Minimum technical standards and recommendations for reproductive, maternal, newborn and child health care

EMERGENCY MEDICAL TEAMS

World Health Organization

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Foreword

Responding to the needs of people affected by disasters, outbreaks, displacement or other emergencies can be challenging, particularly in settings with limited health and rehabilitation infrastructure. The World Health Organization (WHO) Emergency Medical Team (EMT) Initiative supports populations affected by such situations ensuring a rapid, professional, coordinated medical response by both national and international teams.

These emergencies, particularly sudden-onset disasters, can result in a surge of traumatic injuries, emerging infections and other medical conditions that strain the health systems of those involved. What is also clear, however, is that there is frequently a large and often unmet need for reproductive, maternal, newborn and child health care (RMNCH). National and international EMTs, therefore, need to be aware of this, and prepare and respond accordingly. This guidance has been prepared to inform this preparation, and it particularly emphasizes the importance of aligning practices to the local context.

Developing this document has been a highly consultative process and is the product of collaboration between WHO and global experts from the RMNCH fields. Like all minimum standards, however, it should be viewed as a "living" document that evolves over time as new insights and evidence come to hand from users, recipients of medical services in emergency settings and practitioners.

I would like to extend my sincere appreciation to all the contributors to this document, both those who participated in formal working groups, and those who provided input through informal channels.

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Abbreviations

EMT	Emergency Medical Team
GBV	Gender-based Violence
IUD	Intrauterine device
MAM	Moderate acute malnutrition
MUAC	Mid-upper arm circumference
MVA	manual vacuum aspiration
PEP	Post-exposure Prophylaxis
RMNCH	Reproductive, Maternal, Newborn and Child Health
SAM	Severe acute malnutrition
SBA	Skilled birth attendant
SGBV	Sexual and Gender-based Violence
SOP	Standard Operating Procedure
STI	Sexually transmitted infection
WHO	World Health Organization

Introduction

National and international Emergency Medical Teams (EMTs) may be deployed to populations affected by disasters, outbreaks, conflict, displacement or other emergencies. Although there may be initial urgent health-care requirements for trauma-related surgery, these requirements quickly tail off and are replaced by other clinical conditions *(1)*. EMTs therefore need to be able to adapt their health-care provision to the emergency and routine medical care interventions usually provided by local health-care services.

Pregnant women, women in labour, neonates and children form around 75% of those affected by humanitarian crises globally *(2)*. There is an initially increased requirement for maternal care provision related to loss of local obstetric services, and an increase in newborn and child health problems – a group often vulnerable in the aftermath of a disaster. Each Type 1, 2 and 3 must ensure that they are capable of providing adequate reproductive, maternal, newborn and child health (RMNCH) care as detailed within this guidance, no matter what the primary mandate or focus of their deployment.

Table 1. Summary of maternal, reproductive and newborn technical standards required for EMT verification

	Type 1	Type 2	Type 3	Specialist Reproductive, Maternal and Newborn Team	Page
Team configuration (See Table 6 for details and page 14 for definitions)	• Doctor with RMNCH skills • Skilled birth attendant (and/or) • General nurse	• Doctor with paediatric experience • Surgeon trained and experienced in performing caesarean sections[a] • Anaesthetist • Nurse anaesthetist • General nurse • Skilled birth attendants	• Doctor with paediatric experience • Obstetric specialist • Anaesthetist • Nurse anaesthetist • General nurse • Skilled birth attendants • Neonatal or paediatric nurse	• Obstetric specialist • Anaesthetist • Skilled birth attendant • Neonatal or paediatric nurse	14
Training	• Pre-existing professional competency • Basic awareness training on RMNCH in low middle-income countries • Protection training				16
Equipment and consumables	• Suggested list in Annex 3				18
Patient management	• Basic emergency obstetric and newborn care (adapted, page 9) • Basic sexual and reproductive health	• Comprehensive emergency and neonatal obstetric care • Comprehensive sexual and reproductive health			20
Facilities	• Type 1 Facility, including private area	• Type 2 Facility, including maternity facilities	• Type 3 Facility, including maternity facilities and maternal and neonatal intensive care		23

[a] Though it is accepted that a general surgeon trained and experienced in performing caesarean sections is included in the team, it is strongly recommended that Type 2 has an obstetric specialist and two midwives in the team.

Table 2. Summary of child health technical standards required for EMT verification

	Type 1	Type 2	Type 3	Specialist Child Health Care Team	Page
Team configuration One third of team overall need paediatric experience (See Table 7 for details)	• Doctor with child health experience • Nurse with child health experience	• Doctor with paediatric experience • Surgeon with paediatric experience • Anaesthetist • Nurses *(3)*	• Doctor with paediatric experience • Paediatric surgeon • Anaesthetist • Paediatric nurses *(3)* • Neonatal nurse or nurse with neonatal experience	• Paediatric specialist or doctor trained in child health • Surgeon with paediatric experience • Anaesthetist • Nurses *(2)*	32
Training	• Pre-existing professional competency • Basic training on nutritional assessment and management • Basic awareness training on RMNCH in low middle-income countries • Protection training				37
Equipment and consumables	• Suggested list in Annex 4				40
Patient management	• Basic paediatric outpatient care • Screening for malnutrition	• Basic paediatric outpatient care • Screening for malnutrition • Inpatient management of medical and surgical cases	• Basic paediatric outpatient care • Screening for malnutrition • Inpatient management of medical and surgical cases, with intensive care capable of looking after both neonatal and paediatric cases.	• Basic paediatric outpatient care • Screening for malnutrition • Inpatient management of medical and surgical cases	42
Facilities	• Type 1 Facility, including private area	• Type 2 Facility, including identified paediatric outpatients and inpatient areas	• Type 3 Facility, including identified paediatric outpatients and inpatient areas, and neonatal intensive care area		46

Definitions

"Child" in the title refers to all those between the ages of 0–19 years *(3)*

Additional reference in the guidance is also made to:

Neonate	0–28 days
Infant	29 days to 12 months
Child	12 months to 9 years
Adolescent	10–19 years
Newborn	In this guidance "newborn" carries the same definition as "neonate."

Background

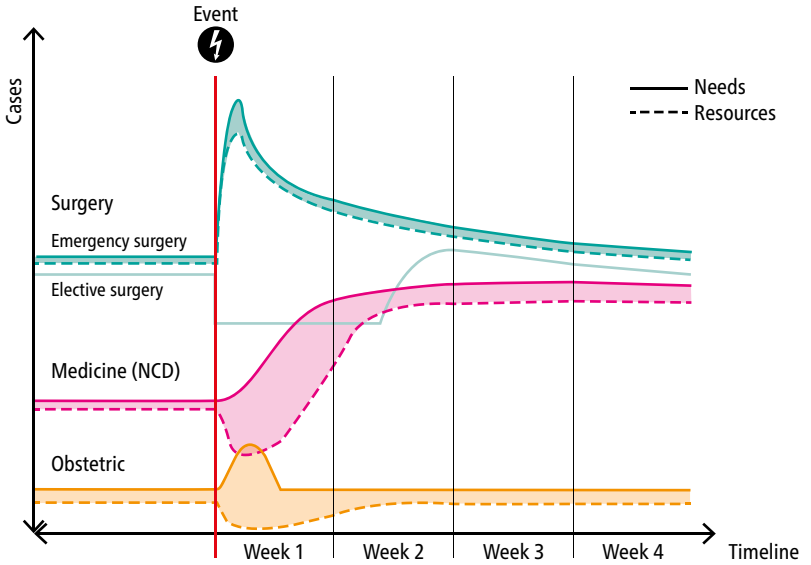
Emergency Medical Teams (EMTs) are groups of health professionals capable of providing direct clinical care to populations affected by disasters, outbreaks, displacement or other emergencies. They are deployed as supplemental surge capacity to local health services, either as a stand-alone facility or embedded within an existing health-care facility.

As these EMTs, which may be national or international, are usually required to work alongside other EMTs it is important that there is standardization to ensure a coordinated overall response. This standardization is outlined in the Classification and Minimum Standards for Emergency Medical Teams (EMTs) (the "Blue Book") *(4)*, in sudden onset disasters. Response in conflict situations is outlined in the "Red Book."

Recommended plans have evolved from lessons learnt after disasters and outbreaks in Ecuador, Fiji, Haiti, Nepal, the Philippines, Vanuatu and West Africa *(1)*. In terms of sudden onset disasters, for example, it has become apparent that the initial urgent health-care requirements for trauma-related general and orthopaedic surgery tail off within the first two weeks of an emergency response (Fig. 1). Injuries, wounds and fractures, occurring particularly after sudden disasters like earthquakes or tsunamis rather than landslides or flooding, will mainly present in the first fortnight. Only teams arriving very early will treat seriously injured patients, but this burden fades within two weeks to be replaced by other clinical problems *(5)*. Infections are the largest subsequent group, mostly of respiratory, digestive, eye or skin origin and children are more likely to be affected than adults. They emerge quickly and are probably due to poor living conditions in temporary shelters and camps, with lack of water, food and sanitation *(1)*. In addition, patients with chronic diseases (mostly heart diseases, high blood pressure, and asthma) destabilize through missing their routine treatment, and there is also a significant incidence of new psychological problems.

What is also now very clear is that pregnant women, women in labour, neonates and children form a large part of those requiring support, with 75% of

Fig. 1. Baseline surgical, medical and obstetric needs versus resources both before and after a sudden onset disaster *(5)*



those affected by humanitarian crises globally being either women or children *(2)*. More than 500 women die each day in pregnancy and childbirth in humanitarian and fragile settings, one in five refugees or displaced women have experienced sexual violence and, in some areas, less than a fifth of health facilities in crisis settings have been found capable of providing full family-planning care.

Therefore, EMTs need to be able to adapt their health-care provision to the emergency and routine medical care interventions usually provided by local health-care services. This includes an initially increased requirement for maternal care provision related to neglected obstetric problems prior to the arrival of EMTs, and an increase in newborn and child health problems – a group often vulnerable in the aftermath of a disaster. It is therefore essential that, during the acute, sub-acute, and recovery phase of any emergency response, the health-care activities provided and undertaken by an EMT are appropriately oriented and adapted towards these vulnerable groups.

Each Type 1, 2 and 3 must ensure that they are capable of providing adequate

Reproductive, Maternal, Newborn and Child Health (RMNCH) care as detailed within this document, no matter what the primary mandate or focus is of their deployment. Specialist teams should also consider the provision of their services and care to women and children, for example, burns care teams and rehabilitation. Experience shows that providing health care to children will usually lead to an influx, either immediately or shortly afterwards, of pregnant women. The converse is also true if maternal services are offered. It is therefore suggested that EMTs take this into consideration, and ensure capacity and capability for both populations.

As the importance of these RMNCH needs in emergency humanitarian settings cannot be overstated, a technical working group (TWG) was convened to agree and endorse a series of minimum standard recommendations for all typologies of EMTs. This used an "all hazards framework" in emergency responses and built on extensive existing RMNCH guidance *(6)*.

The RMNCH classification of EMTs by their typologies is summarized in Table 3.

Type 1 teams can work from existing structures, or supply their own fixed or mobile outpatient facilities, such as tents or specially equipped vehicles, and should be able to stay for at least two weeks. They should be available to arrive and be operational in the fastest possible time, ideally within 24–48 hours after the event, and be light and portable.

Specialist Reproductive, Maternal and Newborn Care Teams, or Specialist Child Health Care Teams, provide additional care embedded within existing Type 2 or 3 teams, or within a national hospital. They should bring appropriate medical and nonmedical equipment and consumables adequate to their specialty area.

Throughout this document RMNCH care has been broken down into the two areas of Reproductive, Maternal and Newborn Health Care and Child Health Care but recognizing that overlaps exist across the two, particularly around newborn skills. Maternal care will always require newborn support, and more complex neonatal care will form part of child health, particularly in Type 3 facilities, making these two groups complementary. There is also room for specific individual requests, such as for a specialist paediatric surgical team which could be put together using different components of existing Type 2 or 3 teams with such capability or by using local health facilities.

Details of the minimum standards of care are recommended for the different types of EMTs and specialized care teams in the areas of service provision, training,

Table 3. EMT classification overview

Classification	Description	Capacity	Minimum Length of Stay	Reproductive, Maternal and Newborn Health (see definitions pages 8 and 9)	Child Health Care
Type 1 mobile	Mobile outpatient teams to access the smallest communities in remote areas.	>50 outpatients per/ day	2 weeks	Basic Emergency Obstetric and Neonatal Care Basic Sexual and Reproductive Health	Basic emergency care and stabilization, outpatient paediatric care for injuries, endemic diseases, noncommunicable diseases and nutrition screening.
Type 1 fixed	Teams providing outpatient services in tented structures or working within existing facilities.	>100 outpatients per/ day	2 weeks	Basic Emergency Obstetric and Neonatal Care Basic Sexual and Reproductive Health	Basic emergency care and stabilization, outpatient paediatric care for injuries, endemic diseases, noncommunicable diseases and nutrition screening.
Type 2	Teams providing inpatient facilities with surgical capability within tented structures (or within existing structures if available).	>100 outpatients per/ day 20 inpatient beds 7 major or 15 minor operations a day	3 weeks	Comprehensive Emergency Obstetric and Neonatal Care Comprehensive Sexual and Reproductive Health	As for Type 1 (but advanced) emergency care and stabilization, emergency, inpatient paediatric care for surgical and general medical injuries, communicable and endemic diseases and clinical management of malnutrition.

