MAKING PREGNANCY SAFER

Assessment tool for the quality of hospital care for mothers and newborn babies

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Acknowledgments

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Introduction

Objectives and use

- The aim of the Quality of hospital care for mothers and newborn babies (QoMNC) assessment tool is to aid MoH, key stakeholders and partners, to carry out assessments of perinatal health care provided at facility level in an homogeneous and valid way, and ultimately to contribute to the identification of key areas of pregnancy, childbirth and newborn care that need to be improved.
- The tool can be used country-wide as a component of a quality improvement strategy in perinatal health. An alternative option is to choose an adequate sample of hospitals (4 to 6) to be assessed to provide results that can be reliably generalized to the whole network. The tool can also be used in a single facility for a pilot programme of quality improvement.
- The tool, by providing a semi-quantitative assessment of the quality of care in a variety of key areas, can be used to assess and monitor the baseline situation and subsequent improvements, thus providing key information before and after interventions to improve quality of care, as well as for incentives and accreditation schemes.
- The assessment tool may be also useful to introducing the concept and the contents of internationally recommended guidelines and standards. Indeed, quality assessment appears to be an effective way of introducing WHO guidelines and international standards in the clinical practice at country level.

Informing principles

- The tool builds on the experience gathered by WHO Regional Office for Europe in the implementation of Making Pregnancy Safer programme and Effective Perinatal Care training package, and also in more than 20 countries with the paediatric hospital care assessment tool.
- The informing principles of the tool are the following: be based on evidence based internationally accepted standards; be capable to guide the collection of valid information in key areas; be user-friendly; be able to stimulate the involvement of hospital staff in identifying problems and possible solutions1.
- The Effective Perinatal Care training package (developed by the WHO Regional office for Europe and JSI/USAID) and the WHO IMPAC manuals of the global Making Pregnancy Safer programme (Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors and Managing newborn problems: a guide for doctors, nurses, and midwives) were identified as the main source for reference standards. In all cases where different sources were used (mainly to cover areas that are not covered by the above mentioned documents) the relevant references are mentioned.
- The tool is intended to allow a problem based action-oriented careful assessment of all the major areas and factors which may have an impact on QoC such as infrastructure, supplies, organization of services and case management, focusing on the areas that have been shown to have the greatest impact on maternal and newborn mortality and serious morbidity, as well as on maternal and neonatal wellbeing.
- The items included in the assessment were chosen also to provide a comprehensive assessment of the four dimensions of QoC as identified by the WHO European Strategic

[1] Reference standards were identified following the principles described as "Hierarchical systematic review" (For each clinical question, the highest available level of evidence was selected. Where appropriate, for example, if a systematic review, meta-analysis or RCT existed in relation to a question, studies of a weaker design were not included. Where systematic reviews, meta-analyses and RCTs did not exist, other appropriate experimental or observational studies were sought.) by M- Mathai and V. Basevi in the WHO meeting "From Evidence to Guidelines" Split 2007.

Approach for making pregnancy safer: 1. be based on scientific evidence and cost/effective; 2. be family centered, respecting confidentiality, privacy, culture, belief and emotional needs of women, families and communities; 3. ensure involvement of women in decision-making for options of care, as well as for health policies; 4. ensure a continuum of care from communities to the highest level of care, including efficient regionalization, and multidisciplinary approach.

Adaptation and use

- The tool has been developed is a generic framework that needs to adapted to the epidemiology and structure at country/local level. The adaptation may include deleting items that do not appear to be crucial, adding new priority items, choosing a slightly different gold standard (for example, using as gold standard the country adaptation of international standards), changing the assessment visit agenda to adapt to local needs/resources.
- The tool was designed to be used in hospitals of different level, from small district hospitals to tertiary care centres. It is therefore necessary that the team of national and international assessors, when planning the assessment, identify the sections of the tool to be used at different levels of care. For example, the advanced neonatal care section (n.8) is designed for use only in neonatal intensive care units. The same is true for the sections regarding obstetric care and particularly obstetric complications, although we thought inappropriate to single out a specific "tertiary care" section for maternity care, since specific items within the same section may or may not be applicable. When they are not, it will be sufficient to classify the item as not applicable (n.a.).

Sources of information

- The tool includes 4 different sources of information: hospital statistics, medical records, direct observation of cases, and interviews with staff and with patients/users. Through a combination of different sources, the tool allows to build an overall diagnosis of quality of care and to single out those areas that represent an obstacle to QoC.
- Information for the assessment is gathered in different forms: data provided by the hospital prior to the visit, hospital records, patients files, direct observation, patients and staff interviews.
- Scoring system: each item is evaluated with the information gathered by different sources to reach an overall score. For scoring, numbers from 3 to 0 are awarded, 3 = good or standard care; 2 = need for some improvement to reach standard care (suboptimal care but no significant hazard to health); 1 = need for substantial improvement to reach standard care (suboptimal care with significant health hazards, e.g. omission of evidence based interventions such as use of steroids in premature labour); 0 = need for very substantial improvements (totally inadequate care and/or harmful practice with severe hazards to the health of mothers and /or newborns, e.g. lack of availability for an emergency CS).
- It is suggested to spend as much time as possible on the ward to gain first hand information by direct observation, especially on the management and care of mothers and babies in the maternity hospital. Also, the assessors should establish by direct observation if clinical protocols, and the drugs and equipment listed are available in the labour and delivery areas, pre-and post partum and neonatal wards or in the pharmacy. Try to verify information provided by the hospital, staff or patients while being there.

Requisites for the assessors and organization of assessment visit

- Assessing such a complex area of care such as perinatal care requires specific disciplinary backgrounds such as obstetrics, midwifery, and paediatrics/neonatology. Therefore the assessment team should include all these competences. Ideally, they should be represented both in the national and in the international components of the assessment team.
- After general agreement, written information should be sent to all hospitals that will be assessed on the purpose of the assessment and the proposed agenda prior to the visit. The visit starts with an initial briefing to key staff and managers, on the objectives and methods of the assessment. It is emphasized that the assessment is part of an initiative to support the hospital in improving the quality of perinatal care, and that its purpose is to identify areas of care with greatest potential for change. It is explained that staff and mothers will be interviewed about hospital routines and practices and that the assessor(s) would like to directly observe clinical practice in selected areas.
- The visit should include all relevant services: admission, labour and delivery ward, normal and pathological pregnancy departments, postpartum, nursery, neonatal intensive care unit, outpatient and emergency area, pharmacy, laboratory, blood bank, etc. The visit is considered over when the information collected is deemed sufficient to allow a reasonable assessment of the quality of care in each main area. The duration may vary depending on the size of the hospital from 1 to 2 full days. Observation of service provided at night can be useful to assess care during childbirth and emergency routines and care.

Importance of providing feedback both at facility level and at country level

- A feedback meeting is held in the facility at the end of the assessment and is aimed at involving staff in discussing the findings as well as the suggested actions. At the end of the assessment each facility receives a full report with scores and detailed findings. Standards and assessment tools are essential but not *per se* sufficient to promote a sustained effort towards quality improvement. A third crucial component of quality development is represented by the existence of driving forces capable to stimulate change. Since the commitment of hospital managers and health professionals at facility level are a critical determinant of change, including in the assessment process a framework for final discussion and identifications of tasks and responsibilities of the various staff members and levels also proved to be an important element.
- By its participatory nature and particularly through its final session which is clearly inspired by the problem-solving technique, the approach is aimed at building awareness about the existence of quality issues and the potential for improvement. The focus on case management and organizational issues rather than on structure and staffing is crucial to promote the idea that substantial change is possible without major external input and resources.
- Interviews with mothers about the quality of care provided to them and their babies clearly represent a novelty to most professionals. Incorporating the views of mothers on several aspects of care is *per se* a way to promote mother and family-friendly attitudes among staff, involvement of mothers and families into decision making, as well as awareness among mothers about their own rights.
- After assessing the planned sample of facilities the assessors prepare a report summarizing findings and recommendations and present them to MoH (or local) authorities and other relevant partners.
- Comprehensive written report can be prepared following health system framework and functions, identifying areas to be strengthened and priority actions. This final report could be provided in confidential way, without linking the names of the facilities with specific scores.

Date	Country	
Town	Rayon	Oblast
Facility name (hospital, specific service/s)		
Name of Director/Manager of the Hospital		
Name of the Head of Maternity *		
Name of the Head of Neonatal Unit **		
Survey number		
Name of the evaluator		

* or Obstetric Department, Obstetric ward or whatever is the name of the specific service providing delivery care

** or Intensive care or Neonatology or whatever is the name of the specific service providing newborn care

General information

Source: routine statistics. This information should ideally be collected before the visit (see postal questionnaire), and be available for reference during the visit. If it has not been collected before, collect the information early during the visit from the records department, chief nursing officer, or hospital administration. Make use of routine statistics; adjust the categories accordingly (e.g. age groups) where necessary.

Patient load

Indicate the total number of outpatient visits in pregnancy/puerperium/neonatal period, emergency visits and admissions per year (indicate year; if any other period of time, e.g. semester, is used , indicate the exact period) for pregnant women and neonates. Include all medical diagnosis but exclude women/neonates dead on arrival.

Year _____ Any other period _____

	Outpatient visits	**Emergency visits**	**Inpatients**
Pregnant women			
Number of deliveries	Not applicable	Not applicable	
Neonates 0 – 28 days			
Neonates 0 -7 days			
Neonates 8 - 28 days			

Admission causes

List the five most important medical reasons (diagnoses) for outpatient visits (excluding medical controls in pregnancy), emergency visits, and hospital admissions in pregnancy/puerperium (excluding labour).

PREGNANCY/PUERPERIUM			
	Outpatient visits	**Emergency visits**	**Hospital Admissions**
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

List the five most important medical reasons (diagnoses) for outpatient visits, emergency visits, and admissions in NICU for neonates

NEONATES			
	Outpatient visits	**Emergency visits**	**NICU Admissions**
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

Delivery/birth indicators

Please use the figures for the last available year. If data are available for a different period, please specify.

Year _____ Any other period _____

Number of deliveries	
Number of live births [2]	
Number of low birth weight newborn babies (<2500 g)	
Number of very low birth weight newborn babies (<1500 g)	
Number of extremely low birth weight (<1000g)	
Number of deliveries <37 completed weeks	
Number of deliveries < 32 weeks	
Number of deliveries < 28 weeks	
Number of birth asphyxia	
Number of Apgar score at 5th min $\leq$3	
Neonatal mortality rate (number of neonatal deaths before 28 days of life per 1000 live birth)	
Still birth rate (number of stillbirths per 1000 neonates, including live births and stillbirths)	
Perinatal mortality rate (number of stillbirths plus early neonatal deaths per 1000 total births)	
Maternal mortality ratio (number of maternal deaths that result from reproductive process per 100.000 live births) not applicable for the maternity level.[3]	
Number of direct maternal death (death of the mother resulting from obstetrical complications of pregnancy, labour or the puerperium, and from interventions, omissions, incorrect treatment, or a chain of events resulting from any of these factors) per number of deliveries in ten years.	

[2] Reference WHO definition for live births. Please specify if other definition is used.

[3] The maternal mortality ratio can be assessed for the number of births not less than 10.000 when is expected to be very high (more than 100.000) otherwise it requires at least 100.000 births. Therefore it usually not applicable to single maternities unless for a longer period (e.g. 10 years) or for a group of maternities.

Number of indirect maternal death (death not directly due to an obstetrical cause but resulting from previously existing disease, or a disease that developed during pregnancy, labour, or the puerperium but which was aggravated by maternal physiological adaptation to pregnancy) per number of deliveries in ten years	
Caesarean section deliveries as % of all births	
Episiotomies as % of all births	
Instrumental deliveries as % of all births	
Inductions as % of all births	
Augmentations (stimulations) as % of all births	
Prevalence of anaemia defined as Hb concentration of less than 110g/l (11g%) on 1000 pregnant women*	
Prevalence of severe anaemia Hb <70 g/l (7g%) on 1000 pregnant women*	
Proportion of women screened for syphilis on 1000 pregnant women	
HIV prevalence among pregnant women (or among women in fertile age, if only this information is available)	
Proportion of positive screening for syphilis on 1000 pregnant women	
Average length of stay for vaginal delivery (number of days)	
Average length of stay for operative vaginal delivery (number of days)	
Average length of stay for caesarean section (number of days)	
Number of women transferred to higher level of care	
Number of newborn babies transferred to higher level of care	

*from MPS/PEPC assessment and follow up after training-Manual and Interview form Feb 2006-form 7 pag. 3

1. Hospital support systems

Source: This information should ideally be collected before the visit (see postal questionnaire) and be available for reference during the visit. If it has not been collected before, collect the information early during the visit.

1.1 Availability of relevant statistics and information

Criteria	0	1	2	3	Comments
Availability of relevant statistics and information					
Existence and quality of paper based information system on patient flow (admissions, outpatients, etc.)					
Existence and quality of paper based information system on most important perinatal indicators					
Existence and quality of a computer based information system on patient flow (admissions, outpatients, etc.)					
Existence and quality of a computer based information system on most important perinatal indicators					
Existence of computer based medical record system					
Periodical review and evaluation of statistics and indicators by the relevant professional teams					

Medical records	**Maternal ward**		**Neonatal ward**		**Neonatal Intensive Care**	
Are all records clear and legible?	Y	N	Y	N	Y	N
Are records dated?	Y	N	Y	N	Y	N
Are all admission and discharge diagnoses clearly written in the notes?	Y	N	Y	N	Y	N
Are all drugs and treatments clearly identifiable?	Y	N	Y	N	Y	N
Is information from previous admissions available to staff providing care to mothers and babies?	Y	N	Y	N	Y	N

Is information from antenatal records available to staff providing care during labour?	Y	N	Y	N	Y	N
Are all antenatal and intrapartum records available to staff providing care during postpartum period?	Y	N	Y	N	Y	N
Do mothers have any access to their medical records?	Y	N	Y	N	Y	N
Do mothers have any access their babies' medical records?	Y	N	Y	N	Y	N
Other relevant issues concerning information system (specify and comment)						

Summary
Availability of relevant statistics and information

Criteria	0	1	2	3	Comments
Relevant statistics availability of information and periodical professional review					
Medical records					

Main Strengths

Main Weaknesses

Additional Comments

Overall score for section

Summary score – Availability of relevant statistics and information	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

1.2 Drug availability

Source: This information should ideally be collected before the visit (see postal questionnaire), and be available for reference during the visit. If it has not been collected before, collect the information early during the visit from the emergency area, the ward and the pharmacist and just drugs according to local alternatives.

Availability of drugs varies considerably in different regions. Please indicate the drugs available. For some drugs, local adaptations of use might exist (specify in note). If drugs are only available for sale and not freely available for patients, make a note. Check for the presence of drugs and enquire with staff whether drugs are regularly available. Check expiry dates. Note whether drugs with the earliest expiry date are for first use (in the front-row).

General anaesthetics and oxygen	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	**Comments**
Halothane	☐	☐	☐	☐	
Ketamine injection	☐	☐	☐	☐	
Nitrous oxide	☐	☐	☐	☐	
Oxygen	☐	☐	☐	☐	
Thiopental	☐	☐	☐	☐	
Local anaesthetics	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Lidocaine	☐	☐	☐	☐	
Lidocaine + epinephrine	☐	☐	☐	☐	
Complementary drugs	☐	☐	☐	☐	
Ephedrine	☐	☐	☐	☐	
Preoperative medications and sedations for short term procedures	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy /store**	
Atropine	☐	☐	☐	☐	
Diazepam	☐	☐	☐	☐	
Promethazine	☐	☐	☐	☐	
Morphine	☐	☐	☐	☐	
Analgesics, antipyretics, non steroidal anti-inflammatory drugs	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	

Acetylsalicylic acid	☐	☐	☐	☐	
Paracetamol	☐	☐	☐	☐	
Morphine	☐	☐	☐	☐	
Antiallergics and medicines used in anaphylaxis	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Chlorphenamine	☐	☐	☐	☐	
Dexamethasone	☐	☐	☐	☐	
Epinephrine	☐	☐	☐	☐	
Hydrocortisone	☐	☐	☐	☐	
Prednisolone	☐	☐	☐	☐	
Antidotes and other substances used in poisoning	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Atropine	☐	☐	☐	☐	
Calcium gluconate	☐	☐	☐	☐	
Naloxone	☐	☐	☐	☐	
Anticonvulsants and antiepileptics	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Diazepam	☐	☐	☐	☐	
Magnesium sulphate	☐	☐	☐	☐	
Phenobarbital	☐	☐	☐	☐	
Phenytoin	☐	☐	☐	☐	
Anti-infective medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Mebendazole	☐	☐	☐	☐	
Pyrantel	☐	☐	☐	☐	
Antibacterials	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Amoxicillin	☐	☐	☐	☐	
Ampicillin	☐	☐	☐	☐	

Benzathine benzylpenicillin	☐	☐	☐	☐	
Benzylpenicillin	☐	☐	☐	☐	
Cefixime	☐	☐	☐	☐	
Cloxacillin	☐	☐	☐	☐	
Ceftriaxone	☐	☐	☐	☐	
Azithromycin	☐	☐	☐	☐	
Chloramphenicol	☐	☐	☐	☐	
Ciprofloxacin	☐	☐	☐	☐	
Doxycicline	☐	☐	☐	☐	
Erythromycin	☐	☐	☐	☐	
Gentamicin	☐	☐	☐	☐	
Nitrofurantoin	☐	☐	☐	☐	
Metronidazole	☐	☐	☐	☐	
Spectinomycin	☐	☐	☐	☐	
Sulphamethoxazole-trimethoprim	☐	☐	☐	☐	
Clindamycin	☐	☐	☐	☐	
Sulfadiazine	☐	☐	☐	☐	
Antituberculosis medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Ethambutol	☐	☐	☐	☐	
Isoniazid	☐	☐	☐	☐	
Isoniazid+ethambutol	☐	☐	☐	☐	
Pyrazinamide	☐	☐	☐	☐	
Rifampicin	☐	☐	☐	☐	
Rifampicin+isoniazid	☐	☐	☐	☐	
Rifampicin + isoniazid + pyrazinamide	☐	☐	☐	☐	

