course start.

- Present the need for the course on Effective Perinatal Care. It is also important to state the commitment of the Ministry of Health to the Effective Perinatal Care and this training course. If appropriate, put this course in the frame of existing national/regional programme/strategies.
- Mention that this is the second edition of the EPC course: all contents have been updated in September 2014.
- Describe the primary objective of the EPC course, which is improving quality of perinatal health care at facility level.
- Explain that all practices (from hand washing, companion for labour and birth, upright positioning to surgical techniques) included in EPC are evidence based, and the fact that this course has been specially adapted for this country.
- Explain some key characteristic of EPC course (see examples below). Emphasise the interactive and peer to peer nature of the course.
- Mention additional contents of EPC package, such as emphasis on patients' rights in hospital, and Module 15C (theoretical basis of quality improvements methods. Describe that an "action plan" expected as results of this course.
- Present the detailed programme of the course.
- Answer any question.

Key characteristics of the course

- This course may be rather different in that you will actually practice the skills being taught, both in a classroom and in a clinical setting.
- You will be working in small groups where there will be many opportunities for individual and group discussion.
- The course will be hard work, but will be equally rewarding in that you will learn or improve skills that you can actually use on the job when you return to work.
- The course is meant to improve real practices. We will discuss together the international recommendations and we will try to implement them.
- Together we will draw a plan for action for quality improvement.
- After you return to your work you may be visited in your facility to help you apply your new skills on the job.

Annex 5. Conduct daily facilitators' meetings

Objectives of the facilitators' meeting

It is suggested to hold facilitators' meeting together with the Course Director each day to ensure everything is organized for the next day's activities.

For each module for the next day:

- check that any equipment, handouts, key reference texts, materials for activities (doll/props, role play script etc.) are organized;
- review the time allocated and the learning objectives so that the facilitators stay focused on these and do not wander off to other topics;
- review the tasks for each facilitator in the presentation and activities; ensure role plays and demonstrations have been rehearsed;
- highlight any areas of concern (module content, activity, interaction of participants, etc.) and discuss how to deal with the concerns.

Additional notes for the course director

Facilitator meetings are usually conducted for about 30-45 minutes at the end of each day. Facilitators will be tired so keep the meetings brief.

1. Begin the meeting by asking a facilitator from each group to describe progress made by his group, to identify any problems impeding progress, and to identify any skill or any section of the modules which participants found especially difficult to do or understand.
2. Identify solutions to any problems related to any particular group's progress or related to difficult skills or sections of the modules.
3. Discuss teaching techniques which the facilitators have found to be successful.
4. Provide feedback to the facilitators on their performance. Use the notes that you have taken while observing the groups during the day.
5. Mention a few specific actions that were well done (for example, providing participants with feedback, making all the major points listed in the Facilitator Guide, using role-plays etc).
6. Mention a few actions which might be improved. (For example, explain more clearly which tasks should be practiced; review any major points of the last module before introducing the next module.)
7. Remind facilitators of actions and skills that are supportive of learning (from Facilitator skills list) as needed
8. Remind the facilitators to consult the Facilitator Guide and gather together any supplies needed for the next day.
9. Make any necessary administrative announcements (for example, location of supplies, room changes, transportation arrangements, etc.).
10. You may give feedback to a facilitator privately, or if the feedback applies to a number of facilitators, in a daily facilitator meeting. Be careful never to embarrass a facilitator by correcting him/her in front of the participant group

Annex 6. Recommendation for course evaluation and closure

Course evaluation

- Revise **Annex 7. EPC course knowledge and comprehension test** as necessary to ensure that it is appropriate for evaluating the course as it has been conducted. Testing for knowledge can be done either after the theoretical week or the day before the end of the course.
- Testing for skills with **Annex 8. Practical skill test** can be done during the practical week. At least ten key skills (e.g. newborn resuscitation, ensuring the "warm chain" etc) should be selected and tested.
- Feedback from participants can be collected the day before the end of the course using the template **Annex 9. Feedback from participants.**

Course closure

During the course closure it is suggested to:

1. Give a brief summary of the entire course, achievements and challenges;
2. Discuss results of the course evaluations;
3. Reinforce the primary objective of the EPC course: after the course, participants should follow the EPC recommendations in every day practice, and involve colleagues;
4. Discuss plans for follow-up after training;
5. Present course certificates to participants and facilitators, congratulating them on their hard work; this is another important motivational activity