Type 3	Teams providing referral-level care, inpatient facilities, complex surgery and intensive care.	>100 outpatients per/ day 40 inpatient beds with at least 4 intensive care beds and at least 1 incubator 15 major or 30 minor operations a day	8 weeks	Comprehensive Emergency Obstetric and Neonatal Care with intensive care support Comprehensive Sexual and Reproductive Health	As for Type 2, plus management of critically ill children, including complex paediatric surgical care, with intensive care capable of looking after neonatal and paediatric cases.
Specialist Reproductive Maternal and Newborn Team	Team that can join local facilities or EMTs to provide supplementary specialist care.	Variable	2 weeks	Comprehensive Emergency Obstetric and Neonatal Care Comprehensive Sexual and Reproductive Health	As for type 2
Specialist Child Health Care Team	Team that can join local facilities or EMTs to provide supplementary specialist care.	Variable	2 weeks	Comprehensive Emergency Obstetric and Neonatal Care Comprehensive Sexual and Reproductive Health	Emergency inpatient paediatric care for injuries and endemic diseases, or other combinations of requested skills (such as paediatric surgery).

equipment, and the facilities required to support these teams. Specific clinical management details are comprehensively covered elsewhere and direction is given to these sources. Finally, consideration is given to operational organization and protection issues.

Reproductive, maternal and newborn health care

PHOTO: WHO / BLINK MEDIA / NANA KOFI ACQUAH

Service provision and team configuration

This section details EMT requirements for respectful RMNCH care. From a maternal point of view this refers to care organized for, and provided to, all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth.

In sudden onset disaster settings, normal access to reproductive and emergency obstetric health care is often severely disrupted. Approximately 4% of a disaster-affected population are likely to be pregnant women and around 15% of all pregnant women will experience an unpredictable obstetric complication in their pregnancy that will require emergency obstetric care. Globally, the main causes of maternal mortality are haemorrhage, sepsis, obstructed labour, severe pre-eclampsia, eclampsia, miscarriage and unsafe abortion – all of which can be treated at a well-staffed, well-equipped EMT facility.

The level of maternal care is largely based on the "basic" and "comprehensive" classification as summarized below, with Type 1 teams offering an adaption of basic emergency obstetric and neonatal care, and Types 2, 3 and specialist care teams offering comprehensive emergency obstetric and neonatal care. It is recognized that both the mobile and fixed Type 1 facilities are focused on dawn to dusk provision and any transfer decisions should be made with professionalism and compassion. All teams should be aware of sexual and gender-based violence (SGBV) issues and be able to respond clinically.

There are considerable cultural advantages in the secondment or recruitment of local staff from within the community directly into the EMT. This could be, for example, from the ministry of health, and might include a midwife, or a nurse, or in some contexts a traditional birth attendant.

Maternal services

Minimum technical standards for maternal service provision to achieve verification

Type 1 (mobile and fixed)

- A Type 1 mobile should be able to support immediate care for any uncomplicated normal delivery and have the capability to transfer all other routine labouring women and complicated maternal cases to the nearest appropriate health-care facility.
- A Type 1 fixed should be able to support normal unplanned births and be prepared to transfer all other non-routine labouring women and complicated maternal cases to the nearest appropriate health-care facility. It is recognized that labour may take place at any time and may take longer than the operating hours of dawn to dusk provision in a Type 1 fixed facility, so extended stay care needs may require consideration.
- Teams should be able to identify maternal complications requiring referral and give parenteral antibiotics, administer uterotonics, treat eclampsia, and carry out maternal and neonatal resuscitation.

Type 2

- Operational hours of the outpatient department are as described for a Type 1 mobile and fixed, with the addition of 24-hour emergency care and inpatient management provision for RMNCH.
- Teams should be able to manage common obstetric complications, including pre-eclampsia, eclampsia, multiple pregnancy, malpresentation, malposition, perineal repair, sepsis, antepartum haemorrhage, postpartum haemorrhage, neonatal resuscitation, and the complications of those who have undergone genital mutilation.
- They should also be able to carry out assisted vaginal delivery and caesarean section, manual removal of placenta, and provide blood transfusion if required.
- Laboratory support should be available consistent with a Type 2 (see general EMT standards in the Blue Book).

Type 3

- In addition to skill sets for Type 2, Type 3 teams should have the ability to manage all major obstetric complications, as well as offer both neonatal and maternal intensive care support.

Specialist maternal and newborn care teams

- When combined with an existing facility or other appropriate EMT, these teams should provide the level of maternal and neonatal support offered by a Type 2.

If a normal birth has taken place at a Type 1 facility and the mother or baby require observation, EMTs should have contingency plans in place for such extended care needs that allow them to remain within the facility as needed for observation, which may include an overnight stay. Coordination with a nearby Type 2 for ongoing support is recommended.

Women with significant pregnancy complications, such as major haemorrhage or severe pre-eclampsia/eclampsia, may also present to a Type 1 facility. They require stabilization before transfer to a Type 2 or 3 facility. In those presenting with a retained placenta it may not be possible to carry out a manual removal of placenta because of a lack of anaesthetists and women who are not bleeding should ideally be transferred to a Type 2 facility if available. If there is significant bleeding, and manual removal is part of the Type 1 team's skill set, it is reasonable to carry out a manual removal of placenta without anaesthesia.

It is often possible to remove retained products of conception in early pregnancy using either misoprostol or by manual vacuum aspiration (MVA), which only requires local anaesthesia to the cervix. If MVA is not tolerated, the woman should be referred to a Type 2 facility.

Recommended standards for maternal and newborn service provision to achieve optimal care

Preventing mother-to-child transmission is not a specific recommendation in this guidance, but the ability to test for HIV in suspected cases is recommended, with the expectation that onward referral, if available, is offered.

Type 1 (fixed and mobile)

- Ideally the teams should be able to undertake simple perineal repair, offer MVA, undertake manual removal of placenta and assisted vaginal delivery; these will, however, be dependent on the skill set available in the team.
- Ultrasound skills and equipment are recommended.

Sexual and reproductive health services

Minimum technical standards for sexual and reproductive health-care provision to achieve verification

Care for survivors of sexual assault

- Full supportive care, including sexually transmitted infection (STI) management.
- All teams should be able to offer or ensure access to the provision of emergency contraception to the fullest extent of the law in the context within which they are working.
- Post-exposure prophylaxis for HIV (PEP) should be available at all levels following sexual assault.

Abortion care

- All teams should offer post abortion care.
- All teams should offer, or ensure access to, safe abortion care to the fullest extent of the law in the context within which they are working.[1]

STI

- All teams should be able to treat STIs based on the syndromic presentations of female genital ulceration, vaginal discharge, lower abdominal pain and inguinal bubo.
- Treatment should also be available for urethral discharge in men.

[1] Any EMT which feels that they might have challenges with meeting this aspect of care provision (for whatever reason) is strongly encouraged to self-declare their limitations to those responsible for the coordination of medical activities during an emergency. This is to ensure there is a plan in place for the ongoing care of this patient group, where appropriate.

Recommended standards for sexual and reproductive health-care provision to achieve optimal care

Contraceptive provision

While contraceptive needs may be less essential in the early phase of an emergency response or disaster, they may become more so over time as teams support overwhelmed local services.

- Consideration of contraceptive provision is recommended in some form for all EMTs if allowable in country. If contraception is not provided by an EMT, patients should be directed to the nearest appropriate family planning services available.
- Long-acting Reversible Contraception, including intrauterine devices (IUDs) – if usually available in the deployed country – is also recommended, particularly for teams working beyond the initial emergency life-saving phase.

Table 4. A summary of the reproductive and maternal services offered by EMTs

	Type 1 (mobile)	Type 1 (fixed)	Type 2	Type 3	Specialist reproductive, maternal and newborn team
Antenatal					
Antenatal care	✔	✔	✔	✔	✔
Normal delivery					
Delivery	✔	✔	✔	✔	✔
Perineal repair	Rec[d]	✔	✔	✔	✔
Basic emergency obstetric care*					
Parenteral antibiotics	✔	✔	✔	✔	✔
Parenteral oxytocics	✔	✔	✔	✔	✔
Parenteral MgSO4	Rec[d]	✔	✔	✔	✔
Manual removal of placenta	Rec[d]	Rec[d]	✔	✔	✔
Management of miscarriage, including MVA	Rec[d]	Rec[d]	✔	✔	✔
Assisted vaginal delivery	Rec[d]	Rec[d]	✔	✔	✔

	Type 1 (mobile)	Type 1 (fixed)	Type 2	Type 3	Specialist reproductive, maternal and newborn team
Maternal and neonatal resuscitation	✔	✔	✔	✔	✔
Comprehensive emergency obstetric care*					
Caesarean section			✔	✔	✔
Blood transfusion			✔	✔	✔
Postnatal					
Postnatal care	✔	✔	✔	✔	✔
Additional obstetric support					
Gestational diabetes			✔	✔	✔
Ultrasound			Rec[d]	✔	Rec[d]
Basic testing for urinalysis, pregnancy testing and haemoglobin	✔	✔	✔	✔	✔
Additional laboratory support			✔	✔	
Testing for HIV and syphilis			Rec[d]	Rec[d]	Rec[d]
Intensive care support				✔	
Sexual and reproductive health					
Clinical management of SGBV	✔	✔	✔	✔	✔
Post abortion care	✔	✔	✔	✔	✔
Medical abortion**	Rec[d]	✔	✔	✔	✔
Surgical abortion**	Rec[d]	Rec[d]	✔	✔	✔
PEP (5-day starter treatment)	✔	✔	✔	✔	✔
Contraception (emergency)**	✔	✔	✔	✔	✔

* Based on adapted Basic Emergency Obstetric and Neonatal Care functions as described on page 9

** With caveat in standards box above

Rec: Recommendation

It is more important for clinical staff to have competencies for the services required in Table 5 rather than be of a specific training background, cadre or grade. It is recognized that this may vary considerably between teams and country to country. As a minimum the staff should be able to practice independently in their specialist area and, if in training, be permitted to work without supervision in their home country.

It is important to respect that, in certain cultural contexts, there may be circumstances or a preference that patients be seen by or may request to be seen by female staff. For this reason, cultural context should be carefully considered by each EMT when developing their deployable teams. It is also realistic to recognize that, in practice, this preference might not always be possible to arrange.

Table 5. Workforce for reproductive, maternal and newborn health

Minimum technical standards for reproductive, maternal and newborn team configuration to achieve verification				
	Type 1 (mobile and fixed)	Type 2	Type 3	Specialist reproductive, maternal and newborn team
Medical				
Doctor experienced in emergency and primary care, and in maternal and child health	1	1	1	
Obstetric specialist		*	1	1
Anaesthetist (should have obstetric and paediatric experience if no paediatric anaesthetist)		1	1	1
Nursing and midwifery				
Nurse anaesthetist (or equivalent)		1	1	
General nurse	1	1	1	
Skilled birth attendant (e.g. midwife) *(7)*	1	2	2	1
Neonatal or paediatric nurse			1	1

Recommended standards for sexual and reproductive health-care team configuration to achieve optimal care

* Type 2: Though it is accepted that a general surgeon trained and experienced in performing caesarean sections is included in the team, it is strongly recommended that Type 2 has an obstetrician/obstetric specialist and two midwives in the team.

For Type 2 and 3

- At least one skilled birth attendant on duty per shift with an on-call obstetric specialist available. Increased capacity should be in a 1 : 2 doctor to midwife ratio, or 1 : 3 doctor to midwife ratio if this was the initial team composition.

SGBV

- There should be an identified team member who can act as the SGBV focal point for the team who will support, undertake and advise on the management of any SGBV cases that may present during any deployment (see page 53).

Training

Staff providing direct clinical care in the EMT, should also be undertaking relevant clinical work in their country of registration and should demonstrate that they are updated in recent clinical developments.

Definitions

Skilled birth attendant (SBA)

- This is a maternal and newborn health professional competent to provide quality health care to women and neonates, facilitate physiological processes during labour and birth, and identify and manage or refer women and/or neonates with complications *(7)*.

Obstetric specialist or clinician with equivalent maternal care experience

- This is a clinician actively involved in maternal care who is capable of functioning independently. Capability for this can be self-declared, but should also be validated through the recruitment process of the EMT. The clinician should have the ability to undertake caesarean and assisted vaginal deliveries without supervision and also be competent in manual removal of the placenta, manual vacuum aspiration (MVA), Long-acting Reversible Contraception (such as implant or IUD), STI management, prevention of mother-to-child transmission of HIV and have an appropriate grounding in ethical decision-making.

Recommended adaptive training for reproductive, maternal and newborn health-care training to achieve optimal care

- All clinical team members should be offered basic awareness training on maternal, reproductive and neonatal health-care provision in low middle-income countries. This could be in the form of a talk, lecture, online platform, for example, at Global Health Media, *(8)* or required reading and discussion, as part of pre-deployment training and orientation.

- Protection training should be offered to members of EMT.
  - Protection awareness, including SGBV, is recommended for all team members. This could be in the form of a talk, lecture or an online platform.
  - Specialist training in protection awareness, including SGBV, is required for at least one team member who acts as the protection lead, for example, completes the United Nations Population Fund (UNFPA) training *(9)*.
- Nonexperts in maternal and reproductive health, such as general nursing and paramedical staff, are also encouraged to undertake additional practical training, for example a maternal care course orientated to a low middle-income country, so that they can support the SBA during a deployment and in the event of possible complicated labours.
- Opportunities should be taken to build local capacity through the delivery of training to locally recruited staff whenever possible. This should ideally also involve local staff to ensure that teaching is consistent with local practice.

Equipment and consumables

Teams should be self-sufficient with enough equipment and consumables for 14 days in the first instance or have means to demonstrate 14-day self-sufficiency. It is recognized that this will vary depending on whether the team is national or international and the emergency situation itself, which may be difficult to predict with any accuracy. In some deployments, for example, there may already be a supply of equipment or medications available locally, particularly for specialized care teams, and in other situations consumables brought by an EMT may be very inadequate. It is also recognized that there will be considerable overlap in equipment between reproductive and maternal health, as well as other services offered by the EMT.