Rifampicin + isoniazid + pyrazinamide + ethambutol	☐	☐	☐	☐	
Antifungal medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Clotrimazole	☐	☐	☐	☐	
Luconazole	☐	☐	☐	☐	
Nystatin	☐	☐	☐	☐	
Ativiral medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Aciclovir	☐	☐	☐	☐	
Antiretrovirals	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Abacavir	☐	☐	☐	☐	
Didanosine	☐	☐	☐	☐	
Lamivudine	☐	☐	☐	☐	
Stavudine	☐	☐	☐	☐	
Zidovudine	☐	☐	☐	☐	
Efavirenz	☐	☐	☐	☐	
Nevirapine	☐	☐	☐	☐	
Indinavir	☐	☐	☐	☐	
Ritonavir	☐	☐	☐	☐	
Lopinavir + Ritonavir	☐	☐	☐	☐	
Nelfinavir	☐	☐	☐	☐	
Saquinavir	☐	☐	☐	☐	
Antimalarial medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Chloroquine	☐	☐	☐	☐	
Quinine	☐	☐	☐	☐	
Artemether	☐	☐	☐	☐	
Artesunate	☐	☐	☐	☐	
Mefloquine	☐	☐	☐	☐	
Sulfadoxine + pyrimetamine	☐	☐	☐	☐	
Proguanil	☐	☐	☐	☐	

Antipneumocystis and antitoxoplasmosis medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Pyrimetamine	☐	☐	☐	☐	
Sulfamethoxazole+trimethoprim	☐	☐	☐	☐	
Pentamidine	☐	☐	☐	☐	
Medicines affecting the blood	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Ferrous salt	☐	☐	☐	☐	
Ferrous salt + Folic acid	☐	☐	☐	☐	
Folic acid	☐	☐	☐	☐	
Heparin sodium	☐	☐	☐	☐	
Phytomenadione	☐	☐	☐	☐	
Protamine sulphate	☐	☐	☐	☐	
Blood products and plasma substitutes	**Emergency area**	**labour Ward**	**Ward**	**Pharmacy**	
Dextran 79	☐	☐	☐	☐	
Cardiovascular medicines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Glyceryl trinitrate	☐	☐	☐	☐	
Digoxin	☐	☐	☐	☐	
Epinephrine	☐	☐	☐	☐	
Lidocaine	☐	☐	☐	☐	
Hydralazine	☐	☐	☐	☐	
Methyldopa	☐	☐	☐	☐	
Furosemide	☐	☐	☐	☐	
Dermatological medicines (topical)	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Miconazole	☐	☐	☐	☐	
Methylrosanilinium chloride	☐	☐	☐	☐	
Disinfectants and antiseptics	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Chlorexidine	☐	☐	☐	☐	

Ethanol	☐	☐	☐	☐	
Polyvidone iodine	☐	☐	☐	☐	
Chlorine base compound	☐	☐	☐	☐	
Oral rehydration	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Oral rehydration salts (for glucose-electrolyte solution)	☐	☐	☐	☐	
Medicines for diarrhoea in children	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Zinc sulfate	☐	☐	☐	☐	
Insulins and other antidiabetic agents	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Insulin injection (soluble)	☐	☐	☐	☐	
Intermediate acting insulin	☐	☐	☐	☐	
Immunologicals	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Anti-D Immunoglobulin (human)	☐	☐	☐	☐	
Anti-tetanus immunoglobulin (human)	☐	☐	☐	☐	
Vaccines	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
BCG vaccine	☐	☐	☐	☐	
Diphteria vaccine	☐	☐	☐	☐	
Hepatitis vaccine	☐	☐	☐	☐	
Poliomyelitis vaccine	☐	☐	☐	☐	
Tetanus vaccine	☐	☐	☐	☐	
Muscle relaxants and cholinesterase inhibitors	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Suxamethonium	☐	☐	☐	☐	
Ophtalmological preparations	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Tetracyclin	☐	☐	☐	☐	
Oxytocics and antioxytocics	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Ergometrine	☐	☐	☐	☐	

Oxytocin	☐	☐	☐	☐	
Misoprostol	☐	☐	☐	☐	
Mifepristone-misoprostol	☐	☐	☐	☐	
Nifedipine	☐	☐	☐	☐	
Solutions correcting water, electrolyte and acid-base disturbances	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Glucose 5-10-50%	☐	☐	☐	☐	
Glucose with sodium chloride	☐	☐	☐	☐	
Sodium chloride 0.9% isotonic	☐	☐	☐	☐	
Sodium lactate, compound solution	☐	☐	☐	☐	
Water for injection	☐	☐	☐	☐	
Vitamins and minerals	**Emergency area**	**Labour ward**	**Ward**	**Pharmacy**	
Retinol	☐	☐	☐	☐	

Are there any expired drugs in the pharmacy or in the drug cupboard? Y ☐ N ☐

Is cold chain respected for vaccines? Y ☐ N ☐

List of drugs commonly used in obstetrical practice without proven effectiveness

	Commonly used	**Some times used**	**Never used**
Vit C	☐	☐	☐
Cocarboxilase	☐	☐	☐
ATF	☐	☐	☐
Glucose	☐	☐	☐
Novocaine (I/V)	☐	☐	☐
Calcium	☐	☐	☐
Atropin	☐	☐	☐
Vit E	☐	☐	☐
Papaverin	☐	☐	☐
Magnesium	☐	☐	☐
Prostacyclins	☐	☐	☐
Free protein extract of calf blood like EPO *(**ACTOVEGIN** produced by Nycomed Austria GmbH - used in eastern European countries as antianemic)*	☐	☐	☐
diethylstilbestrol dipropionate *(analogue of stilbestrol produced with the commercial name **SYNOESTROL Синестрол** – and used for breast engorgement in Eastern Countries of EURO Region)*	☐	☐	☐
*metamizol sodium **(DIPYRONE, ANALGIN, NOVALGIN, MELUBRIN** produced and used for pain treatment in all countries of WHO EURO Region)*	☐	☐	☐
drotaverin *(**NOSPA-FORTE** – Produced by Chinoin HU and Sanofi Aventis SK and used in Eastern Countries of EURO Region as spasmolythic and for pain treatment)*	☐	☐	☐
drotaverin and metamizol *(**QUARELIN** Produced by Sanofi Aventis SK and used in Eastern Countries of EURO Region as spasmolythic to accelerate cervical dilatation)*[4]	☐	☐	☐
metamizol , fenpiverinium and pitofenone *(**BARALGIN** Produced by Sanofi Aventis and used in Western and Eastern Countries of EURO Region as spasmolythic to accelerate cervical dilatation)*	☐	☐	☐
joscine N butilbromure *(**BUSCOPAN** produced by Boehringer Ingelheim DE and used in Western Countries of EURO Region as spasmolythic to accellerate cervical dilatation)*	☐	☐	☐

[4] appropriate if used to reduce pain during renal colic pain.

rociverine ***(RILATEN** produced by Lab Guidotti .IT and used in Western Countries of EURO Region as spasmolythic to accellerate cervical dilatation)*	☐	☐	☐
diphenhydramine hydrochloride ***(BENADRYL, DIMEDROL, DIPHENHYDRAMINE, NYTOL** produced by different producers is used as antihistaminic, antiemetic, and sedative)*[5]	☐	☐	☐
dibasol or tiabendazole ***(BENDAZOL - БЕНДАЗОЛ** produced in RU and used in former USRR as vasodilator in cases of high pressure)*	☐	☐	☐
Neostigmine methylsulfate - *Неостигмина метилсульфат **(PROSERIN-DARNITSA ПРОЗЕРИН-ДАРНИЦА** produced by the company Darnitsa RU is used in some countries of former USRR as test for pregnancy and in the treatment of delayed menstruation)*	☐	☐	☐
Sodium hydroxybutyrrate *(used in some countries of former USRR to prevent hypoxia in cases og EPHG gestosis)*	☐	☐	☐
ambroxol hydrochloride *(MUCOSOLVAN)*	☐	☐	☐
allylestrenol *(PERSELIN; TURINAL; GESTANOL; GESTANON; GESTANIN; GESTORMONE; ORGANON; ORAGESTON; - Used in all countries of EURO Region as progestagen)*	☐	☐	☐
Haemodez	☐	☐	☐
Rheopoliglucin	☐	☐	☐
Alcohol i.v. as tocolitic	☐	☐	☐
Oral betamimetics	☐	☐	☐
Sigetin Sygethin Sygetin	☐	☐	☐
Others			
……	☐	☐	☐
……	☐	☐	☐
Other technologies			
Hyperbaric oxygenotherapy	☐	☐	☐
Plasmapheresis	☐	☐	☐
Others			
……	☐	☐	☐
……	☐	☐	☐

[5] not appropriate for use during pregnancy

Availability of drugs used in Neonatal Intensive Care Unit

Antibiotics, antiviral and antifungal drugs	**Commonly used**	**Some times used**	**Never used**
Acyclovir	☐	☐	☐
Amikacin	☐	☐	☐
Amphotericin B	☐	☐	☐
Ampicillin	☐	☐	☐
Cefotaxime	☐	☐	☐
Ceftazidime	☐	☐	☐
Ceftriaxone	☐	☐	☐
Erythromycin	☐	☐	☐
Fluconazole	☐	☐	☐
Gentamicin	☐	☐	☐
Metronidazolo	☐	☐	☐
Netilmicin	☐	☐	☐
Vancomicyn	☐	☐	☐
Cardiovascular drugs			
Alprostadil (Prostaglandin E1) (for duct-dependent CHD)	☐	☐	☐
Adenosine	☐	☐	☐
Captopril	☐	☐	☐
Digoxin	☐	☐	☐
Dobutamin	☐	☐	☐
Dopamine	☐	☐	☐
Enoxaparin	☐	☐	☐
Epinephrine	☐	☐	☐
Flecainide	☐	☐	☐
Ibuprofen Lysine (for PDA)	☐	☐	☐
Indomethacin (for PDA)	☐	☐	☐
Lidocaine or Antiarrhythmic	☐	☐	☐
Propanololo	☐	☐	☐

CNS DRUGS	**Commonly used**	**Some times used**	**Never used**
Chloral hydrate	☐	☐	☐
Fentanyl (load/reduction)	☐	☐	☐
Midazolam	☐	☐	☐
Morphine	☐	☐	☐
Naloxone	☐	☐	☐
Phenobarbital	☐	☐	☐
Phenytoin	☐	☐	☐
DIURETICS			
Furosemide	☐	☐	☐
Hydrochlorothiazide	☐	☐	☐
Spironolactone	☐	☐	☐
RESPIRATORY DRUGS			
Aminophylline	☐	☐	☐
Caffeine Citrate	☐	☐	☐
Dexamethasone (Betametasone)	☐	☐	☐
Surfactants	☐	☐	☐
MISCELLANEOUS DRUGS			
G-Globuline Protocol: only for immune hemolytic jaundice or immune thrombocytopenia)	☐	☐	☐
Hydrocortisone	☐	☐	☐
Insulin	☐	☐	☐
Isotonic crystalloid (normal saline or Ringer's lactate) for volume expansion	☐	☐	☐
Sodium bicarbonate	☐	☐	☐
VITAMINS/MINERALS			
Calcium (oral)	☐	☐	☐
Calcium gluconate 10%	☐	☐	☐
Ferrous sulfate (prevention)	☐	☐	☐
Potassium chloride	☐	☐	☐

Sodium Chloride	☐	☐	☐
Vitamin K	☐	☐	☐
Vitamin D	☐	☐	☐

Summary:
Drug availability

Criteria	0	1	2	3	Comments
Existence of an essential drug list in hospital					
Appropriateness of drugs on the list for the management of most common conditions					
Availability to essential drugs on the ward and in the emergency area and immediate accessibility					
Availability of drugs not expired					
Use of oldest drugs at first					

Main Strengths

Main Weaknesses

Additional Comments

Overall score for section

Summary score – Drug availability	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

1.3 Equipment and supplies

Source: This information should ideally be collected before the visit (see postal questionnaire), and be available for reference during the visit. If it has not been collected before, collect the information early during the visit from the delivery room and neonatal ward.

Is the following equipment available in delivery room for normal labour, caesarean section, neonatal ward (if delivery room for normal labour and caesarean section are in common, please specify in the note)? If a postal questionnaire was sent, cross check the information obtained in advance. Check the information during the visit. Ask the person in charge of the delivery room/ward for the items to be shown to you, and check that they are safe, hygienic and in good working order. Check that the size is adequate for use in neonates.

		Delivery room (normal labour)	**Delivery room (caesarean section)**	**Neonatal ward**	**Comments**
Adequate lighting		☐	☐	☐	
Refrigerator with thermometer		☐	☐	☐	
Wall thermometer		☐	☐	☐	
Wall clock		☐	☐	☐	
Heat source		☐	☐	☐	
Towels for drying newborn babies		☐	☐	☐	
Heating lamp for neonates		☐	☐	☐	
Oxygen source	oxygen cylinder	☐	☐	☐	
	oxygen concentrators	☐	☐	☐	
	central supply	☐	☐	☐	
Flow-meters for oxygen		☐	☐	☐	
Equipment for the administration of oxygen	nasal prongs	☐	☐	☐	
	catheters	☐	☐	☐	
	masks	☐	☐	☐	
Self inflating bags for respiratory support		☐	☐	☐	
Bags and Masks (adult size)		☐	☐	☐	
Incubators		☐	☐	☐	

Normal thermometer (body temperature)		☐	☐	☐	
Thermometer below 35°C		☐	☐	☐	
Phototherapy lamp		☐	☐	☐	
Sterilizer		☐	☐	☐	
Sterile gloves		☐	☐	☐	
If available, what kind	Re-sterilized	☐	☐	☐	
	Disposable	☐	☐	☐	
Sterile gauze		☐	☐	☐	
Foetal stethoscope		☐	☐	☐	
Sphygmomanometer		☐	☐	☐	
Infusion sets		☐	☐	☐	
Infusion pumps/dosimeters		☐	☐	☐	
IV catheters		☐	☐	☐	
Syringes		☐	☐	☐	
Needles		☐	☐	☐	
Suturing set (scissors, needles holder)		☐	☐	☐	
Suturing material					
- catgut		☐	☐	☐	
- synthetic absorbable		☐	☐	☐	
- non absorbable		☐	☐	☐	
Balance for baby		☐	☐	☐	
Cord cutting/cord clamping set		☐	☐	☐	
Vacuum extractor – Ventouse		☐	☐	☐	
Forceps		☐	☐	☐	
Beds:					
- functional		☐	☐	☐	
- regular		☐	☐	☐	
- delivery bed		☐	☐	☐	
Ultrasound machine		☐	☐	☐	

Neonatal equipment:				
- suction device	☐	☐	☐	
- face masks (two sizes)	☐	☐	☐	
- resuscitation bags	☐	☐	☐	
- breathing valves	☐	☐	☐	
- tracheal tubes	☐	☐	☐	
- laryngoscope with two blades	☐	☐	☐	
- oropharyngeal airways	☐	☐	☐	
- blood pressure-cuffs	☐	☐	☐	

List of equipment in Neonatal Intensive Care Unit

	N	**Y**	**If Yes, n.**	**Comments**
Incubators				
Radiant warmers				
Heated mattresses coats				
Phototherapy lamps				
Medical air centralized				
Oxygen centralized				
Air compressors				
CPAP systems				
Mechanical Ventilators				
HFOV Ventilator				
Multi-function monitors				
Saturimeter/ Pulse-oximeters				
Infusion pumps				
Eco-sonography				
Dedicated X-ray				

Glucometers				
Bilirubinometer				
Hemogasesanalyser				
Transport incubator without ventilation system				
Transport incubator with ventilation system				
Availability of lab investigation on mini blood sample				

Summary:
Equipment and supplies

Criteria	0	1	2	3	Comments
Immediate availability for use of essential equipment					
Safety and in working order of essential equipment					
Availability of essential supplies and appropriateness for use in adults					
Availability of essential supplies and appropriateness for use in neonates					

Main Strengths

Main Weaknesses

Additional Comments

Overall score for section

Summary score – Equipment and supplies	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

1.4 Laboratory support

Source: This information should ideally be collected before the visit (see postal questionnaire), and be available for reference during the visit. If it has not been collected before, collect the information early during the visit from the laboratory and chief laboratory technician.

Try to see as many essential laboratory investigations being carried out as possible. Are the following laboratory investigations and their results readily available? (e.g. blood glucose, Haemoglobin, Haematocrit (PCV) within ½ hour, other investigations 1-2 hours). If available, indicate average time to get results.