Annex 7a. Knowledge and comprehension test *(Pre-test and Post-test)*

FOR PARTICIPANTS

Tick in the box the correct answer, note that only one is the correct answer

#	Module	Question	Tick in the box
1	1 C	Worldwide, the main causes of maternal mortality include: 1. Haemorrhage and hypertensive disorders, complications of anaesthesia and caesarean sections, abortion 2. Sepsis/infections, anaemia and obstructed labour 3. All of the above	1 □ 2 □ 3 □
2	1C	Neonatal deaths account for the following percentage of overall deaths in children under 5 years of age: 1. 20% 2. 30% 3. 44%	1 □ 2 □ 3 □
3	1C	What does is the meaning of “continuum of care” : 1. Continuum of care is a core organizing principle for health systems, which emphasizes the delivery of health care packages across time and through service delivery levels 2. Continuum of care means that the same provider follow the woman for all life 3. Continuum of care means that the same health facility follow up the woman for all life	1 □ 2 □ 3 □
4	2C	For evaluating the efficacy of an intervention, what is the study design at lower risk of bias: 1. Case control study 2. Cohort study 3. Randomised controlled trial	1 □ 2 □ 3 □
5	2C	What are the main characteristics of a systematic review: 1. Identification of relevant studies from a number of different sources; studies selection and evaluation based on clear, predefined criteria 2. Systematic collection of data and appropriate synthesis of data 3. All of the above	1 □ 2 □ 3 □
6	3C	Elements of effective communication include: 1. Use effective non-verbal communication 2. Show interest and reflect back, Show you are trying to understand; Avoid using words that sound judging 3. Both the above	1 □ 2 □ 3 □
7	3C	What are elements of non-verbal communication: 1. Face expression 2. Body position 3. Both the above	1 □ 2 □ 3 □
8	4C	What is the common approach recommended for women with an uncomplicated pregnancy to assess the foetal well-being during labor? 1. Intermitted auscultation by Pinard stethoscope 2. Uterine ultrasound doppler 3. Cardiotocography	1 □ 2 □ 3 □

9	4C	Which among the following is an effective intervention for prevention of foetal growth restriction: 1. Inpatient bed rest 2. Smoking cessation 3. Oestrogens	1 □ 2 □ 3 □
10	5C	According to WHO recommendations which of the following is a good practice? 1. Free access for supportive companion during labour, birth and postpartum period 2. No access for supportive companion during labour, birth and postpartum period 3. Partial limitation of access for supportive companion during labour, birth and postpartum period	1 □ 2 □ 3 □
11	5C	According to WHO recommendations which of the following is a good practice? 1. The mother and baby have to be separated to prevent neonatal infections 2. The mother and baby should not be separated and should stay in the same room 24 hours a day 3. The mother and baby should not be separated but the neonates have to be in the nursery during night time	1 □ 2 □ 3 □
12	5C	According to existing evidence 1. There is a clear benefit to pubic shaving or a pre-delivery enema 2. There is a not clear benefit to pubic shaving or a pre-delivery enema 3. There is no benefit to pubic shaving or a pre-delivery enema	1 □ 2 □ 3 □
13	6C	Appropriate timing of cord clamping in an healthy newborn is: 1. Before 15 seconds 2. Before 30 seconds 3. After 60 seconds	1 □ 2 □ 3 □
14	6C	In neonates born through clear amniotic fluid who start breathing on their own after birth, mouth/nose suctioning: 1. Should be performed 2. Should not be performed 3. Should be performed only after Caesarean section	1 □ 2 □ 3 □
15	7C	Children who are not breastfeed are more likely to: 1. Suffer from more episodes of diarrhoea, pneumonia, sepsis, otitis media, urinary tract infection 2. Be overweight or obese in childhood 3. Both of the above	1 □ 2 □ 3 □
16	7C	Good attachment is characterised by: 1. The baby's mouth is wide open; the lower lip is turned out; the chin is touching the breast (or nearly so); off-centre latch with more areola visible above the baby top lip 2. The lower lip is turned in; the chin is away from the breast 3. More areola is visible below the baby's mouth	1 □ 2 □ 3 □
17	8C	Which of the following is not recommended as routine maternal check-ups after birth: 1. Routine assessment of the cervix 2. Routine assessment of blood loss 3. Routine breast inspection	1 □ 2 □ 3 □