Recommendations in this area are therefore only guidance and each team should establish their own lists consistent with individual needs and the expected staffing skill sets within their type of EMT, ideally based on existing resources *(10) (11)*. The areas to be covered are listed below and an example (based on the experience of a number of teams) is included in Annex 4.

Minimum technical standards for reproductive, maternal and newborn health management to achieve verification

Teams should have adequate equipment, consumables and medications for reproductive, maternal and newborn care. This should take into account the wide range of sizes and weights involved. For examples see Annex 4.

EMTs need to either supply the appropriate equipment and consumables or ensure access to them through pre-agreements with the host facility they will be working within in the case of specialist teams.

- Each EMT must, as part of their total deployment pharmaceuticals stock, hold enough essential maternal and newborn pharmaceuticals for a minimum of 14 days and have arrangements in place to resupply for the duration of their

total deployment in the case of international teams, and for at least three days in the case of national teams. There are various methods by which teams can prepare for deployment readiness with their pharmaceuticals. Practical advice on how to achieve this can be found in the EMT Toolkit.

- Vaccine requirement and cold chain to include tetanus and hepatitis B for post rape prophylaxis.
- Oxygen is an essential requirement for all types of EMTs. This can be either be provided through the use of an oxygen concentrator or tank (or both), as long as there is means to support oxygen requirements during any patient transfer, such as a tank or portable oxygen concentrator.
- The provision of safe blood transfusion is essential for Types 2 and 3 and specialist maternal and newborn care teams. Teams will need to ensure that they meet the minimum technical recommendations outlined for a blood transfusion as described in the EMT Toolkit. Plans for blood transfusion services for specialist teams may include agreements with host ministry of health or local blood transfusion services but should be robust, meet minimum standards and not be at risk of stock out.
- Appropriate lights (headlights and room lights) and good hand-washing facilities are required. There should also be adequate blankets, gowns, bed linen and dignity kits.
- Surplus pharmaceuticals management plans following exit of the EMT should be in place. Any pharmaceutical donations should comply with WHO Guidelines for Medicine Donations *(12)* and, likewise, any drug destruction should follow the WHO safe management of waste from health-care activities *(13)* to minimize risks to public health and the environment.

Patient management

It is accepted that, in emergency situations, difficult decisions may need to be taken around triaging those most likely to survive. It is also accepted that difficult decisions may need to be taken around preterm delivery, corticosteroid administration, resuscitation and ongoing supportive care. These decisions should be made in the context of local standards and resources, and in consultation with local personnel and families *(14)*.

There is an ethical responsibility on the part of the EMTs management and team leaders to prepare team members for this difficult decision-making. It is good practice to consider the establishment of an ethical committee during deployment at which ethical dilemmas or difficult decisions can be discussed, allowing some shared responsibility (see EMT Toolkit on ethics committees).

Given that there are already good clinical publications in the field of RMNCH (see below), no attempt will be made to guide direct clinical care. SGBV issues, however, may be less familiar to some clinicians and are summarized in Annex 1.

Minimum technical standards for reproductive, maternal and newborn health management to achieve verification

- There should be good documentation of all care, especially labour. Although not evidence-based, and there is an understanding that the alert and action lines are for guidance rather than as an absolute prompt for action, the WHO partograph can be used as part of this documentation. The partograph can also facilitate communication across language boundaries and for patient transfer.
- It is important within most countries that births are registered. As a minimum, details of birth occurrences within the EMT should be kept and this information passed to local country authorities prior to departure. A notification of birth should also be given to the mother. Daily reporting of the total number of births forms part of the Minimum Clinical Data Set.

- The Minimum Data Set (EMT-MDS) daily reporting form, or an agreed alternative with the ministry of health of the affected country, should be completed.

Recommended patient management standards for reproductive, maternal and newborn health care to achieve optimal care

- Clinical Standard Operating Procedures (SOPs) should be available for conditions with which team members may be less familiar, for example, severe pre-eclampsia, eclampsia, retained placenta, post-partum haemorrhage, sepsis, uterine inversion, STI syndromic management, suspected ectopic pregnancy or contraceptive scenarios. These could be written by the EMT or be provided from existing publications as appropriate. Clinical SOPs may be particularly useful in a new situation, such as an outbreak scenario.
- Operational SOPs should clearly describe and outline how, and who, should do what within the maternal and reproductive health team (for example, at what point to refer to a larger facility, or who manages patients with more complex presentations – see examples in Annex 3).
- Adequate reference texts should be available to those providing care. Options are suggested under Clinical Guidance below.

Issues around transferring a patient from a Type 1 mobile and fixed facility to a Type 2 or 3 facility

- The patient should be stabilized as much as is reasonably possible before transfer with the acceptable level of stability depending on the context, such as distance, skills of the transfer team and mode of transport. Depending on the diagnosis, this may entail maternal stabilization by administration of fluids, magnesium sulfate, parenteral antibiotics or uterotonics.
- If delivered, it is important that babies are kept warm during transfer by such methods as a warming pouch or kangaroo care which can be used by the mother or a relative.
- It is important to notify the receiving facility, if possible by telephone. The Situation, Background, Assessment, Recommendation system works well for this purpose, as do other formats (see example in Annex 6). A letter that summarizes the situation may also be sent.

- Team members supporting patient transfer should be experienced in maternal and newborn care and have access to an appropriate transfer kit bag.

Clinical guidance in reproductive, maternal and neonatal care

General reference:

- The Inter-agency Field Manual on Reproductive Health in Humanitarian Settings *(15)*
- Minimum Initial Service Package for Reproductive Health *(16)*

Maternal and neonatal clinical reference information

- Essential Obstetric and Newborn Care MSF 2017 *(17)*
- Pregnancy Childbirth Postpartum and Newborn Care. A Guide for essential practice WHO, UNFPA and UNICEF (2015) *(18)*
- Integrated Management of Pregnancy and Childbirth. Managing complications in pregnancy and childbirth: a guide for midwives and doctors. WHO, UNFPA and UNICEF (2017) *(19)*
- Integrated management of Pregnancy and Childbirth. Managing Neonatal Problems: a guide for midwives and doctors. WHO, UNFPA and UNICEF (2003) *(20)*
- Pocket book of hospital care for obstetric emergencies including major trauma and neonatal resuscitation. MCAI. 2015 *(21)*
- Newborn Health in Humanitarian Settings Field Guide. IAWG (2017) *(22)*
- Intrapartum care for a positive childbirth experience. WHO (2018) *(23)*

Sexual and reproductive health clinical reference information

- WHO eligibility criteria for contraceptive use (2015) *(24)*
- Family Planning – a global handbook for providers (WHO, John Hopkins, USAID 2018) *(25)*
- Inter-agency Field Manual on Reproductive Health in Humanitarian Settings (2010) *(26)*
- Safe Abortion: technical and policy guidance for health systems (2012) *(27)*
- Guidelines for the management of sexually transmitted infections (2018) *(28)*

Facilities

Minimum technical standards for reproductive, maternal and newborn health facilities to achieve verification

- Teams must have a designated area within their facility which fulfils the minimum criteria for privacy, protection, temperature, light and space with access to equipment and supplies.

Recommended standards for sexual and reproductive health-care facilities to achieve optimal care

Overall

- Type 1 fixed and mobile should ideally have a safe space for women and children *(29)*. This can be an formal or informal area where women and girls feel physically and emotionally safe from trauma, excessive stress, violence (or fear of violence) or abuse.
- There should be a method of establishing a safe perimeter to define the boundary, and some form of lighting.

Type 1 mobile

- A dedicated private area should be provided for stabilization, emergency delivery (if required), or protection management. It is recognized that the nature of this private area will depend on the context of the facility. This might be within an existing facility, or in a tent or gazebo (with screens), and may also be shared flexibly with paediatrics or other services.
- A roll-up mattress or a bed of an appropriate height, usually a foldable one that can double as a cot is required. This does not specifically have to be a delivery bed.

Type 1 fixed

- As described above for Type 1 mobile. In addition, there should also be two beds of an appropriate height or roll-up mattresses and, again, these do not specifically need to be delivery beds. A small table should be included.

Type 2

- A dedicated area within the EMT for maternal care should be set up. This can be within a number of different structures or a single area with partitions which are close to the operating theatre and to paediatrics.
  - It should include an area within the EMT that is private and sectioned off from the main clinical activities for labour and delivery (for example, a screened area or, where possible, a separate structure).
  - Antenatal and postnatal inpatient areas should be set up and could be a separate ward or a screened area within a female ward.
  - There should also be an area for outpatient antenatal care.
- A specific maternal delivery bed is required in case assisted delivery is required.

Type 3

- In line with the Type 2 facility, there should be a dedicated infrastructure for all maternal, reproductive and neonatal health-care activities.
- The ICU must have the potential to manage maternal and neonatal patients with appropriate climate control and have the option of screening off a darkened and quiet area for severe eclampsia.

Specialist reproductive, maternal and newborn health-care teams

- These teams will usually embed within a local facility or other EMT. Consideration for initial service package and practical means for division and screening should be considered as the minimum requirement.
- Consideration of the building's safety in any natural disaster context is required before embedding within a local facility.

It is recognized that the configuration of ward space will depend on multiple clinical and cultural factors. If two wards are available, for example, it may be reasonable to have a male ward and a female ward (with maternal), dividing the children between these as indicated. Alternatively, if there is a high prevalence of communicable disease, such as an outbreak scenario, then having a ward for those with communicable disease and those without may be more appropriate, irrespective of gender. Similar considerations also apply to facilities with three or four wards, for example, with one male ward, one female ward, and one or two wards as paediatric, maternity or for communicable diseases depending on the specific situation.

The principles governing the configuration of ward space are as follows:

- ensure that there is a plan in place for communicable disease screening and isolation capacity, with appropriate infection, prevention and control measures;
- consider tent partitions for privacy, especially in a maternity context;
- consider the Universal Rights of Children and Parents to keep them together whenever appropriate *(30)*;
- ensure that there is enough space for health-care personnel to be able to work easily;
- consider involving relatives in the nonmedical care of patients to free up time for the clinical staff and;
- have clear SOPs for accompanying persons, such as caretakers and visitors.

Child health care

PHOTO: @ AECID SPAIN

Service provision and team configuration

This section details the EMT requirements for child health care. Globally, the leading causes of death in children under 5 years are preterm birth complications, pneumonia, birth asphyxia, diarrhoea and malaria *(31)*. Preterm birth, intrapartum-related complications (birth asphyxia or lack of breathing at birth) and infections cause most neonatal deaths. From the end of the neonatal period and through the first 5 years of life, the main causes of death are pneumonia, diarrhoea and malaria.

Children form almost half of the population of many at-risk low middle-income countries in which emergencies are likely to occur. They have specific needs before, during and after an emergency, which if not addressed, may have a lasting impact on the child and their community.

In general, after sudden onset disasters, young injured children will either have died of their trauma, or be mildly injured. Those who are seriously injured, however, have lower survival rates than older children or adults after serious injury *(32)*. Children under age 5 are considered the most vulnerable group in terms of communicable and vector-borne diseases. Many of these younger children presenting to an EMT will have an infectious disease, usually of respiratory, digestive, skin or eye origin. Their vulnerability may be compounded by a lower baseline health status, incomplete immunization schedules and malnutrition, while poor housing or living in temporary shelters and related poor sanitation conditions along with reduced access to safe drinking water complicate care, as well as contribute to the causes of illness *(1)*.

All teams should be able to provide basic essential neonatal and paediatric emergency and trauma stabilization care, alongside the ability to respond to common childhood communicable and noncommunicable illnesses. EMTs with a surgical capability, meaning Type 2 and 3 facilities and specialist cells, will also need to be able to provide appropriate anaesthesia, surgical, postoperative and medical care to the child population that present at their facilities. It is

recognized that both mobile and fixed Type 1 facilities are focused on dawn to dusk provision and any transfer decisions that may be required should be made with professionalism and compassion.

Some emergencies also have an impact on food security which adversely affects the nutritional status of at-risk groups, especially children (< 6 months and 6–59 months) and pregnant and lactating mothers. Malnutrition is an underlying contributing factor that leaves children more vulnerable to severe diseases, particularly those with severe acute malnutrition (SAM) or moderate acute malnutrition (MAM), as they have a higher risk of death from common childhood illnesses, such as diarrhoea, pneumonia and malaria.

As a minimum, EMTs should be able to undertake nutritional screening of children aged 6–59 months as part of their first patient contact and triage assessment. In emergency contexts for children 6–59 months, the exclusive use of a mid-upper arm circumference (MUAC) measurement, instead of weight for height, can be used as an indicator of nutritional status and in contexts of high malnutrition rates, kwashiorkor should be considered. For children under age 6 months weight should be used, although it is recognized that this may not be possible in smaller Type 1 mobile or fixed teams. In all scenarios, when a patient has been identified as being malnourished, initiation of treatment and preferably immediate referral (when available) for any MAM or SAM patient with an identified medical complication should be undertaken.

In addition, all members of the staff team should be aware of and able to respond to child protection issues. Good child safeguarding mechanisms should be in place to support best practices *(33)*.

International EMTs should aim to include and integrate local health-care workers with paediatric experience as soon as possible into their staff team to increase awareness of local pathology, treatments, cultural norms and habits, and local referral points for paediatric care and child protection.