	Not available	**Available**	**Average time to get results**	**Comments**
Blood glucose	☐	☐		
Haemoglobin	☐	☐		
Haematocrit (PCV)	☐	☐		
Immature to total neutrophil ratio	☐	☐		
Full blood count	☐	☐		
Leukocytes count	☐	☐		
Blood gases analysis	☐	☐		
Blood grouping and crossmatch	☐	☐		
Blood Bilirubin	☐	☐		
Rhesus antibodies	☐	☐		
Urine protein	☐	☐		
Urine microscopy	☐	☐		
Bacteriology (culture)	☐	☐		
Bacterioscopy (smear)	☐	☐		
Coagulation tests	☐	☐		
Liver function tests	☐	☐		
Renal function tests	☐	☐		
Electrolytes	☐	☐		
HIV test	☐	☐		
Coombs' test direct and indirect	☐	☐		

Major blood groups and Rh typing; blood crossmatch	☐	☐		
Serum protein and albumin	☐	☐		
Urinalysis	☐	☐		
Serologic test for syphilis	☐	☐		

Are micro-sampling methods for glycaemia, bilirubinemia, Hb available for newborn babies? Y ☐ N ☐

Comments

_____

Essential test during pregnancy and for delivery and newborn care are free from charge? Y ☐ N ☐

Comments

_____

Tests are officially free but unofficial payments are requested? Y ☐ N ☐

Comments

_____

Summary:
Availability of laboratory tests

Criteria	0	1	2	3	Comments
Availability of essential laboratory tests					
Delivery timely of results					
Priority to tests for emergencies					
No obstacles to access to essential laboratory test because of financial barriers					

Main Strengths

Main Weaknesses

Additional Comments

Overall score for section

Summary score – Availability of laboratory support	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

1.5 Basic infrastructure of the health facility

Is electricity continuously available? Y ☐ N ☐

Comments

_____

_____

Is there a back-up power supply in the case of a power cut (i.e. diesel generator) Y ☐ N ☐

Comments

_____

_____

Is running water continuously available? Y ☐ N ☐

Comments

_____

_____

Is hot water continuously available? Y ☐ N ☐

Comments

_____

_____

Does the health facility have a separate outpatient department? Y ☐ N ☐

Comments

_____

_____

Is the obstetrical outpatient separate from the general outpatient department? Y ☐ N ☐

Comments

_____

_____

At what time does the obstetrical outpatient department open? hrs ____

At what time does the obstetrical outpatient department close? hrs ____

Does the health facility have a separate emergency department?	Y ☐	N ☐
Is it open 24 hours?	Y ☐	N ☐
If not, what hours is it open? (from-to)	_____ from	____ to
Does the health facility have a ward for admitting obstetrics patients?	Y ☐	N ☐
If yes, how many beds?	n.	____
Does the health facility have a separate ward or room for admitting newborn babies?	Y ☐	N ☐
If yes, how many beds?	n.	____
Does the health facility have neonatal care unit?	Y ☐	N ☐
Does the health facility have a neonatal intensive care unit?	Y ☐	N ☐
If yes, how many beds?	n.	____
Does the health facility have a theatre to perform CS?	Y ☐	N ☐
If yes, is the operating theatre available 24 hours?	Y ☐	N ☐
If not, what hours is it open (from-to)	_____ from	____ to
Does the health facility have a separate room or ward for admitting "infectious" cases (isolation ward)?	Y ☐	N ☐
If so, how many beds?	n.	____

Describe

_____

_____

Are the most seriously ill women cared for in a section (near the nursing station) where they receive closest attention?	Y ☐	N ☐

Describe

_____

_____

Main Strengths

_____

_____

_____

_____

Main Weaknesses

_____

_____

_____

_____

Additional Comments

_____

_____

_____

_____

Overall score for section

Summary score – Basic infrastructure of the health facility	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

2. Maternity ward/nursery and neonatal ward

2.1 Maternity ward

Source: Observation during the visit to the ward, and interviews with staff and persons accompanying the patients.

How many beds does the ward have?	n.	_____
Are the beds safe and well maintained?	Y ☐	N ☐
Are there mattresses?	Y ☐	N ☐
Do patients receive bed linen?	Y ☐	N ☐
Are the beds clean?	Y ☐	N ☐
Is there an emergency management area in or near to the ward?	Y ☐	N ☐
Is there a heat source on the ward?	Y ☐	N ☐
Are mosquito nets available for use of patients? (if relevant)	Y ☐	N ☐

Comments and observations:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Standards and criteria maternity ward

Criteria	0	1	2	3	Comments
2.1.2 Rooming in					
Newborn babies are roomed in with their mothers					
Mothers have access to a proper place for changing diapers of their babies					
2.1.3 Hygiene and accident prevention					
Staff has access to fully equipped hand washing facilities The ward is kept clean and dangerous items are inaccessible to patients					
Sharps are disposed of in a special container to prevent accidents					
2.1.4 Hygienic conditions					
There are sufficient and adequate toilets which are clean and easily accessible					
Mothers have access to running water, soap and to an appropriate space, near the ward, to wash themselves and their child					
Mothers have access to a washing facility, in order to wash theirs and their babies' clothes					
2.1.5 Attention for the most seriously ill women					
The most seriously ill women are cared for in a section where they receive closer attention					
This section is close to the nursing station so that women can be directly observed most of the time.					

Summary:
Maternity ward

Criteria	0	1	2	3	Comments
Rooming in					
Hygiene and accident prevention					
Hygiene conditions					
Attention for the most seriously ill women					

Main Strengths

Main Weaknesses

Additional Comments

Overall score for section

Summary score – maternity ward	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

2.2 Neonatal Ward

Nursery layout and staff

Source: This information should ideally be collected partly before the visit (see postal questionnaire), and be available for reference during the visit. If it has not been collected before, collect the information early during the visit from the doctor/nurse in charge.

Layout

How many cots/beds does the nursery have? Number of cots / beds: n. _____

Up to which age are newborn babies admitted to the nursery? Age in months _____

Are out-born infants admitted in the nursery?	Y ☐	N ☐
If so, are they admitted in a separate room?	Y ☐	N ☐
Is duration of newborn baby's care/treatment in nursery restricted/regulated?	Y ☐	N ☐

If so, were to they are transferred?

_____

Check the following:

Is there a sufficient number of toilets (1 for 5 to 6 beds)?	Y ☐	N ☐
Is the toilet clean?	Y ☐	N ☐
Are the beds safe and well maintained?	Y ☐	N ☐
Are there mattresses?	Y ☐	N ☐
Do patients receive bed linen?	Y ☐	N ☐
Are the beds clean?	Y ☐	N ☐
Is there an emergency management area in or near to the ward?	Y ☐	N ☐
Is there a heat source on the ward?	Y ☐	N ☐
Are mosquito nets available for use of patients?	Y ☐	N ☐

2.3 Staffing of delivery room and newborn nursery

Indicate the number of staff available	h. 08-14	h. 14-20	h. 20-08	
Doctors				doctors
Medical assistants or Residents				med. ass. or res.
Midwives				midwives
Nurses				nurses
Auxiliary staff				auxiliaries

Who is available during the weekend?

_____

If senior staff is not available all the time, how are they called?

_____

_____

2.4 Nursery facilities

Criteria	0	1	2	3	Comments
2.4.1 Separate room for sick newborn babies					
Sick newborn babies are kept separated from healthy babies					
Mothers of sick newborn babies are allowed to stay with their babies					
2.4.2 Hygienic services for mothers					
Toilets are adequate and easily available					
Mothers have access to running water and to an appropriate space, near the ward to wash themselves and their child					
2.4.3 Special attention for the most seriously ill newborn babies					
The most seriously ill infants are cared for in a section near the nursing station for direct observation					

Summary:
Nursery facility

Criteria	0	1	2	3	Comments
Separate room for sick newborn babies					
Hygienic services for mothers					
Special attention for the most seriously ill newborn babies					

Main Strengths

_____

_____

_____

_____

Main Weaknesses

_____

_____

_____

_____

Additional Comments

_____

_____

_____

Overall score for section

Summary score – Nursery facility	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

3. Care for normal labour and vaginal delivery

Source: Visit to the labour and delivery ward observation of practices, review of records and logbooks and interviews with staff and women.
Instructions: Give priority to direct observation, use interviews to staff and mothers to provide additional information.

Criteria	0	1	2	3	Comments
3.1 Conditions of the delivery					
Women's privacy is respected; a single room for labour and delivery or curtains/screens are available if there is more than one woman per room					
Bed is positioned far from door or window (not in front of them)					
Staff introduce themselves to the woman					
Consent is obtained from women for attendance of people other than staff if present (i.e. students)					
Staff wash their hands before assisting with delivery					
Staff use sterile gloves during delivery					
Staff use gloves while disposing waste					
Staff use sterile instruments					
There is an appropriate temperature in the delivery room (should not be below 25° C)					
There is access to a functioning shower					
3.2 Labour support					
Family members/persons are allowed to remain with women constantly during labour and birth					
There is at least one professional staff member present during labour and birth					
Women receive support during labour from health care workers:					
- staying present at women side as much as possible					
- explaining labour progress verbally					
- encouraging, praising and/or reassuring					
- encouraging and helping into comfortable position					
- encouraging and helping with walking					
- encouraging and helping into an upright position					
- helping labour support companion					
- offering actively oral fluids light food					
- encouraging voiding as needed					
- keeping clean and dry					

- offering warm/cool compress					
- assisting with shower					
- helping with relaxation techniques					
- explaining breathing techniques					
- offering massage					
3.3 Partogram					
Partogram is used					
Partogram is properly recorded and placed at the bedside					
Following data are properly measured and recorded:					
- patient information					
- foetal hearth rate					
- moulding					
- cervical dilatation					
- descent of head					
- time					
- uterine contractions					
- oxytocins, drugs, IV fluids					
- maternal blood pressure, temperature, pulse, urine					
The use of partogram supports labour management interventions					
Partogram's information is collected, recorded and interpreted by the midwife					
3.4 Care during first stage					
Digital vaginal examination is not performed unless in labour and/or unless induction is indicated					
Enema is not performed routinely					
Pubic shaving is not performed					
Vagina is not swabbed with antiseptics during labour					
Women are free to walk and choose position during labour					
3.5 Care during second stage					
Women are allowed to choose position other than lying on back during delivery					
Women are encouraged to choose position other than lying on her back during delivery					
Midwives physically helps women to find most comfortable position					
Foetal heart rate is controlled adequately (no less as every 5 min or every second contraction) during active second stage (period of active pushing)					

Women are not routinely forced to push during delivery					
Duration of the second stage is not limited unless there is foetal distress					
Pressure on the abdomen is not used to support the delivery of the baby					
Episiotomy is not routinely performed (only if foetal distress/operative delivery)					
Anaesthesia is given for episiotomy					
3.6 Third stage management					
Women are informed about risks and benefits of physiologic versus active management of third stage and are involved in decision for management					
Active management of third stage is performed unless women choice is different					
Active management of third stage is appropriately performed:					
- oxytocin 10 U i.m. or sintometrin given after expulsion of shoulders or within 1 min after birth of baby					
- controlled cord traction performed after cord clamping					
- fundus of uterus checked after placenta is delivered (massaged if necessary)					
3.7 Care of mothers after delivery					
Minor tears are not stitched if not bleeding					
Episiotomy/tears are repaired with local anesthesia					
Vagina is not swabbed with antiseptics after delivery					
Disinfectant is not put on the perineum after delivery					
Ice is not placed on the mothers' abdomen after delivery					
Bladder catheterisation is not routinely performed post-partum					
Cervix is not routinely checked after delivery					

3.8 Foetal monitoring during labour

(see reference 1)

Criteria	0	1	2	3	Comments
A form of assessment of foetal wellbeing is available in the hospital					
3.8.1 Intermittent auscultation					
Intermittent auscultation of foetal heart beat is performed in low risk pregnancy					
Guidelines for intermittent auscultation are in place stating in which way the auscultation should be performed					
Foetal heart rate is checked for 60 sec after contraction: - at least every 30 minutes in the first stage of labour - at least every 5 minutes or after evry contraction during active second stage (active pushing)					
Midwives performing intermittent auscultation are skilled enough to recognize the foetal heart beat pattern and the maternal uterine activity					
Maternal pulse is checked when performing intermittent auscultation					
3.8.2 Continuous CTG					
Guidelines for performing and interpreting CTG are in place in the Unit, known and used by the staff					
Continuous CTG is used only in pregnancy at risk according to local protocol					
Continuous CTG is started if FHR >160 bpm or <110 bpm; if presence of any deceleration; if risk factors become apparent (i.e. meconium, oxytocin infusion started...)					
The staff dealing with CTG correctly identifies the CTG features and is able to categorize the CTG tracings as reassuring, non reassuring or abnormal on the basis of these features and using specific guidelines for interpretation					
When called to review a CTG, members of the staff register their analysis by describing the CTG features and the overall CTG pattern					
In presence of a non reassuring/abnormal CTG a specific plan of reaction is started					
Ancillary tests for evaluation of foetal wellbeing are available and used in case of non reassuring/abnormal CTG (Foetal blood					

sampling, ST analysis of foetal ECG, scalp/vibroacoustic stimulation...)					
If the abnormal CTG suggests the need of expedite delivery, an emergency CS/operative vaginal delivery is performed in 30’					
CTG machines are in good conditions and correctly working					
Day and time are correctly set in the CTG machine					
There is a standard setting of the machines for speed of paper, sensitivity and range of FHR					
Name of the woman, day and time are registered on the paper					
If medical staff is called to review the CTG, the evaluation is written in the notes or on the trace					
Mode of delivery, date and time are registered on the trace					
CTG trace is stored with the notes after delivery					
Any intra-partum event, that can influence foetal heart beat, is registered in the notes					
Women don’t lie on their back when undergoing CTG					
CTG tracings are of good quality					
Uterine activity is always registered together with the FHR during continuous CTG					

3.9 Neonatal equipment availability

Device for suction	Y □	N □
Face masks (two sizes)	Y □	N □
Resuscitation bags	Y □	N □
Breathing valves	Y □	N □
Tracheal tubes Oropharyngeal airways	Y □	N □
Laryngoscope with blades	Y □	N □

Summary:
Care for normal labour and vaginal delivery

Criteria	0	1	2	3	Comments
Conditions of the delivery					
Labour support					
Partogram					
Care during first stage					
Care during second stage					
Third stage management					
Care of mother after delivery					
Foetal monitoring during labour					
Neonatal equipment availability					

Main Strengths

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Main Weaknesses

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Additional Comments

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Overall score for section

Summary score – Normal Labour	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

4. Caesarean section and postoperative care

4.1 Caesarean section

(see references 3 and 7)

Source: This information should be collected by observing the treatment and care of women undergoing surgical treatment, interviewing staff and carers and reviewing guidelines, where available.
Instructions: Give priority to direct observation, use interviews to staff and mothers to provide additional information

Criteria	0	1	2	3	Comments
4.1.1 Emergency Caesarean Section (CS)					
Anaesthesiologist is immediately available for emergency CS					
Surgeon is immediately available for emergency CS					
Operating theatre staff is immediately available for emergency caesarean section					
Emergency CS can be performed in:					
- less than 15 minutes					
- less than 30 minutes					
Theatre is always ready to perform emergency CS (equipment for surgery, electricity...)					
A protocol for emergency CS stating, what the staff should do, is available					
Laboratory is immediately available and blood test results readily available					
Blood is readily available if blood transfusion needed					
0 negative blood is always present in the facility					
4.1.2 Indications for CS and policies to reduce the inappropriate CS incidence					
CS on maternal request is not allowed unless in very specific circumstances (e.g. previous stillbirth)					
When there is a maternal request for CS, risks and benefits of vaginal delivery versus CS are discussed with patient and discussion is documented in the notes					
Women requiring CS with no indication are referred for a second opinion after discussion					
Psychological counselling is offered to women worried about labour/vaginal delivery					

The decision about mode of birth after a previous CS is take after considering: - maternal preferences and priorities - a general discussion of the overall risks and benefits of CS - risk of uterine rupture - risk of perinatal mortality and morbidity					
All women with breech presentation are offered the option of an external cephalic version					
External cephalic version is attempted at ≥ 36 weeks					
CS is planned if failed ECV in breech presentation					
Elective CS is performed in uncomplicated twin pregnancies only if first twin is not vertex lie					
CS is not routinely offered in preterm pregnancies					
CS is not routinely offered in pregnancies complicated by SGA babies					
CS is indicated for placenta previa only if grade 3-4					
CS is not routinely offered for maternal viral infections other than HIV or primary HSV infection in the 3rd trimester (e.g. HCV positive women, HBV positive women, recurrent HSV infection in 3rd trimester)					
Partogram with a 4 hours action line is used in the management of uncomplicated labour					
Active management of labour and early amniotomy are not routinely used					
Ancillary tests for abnormal CTG tracing are available and used to reduce the incidence of CS for foetal distress (foetal blood sampling, ST analysis of foetal ECG...)					
Continuous support during labour is offered to all women					
A consultant is always involved in the decision to perform a CS					
4.1.3 Timing of CS and informed consent					
Elective CSs are performed after 39 weeks of pregnancy					
Informed consent is obtained from women undergoing CS					
4.1.4 Procedures related to CS					
Regional anaesthesia is offered as a first choice to all women undergoing CS					

Antibiotic prophylaxis is appropriately done after cord clamping or before surgery					
A policy for prophylaxis of deep vein thrombosis is in place after CS					
Full blood count is performed in all women undergoing CS					
Cross match and clotting are not routinely requested before CS					
High risk CS (antepartum haemorrhage, uterine rupture, placenta previa) are always performed in a Unit with transfusion available on site					
An indwelling urinary catheter is placed if CS performed under epidural/spinal					
Pre-load with fluids (crystalloids, colloids) is done before epidural/spinal					
A drill for failed intubation is available					
The operating table is tilted 15° before delivery of the baby					
Blood loss is monitored					
4.1.5 CS technique					
A transverse abdominal incision (Joel-Cohen) is routinely performed					
Abdomen is opened bluntly when possible					
Separate knives are used for skin and uterus					
The uterine incision is extended bluntly					
5 units of oxytocin are given at delivery of placenta					
Controlled cord traction (not manual removal) is used to deliver the placenta					
Uterus is not routinely exteriorized for suturing					
Two layer suture is routinely used for repairing the incision of the uterus					
Visceral and parietal peritonaeum are not sutured					
Subcutaneous tissue is sutured only if > 2 cm thick					
No superficial wound drains are routinely used					
4.1.6 Care of the neonate after CS					
Neonatologist is present at birth in case of CS under general anaesthesia/suspected foetal distress					
Early skin to skin contact between the mother and her baby is promoted					
Breastfeeding is started as soon as possible					

Criteria	0	1	2	3	Comments
4.1.7 Immediate post-caesarean care					
There are specific notes from the surgeon on the procedure performed, required monitoring and necessary treatment. There is a handover for the nurses from theatre staff					
Oxygen, suction and resuscitation equipment are readily available and functioning					
After recovery from anesthesia, observations (respiratory rate, heart rate, blood pressure, pain and sedation) are continued every half hour for 2 hours, and hourly thereafter provided that the observations are stable or satisfactory. If these observations are not stable, more frequent observations and medical review are done					
Nursing staff have adequate guidelines on post-operative pain relief					
Women are offered diamorphine (0.3–0.4 mg intrathecally) for intra- and postoperative analgesia. Epidural diamorphine (2.5–5 mg) is a suitable alternative					
If there is no contraindication, non-steroidal anti-inflammatory drugs are offered post-CS as an adjunct to other analgesics					
Women, who are recovering well after CS and do not have complications, can eat and drink when they feel hungry or thirsty					
Removal of the urinary bladder catheter is carried out once women are mobile after a regional anesthetic and not sooner than 12 hours after the last 'top up' dose					
4.1.8 Care after the first 24 hours and discharge after CS					
Women, who have had a CS, are offered the opportunity to discuss with their healthcare providers the reasons for the CS and implications for the child or future pregnancies					
Women, who are recovering well, do not have fever or complications following CS are offered early discharge (within 3 to 5 days) from hospital and follow-up at home					

Women, who have a CS, are prescribed and encouraged to take regular analgesia for postoperative pain, using: - for severe pain, combination of codeine phosphate and paracetamol (acetaminophen) called with a non-proprietary name **Co-codamol** (Brand names **TYLENOL, SOLPADOL PANADEINE TACHIDOL**) with added ibuprofen - for moderate pain, Co-codamol - for mild pain, paracetamol					
Dressing is removed 24 hours after the CS					
Temperature is monitored to exclude fever					
Wound is assessed for signs of infection, separation or dehiscence					
Women are encouraged to wear comfortable clothes and gently clean and dry wound daily					
Removal of sutures/clips is planned at discharge if needed					
Women who have had a CS are informed that they can resume activities such as driving a vehicle, carrying heavy items, formal exercise and sexual intercourse once they have fully recovered from the CS (including any physical restrictions or distracting effect due to pain)					
At the time of discharge from the hospital, women are informed to seek care for abnormal symptoms such as fever, abnormal uterine bleeding, urinary symptoms, chest and leg symptoms of DVT					

4.2 Neonatal equipment availability

Device for suction	Y □	N □
Face masks (two sizes)	Y □	N □
Resuscitation bags	Y □	N □
Breathing valves	Y □	N □
Tracheal tubes oropharyngeal airways	Y □	N □
Laryngoscope with blades	Y □	N □

Summary:
Caesarean section

Criteria	0	1	2	3	Comments
Emergency caesarean section					
Indications for CS and policies to reduce the inappropriate CS incidence					
Timing of CS and informed consent					
Procedures related to CS					
CS technique					
Care of the neonate after CS					
Immediate post-caesarean care					
Care after the first 24 hours and discharge after CS					
Neonatal equipment availability					

Main Strengths

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Main Weaknesses

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Additional Comments

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Overall score for section

Summary score – Caesarean section	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

5. Case management of maternal complications

Source: Visit to the wards observation of practices, review of records and logbooks and interviews with staff and women.