18	8C	Following WHO documents which of these signs are considered danger signs in women in the postpartum period: 1. Vaginal bleeding 2. Elevated temperature 3. Both of the above	1 □ 2 □ 3 □
19	9C	First ventilation cycle in newborn resuscitation: what is the appropriate number of ventilation and the appropriate duration of the cycle? 1. Ten acts for 30 seconds 2. Forty acts for 60 seconds 3. Twenty acts for 30 seconds	1 □ 2 □ 3 □
20	9C	When to start the ventilation if a newborn does not breathe spontaneously at birth: 1. Immediately 2. After the drying - in about 30 seconds 3. After 2 minutes of oxygen supplementation	1 □ 2 □ 3 □
21	10C	Clinical signs of sepsis during pregnancy can include: 1. Pyrexia, 2. Hypothermia, 3. Both of the above	1 □ 2 □ 3 □
22	10C	Which of the following is appropriate for prevention of HIV transmission during labour: 1. Initiation of antiretroviral therapy (ART) for all pregnant women who have CD4 cell counts of ≤350 cells/mm3 2. Caesarean section for all women HIV positive at term of pregnancy 3. Both of the above	1 □ 2 □ 3 □
23	11C	Hand washing: which are the area of hands usually worst washed: 1. Palm 2. 5th finger 3. Thumb	1 □ 2 □ 3 □
24	11C	Which of the following practises have not been shown to reduce the risk of newborn infections? 1. Immediate bathing of the baby 2. Prolonged skin to skin at birth 3. Chlorhexidine cord care in community setting	1 □ 2 □ 3 □
25	12C	For which category of women is cerclage indicated? 1. Women with > 2 preterm deliveries 2. Women with evidence of short cervix 3. Women with ≥ 3 previous preterm delivery or women with a previous preterm delivery and evidence of short cervix	1 □ 2 □ 3 □
26	12C	Which cut off of cervical length has been proposed to screen women at risk for preterm birth 1. 10 mm 2. 25 mm 3. 30 mm	1 □ 2 □ 3 □
27	13C	While providing support for parent's following the death of a baby, it is recommended to: 1. Let parents freely stay by the baby 2. Try to avoid answering their questions 3. Avoid relatives of the mother	1 □ 2 □ 3 □

28	13C	"Normal" parents reaction after the death of a child include: 1. Negative feelings toward other children 2. Sense of being less a parent 3. Both of the above	1 □ 2 □ 3 □
29	14C	Which of these factors is considered a risk factor for postpartum depression: 1. Previous personal/family history of depression 2. Marital conflict/violence 3. Both the above	1 □ 2 □ 3 □
30	14C	Which symptoms can be present in postpartum depression: 1. Sleeping more than usual or a hard time falling asleep or staying asleep 2. Increased crying or tearfulness and feeling restless, irritable or anxious 3. All of the above	1 □ 2 □ 3 □
31	15C	Quality care includes all the following dimensions: 1. Safe, effective, efficient care 2. Accessible, patient centred, equitable care 3. All of the above	1 □ 2 □ 3 □
32	15C	The Plan-Do-Study-Act (PDSA) cycle includes: 1. Two steps: plan and do 2. Three steps: plan, do, study 3. Four steps: Plan-Do-Study-Act	1 □ 2 □ 3 □
33	1N	According to the 2 parameters age at birth and weight at birth, the baby can be classified in how many different categories? 1. 3 categories 2. 6 categories 3. 9 categories	1 □ 2 □ 3 □
34	1N	In the latest WHO recommendation, how many postnatal checks or visits are suggested 1. Three visits: day 1, day 2-3, day 7 2. Two visits: day 2 and day 10 3. Only at discharge	1 □ 2 □ 3 □
35	2N	Organs most frequently damaged in asphyxia include: 1. Brian, kidney 2. Gut 3. All of the above	1 □ 2 □ 3 □
36	2N	Treatment of convulsion in the newborn: 1. Check glycaemia; first line drug is phenobarbital, second line drug is phenytoin 2. Check for hypocalcemia, first line drug is diazepam 3. Check glycaemia; first line drug is phenytoin	1 □ 2 □ 3 □
37	3N	In babies supplemented with oxygen, especially pre-term babies, oxygen saturation should be maintained under the following cut-off : 1. 90% 2. 95% 3. 98%	1 □ 2 □ 3 □
38	3N	Loading dosage of caffeine: which is the correct dosage: 1. 5 mg/kg 2. 10 mg/kg 3. 20 mg/kg	1 □ 2 □ 3 □