Child health services

Minimum technical standards for child health-care provision to achieve verification

Type 1 mobile and fixed

- Type 1 teams must be able to provide: basic emergency care and treatment of trauma stabilization injuries specific to the emergency; outpatient paediatric care as part of primary health-care provision; the screening and isolation of communicable diseases endemic to the region; and the basic management of noncommunicable diseases.
- Teams should be able to undertake malnutrition screening for children aged 6–59 months as part of the child's baseline assessment using MUAC *(34)*, initiate ambulatory treatment in uncomplicated cases if required, and have clearly identified referral pathways for malnourished patients.
- Having a paediatrician in the team is recommended but not mandatory. Experience in managing paediatrics, however, is required and should be competency-based.

Type 2

- Operational hours for outpatients are as described for Type 1 mobile and fixed, and there should be 24-hour emergency care and inpatient provision for child health.
- Teams should be capable of all competencies required for Type 1 mobile and fixed, and care provision should be at a more advanced level for all outpatient and inpatient services as described.
- Screening and treatment of malnutrition should be available as described in patient management.
- They must also have the required experience and equipment to manage paediatric surgical and nonsurgical cases and initial stabilization and clinical management of malnourished cases with medical complications until a more suitable referral option is identified.
- Teams should have at least one doctor with paediatric experience and paediatric nurses with the competency and specialist skill sets to provide the expected level of care already described.
- At least one surgeon and anaesthetist within the surgical team should have experience in paediatric surgery and anaesthesia. More complex paediatric surgery cases should be referred to a Type 3 facility.

Type 3

- Type 3 teams should be capable of all the descriptors for Type 1 and 2 care and, in addition, the ability to manage neonatal and paediatric patients with intensive care requirements.
- They should be able to act as a referral centre for complex surgical and medical paediatric cases.

Specialized child health-care teams

- When combined with an existing facility or other appropriate EMT, Type 3 teams as a minimum should be capable of the level of child health care offered by a Type 2.
- This can be considered as a purely medical, surgical or combined medical and surgical component of a Type 2 or 3 for augmentation support.

Recommended standards for child health-care provision to achieve optimal care

- Clinical staff (experienced and/or specialized) in the team for child health-care provision should have experience in neonatal care, clinical paediatrics, paediatric emergencies, trauma and wound care, nutrition, fluid and electrolyte management, conscious sedation, pain management and specific paediatric drug dosages. Inclusion of a specialized paediatrician in Type 2 teams is recommended.
- Type 3: Inclusion of at least the following clinicians is strongly recommended: one specialized paediatric emergency medical doctor, one paediatric surgeon, one paediatric anaesthesiologist, and one nurse specialized in neonatal intensive care.
- There should be familiarity with procedures such as oxygen therapy in children, indwelling venous catheters, fluid and electrolyte management in children, intra-osseous lines, chest drain procedures, placement of urinary catheters, bladder taps, lumbar punctures, ascitic taps, nebulization therapy and noninvasive ventilation.

Although this section is primary referred to as child health care, there is likely to be overlap with neonatal care and this has therefore been included here. It is recognized that treatment of more serious illnesses in a Type 1 facility will involve stabilization and transfer upwards to the next appropriate level of care provider.

Newborn care

Minimum technical standards for neonatal care provision to achieve verification

- All teams should be able to provide essential newborn care, and to manage small and sick newborns.

Child care

Minimum technical standards for child health-care provision to achieve verification

- All teams should be capable of dealing with respiratory and gastrointestinal conditions, as well as common communicable and noncommunicable diseases.
- The immediate management of moderate and severe malnutrition is also important, but with a view to ongoing referral if required.
- Tetanus vaccination should be available, but routine vaccination programmes are not part of the function of an EMT.

Workforce for newborn and child care

It is more important for clinical staff to have skills-based competencies for the required services listed in Table 6 rather than be of a specific training background, cadre or grade, as this varies considerably between teams and from country to country.

As a minimum, the clinical staff member should be able to practice independently in their respective specialist area. The total number of clinical staff should be sufficient to be able to manage a roster, the expected patient load per type of facility and health-care activities to be undertaken.

Table 6. Workforce for newborn and child care

Minimum technical standards for child health care team configuration to achieve verification	Type 1 mobile and fixed	Type 2	Type 3	Specialized Child Health Care Team
Medical				
Medical doctor trained and competent in emergency, trauma stabilization and primary care in newborn and child health.	1	1	1	–
Doctor with paediatric experience (ideally with emergency department experience)	–	1	1	1
Doctor with paediatric surgical experience	–	1	1	1
Anaesthetist (or should have paediatric experience if no paediatric anaesthetist)	–	1	1	1
Nursing				
General nurse	1	1	1	–
Paediatric nurse	–	1	1	1*
Neonatal nurse	–	–	1	–
Nurse with paediatric anaesthetic experience	–	1	1	1*
Operating theatre (OT) nurse (or should have paediatric experience if no paediatric OT nurse)	–	1	1	1

Experience in neonatal and child health has also been defined broadly under paediatric care and is further described below.

* For the Specialized Team, either one or the other is required.

Definitions

- Paediatric experience is defined as three years of clinical experience after training, with at least two years of this in paediatric care. For example:
  - an emergency care nurse with three years post training who has worked two of those years in a mixed adult and paediatric emergency department or;
  - an emergency medical doctor who has three years' experience in an emergency department post-qualifying, but has worked at least two years of this time in a mixed adult and paediatric emergency department, primary health care or general practice setting or;
  - a surgeon or anaesthetist with at least three years' specialist experience within their respective technical area but at least two years of this time spent working in paediatrics.
- A paediatric specialist, meaning paediatrician or paediatric nurse, is defined as having three years' specialist experience within paediatric care. For medical doctors, surgeons and anaesthetists, this also means that they do not require supervision to undertake any given clinical task.

Recommended experience and skill mix to achieve optimal care

Type 1 mobile

- At least one third of the total clinical teams should have paediatric experience, for example, out of a team of six clinical members two would need experience in paediatrics.

Type 1 fixed

- At least one third of the total clinical team should have paediatric experience, for example, out of a team of 12 clinical staff members four would need experience in paediatrics.

Type 2

- At least one third of the total clinical team should have paediatric experience, for example, out of 40 clinical team members 14 would need experience in paediatric care and should have:
  - at least one paediatrician; and

- a minimum of 3–5 paediatric nurses with mixed skill sets, some in emergency, surgical or critical care.

- The team must ensure that there is at least one paediatric nurse on shift at all times, and the paediatrician(s) should work daylight hours and on call as required.
- Increased capacity should be in a ratio of one paediatrician to two or three paediatric nurses, for example, two paediatricians to four or six paediatric nurses.

Type 3

- At least one third of the total clinical team should have experience in paediatric care, for example, out of 60 clinical team members, 20 would need experience in paediatric care.
- In addition, one sixth of the total clinical team should be specialized in paediatric care, for example, nine would need to be specialized in paediatric care:
  - at least one paediatrician, one paediatric surgeon and one anaesthetist skilled in paediatric anaesthesia; and
  - six paediatric nurses with mixed skill sets in emergency, surgical and critical care, as well as in a Neonatal Intensive Care Unit.
- This team must ensure that there is at least one paediatric nurse on duty at all times and the paediatrician(s), paediatric surgeon(s) and paediatric anaesthetist(s) work daylight hours and on-call as required.

Specialized Child Health Care Teams

- Dependent on context, they could augment capacity using their paediatric team members.
- As a minimum, this would be one paediatrician and 2–3 paediatric nurses for surge and capacity support, extrapolated if required.

Additional workforce considerations

1. Malnutrition

In contexts where there is known chronic food insecurity, EMTs should ensure that they have an identified staff member within the clinical team who is skilled and experienced in clinical case management of malnutrition *(35)*. This staff member will then act as the technical focal point for the rest of the team during deployment.

2. Child protection

All EMTs, including stand-alone specialized care teams, should have an identified child protection focal point within the team during any deployment (see page 53).

Training

Staff undertaking clinical EMT work during a deployment should be participating in the relevant clinical work in their country of registration and should demonstrate that they are competent and updated in recent clinical developments. Clinical staff should be able to practice independently in their specialist area.

On top of the common core training content and suggested delivery modalities developed by the EMT training technical working group WHO EMT Training Package, each team should consider appropriate child health training that will allow clinical team members to adapt and apply their technical skills to the austere conditions of an emergency and the context in which they will be working. There is no set list, but EMTs should consider the core skills and competencies required to fulfil a particular role or function during a deployment.

Thought should be given to areas which the clinical team member will be less familiar, including international teams that may be less familiar than national teams in endemic disease management, such as malaria or malnourished children. For both national and international teams, rapid detection through screening, isolation and case management of important, high-risk communicable diseases should be considered a training priority, particularly due to the all-hazards capability of EMTs.

Recommended adaptive training for child health care to achieve optimal care

General

- All clinical staff in the team should have the following training.
  - Basic adaptive training on the likely newborn and child health care issues in low middle-income countries and emergency contexts. This could be in the form of a talk, lecture or in online form.
  - Have an introduction to nutrition and basic training, especially on how to undertake a mid-upper arm circumference (MUAC) and nutrition assessment at the point of first contact with a patient.
  - Be trained in rapid detection through screening, isolation and case management of important, high-risk communicable diseases.
  - All team members (clinical staff and nonclinical staff) should receive basic child protection awareness. This could be in the form of a talk, lecture or in an online form.
  - Further training in protection awareness is required for at least one identified team member who will act as protection lead.
- Specialist training in understanding of the clinical management of malnutrition should be considered for those identified as the nutritional focal points within the team.
- Suggested adaptive practical training is recommended on equipment and consumable orientation, patient flow and clinical care pathways, and ultrasound diagnostics for team members involved in paediatric care.
- Opportunities should be taken to build local capacity and deliver local training if possible. This should ideally involve local staff from the health ministry to ensure that teaching is consistent with local practice.

Teams

- For Type 1 facilities the following training and experience is recommended for team members:
  - WHO Emergency Triage and Treatment Course *(36)*;
  - experience of, or understand, malnutrition and its clinical management;
  - familiar with fluid and electrolyte management in children;
  - able to calculate paediatric drug dosage, or access to a manual for drug dose calculation *(37)*;

- familiar with endemic diseases (including Malaria, HIV and TB);
- familiar with transport preparation for newborn or paediatric transport;
- familiar with team equipment for low resource settings (O2, non-invasive ventilation, intraosseous infusion, thorax drain, ascitic drain, urinary catheter); and
- familiar with using Point of Care Testing (PoCT).
- Those delivering paediatric care in Type 2 facilities should have the above plus at least one person with Advanced Paediatric Life Support, Neonatal Life Support and Advanced Trauma Life Support experience (or equivalent).
- Type 3 should be the same as Type 2 but also have Paediatric Intensive Care Unit and Neonatal Intensive Care Unit as daily practice rather than occasional practice.

Equipment and consumables

As discussed for Reproductive, Maternal and Newborn Health, teams should be self-sufficient with enough equipment and consumables for 14 days, however, it is entirely appropriate to arrive with 3–5 days supplies in the first instance providing there is a plan for further supply at this point. It is recognized that this will vary depending on different emergency situations and will be difficult to predict with any accuracy. In some deployments, for example, there may already be a supply of equipment or medications available locally, and in other situations, consumables brought by the team may be inadequate, such as antibiotics in an area of high infection prevalence. It is also recognized that there will be considerable overlap in equipment between reproductive and maternal health, and other services offered by the EMT.

Guidance in this area is, therefore, only guidance and each team should establish their own lists consistent with individual needs, ideally based on existing resources *(11) (38)*. The areas to be covered are listed below and an example (based on the experience of a number of teams) is included in Annex 5.

Minimum technical standards for child health-care equipment and consumables to achieve verification

Teams should have adequate equipment, consumables and medications for the care of newborn and children. This should take into account the wide range of sizes and weights involved. Examples of these are in Annex 5.

- It is recommended that the EMT formulary clearly identifies adult, paediatric and neonatal options, either as separate formularies or three columns under each drug.
- Each EMT must hold, as part of their total deployment pharmaceuticals stock, enough essential newborn and paediatric pharmaceuticals for a minimum period of 14 days. The pharmaceuticals should be in forms and in adequate

quantities for the expected child health population. There are various methods that teams can prepare for deployment readiness with their pharmaceuticals and practical advice on how to achieve this can be sought from the EMT Toolkit.

- To be able to prepare medications for young children (oral forms, syrups), the inclusion of a clinical pharmacist in the EMT is strongly recommended.
- In terms of vaccines, EMTs are not expected to undertake routine childhood immunization but vaccinating against tetanus is an important part of wound management. Some EMTs have considered using the Diphtheria, Pertussis, Tetanus (DPT) instead of tetanus toxoid vaccine for paediatric patients under age 7 as an alternative and are therefore able to vaccinate the child as part of their wound management regime.
- Oxygen is an essential requirement for all types of EMT. This can be either through the use of an oxygen concentrator, tanked, or a combination of both. Oxygen is required to support patient transfers and further information on how teams can manage to achieve this equipment requirement can be found in the EMT Toolkit.
- The provision of safe blood transfusion is also essential for EMT Types 2, 3 and Specialist Health Care Teams. Teams will need to ensure that they meet the minimum technical recommendations outlined for safe blood transfusion. Practical advice on how to achieve this can be sought from the EMT Toolkit and specific paediatric blood transfusion consumables should be considered.
- Surplus pharmaceuticals management plans following exit of the EMT should be in place. Any pharmaceutical donations should be in line with WHO Guidelines for Medicine Donations *(12)* and likewise, any drug destruction should follow the WHO safe management of waste from health-care activities *(13)* to minimize risks to public health and the environment.
- All EMT should have a registry in place to keep track of and report the consumption of drugs and consumables. This is part of correct medical documentation and good medical supply-chain management.