Instructions: Give priority to direct observation, use interviews to staff and mothers to provide additional information

5.1 Postpartum Haemorrhage (PPH)

Criteria	0	1	2	3	Comments
A local protocol for preventing and managing PPH is available					
Adequate equipment, drugs and personnel are readily available in case of PPH					
Early recognition and initiation of measures to reduce bleeding					
Active management of the 3rd stage of labour is always offered					
Active management of 3rd stage is appropriately performed: - abdomen palpated to rule out the presence of another baby within 1 min. of birth - oxytocin 10 U im is given within 1 min after birth (if not available use: ergometrine 0.2 mg im; syntometrine 1 ampoule im; misoprostol 400-600 microgr .orally) - controlled cord traction is performed - cord is never pulled without pushing the uterus up with the other hand - fundus of the uterus is checked after placenta (massaged if necessary)					
5.1.1 Early Recognition					
Uterine tonus is controlled after delivery (every 15 min in the first hour; at the end of the 2nd, 3rd, 4rt hour, then every 4 hours) and uterus massaged if necessary					
In the delivery room and during early puerperium there are special pads or bags to measure the blood loss					
5.1.2 Initial assessment and treatment					
A written procedure is in place to alert the senior obstetrician senior/ midwife/ anaesthesiologist on call					
The blood bank is 24 hours available and blood can be obtained without delay					

A written protocol is readily available for initial assessment and treatment. Key elements should include: a) insertion of one or two large bore (16 Gauge) IV line					
b) blood sent for FBC, coagulation, ABO and cross-match; c) infusion started immediately d) oxygen administration by mask e) blood pressure, pulse and urine output checked f) uterus explored (check for atony, retained placental fragments, rupture) and lower genital tract checked for trauma					
5.1.3 Initial Resuscitation					
A written protocol is readily available for initial resuscitation including: a) cristalloid's bolus is given: 1 L in 15 min. (3 mls/1 ml of blood loss) b) if signs of shock: head is tilted down, airways cleaned, oxygen given by mask 6-8 l/min					
5.1.4 Treatment of uterine atony					
A written protocol is readily available for treatment of uterine atony including: a) uterine massage is correctly performed b) oxytocin given at the right dose (according to local protocol) c) no more than 3 Liters of fluids are administered with oxytocin d) if atony is refractory to oxytocin, ergometrine is administered at the appropriate dosage and repeated after 5 min. if not effective (maximum 5 doses: total 1 mg) e) ergometrine is appropriately stored (less than 8°C) f) ergometrine is not given to women with hypertension, heart disease and peripheral vascular disease g) if first line agents are ineffective, prostaglandins are given at the appropriate dosage (Carboprost 0.25 mg im or intramiometrium every 15 min up to a maximum of 2 mg; misoprostol 800-1000 microgr pr/pv/po) h) carboprost is not given in case of cardiac/pulmonary disease i) carboprost is stored at T less than 4°C					

5.1.5 Refractory haemorrhages after medical treatment					
A written protocol is readily available for refractory haemorrhages after medical treatment including: a) anesthesiologist and blood bank alerted b) call for help: senior staff should come for surgery c) one midwife monitors and records the findings d) one person is responsible for delivery and preparation of blood e) a physician is responsible of blood transfusion f) bimanual compression of the uterus and compression of the aorta are done g) operating theatre and skilled staff (anaesthesiologist/senior obstetrician) are 24 hours available to perform a postpartum hysterectomy or other surgical interventions h) hysterectomy is used as the last surgical resort, subtotal hysterectomy is preferred if feasible i) embolization of the uterine arteries can be offered and rapidly performed j) normal saline/balanced solution is the preferred option for replacement of blood loss, colloids, dextrose are not used k) the principle of fluids replacement are known (infuse cristalloids in a volume at least 3 times the volume lost) l) blood transfusion is usually performed if Hb <7 and continued blood loss or clinical signs of severe anemia/hypoxia (tachycardia/dispnoea reduced pO2 sat) m) if blood loss is >1000 and is continuing, red cells for transfusion need to be readily available n) transfusions are kept to a minimum and prescribed only when benefits outweigh the risks o) informed consent is obtained for transfusion p) fresh frozen plasma (800-1000 ml) is given if APTT and PT exceed 1.5 times the control level in the presence of continuous bleeding or in case of massive bleeding even before clotting results are available (Lee-White probe >7 min)					

5.2 Hypertension in pregnancy, eclampsia

Criteria	0	1	2	3	Comments
5.2.1 Prevention of pre-eclampsia					
Bed rest and hospitalization are not currently recommended for women with isolated gestational hypertension					
Diuretics are not administered to prevent/treat pre-eclampsia					
Restriction of salt/fluid intake is not recommended					
Increasing/decreasing of protein and/or energy intake is not recommended					
Iron, folate, magnesium, zinc or fish oil supplementation is not prescribed for prevention of pre-eclampsia					
5.2.2 Assessment of pre-eclampsia					
Blood pressure is taken in all pregnant women seen in the antenatal clinic					
Urine are always checked for protein in women assessed in the antenatal clinic					
Dipstick urine (checking for protein) is immediately performed in women coming to hospital with hypertension					
24h proteinuria is assessed in women with a diagnosis of hypertension					
When proteinuria develops women are admitted to the hospital for further assessment/monitoring					
Pre-eclampsia and severe pre-eclampsia are correctly diagnosed (see criteria below*)					
5.2.3 Management of severe pre-eclampsia					
Blood pressure is checked as appropriate (every 15 minutes until woman stabilized; every 30 minutes in the initial phase of assessment; every 4 hours when woman is stable and asymptomatic)					
Blood is checked for full blood count, liver and renal function at least daily if normal results and more often if conditions are changing or tests abnormal					
Clotting studies are done only if platelet count less than $100x10^6$/L					
Fluid balance (input and output) checked					
Catheter with urometer used in acute					

situations					
Foetus assessed with CTG in the acute setting					
Continuous CTG monitoring is performed in labour					
Ultrasound performed to check foetal size/growth, umbilical artery Doppler and amniotic fluid if conservative management is planned					
5.2.4 Antihypertensive treatment					
Antihypertensive treatment is always started when systolic BP>160 and/or diastolic BP >110 or if heavy proteinuria, abnormal liver test or poor haematological test are present even if lower degree of hypertension					
Antihypertensive treatment not routinely started if BP< 160/100					
Appropriate treatment at the appropriate dosage is given (alpha metildopa oral; labetalol oral or IV, oral or IV nifedipine or IV hydralazine; sodium nitroprusside or isosorbide dinitrate (ISOKET) in countries where labetalol and hydralazine not available) may be considered [6]					
Magnesium sulphate is given to prevent eclampsia in women with severe pre-eclampsia					
Appropriate therapeutic and prophylactic schemes are used for MgSO4 administration					
Prophylaxis with Magnesium sulphate is started when delivery is imminent and continued at least for 24 hours after delivery or after the last seizure					
If magnesium sulphate is used, regular assessment of urine output, maternal reflexes, respiratory rate and oxygen saturation is done					
Calcium gluconate 10% is readily available to reverse the effect of MgSO4					
There is a well defined written protocol for management of eclampsia					
A kit is ready for eclampsia and staff skilled enough to manage the emergency are readily available					
Fluid restriction regimen (80 ml/h IV) maintained in the intra and postpartum period (unless there is haemorrhage)					

[6] Evidence is particularly scanty on the use of these drugs.

Volume expansion and colloids are not routinely used					
Delivery done when the woman is stabilised					
women with pre-eclampsia are delivered at term/near term and before 34 weeks if severe pre-eclampsia					
CS not routinely performed in women with pre-eclampsia (spontaneous labour versus induction of labour always considered after 34 weeks)					
Women carefully monitored after delivery and antihypertensive treatment continued as dictated by blood pressure; close monitoring after delivery for women with severe pre-eclampsia/eclampsia					
Alpha metildopa is not given after delivery					
Stepwise reduction of antihypertensive therapy after delivery is done					
Clinicians are aware of risk of developing eclampsia post-partum					
Women with severe pre-eclampsia/eclampsia are kept in the hospital for at least 4 days postpartum					
Follow-up planned at 6 weeks for women with pre-eclampsia and further investigation implemented if persistent hypertension or proteinuria					
5.2.5 In case of eclamptic fit					
Women are not left alone					
Immediate call of senior obstetrician and anaesthesiologist is done					
Women are placed in left lateral position and oxygen given; IV access					
Breathing, airways, circulation are assessed					
Magnesium sulphate is given at appropriate dosage to prevent recurrent fits					
BP is checked and severe hypertension is treated if present					
Blood is checked for full blood count, liver function, urea and electrolytes					
Catheter with urometer is placed					
CTG is performed					
Women are delivered when stable					
Intubation is performed if recurrent convulsions and women are transferred in ICU where intermitted positive pressure ventilation is started					

***Preeclampsia**

Hypertension
diastolic blood pressure ≥ 90 mmHg on two occasions or systolic blood pressure ≥ 140 mmHg on two occasions

Severe hypertension
diastolic blood pressure ≥ 110 mmHg on two occasions or systolic blood pressure ≥ 160 mmHg on two occasions

Preeclampsia
Hypertension associated with proteinuria (> 0.3 g in 24 hours) ± oedema. Virtually any organ system can be affected

Severe preeclampsia
Severe hypertension plus proteinuria, OR
Any hypertension plus proteinuria, plus one of following symptoms:
Severe headache
- Visual disturbance
- Epigastric pain and/or vomiting
- Signs of clonus
- Papilloedema
- Liver tenderness
- Platelet count falling to below 100 x 106/l
- Abnormal liver enzymes (ALT or AST rising to above 70 iu/l)
- HELLP syndrome

5.3 Poor Progress in Labour

Criteria	0	1	2	3	Comments
5.3.1 Diagnosis					
Onset of labour is correctly diagnosed (presence of regular uterine contractions leading to effacement and dilatation of the cervix)					
Prolonged latent phase is correctly defined (cervix dilated less than 3-4 cm after 8 hours of regular uterine contractions) and managed, after excluding the diagnosis of false labour					
Vaginal examination is performed every 4-8 hours during latent phase and at least every 4 hours during active phase					
Partogram is used to guide management					
Unsatisfactory progress of labour is correctly defined					
False labour is correctly diagnosed (cervix not dilated with infrequent contractions and no cervical changes in 4 hours) and women					

are discharged after excluding urinary infection/rupture of membranes					
5.3.2 Prolonged active phase					
Prolonged active phase is correctly diagnosed (cervical dilatation to the right of the action line)					
Uterine contractions are assessed and if efficient cephalopelvic disproportion, obstruction, malposition or malpresentation are suspected					
If there aren't signs of cephalo-pelvic disproportion /obstructions and membranes intact artificial rupture of membranes/amniotomy (ARM) is performed					
If there is secondary arrest of cervical dilatation and descent of presenting part in presence of good contractions, cephalo-pelvic disproportion is diagnosed and caesarean section performed					
Signs of obstructed labour are known and evaluated and correctly managed					
If there is a prolonged active phase, contractions are inefficient and cephalo-pelvic disproportion /obstructed labour excluded: - ARM is performed - oxytocin infusion started after 1 hour from ARM if good labour not established progress reassessed after 2 hours of good uterine contractions - CS performed if no progress - cervix reassessed after 2 hours if there is progress					
Routine early amniotomy is not performed to prevent poor progress in labour					
Supine position in labour is not encouraged; woman is encouraged to walk around and a birth companion is present in labour					
Amniotomy is safely and correctly performed: - sterile gloves and instruments used - foetal heart rate checked before and after the procedure - amniotic fluid colour observed					
5.3.4 Oxytocin augmentation					
Oxytocin is used only IV					

When oxytocin is used: - continuous EFM is started (or heart rate checked every 15-30 min and after every contractions) - women's blood pressure, pulse and uterine contractions started					
Oxytocin infusion is stopped if foetal heart beat less than 100/min					
Oxytocin administered at the right dose and infusion rate (according to local protocol); Delivered through an infusion pump or via a syringe driver with a non-return valve; maximum dose does not exceed 32 mU/min minimum effective dose is used (reaching 3-4 contractions in 10 min lasting at least 40 sec) infusion rate doubled every 30 min					
Amniotomy is performed when feasible before starting infusion					
Oxytocin is not given less than 6 hours after starting prostaglandins					
Prostaglandins are not used i/v for induction or augmentation					
Progress re-assessed after 2 hours of good uterine contractions At least 1cm/hour in cervical dilatation or foetal head descent are considered as normal progress					
Caesarean section performed if : - good contractions are not established at a maximum dose (32 mU/min) - progress less than 0.5 cm/h - no descent of foetal head					
If more than 4-5 contractions in 10 min are present, without foetal heart rate abnormalities oxytocin infusion rate is reduced If more than 4-5 contractions in 10 min are present with foetal heart rate abnormalities Oxytocin is stopped and terbutaline/salbutamol are given Woman placed on her left side					

5.4 Management of Infections

Criteria	0	1	2	3	Comments
5.4.1 Identification and management of urinary tract infections					
Screening at 12-16 weeks for low urinary tract infection with urine culture is performed in all antenatal patients and urine culture performed in all symptomatic women					
Infections of the low urinary tract are correctly treated (i.e. 5-7 days course of appropriate antibiotics; ampicillin/ cephalosporin/nitrofurantoin can be used; (no need of hospitalisation)					
Pyelonefritis is correctly treated (hospitalisation and IV antibiotics; discharge after 1-2 days of flank pain subsiding)					
Women with urinary tract infections are not isolated during pregnancy/delivery					
5.4.2 Screening and adequate treatment for Syphilis in all women					
Wasserman's test is performed in all women at first antenatal visit and if possible in the third trimester					
Women with syphilis are not hospitalised and isolated during pregnancy/delivery					
Penicillin (erythromycin if woman is allergic) is given at the appropriate dose					
Women with syphilis are screened and treated also for the other STDs					
5.4.3 Correct management of the newborn baby born from a mother positive for syphilis					
Newborn babies are tested (serum blood) with VDRL or rapid plasma reagin test and assessed for clinical signs of syphilis					
If the mother was not treated, inadequately treated or treatment status is unknown and baby has not signs of syphilis, baby is treated with procaine benzylpenicillin (or benzathine benzylpenicillin) IM at the appropriate dose and followed up in 4 weeks to check growth and signs of congenital syphilis					
If women are treated more than 30 days before delivery no treatment is given to the baby					

If women are treated less than 30 days before delivery the baby is given a single dose of benzylpenicillin IM (or benzathine, benzylpenicillin)					
Breastfeeding and rooming in are allowed for all babies					
5.4.5 Correct diagnosis and treatment of gonorrhoea in women and correct diagnosis and treatment of congenital gonorrhoea in newborn baby					
If there is a high prevalence of gonorrhoea in the population, screening is performed					
Culture of the cervical secretion is used to make the diagnosis					
Appropriate treatment is given to women and the partner is tested and treated					
Women are not admitted to the hospital/not isolated and the eradication of the infection is checked with a follow-up swab and culture after treatment					
Baby is allowed to breastfeed and to room-in with the mother if she has been treated					
Neonatal conjunctivitis is correctly diagnosed and promptly treated					
Prophylaxis for neonatal conjunctivitis (gonorrhoeal or chlamydial) is correctly performed in all the neonates within 1 hour of delivery					
Chlamydial conjunctivitis in the neonate is correctly diagnosed and treated (according to WHO guidelines) and babies allowed to breastfeed and room-in with the mother					
GBS infection in the newborn baby is prevented according to national guidelines/local policy					
Adequate antibiotics at the right dose and with a correct scheme of administration are given intrapartum if GBS colonisation suspected in the mother or there are risk factors for early neonatal sepsis					
Appropriate antibiotics prophylaxis is given to all women with prolonged PROM, preterm PROM, preterm labour, fever $\geq$38°C					
Newborn babies born to a mother with GBS infection are correctly managed, breastfeeding and rooming in are allowed					
General recommendation are given to pregnant women for prevention of Lysteriosis and toxoplasmosis					
Screening for TB in pregnancy is performed in high risk population					