39	4N	Cut-off for starting phototherapy in an healthy infant 2 days old 1. 13 mg/dl 2. 15 mg/dl 3. 18 mg/dl	1 □ 2 □ 3 □
40	4N	The minimum duration of phototherapy is: 1. 6 hours 2. 12 hours 3. 24 hours	1 □ 2 □ 3 □
41	5N	What are the key measures to reduce the burden of newborn infections? 1. Antibiotic treatment 2. Extensive prophylaxis measures: restriction of visits, use of masks at any contact 3. Adequate prevention of nosocomial infections together with early recognition and adequate treatment of newborn infections	1 □ 2 □ 3 □
42	5N	First line antibiotic for a newborn with signs of severe infection: 1. Cephalosporin 2. Ampicillin and gentamicin 3. Chloramphenicol	1 □ 2 □ 3 □
43	6N	What procedure is <u>not</u> recommended in case of cephalohematoma 1. Evaluate haemoglobin 2. Administer Vitamin K 3. Aspiration	1 □ 2 □ 3 □
44	6N	What is the first line diagnostic test for oesophageal atresia: 1. Give feeding 2. Insert (gently) a gastric tube and do an X ray 3. Abdominal surgery	1 □ 2 □ 3 □
45	7N	Which of the following are common problems of the pre-term baby? 1. Hypothermia 2. Feeding problems 3. Both of the above	1 □ 2 □ 3 □
46	7N	Classify these two children: case 1 born at 38 weeks, weight 2000 Kg; case 2 born at 38 weeks, weight 2300 Kg; 1. Case 1 is at term but small for age; case 2 is at term normal weight 2. Case 1 is small for age; case 2 is pre-term 3. Both children are small for age	1 □ 2 □ 3 □
47	8N	Alternative methods to provide breast milk when the baby has difficulties in sucking include: 1. Cup, spoon 2. Nasogastric tube 3. Both of the above	1 □ 2 □ 3 □
48	8N	Which of the following are signs of stress in a newborn: 1. Crying and hypertonic 2. Apnoea, yawing 3. Both of the above	1 □ 2 □ 3 □
49	1MO	Following WHO recommendations which opportunity during antenatal care should not be missed: 1. Promote healthy lifestyles 2. Folic acid supplementation 3. Both of the above	1 □ 2 □ 3 □

50	1M0	What is the meaning of a holistic approach to pregnancy 1. It is a new therapeutic approach based on use of natural therapies 2. It is a new diagnostic approach based on innovative tests 3. It is a new approach to women centred care	1 □ 2 □ 3 □
51	2MO	Following WHO recommendations which of these is a good practice? 1. The partograph is filled out in the labour room during labour 2. The partograph is filled out after the labour 3. The partograph is filled by the medical director	1 □ 2 □ 3 □
52	2MO	Following WHO recommendations which of the following is a good practice? 1. The partograph is interpreted by trained personnel (midwife or obstetrician) 2. The partograph is interpreted only by an obstetrician 3. The partograph is interpreted only by a senior consultant	1 □ 2 □ 3 □
53	3MO	When is hypertension in pregnancy considered severe? 1. ≥ 170/110 2. ≥ 160/110 3. ≥ 150/100	1 □ 2 □ 3 □
54	3MO	Which medications are recommended for treatment of hypertension? 1. Diuretics, alphamethyldopa and nifedipine 2. Magnesium sulphate, beta blockers and hydralazine 3. Hydralazine,alphamethyldopa, beta blockers and nifedipine	1 □ 2 □ 3 □
55	3MO	Which is the IV regimen for magnesium sulphate? 1. Loading dose: 4 g MgSo4 20% solution IV over 5 minutes followed by 1g/hour for 24 hours 2. Loading dose: 5 g MgSo4 20% solution IV over 5 minutes followed by 2 g/hour for 24 hours 3. Loading dose: 4 g MgSo4 20% solution IV over 5 minutes followed by 1g/hour until blood pressure get lower	1 □ 2 □ 3 □
56	4MO	Prevention of postpartum haemorrhage: which is the first line drug and its dosage? 1. Misoprostol 800 mcg orally 2. Oxytocin 10 UI IM/IV 3. Oxytocin 10 UI in 500 ml of intravenous fluid at 40 drops per minute	1 □ 2 □ 3 □
57	4MO	If after birth the placenta is not delivered: 1. Wait for expulsion 2. Give additional oxytocin 10units IM/IV and perform controlled cord traction 3. Give Ergometrine at initial dose 0,2 mg IM/IV slowly	1 □ 2 □ 3 □
58	5MO	In the suspicion of preterm Prelabour Rupture of Membranes digital examination: 1. Increases risk of intrauterine infections 2. Induces earlier delivery 3. Both of the above	1 □ 2 □ 3 □
59	5MO	Expectant management of preterm Prelabour Rupture of Membranes: recommended practice is: 1. Regular check for signs of chorioamnionitis 2. Weekly vagina swab 3. Weekly laboratory checks	1 □ 2 □ 3 □