Patient management

It is accepted that in emergency situations difficult decisions may need to be taken around triaging those most likely to survive. This can be particularly challenging with children and preterm delivery resuscitation and ongoing care. Such decisions should be made in the context of local standards and resources, as a multidisciplinary team, and in consultation with local personnel *(14)*.

It is important that, except in an emergency, children should not be treated without the consent of a parent or carer. Informed assent may be considered in situations where the child is not legally authorized or lacks sufficient understanding for giving consent competently. Explaining procedures carefully is important. This can be assisted by pictograms and good practice examples can be found in the EMT Toolkit. All EMTs must have clear and accountable operating procedures for consent.

Given that there are already good clinical publications in this field (see below), no attempt will be made to guide clinical care. Child protection issues, however, may be less familiar to some clinicians so these are summarized in Annex 2.

Minimum technical standards for child health care patient management to achieve verification

- There needs to be an appropriate clinical documentation system which could, if suitable, be part of the adult documentation for outpatient care, or as a separate paediatric inpatient admission pack. There should be separate provision for paediatric observations, fluid balance and pain management forms for inpatient care. Immunization, nutritional status and weight should be specifically considered.
- The daily reporting Minimum Data Set (EMT-MDS) form, or agreed alternative, should be completed.

Minimum technical standards for child health care patient management to achieve optimal care

- Clinical SOPs should be available. These should not involve the rewriting of clinical guidelines but concentrate on developing clinical care pathways, for example, one-page flow charts of common or likely presentations with which the team may be less familiar or that might be useful for the initiation of treatment (see Simplified SOP flowcharts below).
- Operational SOPs should describe and outline who should do what for newborn or paediatric patients that present to the EMT facility and how this should be performed.
- A SOP, formulary, booklet or validated App with appropriate paediatric drug and fluids dosing guidelines should be available to all EMT team members.
- There should be a registration system in place for unaccompanied minors and a means for early identification. All unaccompanied minors, including those who are medically fit, will need to be supervised and referred to the protection focal point for referral.
- All children ages 6–59 months should be screened for malnutrition with MUAC and, where possible, weight for those < 6 months.
- Any identified moderate acute malnutrition (MAM) or severe acute malnutrition (SAM) patients with or without medical complications should be referred to an identified and agreed local nutritional support service that has the technical expertise to manage such cases. Where this is not possible, EMTs with an inpatient capability should manage any malnourished patients with a medical complication until a more suitable referral point has been agreed upon.
- Particular care should be taken with the clinical case management of malnourished infants and children. EMTs should refer to an up-to-date best practice care guideline as some teams may not be familiar with the specific clinical care management requirements, such as IV fluids use and rehydration management.
- Simplified SOP flowcharts for the management of common conditions that may present to the EMT facility are suggested below. This list should not be considered exhaustive or prescriptive, but rather as flexible examples for guidance:
  - top morbidities and mortalities for < 5 years of age, such as birth complications, pneumonia, diarrhoea and malaria;

- general approach to paediatric trauma, seizures, reduced consciousness;
- malnutrition, sick neonate;
- communicable diseases (measles, meningitis, cholera, upper respiratory tract infections, etc.);
- burns, drowning;
- pain prevention, managing pain, conscious sedation and;
- psychological support, child protection (unexplained injury, sexual violence and unaccompanied minor).

■ Adequate reference texts should be available to those providing care. Options are suggested under Clinical Guidance in Child Care below.

Issues around transferring a patient from a Type 1 facility to a Type 2 or 3 facility

- The patient should be stabilized as much as is reasonably possible before transfer.
- It is important that babies are kept warm during transfer. This can be achieved with a warming pouch or kangaroo care, which can be used by the mother, a relative, or team member.
- It is important to notify the receiving facility by telephone, if possible. The Situation, Background, Assessment, Recommendation system works well for this purpose (or in another form, example in Annex 6). A letter that summarizes the situation may also be sent.

CLINICAL GUIDANCE IN CHILD CARE

- Essential Obstetric and Newborn Care MSF (2017) *(17)*
- WHO Pocket Book of Hospital Care for Children (2013) *(39)*
- Pediatric Surgery and Medicine for Hostile Environments Borden Institute (2011) *(40)*
- MSF Clinical Guidelines, Diagnosis and Treatment Manual (2016) *(41)*
- WHO Manual for the healthcare of children in humanitarian emergencies (2008) *(31)*
- Pocket book of hospital care for obstetric emergencies including major trauma and neonatal resuscitation. MCAI (2015) *(21)*
- Newborn Health in Humanitarian Settings Field Guide. IAWG (2017) *(42)*
- Updates on the management of severe acute malnutrition in infants and children (2013) *(43)*
- Integrated management of Pregnancy and Childbirth. Managing Neonatal Problems: a guide for midwives and doctors. WHO, UNFPA and UNICEF (2003) *(20)*

Facilities

Facility space needs to be of adequate size to allow sufficient room for the clinical team to undertake their tasks without restriction. All EMTs should also factor into their management plans accommodation of a parent or caretaker remaining with the newborn or child for the duration of inpatient admission. Consideration should be given to the type and height of the bed used to allow a sleeping space for the parent or caretaker, plus the newborn or child.

As children should ideally not be examined or treated in the same space as adults, facility design should take this into account where possible. This may require smaller EMTs to consider how to best optimize limited space and reconfigure as needed.

It is also important to consider the rights of the child and parent, and every effort should be made to ensure that the newborn or child is not separated from their parent or agreed caretaker *(44)*.

Minimum technical standards for reproductive, maternal and newborn health facilities to achieve verification

- Teams must have a designated area within their facility which fulfils minimum criteria for privacy, protection, temperature, light, space and access to equipment and supplies.

Recommended technical standards for child health-care facilities to achieve optimal care

Overall

- A child friendly play area should be designated within the waiting area and at ward level. Distraction toys and books are very helpful and should be easy to clean to ensure that infection prevention and control standards are met.

- An identified area for unaccompanied medically-fit minors needs to be established in a well-supervised area of the EMT with consideration given to using national staff to support this.
- Child friendly hand-washing stations should be considered where possible and be height appropriate, and latrines should also be suitable for children.

Type 1 mobile and fixed

- There should be an area capable of managing paediatric assessment and emergency stabilization.
- It is recognized that the nature of these private areas will depend on the context of the facility and can be set up within an existing facility or in a screened tent or gazebo.
- Following screening for communicable diseases, an isolation area can be designated if required and may be as basic as a dedicated roped-off space.

Type 2

- A dedicated paediatric resuscitation area in the emergency care facilities should be set up. This could be with an adult and paediatric resuscitation bed arrangement.
- A paediatric consultation area within outpatients should be identified.
- There should be an identified inpatient area, either a ward shared between female patients and paediatrics, or a specific dedicated ward as determined by the facility's bed capacity and total number of wards.
- There should be an identified inpatient area for isolation, if required, following screening of communicable diseases, with access to dedicated toileting and hygiene facilities.
- All neonates requiring observation and inpatient stays should remain in the maternal area as a priority.
- Bed heights should be appropriate for children. Adjustable beds that can be flipped to make either adult or paediatric beds are ideal.
- Mosquito nets should be available and are required where vector-borne diseases such as malaria and dengue fever are endemic.

Type 3

- The facility should comply with requirements for a Type 2.
- Emergency care facilities should be equipped with a dedicated paediatric resuscitation bed.

- A dedicated paediatric inpatient ward should also be designated.
- There should be a dedicated area within the intensive care unit for paediatric and newborn patients. Of the minimum bed requirement for intensive care (four beds) there needs to be at least one dedicated incubator.

Specialist Child Health Care EMTs

- These teams will usually embed within a local facility or other EMT. Consideration for initial service package and practical means for division and screening should be considered as the minimum requirement.
- Assessment of the safety and integrity of a building in any natural disaster contexts should be undertaken when embedding within a local facility.

Please see comments on ward configuration on page 25.

Protection

PHOTO: WHO/F. GUERRERO

Protection in an emergency humanitarian response focuses on the safety and dignity of the affected population. The Inter-Agency Standing Committee (IASC) defines protection as, "all activities aimed at ensuring full respect for the rights of the individual in accordance with the letter and the spirit of the relevant bodies of law, i.e. human rights law, international humanitarian law and refugee law" *(45)*.

Protection in EMT responses

The role and responsibilities within EMTs around protection is often not well understood, and this can result in inadequately prepared teams. It is no longer reasonable for EMTs to focus only on immediate health-care needs without considering the safety, dignity and rights of the individual and the community.

Primary responsibility for protection lies with the affected country, which has a legal obligation to protect, promote and fulfil the human rights of all people within their territory, in accordance with the standards set out in national law, international humanitarian law (IHL), international human rights law, and refugee law. Some agencies have special mandates to protect, such as the International Committee of the Red Cross (ICRC) and the United Nations High Commissioner for Refugees (UNHCR).

All operational EMTs, however, will frequently encounter situations during their emergency response where they will face protection risks caused by violence, coercion, deliberate deprivation and where states are either unwilling or unable to fulfil their protection responsibilities. It is therefore important that EMTs are equipped to effectively analyse protection risks and respond appropriately to threats and abuses *(46)*.

Policies and SOPs need to be developed by EMTs to govern the reporting of threats and abuses to specialist protection agencies. The establishment of referral pathways must be in place to ensure individuals and groups exposed to harm receive the appropriate legal, medical and psychosocial care. EMTs should be engaged in specific protection-focused activities within their medical care remit, such as sexual violence and the clinical management of rape, unexplained injuries in children, child safeguarding, unaccompanied minors and those vulnerable through age or disability.

In addition to responding, reporting and referring, EMTs should take concrete steps to incorporate protection into their organizational culture to safeguard children and other such vulnerable groups through their administrative process,

as well as the designing and adapting of their activities to improve safety by reducing vulnerability to threats. These measures only focus on protection concerns specific to children and SGBV, while fully recognizing that age, disability and mental health are also protection concerns, which will be discussed within other TWG platforms.

Awareness and management of SGBV

SGBV is an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed differences between males and females *(47)*. It includes acts that inflict physical, sexual, or mental harm or suffering, threats of such acts, coercion and other deprivations of liberty. It may be exacerbated in humanitarian emergencies where vulnerability and risks are high, yet family and community protections have broken down. While SGBV can affect both females and males, women and girls are usually disproportionately affected. Sex workers, adolescents, disabled people, and street children are particularly vulnerable.

Health services are often the first and sometimes the only point of contact for survivors seeking assistance for SGBV. To facilitate care, survivors must have safe access to health facilities, such as nonstigmatizing staff, confidential entry points for services, no-cost services and safe transit to and from facilities. It is also essential that health providers working in emergencies are equipped to offer nondiscriminatory, quality health services for survivors.

Service preparations for survivors of SGBV

It is essential that people have access to the priority reproductive health services at the onset of an emergency and comprehensive reproductive health as the situation stabilizes *(48)*. On arrival, it is important for the team to carry out the following.

- Establish any existing community supports available to survivors, such as midwives, women's organizations, family members or religious leaders.
- Establish the location, safety and accessibility of local health facilities. Are they in safe areas, and do they have guards? Are there private rooms?
- Establish background country knowledge. What is the legal age of consent for sexual activity? Is this different for boys versus girls? What is the legal status of emergency contraception and abortion, including pregnancies resulting

from rape? Are women allowed to consent for themselves? What are the legal requirements around reporting or documenting cases of SGBV within the country?

- Are there safe places for those vulnerable to go after discharge from the facility?

Awareness and management of child protection

Child protection is defined as, "the prevention of, and response to, abuse, neglect, exploitation and violence against children". In an emergency context, including sudden onset disasters, children may be killed or injured, become orphaned, become separated from their families, be recruited into armed forces or groups, be sexually abused, be economically exploited, become children with disabilities, be trafficked, or several of these at the same time. It is of high importance that EMTs are aware of these issues and have an understanding of child protection.

The child protection risks in an emergency will depend on factors such as the numbers of children affected, the types of child protection problems, the level of organization and stability of the state before, during and after the emergency, the country's capacity to respond and the nature of the emergency.

Service preparations for child protection

It is essential for any EMT to be able to detect, intercept, take in, treat, guard and refer victims of child abuse in any of its forms. Delivering this type of care means teams must undertake the following:

- provide additional training in child abuse detection and child protection for its focal point(s), such as United Nations Population Fund (UNFPA) online training;
- upon arrival establish any existing community support available to victims of child abuse through local or international child protection agencies;
- establish safe places that are supervised within their facilities where children can be safe and where victims of child abuse can be separated from adult patients (with exception of the child's legal guardian, or confidential adviser);
- establish background country knowledge;
- provide training on the Universal Declaration of Children's Rights *(49)*; and
- locate safe houses outside the EMT compound where victims can be referred.

Minimum technical standards for reproductive health, maternal and newborn health, SGBV and child protection to achieve verification

- There should be clear administrative safeguarding procedures (SOP) in place for both international and national staff, which include police and work reference checks. It is recognized that this may not be possible in some country contexts, particularly for national staff. This may also be difficult if there is a need to rapidly recruit, as police checks can take time to process. An alternative checking systems should be in place, such as ID and qualification verification alongside a local reference check.
- Ideally, an over-arching organizational child protection policy that acts as a governance framework should be in place and familiar to all team members.
- All staff must complete awareness training on SGBV, safeguarding and promotion of the welfare of children, including child protection. As a minimum, this can be done by a lecture or talk.
- There should be an identified "Protection Lead" within the team, who has undergone additional training. This person should have extensive safeguarding, protection experience and is the overall responsible professional for all issues surrounding protection, including referrals. Leads are expected to attend cluster meetings and disseminate information to staff.