If screening is positive but chest X ray is normal and/or no clinical evidence of TB/ sputum negative, breastfeeding and rooming in are allowed					
If mother shows signs of active TB, separation from newborn babies is instituted until both receive appropriate treatment and no bacilli are found in the maternal sputum					
Tuberculosis vaccine at birth (BCG) is given to all newborn babies unless the mother has active TB treated for less than 2 months before birth (in this case vaccine is given when treatment of the newborn baby is completed since 2 weeks)					
Screening for Hepatitis B is performed in all pregnant women and babies receive appropriate immunoglobulin treatment and vaccination at birth if the mother is positive					
Hep B positive mothers are not isolated and babies allowed to breastfeed and room-in					
All newborn babies receive Hepatitis B vaccination at birth					
Women with genital herpes are not isolated and hospitalised					
Caesarean section is performed if first episode of genital herpes develops at the time of delivery and considered if first episode of genital herpes in the 6 weeks before delivery; caesarean section is performed when recurrent genital herpes with active genital lesions or prodromal symptoms are present at birth					
Newborn babies are isolated from the other babies; breastfeeding and rooming-in are not contraindicated					
Termination of pregnancy is offered to women diagnosed with Rubella in the first 16 weeks of pregnancy					
Vaccination for Rubella is offered to all seronegative women after childbirth, miscarriage, TOP, when probability for another pregnancy in the next 30 days is low					
Women with CMV, toxoplasmosis, malaria, trichomoniasis, candidiasis do not need to be hospitalised (unless severe malaria) and isolated from the other women					
Women with rubella do not need hospitalisation and if hospitalised need to be isolated from other women					

Neonates born from mothers with CMV, Rubella need to be isolated from the other newborn babies; rooming-in is allowed; breastfeeding is allowed Breastfeeding is not allowed for preterm babies born from CMV positive mothers					
Care of newborn babies born to a mother with Rubella should be provided by the mother and/or by staff known to be immune					
Newborn babies born to a mother with toxoplasmosis, malaria, trichomoniasis, candidiasis are allowed to breast-feed and room-in					

5.5 Preterm labour

Criteria	0	1	2	3	Comments
5.5.1 Prevention of PTD in women at risk					
Bed rest and hospitalization are not currently recommended for women at risk of PTD					
Sexual activity is not prohibited in women at risk					
Prophylactic oral betamimetics/magnesium sulphate/calcium supplementation are not given in women at risk					
5.5.2 Administration of appropriate antibiotics					
Prophylactic antibiotics (erythromycin) are given to women with PPROM up to 34 weeks if not in labour					
Prophylactic antibiotics (penicillin or ampicillin) given to all women in established preterm labour for prevention of GBS neonatal infection					
Antibiotics are not given to women with threatened preterm delivery unless in established labour					
Correct indications/timing/dose/type of antibiotics are administered in labour for prevention of GBS neonatal infection					

5.5.3 Tocolysis					
Appropriate tocolytic drugs are used at correct doses: - Atosiban - Nifedipine as first choice - Betamimetics only if no contraindications - Magnesium sulphate not used					
Tocolytics are used only in the first 48 hours to allow corticosteroids administration/ transfer of the patient					
Tocolytics are not given before 24 and after 34 weeks					
Tocolytics are given only in combination with corticosteroids and/or for transfer of patient to relevant facility					
Repeated treatment with tocolytics are not given after first successful treatment					
Oral betamimetics/magesium for maintenance therapy are not used					
5.5.4 Antenatal Corticosteroids					
Given to all women with a diagnosis of preterm labour/PPROM between 24-34 weeks, unless delivery is imminent					
Corticosteroids are used appropriately: - given i.m. at the appropriate dosage - not routinely administered before 24 and after 34 weeks					
Repeated courses not routinely are given					
5.5.5 Delivery and immediate postnatal care					
Antibiotic prophylaxis for GBS is given to all women in preterm labour					
Vaginal delivery is allowed in case of very low birth weight foetus					
Episiotomy is not routinely performed					
Neonatologist is present at delivery					
Delayed cord clamping is preferred					
Hypothermia is avoided: - temperature in delivery/operation room no less than 28 °C - careful drying with warm towels, remove wet towels - baby immediately on mother's chest - breathing and heart beat assessed while on mother's chest - baby's head and feet covered with a cap and socks - baby and mother covered with a warm blanket - temperature of newborn is measured					

Early breastfeeding/feeding within 1 hour is supported					

Summary:
Case management of maternal complications

Criteria	0	1	2	3	Comments
Postpartum Harmorrhage					
Hypertension in pregnancy/eclampsia					
Poor progress in labour					
Management of infections					
Preterm labour					

Main Strengths

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_____

Main Weaknesses

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_____

Additional Comments

_____

_____

_____

Overall score for section

Summary score – Maternal complications	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

6. Routine neonatal care

(see reference 2)

Source: Please collect the information by observing the treatment and care of babies with the relevant condition and interviewing staff and carers.

Criteria	0	1	2	3	Comments
6.1 Newborn assessment and immediate care					
The newborn baby is assessed immediately (within 30 sec.) after birth					
Routine neonatal suctioning is not done					
Routine catheterization of esophagus is not done					
Umbilical cord is clamped after pulsation stops					
Stump of umbilical cord is left without dressing					
The birth attendant's hands are clean					
Sterile instruments are used					
The newborn baby is kept in a warm room, with no draughts					
A clean and warm surface is provided for resuscitation					
The newborn baby is immediately dried after delivery					
Mother and baby are covered together					
Warm cap is put on the baby's head					
Warm transport of the baby ensured if needed					
Bathing or washing are postponed to a few hours after birth					
Temperature is monitored (at 30 min and 2 hours)					
6.2 Neonatal resuscitation					
Written guidelines for resuscitation and care of the newborn baby are available and implemented					
There is a resuscitation bed with a heating source and equipment ready to use					
A functioning self-inflating bag with functioning relief valve is available					
Premature size masks are available					
If a newborn baby is not breathing, ventilation by self-inflating bag is initiated according to WHO guidelines					

There is a written procedure to call a senior health professional for resuscitation, if required					
6.3 Early and exclusive breastfeeding					
The newborn baby is put on the abdomen or to breast for skin contact immediately after birth if no need for resuscitation					
Initiation of breastfeeding is encouraged within the first hour					
Mothers are assisted in correct attachment and positioning					
Staff know signs of correct position of mother and baby when breastfeeding					
Initiation of breastfeeding is allowed in quiet atmosphere					
There is no promotion of infant formula on the ward and samples are not distributed to mothers or staff					
There are no restrictions on the frequency or length of breastfeeding					
At discharge, exclusive breastfeeding is recommended until the age of 6 months and complementary breastfeeding until 24 months					
Expressed breast-milk is given with cup or NG-tube when the child is unable to feed or if the mother cannot stay with the child all the time					
Infant formula, glucose supplementation, water supplementation are not used unless upon written medical instruction					
Exception on exclusive breastfeeding is based on evidence					
Artificial teats/pacifiers are not used					
6.4 Routine prophylaxis					
Eye prophylaxis (at the end of first hour) is provided					
Vitamin K is given i.m.					
Immunizations are administered according to the local policy					
6.5 Postpartum care and routine prophylaxis					
Rooming-in 24 hours/day is available (also after Cesarean Section)					
Mothers are encouraged to provide care to health newborn babies with assistance from staff when appropriate					
Early discharge (within to 3 days) is applied after normal delivery					

Tight swaddling is avoided					
Mothers' Rh status and serum anti-D usually is known before delivery (before 28 wks)					
If mothers' Rh status is not known before, it is checked (together with serum anti D and newborn baby's Rh status) after delivery					
Thee newborn baby's Rh status is checked after delivery if mother is Rh negative					
Appropriate anti-D prophylaxis is given to mothers within 72 hours after delivery when needed					
6.6 Monitoring of the babies conditions					
Thermometers are available in the unit					
Written temperature is record; at arrival in the ward, than one per day in term normal weight babies; twice for preterm or Low Birth Weight infants					
Breathing rate is assessed in the first day of life (written notes)					
There are written notes on breastfeeding and the frequency					
There are written note on absence or presence of jaundice					
6.7 Information and counselling for mothers					
There are guidelines to teach mothers on how to care the baby at home					
It is shown to the mothers how to bath the baby, how to take care of the umbilical stump, of their breast					
Every baby is recorded in the delivery room register					
Gestational age, weight, length and head circumference at birth and weight at discharge are recorded in the information provided to mothers					

Summary:
Routine neonatal care

Criteria	0	1	2	3	Comments
Newborn assessment and immediate care					
Neonatal resuscitation					
Early and exclusive breastfeeding					
Routine prophylaxis					
Postpartum care and routine prophylaxis					
Monitoring of the babies conditions					
Information and Counselling for mothers					

Main Strengths

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Main Weaknesses

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_____

Additional Comments

_____

_____

Overall score for section

Summary score – Routine neonatal care	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

7. Case management and sick newborn care

(see reference 2)

Note 1: Sick newborn babies might be admitted in different areas, the maternity ward or the infant ward. Information should be primarily collected through direct observation.

Note 2 This section is appropriate for units/maternities providing care for sick lbw babies but not for intensive care unit which is addressed in the following section 8. Advanced newborn care (for intensive care units). Referral centres may have to distinct areas one for low intensity care for sick or moderately preterm babies and for intensive care. If this is the case both section 7/8 should be filled in

Criteria	0	1	2	3	Comments
7.1 Adequate monitoring and treatment for resuscitated babies					
No routine separation from the mother					
There is a plan for monitoring (HR, Br, temperature, glycaemia urine-output) is a part of the record					
Special feeding needs are included in the plan/record					
No routine medications are given if no specific indications					
7.2 Neonatal sepsis					
Neonatal sepsis is suspected in neonates with signs such as difficulty feeding, hypotonia, lethargy and appropriately investigated (CBC, blood culture,search for foci of infection)					
Lumbar puncture is done to rule out or confirm meningitis					
Newborn babies get oxygen if cyanosed or in severe respiratory distress					
Effective antibiotics[7] are given according to age and weight of the baby					
The clinical status and the response to treatment is monitored					
7.3 Specific feeding needs					
Mothers' milk is given to Low Birth Weight babies					
Frequent feedings (at least 8 per day) are provided to Low Birth Weight and intake is monitored					

[7] WHO Regional Office for Europe Effective Perinatal Care training package (page 49- 50, 62-66) http://www.euro.who.int/pregnancy/esscare/20080122_1

Newborn babies unable to feed are expressed breast milk is given by cup and spoon or fed by naso-gastric tube in adequate amounts according to age. Intake is monitored					
If i.v.-fluids are given, they are recorded and precautions are taken to prevent fluid overload					
In low birth-weight babies, heat loss is minimized by kangaroo-care and a cap on the head					
7.4 Recognition and treatment of hypoglycaemia, hypocalcaemia and jaundice					
Guidelines for recognition and treatment of hypoglycaemia are available and implemented					
Guidelines for prevention of hypoglycaemia in SGA, LGA and in of diabetic mothers are available and implemented					
In case of "convulsions" or "lethargy" a hypo-glycaemia (gluco test) and, if is possible, hypo-calcemia and hypo-magnesemia are checked and corrected					
Facilities for exchange transfusion are available, or there are guidelines when to transfer a seriously jaundiced baby					
Phototherapy and guidelines when to use it are available and adequate hydration is ensured					
Procedures are in place to check the bilirubin level					
Phototherapy lamps correct functioning is checked and recorded					
7.5 Appropriate and safe use of oxygen for preterm babies					
No routine use of oxygen preterm					
Oxygen need is routinely assessed using a saturimeter					
Guidelines for the use and monitoring of oxygen therapy in preterm infants are available and implemented					
Preterm babies with oxygen therapy have $SatO_2$ monitored					
7.6 Free access for the mother to her baby					
Mothers are allowed to stay with their babies 24h/day					
Fathers are allowed to visit the unit					

Heart Rate and Breathing Rate are recorded every 3-6 hours according to the clinical situation					
Temperature is recorded every 6-12 hours or 3-6 hours if under radiant source					
Weight is recorded at least daily (twice daily in Low Birth Weight)					

Summary:
Sick newborn care

Criteria	0	1	2	3	Comments
Adequate monitoring and treatment for resuscitated babies					
Neonatal sepsis					
Specific feeding needs					
Recognition and treatment of hypoglycaemia, hypocalcaemia and jaundice					
Appropriate and safe use of oxygen for preterm babies					
Free access for the mother to her baby					

Main Strengths

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Main Weaknesses

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Additional Comments

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Overall score for section

Summary score – Sick newborn care	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

8. Advanced newborn care (for intensive care units)

8.1 Layout of the Unit

Number of admissions per year (NICU only)	Inborn infants	n.	_____
	Outborn infants	n.	_____
Number of deliveries per year in the hospital		n.	_____
Number of intensive care beds (assisted ventilation) in NICU		n.	_____
Number of semi-intensive care beds		n.	_____
Number of pre-discharge beds		n.	_____
Number of neonatal transports per year		n.	_____

8.2 Staffing of Neonatal Care Unit

Indicate the number of staff available	**h. 08-14**	**h. 14-20**	**h. 20-08**	
Doctors				doctors
Residents or Medical Assistants				Res. or med. ass.
Nurses				nurses
Auxiliary staff				auxiliaries

Are attending physicians available or on call over the weekend?

_____

If senior staff is not available all the time, how are they called?

_____

_____

What is the nurse to patient ratio in intensive care (i.e. infants on assisted ventilation)?

- At least 1 nurse every two newborn babies in intensive care (in assisted ventilation)
- Less than 1 nurse every two newborn babies in intensive care (in assisted ventilation)

Criteria	0	1	2	3	Comments
8.3 Records					
There are distinct intensive care records for nurses and doctors					
Records are appropriately filled in					
Diagnostic hypotheses are clearly described in the medical records					
Specific growth charts for preterm infants are used throughout hospital stay					
There is an adequate information transfer between shifts of personnel					
8.4 Feeding standards					
There are daily records of fluid intake					
There are daily record of caloric intake					
If there is no contraindication to feeding, minimal enteral feeding is started within the first 48 hours, preferably with own mother's milk (preterm infants)					
No provision of Na, K, Cl in the first 48 hours of life (term infants). In the first 48 to 72 hour, in preterm infants					
Initial IV Amino acid intake in preterm infants: 1.5 – 2.0 Intake of 3 g/Kg/ on day 4					
Caloric intake at the end of 1st week in preterm infants: 90- 100 Kcal/Kg/day					
Use of formula, based on specific medical indication For infants < 1500 grams: a) availability of human milk fortifier, b) availability of preterm formulas (80 Kcal / 100 mL)					
8.4.1 Total Parenteral Nutrition (TPN)					
There are written protocols regarding the appropriate parenteral and enteral intakes for weight and gestational age					
Fluids and caloric intakes are recorded daily					
Parenteral amino acid solution is available					
Parenteral lipids solution is available					
Written protocols for placement and proper tip position of central catheters are available					
Written protocols for management of central lines are available					
There is availability of disposable materials (e.g. catheters)					

8.4.2 Nutritional outcome indicators					
Percentage of weight loss> 10% in the weight class 1500-2499 (<10%: score 3, 10%-20%: score 2, 20-50%: score1, >50% score 0)					
Number (%) of NEC/infants <1500g admitted (<5%: score 3; 5%-15%: score 2; 15-25%: score1; >25% score 0)					
8.5 Infection control and treatment					
Written protocols for antibiotic treatment for specific infections (early- and late-onset sepsis) are available					
Protocols are always implemented and antibiotic treatment is modified according to clinical response and to antibiotic sensitivity tests when available					
Blood culture (2.0 mL) is done prior to starting any antimicrobial					
Empiric antibiotic treatment is discontinued within 48-72 hours, if blood culture is negative					
Lumbar puncture is routinely performed to rule out or confirm meningitis in babies with signs/symptoms suggesting bacterial meningitis and in late-onset sepsis					
Microbiological testing is available within a timeframe suitable for decision making					
Rate and type of nosocomial infection are monitored					
8.6 Respiratory problems					
Respiratory rate, heart rate, and blood pressure are checked and recorded at least every 3 hours in any infant with respiratory distress					
Pulse oxymeter is routinely used for monitoring babies with RDS					
Weight and fluid intake are checked at least daily in infants with RDS or with any severe illness					
X-rays results and interpretation are recorded in the charts					
In case of CPAP - instructions are readily available for the use of equipment - all necessary materials are available - there are written protocols on clinical use					
In case of mechanical ventilation - instructions are immediately available - there are written protocols on clinical use - availability of equipment for needle aspiration or chest tube drainage of pneumothorax					

- Blood Gas Analyzer is available - ventilation settings are modified according to results of blood gas analysis.					
8.7 Other specific conditions					
Assessment of PDA (clinical and/or echocardiographic criteria) is done					
There are written protocols for assessment and treatment of neonatal seizures					
There are written protocols for acute and late preterm anaemia					
There are written protocols for transfusion of blood components					
8.8 Drug use[8]					
Only drugs of proven efficacy are used					
Drugs dosages are appropriate for age and weight					
8.9 Pain avoidance and control					
Painful procedures are kept to a minimum					
Non pharmacological and pharmacological approaches to reduce pain are used					
8.10 Transport of critical newborn babies					
There are written protocols to define equipment and criteria for in-hospital and inter-hospital transfer of infants, including back transfer					
Inter-hospital transport is monitored and evaluated					
8.11 Discharge procedures					
The final diagnosis, written in the medical record, is complete and clear					
The Unit provides follow-up for all high-risk infants					
8.12 Neonatal developmental care					
Postural care (nesting or other approaches aimed at promote baby wellbeing and development)					
Environmental stress to babies (light, noise, etc.) is minimized					
Physiotherapy for babies with long term admission and at risk of motor/muscular tone disorders is available					
Kangaroo care is implemented for LBW infants					

[8] see the Essential drugs for use in neonatal intensive care: paragraph 8.15

8.13 Communication with parents					
Parents are updated daily about the conditions of admitted babies					
Parents are involved in the care of the babies to the extent this is allowed by the clinical conditions					
There is a place close to ward where the parents can stay during the day					
8.14 CME and audit					
Updates are periodically held on relevant clinical issues					
Nursing procedures are periodically (yearly) reviewed					
Organizational issues are periodically discussed by the whole team					
In each case of perinatal deaths (critical events) audits are held					
8.15 Essential drugs for use in Neonatal Intensive Care					

Essential drugs NICU

Direct observation of the clinical records to verify the use, indications, dosage of drugs.