60	6MO	Which of the following is considered an acceptable indications for induction of labour: 1. Care provider or patient convenience 2. Uncomplicated pregnancy at gestational age less than 41 completed weeks 3. Preeclampsia ≥37 weeks	1 □ 2 □ 3 □
61	6MO	Which of the following is considered an appropriate method for induction of labour: 1. Misoprostol for women with scarred uterus 2. Oxytocin before expectant management for ruptured membranes at term 3. Amniotomy alone.	1 □ 2 □ 3 □
62	7MO	Which of the following are possible causes of a prolonged active phase during labour: 1. Cephalopelvic disproportion/Obstructed labour 2. Malpresentation /malposition 3. Both of the above	1 □ 2 □ 3 □
63	7MO	How to manage a prolonged labour if cephalopelvic disproportion and obstruction have been excluded? 1. Assess the contractions: the most probable cause is inadequate uterine activity 2. Assess the cervix: horizontal position is recommended 3. Caesarean section	1 □ 2 □ 3 □

FINAL SCORE

Number of correct answers:

Annex 7b. Knowledge and comprehension test *(Pre-test and Post-test)*

FACILITATOR VERSION (includes answers)

#	Module	Question	Tick in the box
1	1 C	Worldwide, the main causes of maternal mortality include: 1. Haemorrhage and hypertensive disorders, complications of anaesthesia and caesarean sections, abortion 2. Sepsis/infections, anaemia and obstructed labour 3. All of the above CORRECT	1 □ 2 □ 3 □
2	1C	Neonatal deaths account for the following percentage of overall deaths in children under 5 years of age: 1. 20% 2. 30% 3. 44% CORRECT	1 □ 2 □ 3 □
3	1C	What does is the meaning of “continuum of care” : 1. Continuum of care is a core organizing principle for health systems, which emphasizes the delivery of health care packages across time and through service delivery levels CORRECT 2. Continuum of care means that the same provider follow the woman for all life 3. Continuum of care means that the same health facility follow up the woman for all life	1 □ 2 □ 3 □
4	2C	For evaluating the efficacy of an intervention, what is the study design at lower risk of bias: 1. Case control study 2. Cohort study 3. Randomised controlled trial CORRECT	1 □ 2 □ 3 □
5	2C	What are the main characteristics of a systematic review: 1. Identification of relevant studies from a number of different sources; studies selection and evaluation based on clear, predefined criteria 2. Systematic collection of data and appropriate synthesis of data 3. All of the above CORRECT	1 □ 2 □ 3 □
6	3C	Elements of effective communication include: 1. Use effective non-verbal communication 2. Show interest and reflect back, Show you are trying to understand; Avoid using words that sound judging 3. Both the above CORRECT	1 □ 2 □ 3 □
7	3C	What are elements of non-verbal communication: 1. Face expression 2. Body position 3. Both the above CORRECT	1 □ 2 □ 3 □
8	4C	What is the common approach recommended for women with an uncomplicated pregnancy to assess the foetal well-being during labor? 1. Intermitted auscultation by Pinard stethoscope CORRECT 2. Uterine ultrasound doppler 3. Cardiotocography	1 □ 2 □ 3 □