Recommended standards for sexual and reproductive health care, SGBV and child protection to achieve optimal care

- There should be an identified team member who will act as the SGBV focal point for the team to support and advise on SGBV issues. The SGVB focal point has received additional training on SGBV and is competent to receive victims. This member is the first resource for victims or for staff who have concerns about possible SGBV, and are supported by the protection lead, to whom they also report.
- There should be a child protection focal point, who has received additional training. With support from the protection lead, to whom they report, the focal point is the lead professional in all cases relating to child protection.
- A separate area that ensures privacy within the EMT facility is important for discussion and examination, as well as providing a separate area specifically for mothers and children.

- If local interpreters ("cultural mediators") are used, EMTs are to ensure that they are trained and oriented to their role, which should include, as a minimum, confidentiality of case sensitive information.
- Documentation for both SGBV and unexplained injuries in children should include body mapping. Case sensitive patient information must be secured preferably locked in a secure metal box or cabinet with the key available only to limited team members, usually the protection lead, child protection and SGBV focal points. Each EMT should have a mechanism in place for the management of case sensitive data upon their exit, such as encryption and de-identifiable data to allow for removal across borders, local secure storage or destruction. National reporting of child protection concerns is usually required and will vary between countries.
- It is useful to offer a certificate, letter or report (security and safety permitting) to ensure the patient has documentation of what has happened. This can be used for later redress when the situation has stabilized.
- Before sharing SGBV or child protection information, EMTs should consult the *WHO Ethical and Safety Recommendations for Researching, Documenting and Monitoring Sexual Violence in Emergencies* containing eight recommendations *(50)* to ensure that data sharing is done in an ethical manner and does not draw unwanted attention to survivors, programmes, agencies or communities.
- Post-exposure prophylaxis (PEP) should be provided. If only a starter course is supplied, there should be additional provision for the full 28-day course which may involve onward referral *(51) (52)*.
- SOPs should be developed for the following.
  - SGBV to cover, at least, basic guidance and role of SGBV focal point within the team. SOPs should also be considered for prevention, screening and identification, and to cover any medical, legal or immediate psychosocial first aid. Ongoing psychological support will usually require external referral, if available.
  - Child protection to cover, at least, basic guidance and role of the child protection focal point within the team. There should be field operational procedures in place for the reporting of any identified child protection concern or actual complaint. Any staff complaints are managed and reported as per child protection policy, laws of the land and any relevant professional body registration.
- Specialist care training is useful for all other members of the team who provide direct clinical case management of SGBV, not just the focal point, who might be, for example, a medical doctor.

- Additional training on child protection for all staff.
- The presence of one female health worker, or one representative of a marginalized ethnic group on the staff team can significantly increase access to women or people from minority groups.
- It is recommended that service providers for SGBV should be female for female survivors, or at least chaperoned by a female if male. Male service providers should be offered to male survivors.
- All team members should provide a signatory commitment to the child protection policy.

Management of SGBV – resource information

- Clinical Management of Rape Survivors WHO (2004) *(53)*
- HIV Post-Exposure Prophylaxis (PEP) in the UN (2018) *(54)*
- Minimum Standards for Prevention and Response to SGBV in Emergencies UNFPA (2015) *(55)*
- Guidelines for Integrating Gender-Based Violence Interventions in Humanitarian Action: Reducing risk, promoting resilience, aiding recovery. IASC. (2015) *(47)*
- Responding to Children and Adolescents who have been Sexually Abused. WHO clinical Guidelines (2017) *(56)*
- Inter-agency field manual on reproductive health in humanitarian settings (2018) *(57)*
- Medical Protocol for Sexual Violence Care. Médecins Sans Frontières (2014) *(58)*
- Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guideline. (2013) *(59)*
- Health care for women subjected to intimate partner violence or sexual violence. A clinical handbook. (2014) *(60)*
- Post Exposure Prophylaxis (PEP) Guidelines. WHO (2014) *(51)*

Child protection reference information

- Responding to Children and Adolescents who have been sexually abused. WHO Guidelines (2017) *(61)*
- Child Protection in Emergencies (2015) *(62)*
- Minimum standards for child protection in humanitarian action, Child Protection Working Group 2012 *(63)*

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22. IAWG, "Newborn Health in Humanitarian Settings Field Guide," 2017.
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59. WHO clinical and policy guideline, "Responding to intimate partner violence and sexual violence against women," 2013.
60. WHO, "Health care for women subjected to intimate partner violence or sexual violence. A clinical handbook," 2014.
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Annexes

PHOTO: WHO/SADEQ HASAN

ANNEX 1.

SGBV – first line management advice (adapted from WHO 2013) *(65)*

Complete history

- Ensure that the patient knows that they are in a safe space.
- Include whether there has been any sexual assault, and the timing of this.
- Assess whether there is a known pregnancy, or whether there could already be a pregnancy from a recent relationship. Also enquire whether there is any known history of sexually transmitted infections (STIs), including HIV.
- Assess whether there is a chance of pregnancy from the assault based on the history and any known contraceptive use. It should be assumed that there is a risk of pregnancy, HIV or other STIs following the sexual assault.
- What is the mental health history and current status?

Physical examination

- Obtain informed consent prior to performing a physical examination.
- Always offer an appropriate chaperone.
- It is reasonable to limit speculum examinations to those who have concerning bleeding or discharge, or to those who report rape with an object.

Offer emergency contraception to survivors of sexual assault presenting within five days of sexual assault.

- A single dose of ulipristal acetate 30 mg up to five days after the first episode of sexual assault is preferred. This can be given even if there has been unprotected sexual intercourse in that cycle as there is no evidence that ulipristal disrupts an existing pregnancy.
- If ulipristal is not available, a single dose of levonorgestrel 1.5 mg can be used up to five days, ideally within 72 hours of the assault.
- If oral emergency contraception is not available, and it is feasible, copper-bearing intrauterine devices (IUDs) may be offered within five days of the assault or up to day 19 of a predicted 28-day cycle. Caution is required, however, as IUD's may exacerbate some STIs and may not be acceptable to women after sexual assault.

Offer HIV PEP *(52)*

- Knowledge of local HIV prevalence and information about the perpetrator should be considered when assessing risk of HIV acquisition and need for HIV PEP. There are a number of appropriate regimes, but this could be with:
  - Tenofovir disoproxil 245 mg/Emtricitabine 300 mg combination once daily for 28 days along with;
  - Raltegravir 400 mg twice daily, also for 28 days.

Offer treatment for prevention of STIs

- This could be with:
  - Azithromycin 1 g orally, single dose
  - Ceftriaxone 500 mg IM, single dose (or cefixime 400 mg orally, single dose)

Offer PEP for hepatitis B if considered appropriate.

- Take blood for hepatitis B status prior to administering the first vaccine dose if laboratory testing and follow up is available and there is no history of vaccination.
- If not immune, or laboratory testing is unavailable, give post-exposure vaccination on a 0, 1 and 3-week schedule.
- If available, offer hepatitis B immunoglobulin as per national guidelines.
- If history of complete vaccination course, consider giving a single booster dose.

Discuss immediate safety issues and make a safety plan with the survivor.

To facilitate follow-up care document injuries and consider collection of minimum forensic evidence based on local legal requirements, but only if the survivor consents and the capacity exists to use the information.

Keep a careful written record of all actions and referrals, including medical, mental health and psychosocial, security, legal, and community-based support, to facilitate follow-up care. Ensure documentation is available for prosecution if the survivor chooses to pursue it.

If the survivor provides informed consent, advocate on their behalf with relevant health, social, legal and security agencies. Follow up with these agencies as necessary and as requested by the survivor. If available, referral for local psychological support is also appropriate.

ANNEX 2.

Child protection – first line management advice

History

- The child should ideally be accompanied by a caregiver. Start by introducing yourself to the child, explain what you do, and the purpose of this conversation. Depending on the age of the child you may wish to offer them a pen and paper or colouring crayons to keep their hands busy. A doll can be helpful so that the child can point to body parts as required.
- Ask questions like: "So before we get started, tell me a little bit about yourself" and "Tell me what you like to do for fun?" Perhaps ask about their hobbies, school, foods, games and activities they enjoy. Listen patiently and let the child share as much as they want to. Pay attention to the child's body language and only proceed when the child seems comfortable and ready.
- Ensure the child understands the difference between fact and fiction. Explain to the child that it is important to talk about things that actually happened. Perhaps: "I talk with lots of children. It's always important that they tell me the truth and what really happened". Explain that there are no right or wrong answers to their questions. Say that because you were not there, you will rely on them to tell you what happened. Explain that it is OK to say, "I don't know" when they are not sure of something or "I don't understand" when they would like some clarification.
- Transition to the more substantive part of the conversation when you feel that the child is ready. Start by saying something like: "Now I want to talk to you about why we are having this talk today" or "why I came to see you today" or "why you came to see me today". Perhaps simply say, "I understand that something has happened, tell me about it". If the child has any physical marks like cuts, bruises and burns, then you can say, "I see that you have a [cut, bruise, mark] over here. Tell me everything about that". Avoid asking the child about the violator immediately or mentioning their names. Encourage them to recount the event and tell you who was involved in it. If the child is reluctant

to talk and starts crying for example, say something like, "I can see that you are very upset, tell me why" or "I can see that you are very quiet, tell me why".

- To clarify, or confirm what a child has told you, say, "You said that …… Tell me again about that" or "You have told me a lot and I want to make sure that I understood correctly". Give the child permission to correct you if you make any mistakes in the course of re-capping what they have told you.
- To wind down the conversation, bring the child back to a neutral subject. Thank the child for trusting you enough to tell you about their experience. Ask them if they have any fears or feelings to share before you end the conversation.

Assess for general physical injury

- Signs may include visible injuries, bruises, burns, bites, unease of movement, or general expressions of pain and hurt. Sometimes a child may not have any visible signs, but some behavioural indications will be noticeable, like seclusion and a lack of interest in playing or mingling with others. They might cry frequently and not want to be around a parent or a specific adult, or protest at going home. Frequently children who are victims of physical abuse commit violence against themselves and against others. For example, they may attack other children, destroy objects, or mistreat animals.

Consider and assess the possibility of sexual violence

- This may include all forms of rape, demanding sex in return for favours, sexual abuse of a disabled child, as well as activities related to child trafficking and child sexual exploitation (CSE). Sexual abuse is any attempt to entice, persuade, coerce, or engage a child in sexual activity. Examples include acts of indecent exposure, any touching in a sexual way, intentionally exposing the child to sexual acts, intercourse and penetration, engaging the child in any form of prostitution or pornographic activities.
- It may be very useful to carry out an external ano-genital examination to assess if there is any evidence of injury or infection. It may also be important to assess whether there is any evidence of sexual assault, but this is a very specialized area and great caution is required about making judgements unless it is backed by considerable clinical expertise in this area. If forensic examination and follow up is unlikely to be possible, and the child is resistant to intimate examination, it may more appropriate to ensure that there are no

life-threatening injuries, such as bleeding, and postpone examination to a less acute setting.

- If appropriate, see SGBV advice in Annex 1.

Place of safety

- A child will need physical shelter, food, and psychological support. Consider creating child-friendly spaces to make sure that children have a safe area to resort to in an emergency, where children can come together, play and enjoy other activities which restore a sense of normalcy and protect them against the adverse effects of the disaster. Child-friendly spaces are not only places for children to play and take part in leisurely activities, they are places where deeper protection concerns can be addressed. They are good venues, for example, for the identification and detection of maltreatment cases. They offer opportunities for children to share concerns they have about violence, exploitation, abuse and neglect, and to allow social workers and protection staff to help them. In addition, they provide excellent opportunities to educate children on potential risks and dangers, and to make sure they are empowered and well equipped with the knowledge they need to protect themselves.

Set up reunification centres

- Child protection efforts in emergencies focus significantly on reuniting separated and unaccompanied children with their families. Use places that are familiar to the community. Create meeting points where children and parents can either find each other, or get information on where to find each other.

Overall

- Create, identify or designate a central government unit in charge of coordinating all child protection activities in an emergency. It should exist under the wider emergency coordination unit and be staffed and run by emergency management government officials.

ANNEX 3.