- **CAFFEINE** (Prevention and treatment of apneas): loading dose: 10-20 mg/kg caffeine base (equivalent to 20-40 mg/ Kg of caffeine citrate) given over 30 minutes. Maintenance dose: 2.5-5 mg/Kg (equivalent to 5-10 mg/ Kg of caffeine citrate) IV or PO every 24 h.
- **CEFOTAXIME** (Neonatal sepsis/meningitis): 50mg/kg/dose, IV or IM, a) every 12 hours in infants < 2000 g or age 0-7 days; b) every 8 hours in infants > 2000 g or age > 7 days.
- **DEXAMETHASONE**: May be given to infants on mechanical ventilation between 7 and 14 days of age. Reduces BPD but not mortality, and adversely affects long-term outcome. Avoid concurrent Indomethacin. Duration of treatment varies, but a short course, starting at 0.25 mg/Kg/day and tapered over 5 to 7 days may be sufficient.
- **DOPAMINE** (Treatment of hypotension. Increases systemic vascular resistance): dose: 2-20 micrograms/kg/minute by continuous IV infusion, in central line or large vein. Calculations: mg of Dopamine needed for 50 mL solution = 3 x desired dose (microgram/Kg/min) / desired fluid rate (mL/hour) x weight (Kg).
- **FENTANYL** (analgesia, sedation): 1-4 micrograms/kg/dose IV slow push. Repeat as required (usually every 2-4 hours). May be given as a continuous infusion: 1-5 micrograms/kg/hour.
- **FERROUS SULFATE:** prevention of anaemia of prematurity: 2-3mg/kg/day of elemental iron in one or two divided doses. Therapy may begin after 2 weeks of life, in growing preterm infants.
- **FUROSEMIDE** (congestive heart failure, renal failure): 1mg/kg/dose IV or PO every 12 to 24 hours. In acute renal failure consider higher dose (2-4 mg/Kg). Monitor weight changes and serum electrolytes. Potentially ototoxic with concurrent amino glycoside therapy.
- **INDOMETHACIN** (closure of patent ductus arteriosus): dose: a) Age < 48 hours of age: 0.2 mg/Kg IV, followed by two 0.1 mg/Kg doses at 12 hour intervals; b) Age 2 to 7 days: three 0.2 mg/Kg doses IV, at 12 hour intervals; c) Age > 7 days: three 0.25 mg/Kg doses IV, at 12 hour intervals. Close monitoring of urine output: discontinue or delay subsequent doses in case of anuria or severe oliguria.

- **MIDAZOLAM** (Sedation): 0.05 to 0.15 mg/Kg/dose IV or 0.2 mg/Kg intranasally. Can be repeated every 2 to 4 hours, as required. Can be given as continuous intravenous infusion at 10-60 micrograms/kg/hour. Monitor for respiratory depression and hypotension.
- **PHENOBARBITAL** (Seizures): Loading dose: 20 mg/kg by slow IV infusion or IM. Additional 5-10 mg/kg doses up to a total dose of 40 mg/kg, in case of refractory seizures. Respiratory depression does not usually occur at concentrations < 60 micrograms/mL. Maintenance dose: 3-5 mg/kg/day IV, IM or PO, beginning at 12-24 hours after the loading dose.
- **SODIUM BICARBONATE** (Neonatal resuscitation):1-2 mEq/kg by slow IV push, over at least 2 minutes, a) in case of documented metabolic acidosis, b) during prolonged resuscitation but only after establishing effective ventilation.
- **SURFACTANTS** Curosurf 100-200mg/kg via endotracheal tube. A second dose (100 mg/Kg) can be given after 6 to 12 hours.
- **VANCOMYCIN** (Infection with methicillin-resistant staphylococci (coagulase-negative staphylococci, *Staphylococcus aureus*): dose: 15 mg /Kg/dose (Meningitis); 10 mg/Kg/dose (Bacteremia), given as IV infusion over 60 minutes. Dosing interval: a) Weight < 1200 grams every 24 hours; b) Weight: 1200 – 2000, every 12 hours; c) Weight > 2000 grams, every 8 hours.
- **VITAMIN D (**dietary supplement): 400 U/day in both preterm and term infants.

Summary:
Advanced newborn care (for intensive newborn care)

Criteria	0	1	2	3	Comments
Records					
Feeding standard					
Infection control and treatment					
Respiratory problems					
Specific conditions					
Drug use					
Pain avoidance and control					
Transport of critical newborn babies					
Discharge procedure					
Neonatal developmental care					
Communication with parents					
CME and audit					

Main Strengths

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Main Weaknesses

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Additional Comments

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Overall score for section

Summary score – Advanced newborn care	Good	To be improved		
(to be circled)	3	2	1	0

9. Emergency obstetric care

Source: Visit to the emergency department/labour ward and interviews with staff dealing with emergencies.
Instructions: Interview staff where emergencies would present, who would see them; how senior staff are called, and where and how severe conditions are handled.

Where are patients with an emergency condition received?

_____

_____

_____

_____

Describe the steps of a typical obstetric emergency (woman presenting as an emergency to hospital):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Is there any system in place to prioritize severely ill patients (triage)?

Y ☐ N ☐

If so, describe:_____

_____

_____

Is there an emergency management area equipped to take care of women/newborn babies?

Y ☐ N ☐

If so, describe:_____

_____

_____

Is there a separate consultation area for moderately ill women/newborn babies?

Y ☐ N ☐

If so, describe:_____

_____

_____

Is this separate from the normal outpatient facility dealing with patients?

Y ☐ N ☐

If so, describe:_____

_____

_____

Do patients come with referral notes when they have been referred from first level units?

never ☐ sometimes ☐ always ☐

Comments:_____

_____

Are there any job aids (wall charts, chart booklets) displayed for the management of obstetrics emergencies?

Y ☐ N ☐

If so, describe about what, and comment on adequacy:

_____

_____

Distance from reception area to emergency management area:

In the same building, distance_____

In another building, distance_____

Distance from consultation area to emergency management area:

In the same building, distance_____

another building, distance_____

9.1 Staff dealing with obstetric emergencies

This concerns staff who are immediately available to deal with emergencies and their level of training

Type of staff	**during working hours** *Present/ not present If present, number*	**after working hours** *Present/ not present If present, number*	Trained in **assessment/ detection of** emergency conditions *Yes/No*	Trained in **management of** emergency conditions *Yes/No*	**Remarks**
Administrative clerk					
Auxiliary Nurse					
Nurse					
Midwife					
Generic medical officer					
Obstetrician gynaecologist					

Criteria	**0**	**1**	**2**	**3**	**Comments**
9.2 Layout and structure					
Women are assessed for severity/ priority signs (triaged) immediately on arrival					
Patients do not have to wait for registration, payment, their turn etc. before a first assessment is done and action taken					
A wall chart or job aid for identifying patients by severity of condition is located in the emergency admissions area					

9.3 Drug, supplies and equipment * (see below)					
Essential drugs for emergency conditions (anticonvulsants, glucose, IV fluids) are always available and free of charge to the family					
Essential lab tests (glucose, Hb or Haematocrit) are available and results are obtained timely					
Essential equipment (needles and syringes, nasogastric tubes, oxygen equipment, self inflating resuscitation bags –AMBU bags- with masks of different sizes, nebulizers or spacers) is available					
9.4 Staffing					
A qualified staff member is designated to carry out triage					
A health professional is immediately available to manage patients with an emergency condition					
9.5 Case management** (see below)					
Staff in charge of triage is adequately trained and is able to apply triage criteria					

* **Drugs, supplies and equipment**
Please refer to the tables in the section "Essential drugs equipment and supplies". Please note when judging the adequacy of supplies that some drugs (e.g. oxygen, anticonvulsants) need to be immediately available, whereas for others (e.g. antibiotics) it is sufficient that availability is assured.

** **Case management of emergency conditions**
Information is mainly obtained by direct case observation and through interviews with staff about the routine practice. If no cases with emergency conditions are observable, staff is interviewed about how they would manage such conditions.

Summary:
Emergency care

Criteria	0	1	2	3	Comments
Layout and structure					
Drug, supplies and equipment					
Staffing					
Case management					

Main Strengths

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_____

_____

_____

Main Weaknesses

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_____

Additional Comments

_____

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_____

_____

Overall score for section

Summary score – Emergency obstetric care	Good	To be improved		
(to be circled)	3	2	1	0

10. Infection, prevention and supportive care

10.1 Infection management and control

Criteria	0	1	2	3	Comments
10.1.1 Appropriate hand washing					
Places for hand washing are well organised and equipped: - liquid soap - disposable towels - containers for used towel collection - antiseptic with a hopper are available					
Written protocols on hygiene for hands and antiseptic are available and information on hand washing technique is put above or near the wash bowls					
Written protocols on hand washing and disinfection for various procedures are available to the staff					
Written protocols on hand washing and disinfection for various procedures are known and applied by the staff					
There is continuous training of personnel on the rules and techniques of hand washing					
There are enough places for mother's hand washing in rooming-in wards					
Hand washing is appropriately done: - hands are decontaminated before direct contact with patient and after any activity or contact that contaminates hands (exposure to blood or any body fluids, and after removing gloves) - rings, jewellery, nail polish are removed - soap is applied onto the hands under warm water stream and hands rub against each other for no less than 15-30 sec according to instruction - hands are dried with paper towel and this is used after to turn off the water tap					
10.1.2 Hand decontamination					
Hand washing with antiseptic soap or quick hygienic hand disinfection are performed in case of: - infected patients, or patients with some risk factors (age, neoplasm) - exposure to biological fluids or invasive non-surgical procedure (e.g. peripheral					

venous catheter, introduction of urinary catheter)					
In case of : - severely immuno-compromised patients (<500 White Blood Cells per ml), multiple trauma, severe burns, organ transplant - surgery or high-risk invasive procedures (e.g. central venous catheter, manual removal of placenta, endotracheal intubation) surgical scrub or surgical hand and forearm disinfection are performed					
If the hands touch a contaminated surface surgical scrub is repeated					
10.1.3 Use of gloves					
Sterile gloves are used for surgical operations, minor surgical operations on skin, manipulations penetrating in tissues and mucous membranes, establishing sterile catheters, gavages etc. in sterile tissues or body fluids (blood, liquor)					
Clean gloves are used for manipulations which have direct contact with body fluids and in patients carriers of antibiotic-resistant micro organisms					
Gloves are used when handling soiled instruments and when disposing of contaminated waste items					
A separate pair of gloves is used for each patient					
10.1.4 Adequate antibiotic prophylaxis					
Prophylactic antibiotics are used according to evidence					
10.1.5 Inappropriate practices for infection control					
Routine disinfection of premises is not performed, facilities are not closed regularly for disinfection					
Ultra-violet lamp is not routinely used for disinfection					
There is not a routine policy of changing dress and footwear					
Bandage on aseptic wound/IV catheter place are not changed daily					
Hair are not routinely removed preoperatively					
Wound dressing is not used for more than 48 hours					
There is not a policy of restriction of visits in the hospital					

Caps and masks are not routinely used by staff					

10.2 Supportive care

Criteria	0	1	2	3	Comments
10.2.1 Nutritional needs of admitted patients					
Nutritional needs of all patients are met, according to age and ability to feed					
IV-glucose should not be used as calorie source for more than maximum 24 hours					
10.2.2 Use of Intravenous fluids					
Intravenous fluids are given only when indicated by international guidelines					
Appropriate fluids are chosen					
The flow rate is monitored closely					
10.2.3 Drug treatment					
There isn't routine use of drugs/supplements of unproven effectiveness					
10.2.4 Blood transfusion					
Blood is only given when indicated					
Only screened blood is used					
The flow rate is monitored					

Summary:
Infection, prevention and supportive care

Criteria	0	1	2	3	Comments
Infection management and control					
Supportive care					

Main Strengths

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_____

Main Weaknesses

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Additional Comments

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Overall score for section

Summary score – Infection, prevention and supportive care	Good	To be improved		
(to be circled)	3	2	1	0

11. Monitoring and follow-up

Note: Applies to sick newborn babies as well as to women with complications

Criteria	0	1	2	3	Comments
11.1 Monitoring of individual progress					
At the time of admission, a monitoring plan is prescribed according to the severity of the patient's condition					
A standard monitoring chart is used with the following information: patient details; vital signs; clinical signs depending on condition; treatments given, feeding and outcome					
11.2 Reassessment and monitoring by nurses					
Key risk signs are monitored and recorded by a nurse twice a day and at least 4 times a day for critically ill patients					
Doses and time are recorded for medications and IV-fluids are given by the nurse for every patient receiving medication or IV					
Additional special monitoring is performed and recorded appropriately when needed to follow the progress of particular conditions: e.g. use of MgSO4 in pre-eclampsia, fluid balance (input – output) in severe pre-eclampsia, etc.					
Nurses use the results of patient monitoring to alert the physicians of problems or changing patient status warranting their attention					
11.3 Reassessment					
Seriously ill patients are reassessed by a doctor upon admission and reviewed at least twice daily until improved					
11.4 Follow up					
If, needed, follow up is arranged before discharge in the health facility closest to the patients home that can provide the necessary follow up treatment					
All women receive a discharge note explaining their condition and providing information for the staff at the follow up facility					

Summary:
Monitoring and follow-up

Criteria	0	1	2	3	Comments
Monitoring of individual progress					
Reassessment and monitoring by nurses					
Reassessment					
Follow up					

Main Strengths

_____

_____

_____

_____

Main Weaknesses

_____

_____

_____

_____

Additional Comments

_____

_____

_____

Overall score for section

Summary score – Monitoring and follow up	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

12. Guidelines and auditing

Criteria	0	1	2	3	Comments
12.1 Availability of adequate and updated clinical guidelines					
At least one recent neonatal textbook is readily available					
At least one recent obstetric textbook is readily available					
At least one recent midwifery textbook is readily available					
National guidelines on care during normal child birth are readily available at the facility					
Local protocols on care during normal child birth are readily available at the facility as pocket instructions, wall charts, or job aids					
National guidelines on management of emergency conditions for mothers are readily available the facility					
Local protocols on management of emergency conditions for mothers are readily available at the facility as pocket instructions, wall charts, or job aids					
National guidelines on management of emergency conditions for newborn babies are readily available at the facility					
Local protocols on management of emergency conditions for newborn babies are readily available at the facility as pocket instructions, wall charts, or job aids					
Local protocols at the facility are revised and updated regularly					
12.2 Team work and auditing					
Audits are conducted to review cases of deaths and complications					
Clinical audits involve all team members including midwives and nurses					
Clinical audits are conducted based on updated, evidence-based clinical guidelines and local protocols					
Clinical audits ensure confidentiality, no-blame and no-punishment					

Recommendations from audits are discussed and implemented					
Periodical staff meetings are hold to discuss organizational aspects					
Periodical staff meetings are hold to discuss and revise protocols					
Nurses and midwives are involved in organizational staff meetings					
Nurses and midwives run their own periodical meetings					

Summary:
Guidelines and auditing

Criteria	0	1	2	3	Comments
Availability of adequate and updated clinical guidelines					
Team work and auditing					

Main Strengths

_____

_____

_____

_____

Main Weaknesses

_____

_____

_____

_____

Additional Comments

_____

_____

_____

Overall score for section

Summary score – Guidelines and auditing	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

13 Access to hospital care

Interview 2-3 mothers about their experience of hospital care. Complement with interviews of staff to obtain their perspective.

Criteria	0	1	2	3	Comments
13.1 Referral by first level or primary health care worker					
Referred patients receive appropriate pre-referral treatment when indicated					
Referred patients are provided with referral notes stating the condition, reason for referral and any treatment given					
Women get to hospital without major delay when advised by first level health staff that they are in need of referral care					
13.2 Transport to hospital					
Lack of transport to hospital is not a cause of delayed referral					
Cost for transport does not represent a barrier to referral					
13.3 Care-seeking by women					
Women adequately recognize signs and symptoms that require contact with health services					
Women are given adequate information and advice by primary care services about where and how to refer to hospital					
13.4 Economic barriers to hospital care					
Hospital fees do not pose a major barrier to hospital care *					
Hospital fees are clearly communicated to the carers and fees are displayed in the ward/hospital					
There are no unofficial payments					
13.5 Referral to higher level of care					
Lack of transport to hospital is not a cause of delayed referral					
Cost for transport does not represent a barrier to referral					
Transport is promptly available					
There are clear criteria for referral					

*Ask about all types of fees, such as: admission fees, cost of drugs or laboratory investigations examinations, equipment used at the hospital. "Major" is defined as high enough to represent, for some families, a barrier to seek and obtain hospital care or the need for the parents to borrow money to be able to have access to care.

Summary:
Access to hospital care

Criteria	0	1	2	3	Comments
Referral by first level or primary health care worker					
Transport to hospital					
Care-seeking by women					
Economic barriers to hospital care					
Referral to higher level of care					

Main Strengths

_____

_____

_____

Main Weaknesses

_____

_____

_____

Additional Comments

_____

_____

_____

Overall score for section

Summary score – Access to hospital care	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Summary evaluation score

This summary helps identifying the most critical areas as a basis for identifying priorities and work plan to guide the discussion with senior hospital staff at debriefing.

	Good	To be improved		
Summary score	**3**	**2**	**1**	**0**
1.a Hospital health statistics				
1.b Drug availability				
1.c Equipment and supplies				
1.d Availability and use of laboratory support				
1.e Basic infrastructure				
2.a Maternity ward				
2.b Nursery facility				
3. Normal labour				
4. Caesarean section				
5. Maternal complications				
6. Routine neonatal care				
7. Sick newborn care				
8. Advanced newborn care				
9. Emergency care				
10. Infection control and supportive care				
11. Monitoring and follow-up				
12. Guidelines/protocols and auditing				
13. Access to hospital care				
Hospital summary score = total score*				

* use only if hospitals are been evaluated by the same team.

Debriefing and action plan

Discuss above summary of hospital findings with the senior hospital management, giving details as appropriate.
Discuss their perception of the findings, and how action could be taken to improve services for children. Discuss importance in terms of morbidity and mortality, and the feasibility to take action. Develop a plan of action, using the following list.