9	4C	Which among the following is an effective intervention for prevention of foetal growth restriction: 1. Inpatient bed rest 2. Smoking cessation CORRECT 3. Oestrogens	1 □ 2 □ 3 □
10	5C	According to WHO recommendations which of the following is a good practice? 1. Free access for supportive companion during labour, birth and postpartum period CORRECT 2. Limitation of access for supportive companion during labour, birth and postpartum period 3. Partial limitation of access for supportive companion during labour, birth and postpartum period	1 □ 2 □ 3 □
11	5C	According to WHO recommendations which of the following is a good practice? 1. The mother and baby have to be separated to prevent neonatal infections 2. The mother and baby should not be separated and should stay in the same room 24 hours a day CORRECT 3. The mother and baby should not be separated but the neonates have to be in the nursery during night time	1 □ 2 □ 3 □
12	5C	According to existing evidence 1. There is a clear benefit to pubic shaving or a pre-delivery enema 2. There is a not clear benefit to pubic shaving or a pre-delivery enema 3. There is no benefit to pubic shaving or a pre-delivery enema CORRECT	1 □ 2 □ 3 □
13	6C	Appropriate timing of cord clamping in an healthy newborn is: 1. Before 15 seconds 2. Before 30 seconds 3. After 60 seconds CORRECT	1 □ 2 □ 3 □
14	6C	In neonates born through clear amniotic fluid who start breathing on their own after birth, mouth/nose suctioning: 1. Should be performed 2. Should not be performed CORRECT 3. Should be performed only after Caesarean section	1 □ 2 □ 3 □
15	7C	Children who are not breastfeed are more likely to: 1. Suffer from more episodes of diarrhoea, pneumonia, sepsis, otitis media, urinary tract infection 2. Be overweight or obese in childhood 3. Both of the above CORRECT	1 □ 2 □ 3 □
16	7C	Good attachment is characterised by: 1. The baby's mouth is wide open; the lower lip is turned out; the chin is touching the breast (or nearly so); off-centre latch with more areola visible above the baby top lip CORRECT 2. The lower lip is turned in; the chin is away from the breast 3. More areola is visible below the baby's mouth	1 □ 2 □ 3 □

17	8C	Which of the following is <u>not</u> recommended as routine maternal check-ups after birth: 1. Routine assessment of the cervix CORRECT 2. Routine assessment of blood loss 3. Routine breast inspection	1 □ 2 □ 3 □
18	8C	Following WHO documents which of these signs are considered danger signs in women in the postpartum period: 1. Vaginal bleeding 2. Elevated temperature 3. Both of the above CORRECT	1 □ 2 □ 3 □
19	9C	First ventilation cycle in newborn resuscitation: what is the appropriate number of ventilation and the appropriate duration of the cycle? 1. Ten acts for 30 seconds 2. Forty acts for 60 seconds 3. Twenty acts for 30 seconds CORRECT	1 □ 2 □ 3 □
20	9C	When to start the ventilation if a newborn does not breathe spontaneously at birth 1. Immediately 2. After the drying in about 30 sec CORRECT 3. After 2 minutes of oxygen supplementation	1 □ 2 □ 3 □
21	10C	Clinical signs of sepsis during pregnancy can include: 1. Pyrexia, 2. Hypothermia, 3. Both of the above CORRECT	1 □ 2 □ 3 □
22	10C	Which of the following is appropriate for prevention of HIV transmission during labour: 1. Initiation of antiretroviral therapy (ART) for all pregnant women who have CD4 cell counts of ≤350 cells/mm3 2. Caesarean section for all women HIV positive at term of pregnancy 3. Both of the above CORRECT	1 □ 2 □ 3 □
23	11C	Hand washing: which are the area of hands usually <u>worst</u> washed: 1. Palm 2. 5th finger 3. Thumb CORRECT	1 □ 2 □ 3 □
24	11C	Which of the following practises <u>have not</u> been shown to reduce the risk of newborn infections? 1. Immediate bathing of the baby CORRECT 2. Prolonged skin to skin at birth 3. Chlorhexidine cord care in community setting	1 □ 2 □ 3 □
25	12C	For which category of women is cerclage indicated? 1. Women with > 2 preterm deliveries 2. Women with evidence of short cervix 3. Women with ≥ 3 previous preterm delivery or women with a previous preterm delivery and evidence of short cervix CORRECT	1 □ 2 □ 3 □
26	12C	Which cut off of cervical length has been proposed to screen women at risk for preterm birth 1. 10 mm	1 □ 2 □ 3 □