Example SOP flow charts

(These are examples only and do not reflect any specific standards or recommendations)

Fig. A3.1 Sexual health capabilities

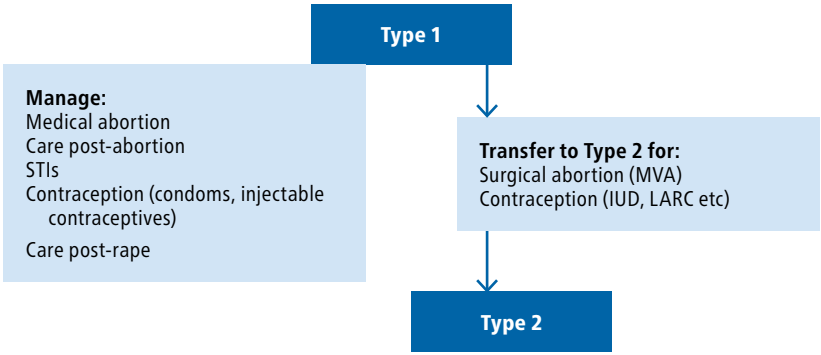


Fig. A3.2 Antenatal capabilities

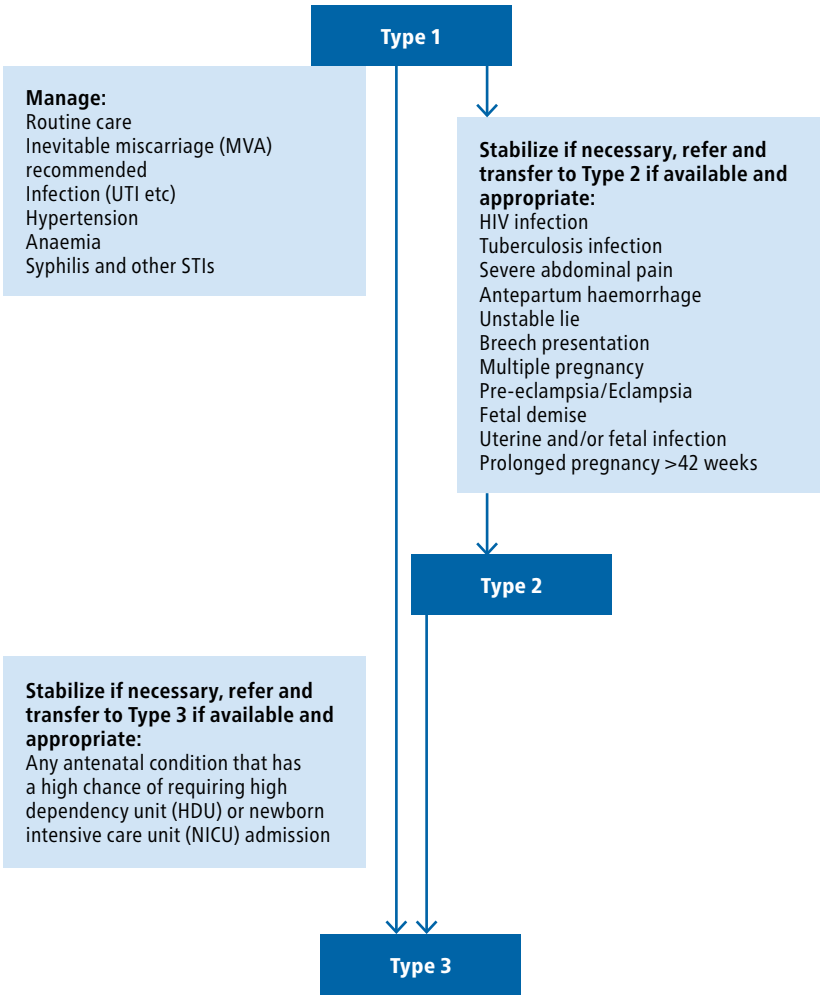


Fig. A3.3 Labour capabilities

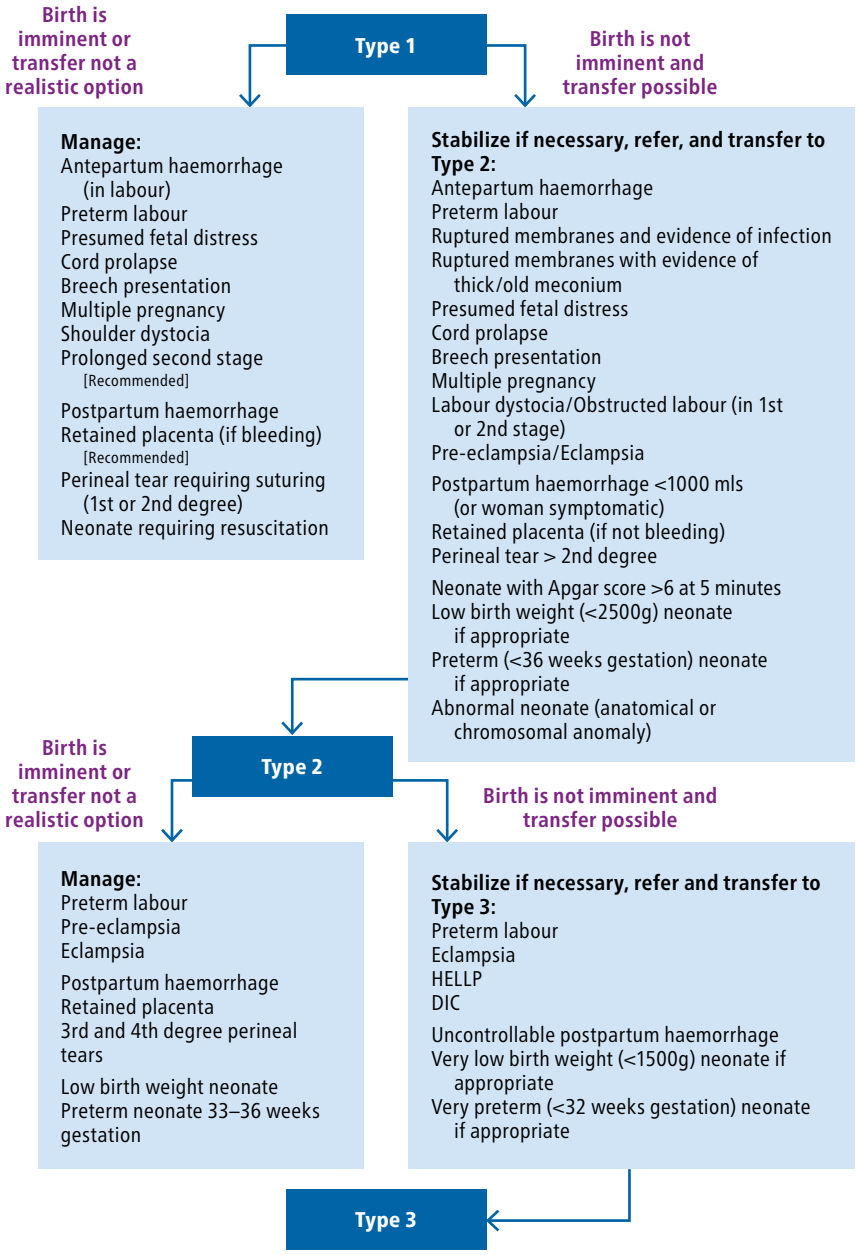
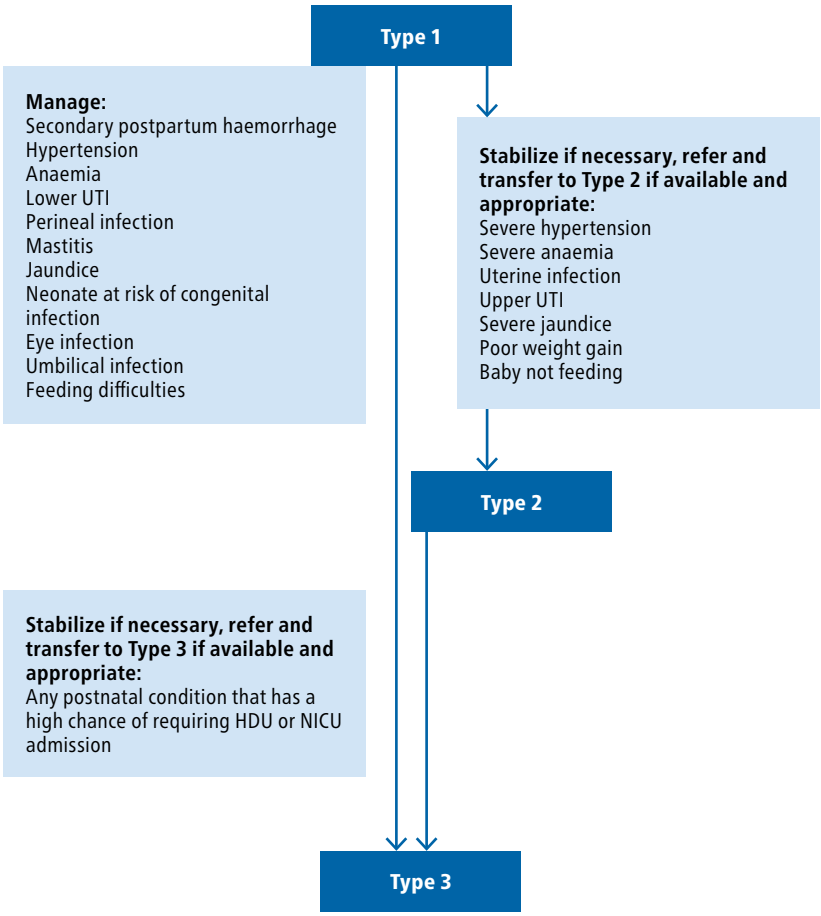


Fig. A3.4 Postnatal capabilities



ANNEX 4.

Sample medicines list for reproductive and maternal health

Reproductive Health

	Type 1	Type 2&3 and Specialist Cell	Notes
Contraception			
Male Condoms	1500	3000	
Female Condoms	50	100	
Combined oral hormonal contraception	40 packets	65 packets	
Progesterone only pills	10 packets	10 packets	
Emergency oral contraception	20 treatments	20 treatments	
Depo Provera IM (injectable contraception)	25 injections	50 injections	
Copper IUD and fitting kit	10	20	
Doxycycline/azithromycin	5 treatments	5 treatments	For STI cover in intra-uterine contraceptive device (IUCD) fits where needed
Contraceptive implants, and lidocaine	10	15	Providing skills available to remove after EMT leaves
STIs syndromic management			
Syndromic management of genital ulcer syndrome	5 treatments	10 treatments	Bring current treatment
Syndromic management of urethral discharge	10 treatments	20 treatments	Bring current treatment
Syndromic management of vaginal discharge syndrome	5 treatments	15 treatments	Bring current treatment

Clinical management of rape			
Azithromycin capsules 250 mg	20 (for 5 courses)	40 (for 10 courses)	
Azithromycin oral susp 200 mg per 5 ml in 15 ml bottle	1	1	
Cefixime tabs 200 mg	10 treatments	20 treatments	
Cefixime dry syrup for oral susp 100 mg per 5 ml in 30 ml bottle	2	2	
Tetanus vaccine	Treatment for 2 adults and 1 child	Treatment for 3 adults and 2 children	Cold chain
Hepatitis B vaccine	Treatment for 2 adults and 1 child	Treatment for 3 adults and 2 children	Cold chain
PEP (post-exposure prophylaxis for HIV)	Treatment for 2 adults and 1 child	Treatment for 3 adults and 2 children	Treatment post rape, not staff post needlestick
Safe abortion care			
Mifepristone 200 mg	5 tablets	10 tablets	Recommended (see page 11)
Misoprostol 400 mcg	20 tablets	40 tablets	

Maternal health

	Type 1	Type 2	Type 3	Specialist Cell	Notes
Equipment					
Ultrasound with vaginal and abdominal probe	1 Rec	1 Rec	1 Rec	1 Rec	
Fetal Doppler +/- Pinnard	1	1	1	1	
Fetal heart rate/Contractions monitor	—	1 Rec	1 Rec	1 Rec	
Manual vacuum extractor ('KIWI')	2 Rec	5 Rec	5 Rec	5 Rec	Or reusable set
Forceps	1 Opt	1 Opt	1 Opt	1 Opt	If preferred
Delivery sets	10	25	50	25	

	Type 1	Type 2	Type 3	Specialist Cell	Notes
Portable IV pump/Automatic syringe	1 Rec	1 Rec	1	1 Rec	
Metal bivalve speculum (or disposable)	1	5	10	5	
MVA sets	2 Rec	5 Rec	10 Rec	5 Rec	
D&C set	—	1 Rec	1 Rec	1 Rec	
Thermometers	1	2	2	2	
Blood pressure monitors	1	2	2	2	
Gynaecological Chair	—	1	2	—	2nd chair for outpatients
Caesarean Section Set	0	2	2	2	
Perineal Repair set	2	10	20	10	
High Vaginal Tear Retractors	1	2	2	2	
Baby Heater	—	1 Rec	1 Rec	1 Rec	
Mask and Ambu Bag	1	2	2	2	
Headlamps	2	4	4	4	
Medications					
Uterotonics					
Oxytocin inj (or other uterotonic)	2	25	50	25	Cold Chain
Ergometrine inj	3	15	30	15	
Misoprostol tabs	40	200	400	200	
Balloon Tamponade	1	1	2	1	
Antibiotics					
Amoxicillin/Clavulanate tabs	20	100	200	100	
Amoxicillin/Clavulanate inj	6	30	60	30	
Doxycycline tabs	10	50	100	50	
Ciprofloxacin tabs	20	100	200	100	
Ciprofloxacin inj	2	10	20	10	
Metronidazole tabs	10	50	100	50	
Ampicillin inj	2	10	20	10	
Clotrimazole vag. suppository	6	30	60	30	

	Type 1	Type 2	Type 3	Specialist Cell	Notes
Gentamicin inj	4	20	40	20	
Metronidazole inj	6	30	60	30	
Cephalosporin (2nd Gen) inj	2	10	20	10	
Antihypertensives					
Nifedipine tabs	100	400	800	400	
Labetalol tabs	100	200	400	200	
Labetalol inj	1	3	5	3	
Hydralazine inj	1	3	5	3	
Others					
Anti D	0	5 Rec	10 Rec	5 Rec	
Magnesium sulfate (4 g) inj (or equivalent)	2	10	20	10	
Calcium gluconate	1	1	2	1	
Tranexamic acid inj	2	5	10	5	
Dexamethasone/ Betamethasone inj	1 Rec	1 Rec	1 Rec	1 Rec	
Painkillers control drugs					
Post Exposure Prophylaxis					
Non-Pneumatic Anti-Shock Garment (NASG)	1 Rec	1 Rec	1 Rec	1 Rec	
Ferro sulphate + folic acid tabs	50	200	400	200	
Vitamin K inj	10	25	50	25	
IV fluids + infusion kits	10	25	50	25	
Water for injection	10	25	50	25	
Urine testing sticks	50	200	400	200	
Local anaesthesia (skin and spinal use)	10	25	50	25	
Spinal needles	0	5	10	5	
Chlorhexidine for cord care	20	50	100	50	
Safe blood transfusion equipment	0	2	8	2	

	Type 1	Type 2	Type 3	Specialist Cell	Notes
Disposables					
Ultrasound gel tubes	0	5 Rec	10 Rec	5 Rec	
Vaginal probe covers	0	50	100	50	
Large disposable specula	0	25	50	25	
Medium disposable specula	0	25	50	25	
Small disposable specula	0	10	20	10	
Surgical gloves	50	100	200	100	
Pregnancy kits (urine)	20	50	100	50	
Umbilical clamps	20	50	100	50	
Amniohook/breaker	0	1	2	1	
Urethral catheters	5	10	20	10	

Rec.: Recommended
Opt.: Optional

Perineal repair set	Sterile drape and gloves 10% polyvidone iodine Sterile scissors, dissecting forceps Needle holder, needle for injection Local anaesthesia (1% lidocaine) 1–2 (2/0) absorbable sutures 5 sterile 10 cm x 10 cm gauze
Delivery set	Plastic bags, sheets, towels Sterile gloves, Scissors Cord clamps x 2 PPE (mask + personal cover)

ANNEX 5.