ITEMS	Summary score			Impact on mortality and morbidity		Feasibility		Action needed	Priority		Timetable and responsible person
	To be strongly improved	To be improved	Not to be improved	High	Low	High	Low		High	Low	

Main References

1. *IMPAC* Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors 2003 WHO/RHR/00.7 http://www.who.int/reproductive-health/impac/index.html

2. *IMPAC* Managing newborn problems: a guide for doctors, nurses, and midwives 2003 ISBN 92 4 154622 0 http://www.who.int/reproductive-health/publications/mnp/index.html

3. *WHO HQ* Care in Normal Birth: a practical guide 1996 WHO/FRH/MSM/96.24 http://www.who.int/making_pregnancy_safer/documents/who_frh_msm_9624/en/

4. *WHO HQ* Working with Individuals, Families and Communities to Improve Maternal and Newborn Health 2003 WHO/FCH/RHR/03.11 http://www.who.int/making_pregnancy_safer/documents/who_fch_rhr_0311/en/

5. *IMPAC* WHO Recommended Interventions for Improving Maternal and Newborn Health 2005 WHO/MPS/07.05 http://www.who.int/making_pregnancy_safer/documents/who_mps_0705/en/

6. *IMPAC* Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. 2006 ISBN 92 4 159084 X http://www.who.int/making_pregnancy_safer/documents/924159084x/en/

7. WHO Regional Office for Europe Effective Perinatal Care training package http://www.euro.who.int/pregnancy/esscare/20080122_1

Additional References

8. NHS-National Institute for Clinical Excellence. Caesarean section. Clinical guidelines 13. April 2004 (www.nice.org.uk)

9. PATH, the World Health Organization, and the United Nations Population Fund. *Essential Medicines for Reproductive Health: Guiding Principles for Their Inclusion on National Medicines Lists*. Seattle: PATH; 2006.

10. The use of electronic foetal monitoring. National Evidence based clinical guideline number 8. may 2001. RCOG press

11. Pocket book of hospital care for children-Guidelines for the management of common illnesses with limited resources-World Health Organization 2005

Annexes: The Interviews with health professionals (A1 e A2)

All groups of health professionals (cleaners, nursing assistants, nurses/midwives, medical officers and doctors) should be considered for this interview. We would like to record the health professionals honest opinions. For this it is important that the health workers understand the aims of the survey and knows and trusts that the information will be stored and used while maintaining confidentiality. Please let them know that their names or initials will not be mentioned in any report or to supervisors in the hospital.

Please do not leave forms lying about or in a place that people who are not members of the team can read them.

Try to interview 2 staff each from the above mentioned categories of health professionals so that a minimum of 6-8 forms should be filled during the assessment visit. Health professionals are welcome to fill in the forms themselves, however, please do not let them take it away and return later due to the shortness of your stay.

Ask the questions in a face to face interview in a suitable place. At the end of the interview you should be happy for the health worker to read whatever is written down and they should be offered the chance to read the form and make any changes. Try to record comments ***as they are spoken*** rather than trying to summarise the view expressed. Recording the real words used often helps to properly represent what the person is trying to say. When doing this please put the comments in quotation marks. For example:

> ***"we have a real problem with the water supply, sometimes days go by without piped water, how can we wash our hands to prevent spreading infection"***

Before thanking the interviewee, please ensure that all questions are correctly answered. If a health worker does not want to answer a particular question please note and proceed to the next question. Offer the health worker to read what you have written. If he wishes he should be allowed to make changes. Please thank him for forwarding the information.

ANNEX A 1

Interview of health professionals (maternity; obstetrics and gynaecology ward)

Date	Name of the interviewer	Country
Town	Rayon	Oblast
Facility name (hospital, specific service(s)		
Name of the Head of Maternity *		
		Survey number

* or Obstetric Department, Obstetric ward or whatever is the name of the specific service providing delivery care

Position of health worker being interviewed:	
Current service and responsibilities	
How long have you worked at this hospital?	How long have you been working in the maternity ward, OPD, labour ward?

- We are first interested in your views on the maternity ward/ nursery.

1) Are there any things about the hospital buildings / ward that you think are good or things that could be improved?

2) For mothers and babies admitted to the hospital	good	satis-factory	occasionally inadequate	usually inadequate
2 a) the accommodation (space/ beds) for patients is	☐	☐	☐	☐
2 b) the toilets and washing facilities for patients is	☐	☐	☐	☐
2 c) the cleanliness of the ward is …	☐	☐	☐	☐
2 d) the food given is …	☐	☐	☐	☐

- Now we would like to ask you what the causes of mother's death are in the hospital.

3) In your opinion what are the commonest illnesses resulting in mother deaths in the hospital?

1.	
2	
3	
4	

3 b) Why do you think these mothers die?

Name of disease No 1:	True	False	Details

Nature of the disease	☐	☐	
Late presentation of patient	☐	☐	
Problems with laboratory diagnosis	☐	☐	
Insufficient drugs	☐	☐	
Inadequate equipment	☐	☐	
lack of staff for care and monitoring	☐	☐	
Wrong treatment given	☐	☐	
Other reasons:			
Name of 2. disease:			
Nature of the disease	☐	☐	
Late presentation of patient	☐	☐	
Problems with laboratory diagnosis?	☐	☐	
Insufficient drugs	☐	☐	
Inadequate equipment	☐	☐	
lack of staff for care and monitoring	☐	☐	
Wrong treatment given	☐	☐	
Other reasons:			

- We now want to ask you about the drugs, supplies and staff in the mother's ward.

4) The availability of (the following) are:	Plenty	Satis factory	Occasionally inadequate	Usually inadequate	N/A
4 a) Drugs	☐	☐	☐	☐	☐
4 b) Oxygen	☐	☐	☐	☐	☐
4 c) Blood for transfusion	☐	☐	☐	☐	☐
4 d) i.v. fluids	☐	☐	☐	☐	☐
4 e) food / special milk for malnutrition	☐	☐	☐	☐	☐
4 f) laboratory tests (eg. Hb)	☐	☐	☐	☐	☐

5) Do you have problems with / lack any other equipment or supplies that make it hard to look after sick motherswell or are supplies generally good?

The availability of staff:	Plenty	Satisfactory	Occasionally inadequate	Usually inadequate
6) Do you think the number of staff available to care for sick mothers are?	☐	☐	☐	☐
7) Do you think there is enough time available to care for a woman the best way you know how to (the way you were trained)?	☐	☐	☐	☐
8) There is sufficient nursing staff during the night.	☐	☐	☐	☐
9) There is sufficient nursing staff during the weekend.	☐	☐	☐	☐
	Plenty	Satisfactory	Occasionally inadequate	Usually inadequate
10) If you have a problem with a sick mother is supervision / support (e.g. from more senior clinical staff) available to you?	☐	☐	☐	☐

11) Do you think the hospital lacks any important staff to help look after sick mothers or are the numbers and quality of staff in general good?

12) If you have problems getting help when you think you need it is it because:

..there are not enough skilled people to call?

..you are unable to contact the right people?

..the response to your request is too slow?

..another reason?

- What do you think about the training of staff and the organization of your work?

Training of staff	Very good	OK	Occasionally inadequate	Usually inadequate
13) How is your own knowledge about the illnesses of women?	☐	☐	☐	☐

13 a) if it is sometimes inadequate what areas do you think you need more training on or are there areas you would like to improve your knowledge further?

14) Are there possibilities for further professional training in your hospital? Please explain.

15) Is there a fixed rotation of nursing staff within the hospital in regular intervals? Y / N

15 a) If yes, how often do you rotate?

15 b) What do you think about this?

16) Are there regular meetings of all nurses/ other staff/doctors who work on maternity ward? Please explain who participates, frequency and nature of meetings.

17) Is there a regular feedback/audit session in terms of quality of care/mortality in maternity ward? Please explain.

18) Do you have clear guidelines on the work you are doing. Please explain:

- What do your think about the care you and the hospital give to the admitted women?

	Very good	OK	Occasionally inadequate	Usually inadequate
19) What do you think about the information / explanations patients are given about their illness…	☐	☐	☐	☐
20) Is the time you have to explain to the patients about their illness…	☐	☐	☐	☐
21) How do you think the carers view the care on the ward?	☐	☐	☐	☐

22) Can you think of any ways to improve patients' understanding of their illness?

23) Care of women Can you remember a woman you looked after recently when you were pleased with how things turned out? Yes / No

23 a) If yes, were you pleased with how you helped the woman do well?

23 b) What aspects of your own performance / role pleased you?

24) Can you think of a woman you looked after recently when you were disappointed with how things turned out? Yes / No

24 a) If yes, what aspects of the care / progress did you think went badly and what do you think were the reasons for this?

	Always	Often	Sometimes	Rarely	Never
25) Overall are you pleased with what this hospital is able to do to help sick women while on the ward?	☐	☐	☐	☐	☐

26) Are there any other things that you have not told us about that could be changed to improve the care of women in the hospital?

27) Have you ever suggested these improvements to matron/doctors/management and with what results?

28) Do you think the majority of your colleagues are generally satisfied with their work in the hospital? Yes / No

28 a)What things do you think make people dissatisfied with their work?

28 b) What about the working conditions?

28 c) What could be improved to make people in the hospital more satisfied with their work?

Summary score health workers interview: motivation and training of staff is:	**Good**	**To be improved**		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement)

ANNEX A2

Interview of health professionals (neonatology ward)

Date	Name of the interviewer	Country
Town	Rayon	Oblast
Facility name (hospital, specific service(s)		
Name of the Head of Neonatal Unit **		
		Survey number

** or Intensive care or Neonatology or whatever is the name of the specific service providing newborn care

Position of health professional being interviewed:	
Current place of work (NICU, paediatric OPD, nursery etc):	
How long have you worked at this hospital?	How long have you been working in the nursery, paediatric OPD or NICU?

- We are first interested in your views on the neonatal ward.

1) Are there any things about the hospital buildings / ward that you think are good or things that could be improved?

2) For neonates admitted to the hospital	good	satis-factory	occasionally inadequate	usually inadequate
2 a) the accommodation (space/ beds) for patients is	☐	☐	☐	☐
2 b) the toilets and washing facilities for patients is	☐	☐	☐	☐
2 c) the cleanliness of the ward is …	☐	☐	☐	☐
2 d) the food given to the children is …	☐	☐	☐	☐

- Now we would like to ask you what the causes auf neonatal death are in the hospital.

3) In your opinion what are the commonest illnesses resulting in neonatal deaths in the hospital?

1	
2	
3	
4	

3 b) Why do you think these babies die?

Name of disease No 1:	True	False	Details

Nature of the disease	☐	☐	
Late presentation of babies	☐	☐	
Problems with laboratory diagnosis	☐	☐	
Insufficient drugs	☐	☐	
Inadequate equipment	☐	☐	
lack of staff for care and monitoring	☐	☐	
Wrong treatment given	☐	☐	
Other reasons:			
Name of 2. disease:			
Nature of the disease	☐	☐	
Late presentation of babies	☐	☐	
Problems with laboratory diagnosis?	☐	☐	
Insufficient drugs	☐	☐	
Inadequate equipment	☐	☐	
lack of staff for care and monitoring	☐	☐	
Wrong treatment given	☐	☐	
Other reasons:			

- We now want to ask you about the drugs, supplies and staff in the neonatal ward.

4) The availability of the following are:	Plenty	Satisfactory	Occasionally inadequate	Usually inadequate	N/A
4 a) Drugs	☐	☐	☐	☐	☐
4 b) Oxygen	☐	☐	☐	☐	☐
4 c) Blood for transfusion	☐	☐	☐	☐	☐
4 d) i.v. fluids	☐	☐	☐	☐	☐
4 e) food / special milk for malnutrition	☐	☐	☐	☐	☐
4 f) laboratory tests (eg. Hb)	☐	☐	☐	☐	☐

5) Do you have problems with / lack any other equipment or supplies that make it hard to look after sick babies well or are supplies generally good?

The availability of staff:	Plenty	Satisfactory	Occasionally inadequate	Usually inadequate
6) Do you think the number of staff available to care for sick babies are?	☐	☐	☐	☐
7) Do you think there is enough time available to care for a child the best way you know how to (the way you were trained)?	☐	☐	☐	☐
8) There is sufficient nursing staff during the night.	☐	☐	☐	☐
9) There is sufficient nursing staff during the weekend.	☐	☐	☐	☐
	Plenty	Satisfactory	Occasionally inadequate	Usually inadequate
10) If you have a problem with a sick child is supervision / support (e.g. from more senior clinical staff) available to you?	☐	☐	☐	☐

11) Do you think the hospital lacks any important staff to help look after sick babies or are the numbers and quality of staff in general good?

12) If you have problems getting help when you think you need it is it because: ..there are not enough skilled people to call? ..you are unable to contact the right people? ..the response to your request is too slow? ..another reason?

- What do you think about the training of staff and the organization of your work?

Training of staff	Very good	OK	Occasionally inadequate	Usually inadequate
13) How is your own knowledge about the illnesses of neonates?	☐	☐	☐	☐

13 a) if it is sometimes inadequate what areas do you think you need more training on or are there areas you would like to improve your knowledge further?

14) Are there possibilities for further professional training in your hospital? Please explain.

15) Is there a fixed rotation of nursing staff within the hospital in regular intervals? Y / N

15 a) If yes, how often do you rotate?

15 b) What do you think about this?

16) Are there regular meetings of all nurses/ other staff/doctors who work on neonatal ward? Please explain who participates, frequency and nature of meetings.

17) Is there a regular feedback/audit session in terms of quality of care/mortality in neonatal ward? Please explain.

18) Do you have clear guidelines on the work you are doing. Please explain:

- What do your think about the care you and the hospital give to the admitted neonates?

	Very good	OK	Occasionally inadequate	Usually inadequate
19) What do you think about the information/ explanations families are given about their child's illness …	☐	☐	☐	☐
20) Is the time you have to explain to the parents about their child's illness…	☐	☐	☐	☐
21) How do you think the staff view the care on the ward?	☐	☐	☐	☐

22) Can you think of any ways to improve parents' understanding of their children's illness?

23) Care of neonates Can you remember a baby you looked after recently when you were pleased with how things turned out? Yes / No

23 a) If yes, were you pleased with how you helped the baby do well?

23 b) What aspects of your own performance / role pleased you?

24) Can you think of a baby you looked after recently when you were disappointed with how things turned out? Yes / No

24 a) If yes, what aspects of the care / progress did you think went badly and what do you think were the reasons for this?

	Always	Often	Sometimes	Rarely	Never
25) Overall are you pleased with what this hospital is able to do to help sick neonates while on the ward?	☐	☐	☐	☐	☐

26) Are there any other things that you have not told us about that could be changed to improve the care of neonates in the hospital?

27) Have you ever suggested these improvements to matron/doctors/management and with what results?

28) Do you think the majority of your colleagues are generally satisfied with their work in the hospital? Yes / No

28 a) What things do you think make people dissatisfied with their work?

28 b) What about the working conditions?

28 c) What could be improved to make people in the hospital more satisfied with their work?

Summary score health workers interview: motivation and training of staff	**Good**	**To be improved**		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 3 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement).

ANNEX B

Interview with mothers

The purpose of the interview is to evaluate the quality of the contact between the mother and her caregivers and to see if she received appropriate counselling, as well as find out what can be done to improve her wellbeing and that of her baby. It is also to double-check whether standard case management meets that recommended during training workshops, and evaluate the impact of the training in terms of what has been fully implemented by health providers, partially implemented or not implemented at all.
Optimally, at least three mothers should be interviewed during a follow-up and assessment workshop:

- one mother who had a "normal" baby and vaginal birth;
- one mother who had a caesarean section;
- one mother with a preterm baby;
- one mother, if possible, 3 months after vaginal birth and a normal baby. (Just after birth the experience my be related in a different way, women could be affected by hormones and in shock if they had a bad experience. In this conditions some women say it was all ok, and later on they realize they don't feel satisfied).

Before you conduct the interview, explain to the mother that this hospital was selected by the MoH as a pilot hospital for improving the quality of maternal and child health care. Explain to her that the purpose of the interview is to find out what can be done to improve services for herself and her baby.

Ask the mother if she will answer a few questions concerning her own and her baby's condition as well as the care that they received from health providers. Ask the mother if she would also let you make a rapid assessment of her condition and that of her baby. Ensure her that this interview is absolutely anonymous and confidential.

How to carry out the interview and complete the form:

- Try to conduct the interview with mother and baby together. Make sure you do not upset them. Make sure your attitude is positive in both words and action.
- Do not conduct the interview during a clinical session to avoid influencing case management practices of other health providers.
- Do not conduct the interview in the presence of other mothers whom you are going to interview and far as possible conduct the interview without other clinical staff around, in order to avoid influencing the mother's answers.
- Hold the form upright, out of the view of the mother, as the different options provided in it might influence her answers.
- Take whatever time necessary to talk to the mother and make sure she understands the questions. Ask the question as it is written in the interview form and repeat it in your own words only if the mother had not understood the original question.
- Do not read the different answers that appear after each question. They are there only to facilitate your work. Instead, listen to the mother's answers, asking her to be as precise as possible, and tick [✓] when the answer provided matches one of the listed points. Sometimes it will be necessary to tick an answer that is close, but not exactly, the one listed. If the answer provided does not match any of the listed points, write a brief summary, as appropriate, in the space provided under "Other (Specify)".
- As you complete the form, make brief notes of your observations to be discussed with health workers during the feedback session. Also, underline or circle points in any of the issues you feel

need commenting on. This will remind you to bring up problems or positive issues during the feedback session.

- Make notes of the discussion during the interview and write summaries of important points under "Comments, discussions, problems". Use these notes at the feedback session.
- Please write *clearly* in print characters so that the form is easy to read.

Date	Name of the interviewer	Country
Town	Rayon	Oblast
Facility name (hospital, specific service(s)		
Name of Director/Manager of the Hospital		
Name of the Head of Maternity *		
Name of the Head of Neonatal Unit **		
		Survey number

* or Obstetric Department, Obstetric ward or whatever is the name of the specific service providing delivery care

** or Intensive care or Neonatology or whatever is the name of the specific service providing newborn care

If possible, the supervisor/evaluator conducting this interview should be a midwife or social worker or psychologist.

0. MOTHER

How far do you live from the maternity hospital?	
Is this your first baby? / second? / third?	
Could you have your partner or any relative with you during delivery?	
Did you recently migrate to the country?	
How long ago?	
How old are you?	