		2. 25 mm CORRECT 3. 30 mm	
27	13C	While providing support for parent's following the death of a baby, it is recommended to: 1. Let parents freely stay by the baby CORRECT 2. Try to avoid answering their questions 3. Avoid relatives of the mother	1 □ 2 □ 3 □
28	13C	"Normal" parents reaction after the death of a child include: 1. Negative feelings toward other children 2. Sense of being less a parent 3. Both of the above CORRECT	1 □ 2 □ 3 □
29	14C	Which of these factors is considered a risk factor for postpartum depression: 1. Previous personal/family history of depression 2. Marital conflict/violence 3. Both the above CORRECT	1 □ 2 □ 3 □
30	14C	Which symptoms can be present in postpartum depression: 1. Sleeping more than usual or a hard time falling asleep or staying asleep 2. Increased crying or tearfulness and feeling restless, irritable or anxious 3. All of the above CORRECT	1 □ 2 □ 3 □
31	15C	Quality care includes all the following dimensions: 1. Safe, effective, efficient care 2. Accessible, patient centred, equitable care 3. All of the above CORRECT	1 □ 2 □ 3 □
32	15C	The Plan-Do-Study-Act (PDSA) cycle includes: 1. Two steps: plan and do 2. Three steps: plan, do, study 3. Four steps: Plan-Do-Study-Act CORRECT	1 □ 2 □ 3 □
33	1N	According to the 2 parameters age at birth and weight at birth, the baby can be classified in how many different categories? 1. 3 categories 2. 6 categories 3. 9 categories CORRECT	1 □ 2 □ 3 □
34	1N	In the latest WHO recommendation, how many postnatal checks or visits are suggested 1. Three visits: day 1, day 2-3, day 7 CORRECT 2. Two visits: day 2 and day 10 3. Only at discharge	1 □ 2 □ 3 □
35	2N	Organs most frequently damaged in asphyxia include: 1. Brian, kidney 2. Gut 3. All of the above CORRECT	1 □ 2 □ 3 □
36	2N	Treatment of convulsion in the newborn: 1. Check glycaemia; first line drug is phenobarbital, second line drug is phenytoin CORRECT 2. Check for hypocalcaemia, first line drug is diazepam	1 □ 2 □ 3 □

		3. Check glycaemia; first line drug is phenytoin	
37	3N	In babies supplemented with oxygen, especially pre-term babies, oxygen saturation should be maintained under the following cut-off : 1. 90% 2. 95% CORRECT 3. 98%	1 □ 2 □ 3 □
38	3N	Loading dosage of caffeine: which is the correct dosage: 1. 5 mg/kg 2. 10 mg/ kg 3. 20 mg/kg CORRECT	1 □ 2 □ 3 □
39	4N	Cut-off for starting phototherapy in an healthy infant 2 days old 1. 13 mg/dl 2. 15 mg/dl CORRECT 3. 18 mg/dl	1 □ 2 □ 3 □
40	4N	The minimum duration of phototherapy is: 1. 6 hours 2. 12 hours CORRECT 3. 24 hours	1 □ 2 □ 3 □
41	5N	What are the key measures to reduce the burden of newborn infections? 1. Antibiotic treatment 2. Extensive prophylaxis measures: restriction of visits, use of masks at any contact 3. Adequate prevention of nosocomial infections together with early recognition and adequate treatment of newborn infections CORRECT	1 □ 2 □ 3 □
42	5N	First line antibiotic for a newborn with signs of severe infection: 1. Cephalosporin 2. Ampicillin and gentamicin CORRECT 3. Chloramphenicol	1 □ 2 □ 3 □
43	6N	What procedure is <u>not recommended</u> in case of cephalohematoma 1. Evaluate haemoglobin 2. Administer Vitamin K 3. Aspiration CORRECT	1 □ 2 □ 3 □
44	6N	What is the first line diagnostic test for oesophageal atresia: 1. Give feeding 2. Insert (gently) a gastric tube and do an X ray CORRECT 3. Abdominal surgery	1 □ 2 □ 3 □
45	7N	Which of the following are common problems of the pre-term baby? 1. Hypothermia 2. Feeding problems 3. Both of the above CORRECT	1 □ 2 □ 3 □
46	7N	Classify these two children: case 1 born at 38 weeks, weight 2000 Kg; case 2 born at 38 weeks, weight 2300 Kg; 1. Case 1 is at term but small for age; case 2 is at term normal weight 2. Case 1 is small for age; case 2 is pre-term 3. Both children are small for age CORRECT	1 □ 2 □ 3 □