1. PREGNANCY

Did the doctor/nurse during your antenatal visits advise you on how to prepare yourself to delivery (e.g. bring any personal item, sheets, soap, etc. to the maternity?	Yes [ ]	No [ ]
If yes, would you specify? _____		
Did you receive any information about delivery during antenatal visits?	Yes [ ]	No [ ]

Did you receive any information about breastfeeding?	Yes [ ]	No [ ]
How many antenatal visits did you make during your pregnancy? How many ultrasound controls did you make during your pregnancy?		
Did you go to a private clinic? Could you tell us approx. how much do you have to pay per visit?		
If you did not go to a private clinic have you to pay per visit and ultrasound controls?	Yes [ ]	No [ ]
How many were carried out by a midwife?		
Have you to pay the midwife or other professionals?	Yes [ ]	No [ ]
Did you present a birth plan?	Yes [ ]	No [ ]
Did you have any specific request?	Yes [ ]	No [ ]
If yes, was it respected?	Yes [ ]	No [ ]

2. ADMISSION of the MOTHER

How long before your delivery were you admitted to the health facility?	_____ hours	_____ days
Was there a friend/family member in the room with you during admission?	Yes [ ]	No [ ]
Was this person with you when you had to move from one to other space or change dress?	Yes [ ]	No [ ]
Did you feel comfortable during admission procedures?	Yes [ ]	No [ ]
If not, can you explain why?		
Did health staff shave you before your delivery?	Yes [ ]	No [ ]
Did health staff perform enema?	Yes [ ]	No [ ]
Were you examined vaginally at admission?	Yes [ ]	No [ ]
Was an electronic register of the baby heart rate performed? (foetal heart rate monitoring)	Yes [ ]	No [ ]

3. LABOUR

Clinical aspects

How long were you in labour	_____ hours	_____ days
How long was the second stage of labour (expulsion)?	hours	
Were you examined vaginally during labour?	Yes [ ]	No [ ]
How many times were you examined vaginally during labour?	( ) times	in ( ) hours
If no epidural: was the baby monitored electronically in a continuous way?	Yes [ ]	No [ ]
Did you have a vein punctured?	Yes [ ]	No [ ]
Did you receive synthetic oxytocyn? Yes / no / I don't know		
Was the amniotic bag broken by health staff artificially?	Yes [ ]	No [ ]

Informed consent and other legal aspects

Did maternity staff ask your consent for vaginal examinations?	Yes [ ]	No [ ]
And for other procedures?	Yes [ ]	No [ ]
Can you describe if so, what procedures were performed without your consent?		
Do you have home-based records?	Yes [ ]	No [ ]
If no, would you specify the reason?		
Have you been allowed to read your medical documentation (case records)?	Yes [ ]	No [ ]
If students present any time, did they present themselves and ask permission to be there?	Yes [ ]	No [ ]

Care of the mother

Could you eat if you wanted?	Yes [ ]	No [ ]
Could you drink if you wished?	Yes [ ]	No [ ]
Could you adopt the position you wished during the second stage of labour?	Yes [ ]	No [ ]
Could you move or walk during the second stage of labour?	Yes [ ]	No [ ]

Was another delivering woman in the room with you while in labour/delivery?	Yes [ ]	No [ ]
Did you feel the room you stayed during labour was intimate enough for you to feel secure?	Yes [ ]	No [ ]
Did you feel comfortable in it?	Yes [ ]	No [ ]
Do you know the name of your midwife?	Yes [ ]	No [ ]
Do you know the name of your obstetrician?	Yes [ ]	No [ ]
Do you know the name of your neonatologist?	Yes [ ]	No [ ]
Did they say their name and profession the firs time?	Yes [ ]	No [ ]
Did sanitary staff ask for permission to enter the room each time?	Yes [ ]	No [ ]
Was a health provider in the room with you for almost the entire time you were in labour?	Yes [ ]	No [ ]
Was there a friend/family member in the room with you during labour/delivery?	Yes [ ]	No [ ]
Was this person all the time with you: during vaginal examinations, and other procedures?	Yes [ ]	No [ ]
Could you turn the light off if you wished during labour?	Yes [ ]	No [ ]

Pain relief

Were you offered epidural at admission before you could ask about it?	Yes [ ]	No [ ]
Did you decide to ask for epidural anaesthetic?	Yes [ ]	No [ ]
If epidural administered, could you move your legs?	Yes [ ]	No [ ]
If epidural, were you able to walk?	Yes [ ]	No [ ]
Did you have the opportunity to use warm water immersion?	Yes [ ]	No [ ]
If yes, did you use it?	Yes [ ]	No [ ]
Was it a good experience of pain relief and comfort?	Yes [ ]	No [ ]
Were you offered the use of nitrous oxide?	Yes [ ]	No [ ]
If used, was it a good experience of pain relief and comfort?	Yes [ ]	No [ ]
What other pain relief methods did you use?		
What other pain relief methods were you offered?		

4. BIRTH

How did you give birth?		
Vaginally		[ ]
Caesarean section		[ ]
Forceps		[ ]
Vacuum		[ ]
Who helped you at the moment of birth?		
Midwives		[ ]
Nurses		[ ]
Obstetricians-gynaecologists		[ ]
Other (specify)		
Companion (specify)		
In what position did you give birth?		
Did you have an **episiotomy**?	Yes [ ]	No [ ]
If not: did you have a **severe tear**?	Yes [ ]	No [ ]
Were you **encouraged to push** during delivery?	Yes [ ]	No [ ]
Were you allowed to push when you wanted and in the way you decided?	Yes [ ]	No [ ]
Were you allowed to adopt the **position you wished** during delivery?	Yes [ ]	No [ ]
Were you asked to **stay in bed with your legs up**?	Yes [ ]	No [ ]
Did any person form the staff press your uterus from the abdomen to help baby go down?	Yes [ ]	No [ ]

5. IMMEDIATE POST PARTUM

Was the umbilical cord immediately cut?	Yes [ ]	No [ ]
If delayed umbilical cord cut until stopped beating: do you feel it was good for the baby?	Yes [ ]	No [ ]
How long after delivery the placenta came out?		

Was it painful?	Yes [ ]	No [ ]
Were you encouraged to push during placental delivery?	Yes [ ]	No [ ]
Were you given any injection?	Yes [ ]	No [ ]
Do you know what was the indication?	Yes [ ]	No [ ]

6. PSYCHOLOGICAL SUPPORT

Were you supported by **anybody you wanted** during labour?	Yes [ ]	No [ ]
Were you supported by anybody you wanted during delivery?	Yes [ ]	No [ ]
Who gave you this support?		
Friend/family member		[ ]
Father or partner and other friend / family member		
Health provider		[ ]
Can you please tell me the kind of support you received from health provider:		
Present at your side as much as possible	Yes [ ]	No [ ]
Ensured privacy	Yes [ ]	No [ ]
Explained labour progress	Yes [ ]	No [ ]
Verbally encouraged, praised and/or reassured	Yes [ ]	No [ ]
Encouraged and helped into comfortable position	Yes [ ]	No [ ]
Encouraged and helped with walking	Yes [ ]	No [ ]
Encouraged and helped into an upright position	Yes [ ]	No [ ]
Helped labour support companion	Yes [ ]	No [ ]
Offered oral fluids	Yes [ ]	No [ ]
Offered light food	Yes [ ]	No [ ]
Kept clean and dry	Yes [ ]	No [ ]
Warm compress	Yes [ ]	No [ ]
Cool compress	Yes [ ]	No [ ]
Assisted with shower	Yes [ ]	No [ ]
A warm bath	Yes [ ]	No [ ]

Relaxation techniques	Yes [ ]	No [ ]
Breathing techniques	Yes [ ]	No [ ]
Massage	Yes [ ]	No [ ]
Use of music	Yes [ ]	No [ ]
Attention focusing	Yes [ ]	No [ ]
Visualization	Yes [ ]	No [ ]
Did you find support effective?	Yes [ ]	No [ ]

7. BABY

Is your baby healthy?	Yes [ ]	No [ ]
If no, what is the problem with your baby?		
Preterm baby	[ ]	
Asphyctic baby	[ ]	
"Pathologic" baby (specify):	[ ]	
Other (specify):		
What is the weight of your baby?	_____ grams	
Was your baby in same room with you for almost entire time you were in hospital?	Yes [ ]	No [ ]
Was your baby in skin to skin contact immediately after delivery?	Yes [ ]	No [ ]
If yes: For how long did the baby stay on your skin?		
Did they weight the baby immediately after delivery and before skin to skin contact?	Yes [ ]	No [ ]
Were ophthalmic prevention and vitamin K administration postponed after skin to skin contact?	Yes [ ]	No [ ]
Were you separated from your baby just after birth?	Yes [ ]	No [ ]
If Yes: for how long?	( ) minutes	( ) hours
Do you know the reason?	Yes [ ]	No [ ]
Can you explain the reason?		
Other comments		

First wash of the baby

When was your baby washed for the first time?	
Immediately after birth	[ ]
After 1 hour	[ ]
Wash postponed for 6 hours	[*]
Other time (specify)	[ ]
"I don't know"	[ ]

8. BREASTFEEDING

How do you feed your baby?		
Breastfeeding		[ ]
Breast-milk with spoon/cup		[ ]
Breast-milk with bottle		[ ]
Breast-milk by gavage		[ ]
Newborn formula		[ ]
Donor's milk		[ ]
Other (specify)		
Does your baby receive **water/glucose**?	Yes [ ]	No [ ]
Do you use artificial **teats/pacifiers**?	Yes [ ]	No [ ]
IF THE MOTHER IS BREASTFEEDING:		
How long after birth or after you were able to respond did you breastfeed your baby for the first time?	_____ hour(s)	_____ minute(s)
How long was it possible to breastfeed him/her?	_____ hour(s)	_____ minute(s)
Why **did you stop** first breastfeeding (specify)?		
Did you have **skin-to-skin contact** with your baby for this first breastfeeding?	Yes [ ]	No [ ]
Did health providers **give you some support or recommendation** for breastfeeding?	Yes [ ]	No [ ]
If yes, what did the health workers tell you on how often you should feed your baby:		

Breastfeed on schedules		[ ]
Breastfeed on demand of the baby		[ ]
Other (specify):		
Were you **advised to give to baby water/glucose**?	Yes [ ]	No [ ]
Who gave you most of information about breastfeeding?		
Obstetrician		[ ]
Midwife		[ ]
Neonatologist		[ ]
Neonatology nurse		[ ]
Ward-mate/friend		[ ]
Mother		[ ]
Other (specify)		
Did you receive practical/physical assistance for breastfeeding?	Yes [ ]	No [ ]
How long do you plan to breastfeed?		
Less than 2 months		[ ]
Between 2 and 6 months		[ ]
More than 6 months		[ ]
More than 1 year		[ ]
Other (specify)		

9. MATERNITY STAY

Was the baby with you all the time you stayed in hospital / maternity unit?	Yes [ ]	No [ ]
Was the baby examined in your presence?	Yes [ ]	No [ ]
Was the baby taken away from you for paediatric examination?	Yes [ ]	No [ ]
Was the baby taken away form you for washing or other procedures?	Yes [ ]	No [ ]
If separated, can you describe in what situations?	Yes [ ]	No [ ]

Have you received enough help with baby care from staff?	Yes [ ]	No [ ]
Did they help you to manage when the baby cried?	Yes [ ]	No [ ]
Have you had visitors?	Yes [ ]	No [ ]
If no, would you specify the reason?		
Did staff measure your blood pressure?	Yes [ ]	No [ ]
Did staff ask you if you had abnormal vaginal bleeding?	Yes [ ]	No [ ]
Do you have a possibility to take a shower?	Yes [ ]	No [ ]
Did you eat fresh fruits/fresh vegetables yesterday?	Yes [ ]	No [ ]
How many cups of tea did you drink yesterday?	_____	
Could you meet other mothers in a common room to talk or share doubts?	Yes [ ]	No [ ]
Did you find the room clean enough?	Yes [ ]	No [ ]
Did you have to pay for some services ?	Yes [ ]	No [ ]
Please specify		
I would now like to know more about the services that you received during last two days.		
Excluding waiting time, how long did you spend with health staff today?	_____ minutes	
Have you had a chance to meet a health provider privately since you arrived here?	Yes [ ]	No [ ]
Have you asked any questions regarding your health or to the health of your baby within last two days?	Yes [ ]	No [ ]
Has staff answered your questions in a way you understood?	Yes [ ]	No [ ]
Were you satisfied with answers?	Yes [ ]	No [ ]
Did answers reassure you?	Yes [ ]	No [ ]

10. SATISFACTION and PSICHOLOGICAL IMPACT

Dou you feel happy with maternity experience?	Yes [ ]	No [ ]
Would you repeat?	Yes [ ]	No [ ]
Do you feel sad?	Yes [ ]	No [ ]

Do you feel you didn't find staff support you needed?	Yes [ ]	No [ ]
Do you remember continuously some moment you felt very frightened?	Yes [ ]	No [ ]
Did you maternity staff make you feel inadequate sometime?	Yes [ ]	No [ ]
Can you explain why?		
Did they respect your cultural or religious concerns?	Yes [ ]	No [ ]
Can you explain why?		
Do you feel strongly attached to the baby?	Yes [ ]	No [ ]
If you were separated form your baby, do you feel separation caused problems with your ability to feel secure looking after the baby?	Yes [ ]	No [ ]
Is it difficult for you to attend the baby?	Yes [ ]	No [ ]
Dou you sometimes think you were not good enough helping your baby being born?	Yes [ ]	No [ ]
Can you explain why?		
Do you want to describe how do you feel?		

11. INSTRUCTIONS FOR HOME CARE

Instructions about home care of the baby

Can you tell me how you will take care of your baby when you return at home?		
Keep cord stump clean and dry		[ ]
Always keep newborn warm, but not hot		[ ]
Breastfeeding on request		[ ]
Put the baby to sleep on his/her back		[ ]
Do not smoke in baby's room		[ ]
Sleep with the baby if you desire or fall asleep during breastfeed		
Don't sleep with the baby if you or someone in your bed take pills for sleeping or relax		
Other (specify):		
Do you plan to **tightly swaddle your baby**?	Yes [ ]	No [ ]
Can you tell me under what circumstances should you seek help for your baby?		

Umbilicus red or drained pus		[*]
Hypothermia/hyperthermia		[*]
Convulsions		[*]
Poor sucking		[*]
Vomiting or diarrhoea		[*]
Hypotonia or irritability		[*]
Breathing difficulties (fast breathing)		[*]
Other (specify)		
Do you know where to seek help and support for your baby?	Yes [ ]	No [ ]

Instructions for home care of the mother

Can you tell me how you will take care of yourself after you return at home?		
Daily wash with soap (also perineum)	Yes [ ]	No [ ]
Go for Caesarean wound check up	Yes [ ]	No [ ]
Go for episiotomy wound check up	Yes [ ]	No [ ]
Go for stitch removal	Yes [ ]	No [ ]
Wash nipples before each time the baby breastfeed	Yes [ ]	No [ ]
Sleep at least 8 hours and some more during the day	Yes [ ]	No [ ]
Organise partner or other family members help with home work	Yes [ ]	No [ ]
Other (specify):		

12. CONTRACEPTION AND FERTILITY REGULATION

Were you using contraceptives before this pregnancy?	Yes [ ]	No [ ]
Have you ever had an abortion?	Yes [ ]	No [ ]
If yes, how many?		_____ number
How many children do you have including this one?		_____ number

Did health staff discuss contraception methods with you?	Yes [ ]	No [ ]
If yes:		
Did health staff clearly explain you how these work?	Yes [ ]	No [ ]
Did staff describe possible side effects?	Yes [ ]	No [ ]
Did staff explain what to do if you experience side effect?	Yes [ ]	No [ ]
Would you like to use a contraceptive not to become pregnant again?	Yes [ ]	No [ ]
If yes, which contraception would you like to use?		
Intrauterine device (IUD)		[ ]
Oral contraceptives		[ ]
Condom		[ ]
Surgical sterilisation of woman or man		[ ]
Contraceptive injections		[ ]
Vaginal spermicides (creams, suppositories, jelly)		[ ]
Other vaginal barrier method (diaphragm, sponge, cervical cap)		[ ]
Lactation amenorrhoea method (LAM)		[ ]
Rhythms or temperature method		[ ]
Abortion		[ ]
Other (Specify):		

Observations

Now ask a mother if you can watch while she breastfeeds her baby. Tell her that you can come back later if her baby is not ready.

Try to stay until the end of the breastfeeding session and answer the following questions:

Are nipples washed before breastfeeding	Yes [ ]	No [ ]
Is baby tightly swaddled, including arms, shoulders and neck	Yes [ ]	No [ ]
Is mother's elbow supported during breastfeeding	Yes [ ]	No [ ]
If mother is seated, is her back supported during breastfeeding	Yes [ ]	No [ ]
Position of baby:		

Baby's nose opposite mother's nipple	Yes [*]	No [ ]
Straight neck or bending slightly back	Yes [*]	No [ ]
Body turned towards mother	Yes [*]	No [ ]
Body close to mother	Yes [*]	No [ ]
Newborn baby's whole body supported (not only head and neck)	Yes [*]	No [ ]
Attachment of baby to breast:		
Chin touching breast	Yes [*]	No [ ]
Mouth wide open	Yes [*]	No [ ]
Lower lip turned outward	Yes [*]	No [ ]
More aureole visible above than below mouth	Yes [*]	No [ ]
Why did breastfeeding end?		
Because baby stopped sucking spontaneously		[ ]
Because staff decided it should		[ ]
Because mother decided it should		[ ]
Other reason for ending breastfeeding:		
Other comments on breastfeeding session:		

Now ask the mother if you may examine her breast and look for breast traumas. <u>It is important to observe both breasts.</u>

Breasts condition:	
Engorgement	[ ]
Sore/cracked nipples	[ ]
Inverted nipple	[ ]
Signs of inflammation	[ ]
None of the above	[ ]

Now examine newborn baby and determine if cord care is adequate (dry, clean, no sign of inflammation).

Adequate cord care	Yes [ ]	No [ ]

Questions from the mother

Do you have any question to ask me? Any comments, suggestions and problems you would like to speak about and discuss with health providers or myself?

Write notes on the following lines

Summary score – Interview with mothers	Good	To be improved		
(to be circled)	**3**	**2**	**1**	**0**

Please indicate the quality of support by marking one of the 4 numbers; 3 indicates good support, from 2 to 0 indicating levels of necessary improvement (2=small need for improvement, 0=urgent need for improvement).