47	8N	Alternative methods to provide breast milk when the baby has difficulties in sucking include: 1. Cup, spoon 2. Nasogastric tube 3. Both of the above CORRECT	1 □ 2 □ 3 □
48	8N	Which of the following are signs of stress in a newborn: 1. Crying and hypertonic 2. Apnoea, yawing 3. Both of the above CORRECT	1 □ 2 □ 3 □
49	1MO	Following WHO recommendations which opportunity during antenatal care should not be missed: 1. Promote healthy lifestyles 2. Folic acid supplementation 3. Both of the above CORRECT	1 □ 2 □ 3 □
50	1M0	What is the meaning of a holistic approach to pregnancy 1. It is a new therapeutic approach based on use of natural therapies 2. It is a new diagnostic approach based on innovative tests 3. It is a new approach to women centred care CORRECT	1 □ 2 □ 3 □
51	2MO	Following WHO recommendations which of these is a good practice? 1. The partograph is filled out in the labour room during labour CORRECT 2. The partograph is filled out after the labour 3. The partograph is filled by the medical director	1 □ 2 □ 3 □
52	2MO	Following WHO recommendations which of the following is a good practice? 1. The partograph is interpreted by trained personnel (midwife or obstetrician) CORRECT 2. The partograph is interpreted only by an obstetrician 3. The partograph is interpreted only by a senior consultant	1 □ 2 □ 3 □
53	3MO	When is hypertension in pregnancy considered severe? 1. ≥ 170/110 2. ≥ 160/110 CORRECT 3. ≥ 150/100	1 □ 2 □ 3 □
54	3MO	Which medications are recommended for treatment of hypertension? 1. Diuretics, alphamethyldopa and nifedipine 2. Magnesium sulphate, beta blockers and hydralazine 3. Hydralazine,alphamethyldopa, beta blockers and nifedipine CORRECT	1 □ 2 □ 3 □
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63	7MO	How to manage a prolonged labour if cephalopelvic disproportion and obstruction have been excluded? 1. Assess the contractions: the most probable cause is inadequate uterine activity CORRECT 2. Assess the cervix: horizontal position is recommended 3. Caesarean section	1 □ 2 □ 3 □

FINAL SCORE

Number of correct answers:

Annex 8a. Template for reporting on test for skills in clinical practice

OBSTETRIC

Skills identified as a priority for testing	**Tested on (date_____)** **By (facilitator_____)**	**Result** (tick in the box)
1.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
2.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
3.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
4.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
5.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
6.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
7.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
8.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
9.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
10.		Excellent☐ Good☐ Sufficient☐ Inadequate☐

Annex 8b. Template for reporting on test for skills in clinical practice

NEONATOLOGY

Skills identified as a priority for testing	**Tested on (date_____)** **By (facilitator_____)**	**Result** (tick in the box)
1.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
2.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
3.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
4.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
5.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
6.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
7.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
8.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
9.		Excellent☐ Good☐ Sufficient☐ Inadequate☐
10.		Excellent☐ Good☐ Sufficient☐ Inadequate☐

Annex 9. Feedback from participants

Date_____ Country _____Facility_____

Your name is not needed. Please provide an indication of your profession

Obstetrician☐ Midwife☐ Neonatologist☐ Pediatric Nurse☐ Manager☐ Other ☐

Usefulness of the course
Overall, how do you rate the course: Very useful ☐ Useful ☐ Not useful ☐
Any section of the course that you found <u>not</u> useful? Please list
Any section of the course that you found particularly useful? Please list
Knowledge transmission
Overall, how do you rate the methods of the course in transmitting new knowledge? Very effective ☐ Effective ☐ Not effective ☐
Any section of the course that you found <u>not</u> effective in transmitting new knowledge? Please list
Any section of the course that you found particularly effective in transmitting new knowledge? Please list
Skills development
Overall, how do you rate the methods of the course in developing your practical skills? Very effective ☐ Effective ☐ Not effective ☐
Any section of the course that you have found <u>not</u> effective in developing your practical skills? Please list
Any section of the course that you have found particularly effective in developing your

practical skills? Please list
Timing
Overall, how do you rate the amount of time dedicated to different sections of the course? Adequate ☐ Not adequate ☐
If anything should be changed about timing, please provide your suggestions below:
Additional suggestions
Do you have any other comments or suggestions for improvement of the content of the course or the way in which it was conducted? Contents to add? Contents to delete? Methods to be improved?
Overall satisfaction
How to do feel after the course in respect to your expectations? Very Satisfied ☐ Satisfied ☐ Not satisfied ☐
List any reason for being satisfied (if any)
List any reason for being not satisfied (if any)
How will you use this course
Are there health care practices that you will do differently when you return to your maternity facility as a result of what you learned in this course? If so, what are they?

Thank you for your feedback