Sample medicines and equipment lists for neonatal and child health

		Type 1	Type 2	Type 3	Specialist Neonatal and Child Health Team
Emergency Care					
Airways	Appropriate sizes from neonates to large child (appropriate airway type to requirement)	✔	✔	✔	✔
	Neonatal and paediatric suction and tubing	✔	✔	✔	✔
Breathing	Paediatric stethoscope	✔	✔	✔	✔
	Appropriate size bag and valve masks (newborn upwards, i.e. self-inflating bags of 250, 500 ml)	✔	✔	✔	✔
	Appropriate C circuits for mechanical ventilation		✔	✔	✔
	Dedicated paediatric pulse oximetry	✔	✔	✔	✔
	Oxygen and spacers (or nebulizer masks)	✔	✔	✔	✔
Circulation	Various sized intravenous cannulae (including umbilical canulae)	✔	✔	✔	✔
	Intraosseous needles	✔	✔	✔	✔
	Syringe pump		✔	✔	✔
	Paediatric infusion sets	✔	✔	✔	✔
	Various sized BP cuffs (neonate, infant, child, adolescent)	✔	✔	✔	✔
	IV Fluids (smaller sized fluid bags)	✔	✔	✔	✔

		Type 1	Type 2	Type 3	Specialist Neonatal and Child Health Team
	Automatic External Defibrillator with paediatric pads	Recd	✔	✔	✔
Disability	Pen torch, reflex hammer	✔	✔	✔	✔
Environment	Access to blankets (including foil blankets)	✔	✔	✔	✔
	Intranasal drug delivery devices	✔	✔	✔	✔
Equipment	Thermometers (infrared versus digital)	✔	✔	✔	✔
	Paediatric blood sampling bottles		✔	✔	✔
	Paediatric blood donation bags		✔	✔	✔
	Nappies and basic woollen hats		✔	✔	✔
	Paediatric beds (or beds at low frame height for less risk of falling)		✔	✔	✔
	Neonate's crib (clear plastic container)		✔	✔	✔
	Incubator			✔	
	Mosquito nets		✔	✔	✔
Outpatients					
	Assessment of malnutrition – MUAC (*plus salter scales, and hanging basket)	✔	*✔	*✔	*✔
	Electronic scales for neonates (<15 kg)		✔	✔	✔
	Weighing scales for children over 15 kg	✔	✔	✔	✔
	Otoscope and small speculae	✔	✔	✔	✔
	Asthma – spacers	✔	✔	✔	✔

		Type 1	Type 2	Type 3	Specialist Neonatal and Child Health Team
Surgical					
	Dedicated paediatric general surgical set and external fixation kits		✔	✔	
	Dedicated specialist paediatric surgical sets for complex surgeries			✔	
	Paediatric splints	✔	✔	✔	✔
Pharmacy					
	Drugs in quantities and forms similar those listed below	✔	✔	✔	✔
	Paediatric Essential Drug Doses booklet or guide (37)	✔	✔	✔	✔
Nutrition					
Nutritional Kit	ReSoMal	✔	✔	✔	✔
	F75 & F100		✔	✔	✔
	Ready to Use Therapeutic Food (RUFT) e.g. Plumpy'Nut	✔	✔	✔	✔
	Feeding cups and utensils for nutritional support preparation		✔	✔	✔
Milk Formula Feeds	A small amount of formula may be useful for unaccompanied babies or in case of maternal death. This is not considered in any way a substitute for breast feeding as this should always be the first line option.	✔	✔	✔	✔

Recommended standards to achieve optimal care

- EMTs should take the time to research the most appropriate bed for their facility based on the size, height and use considering that in many contexts and circumstances the parents or caretaker will remain with the newborn or child and will need to share the same bed. There should also be adequate blankets and bed linen.
- Appropriate lights (headlights and room lights) and good hand-washing facilities are required.
- Feeding cups and utensils are recommended for nutritional support preparation.
- Facility toilets in any form should be easy to use by young children.

					Type 1	Type 2 & 3	Specialist Neonatal and Child Health Team
Drug	Route	Form	mg/kg/dose	Remarks	Total		
Paracetamol	po	syrup	15	30 mg/ml flacon 100 ml	250	500	500
	po	tablet	15	tablet 500 mg	3500	7000	7000
	pr	supp	15	Supps 100 mg	150	300	300
	IV	infusion	15	IV flacon 1000 mg	250	500	500
Diazepam	po	syrup	0.03	2 mg/5 ml (5 ml)	10	10	10
	po	tablet	0.03	5 mg	50	100	100
	IR	solution	0.5	rectal microclisma	70	35	35
	IV	infusion	0.1–0.2	ampoule	*	*	*
Ceftriaxone	IV	infusion	100	ampoule	300	600	600
Lorazepam **	Lyoph oral	tablet	0.05–0.1	expidet 1 mg	80	160	160
	Lyoph oral	tablet	0.05–0.1	expidet 2.5 mg	150	300	300
Tetracycline	topical eye	ointment	n/a	1 tube	10	20	20
Cement	topical teeth	ointment	n/a	1 tube	5	5	5
Amoxicillin	po	syrup	25	250 mg/5 ml flacon 80 ml	30	60	60
	po	tablet	25	tablet 500	450	900	900
	IV	infusion	50	flacon 1 g	50	100	100
Isoniazid	po	tablet	5	tablets 200 mg	25	50	50

Pyrazinamide	po	tablet	25	tablet 500 mg (box up to 100 tablet)	35	70	70
Streptomycin	IM	solution	15		5	10	10
Salbutamol	inhalation	solution	0.15	100 mg/20 mL (5 mg/mL)	5	10	10
	puff	puff	n/a	puff 100 µcg = 0.1 mg	250	500	500
Enalapril	po	syrup	0.05–0.1	1 mg/ml flacon 150 ml	*	*	*
Zinc sulfate	po	syrup	n/a	10mg/ml x 300 ml = 3000 mg	5	5	5
	po	tablet	n/a	tablet 20 mg (x 60), max D = 40 mg/d	20	40	40
Ciprofloxacin	po	syrup	15	250 mg/5ml x 100 ml = 5000 mg	*	*	*
	po	tablet	15	tabs 500 (or 750)	10	15	15
Azithromycin	po	syrup	10	40 mg/ml flacon 15 ml	*	*	*
	po	tablet	10	tablet 250	*	*	*
ORS	po	solution	n/a	powder for 500 ml sachets	100	200	200
Albendazole	po	syrup	7.5	200 mg/5 ml flacon 100 ml	*	*	*
	po	tablet	15	(mean) depends on indication	10	20	20

					Type 1	Type 2 & 3	Specialist Neonatal and Child Health Team
Drug	Route	Form	mg/kg/dose	Remarks	Total		
Fluconazole	po	caps	3–6	caps 50,150,200 (load day 1 double)	25	50	50
Folic acid	po	syrup	n/a	2.5 mg/5 ml flacon 150 ml (dose 5–15 mg/d)	5	10	10
	po	tablet	n/a	pregnant 0.5 mg/d	120	240	240
	po	tablet	n/a	anaemia 0.5–1 mg/d	1000	2000	2000
Gentamycin	IV	infusion	7	inj (10) 40 mg/ml (10 ml)	12	24	24
Permethrin	topical skin	cream	n/a	50 mg/g (tube 30 g) (2x2w)	25	45	45
Hydrocortisone	topical skin	cream	n/a	1% creme 10 mg/g (tube 15 g)	25	50	50
	po	syrup	2	0.1% oral susp = 10 mg/5 ml (120 ml)	5	10	10
	po	tablet	2	caps (1,2,3,4,5,6,7,8,9, 10), 20 mg	100	200	200
HTIG	IM	solution	n/a	250 iu/ml (2 ml) antitetanus (any age)	*	*	*
Coarthemeter	po	tablet	n/a	tablet, no syrup (stability)	10	15	15

Insulin	sc	inject	n/a	400U/10 ml (or 100U/ml, 3 ml) lasts max 28 days	*	*	*
Ferrous sulfate	po	syrup	3	20 mg/ml (60 ml)	10	10	10
	po	tablet	3	105 mg/tablet	450	900	900
Promethazine	po	tablet	0.5	tablet 25 mg	5	5	5
Povidone iodine	topical skin	solution	n/a	10% sol flacon 100 ml or unidose 10 ml	40	70	70
Oxygen	inhalation	gas	n/a	Cylinder	30	60	60
Activated charcoal	po	powder	1000	powder for solution	*	*	*
Ketamine	IV	infusion	1–3	50 mg/ml 10 ml	*	*	*
Propofol	IV	infusion	2–4	1% = 10 mg/ml (amp 10 ml)	10	15	15
Midazolam	IV	infusion	0.05–0.1	mida 15 mg/3 ml	5	5	5
Morphine	IV	infusion	0.01–0.02	10 mg/ml ampoule (1)10 ml)	5	5	5
Loperamide	po	syrup	0.1	0.2 mg/ml (100 ml)	50	90	90
	po	caps	0.1		800	1500	1500
Loratadine	po	syrup	n/a	1 mg/ml (60 ml)	50	100	100
	po	tablet	n/a		10	15	15
Phenobarbital	po	syrup	3–5	4 mg/ml (60 ml)	*	*	*
Phenytoin	po	syrup	5	15 mg/ml (60 ml)	*	*	*

					Type 1	Type 2 & 3	Specialist Neonatal and Child Health Team
Drug	Route	Form	mg/kg/dose	Remarks	Total		
Valproic acid	po	drops	10	20dr=1 ml = 300 mg (60 ml)	5	5	5
	po	tablet	10	(150,300), 500 mg tablet	400	700	700
Amoxi-clavulanate	po	syrup	15	50 mg amox (+12.5 mg clav/ml) flacon 100 ml	*	*	*
	po	tablet	15	(500), 875/125 mg	10	15	15
	IV	infusion	33–50	(500), 1000 mg/10 ml	300	600	600
Flucloxacillin	IV	infusion	25	500 mg –1000 mg – 2000 mgl	150	300	300
Chloramphenicol	topical eye	eyedrops	n/a	0,5% (5 mg/ml) 5 ml = 100 dr (1dr = 0.25 mg)	*	*	*
Nystatin	po	syrup	n/a	100 000 IU/ml (24),120 ml = 12 Mio IU	*	*	*
Aciclovir	po	syrup	20	40 mg/ml (125 ml)	*	*	*
	po	tablet	20	(200,400) 800 mg	10	10	10
Metronidazole	po	syrup	7.5–15	40 mg/ml 100 ml	50	90	90
	po	tablet	7.5–15	(250), 500	15	20	20

Miconazole	topical skin	cream	n/a	20 mg/g (tube with 15–30 g)	30	50	50
	vaginal	cream	n/a	20 mg/g (78 g) (1 application = 100 mg, 5 g cream)	5	5	5
Silver sulfadiazine	topical skin	cream	n/a	10 mg/g (50 g)	40	70	70
Urea 10%	topical skin	cream	n/a	10 mg/g (500 g)	10	10	10
Ethanol 70%	topical skin	solution	n/a		*	*	*
Ranitidine	po	tablet	2	(75,150) 300 mg	10	10	10
Domperidone	po	syrup	0.25	1 mg/ml (200 ml)	15	30	30
	po	tablet	0.25	10 mg	400	700	700
Tetanus vaccine	IM	syringe	n/a	4 Lf units tetanus toxoid	40	70	70
LET gel	topical wound	gel	7	Lidocaine 4% 80 mg, adrenaline 0.1% 2 mg, tetracaine 0.5% 10 mg in 2 ml	40	70	70
Glucose	IV	infusion	200	gluc 10% (250 ml) =100 mg/ml	10	15	15
NaCl 0.9%	topical	solution	n/a	0.9% = 0.9 g/100ml = 9 mg/ml (10 ml)	2000	3500	3500
	IV	infusion	180	0.9% = 0.9g/100 ml = 9 mg/ml (1000 ml)	*	*	*
Furosemide	po	syrup	1–2	syrup 2 mg/ml (100 ml)	2	2	2

					Type 1	Type 2 & 3	Specialist Neonatal and Child Health Team
Drug	Route	Form	mg/kg/dose	Remarks	Total		
Enema	IR	solution	n/a	enema child	*	*	*
Macrogol	po	sachet	n/a	sachet 10 mg	6	6	6
Doxycycline	po	syrup	2	50 mg/5 ml (60 ml)	4	4	4
	po	tablet	2,5	dispersible 100 mg tablet	20	40	40
Cicalfate	topical	ointment	n/a	flacon 100 ml	*	*	*
Ibuprofen	po	syrup	5–10	20 mg/ml (200 ml)	20	25	25
	po	tablet	5–10	tablet 600 mg	200	400	400
Cast	topical	cast	n/a		20	35	35

* Numbers of cases likely to be small and will depend on country and context.
** Not recommended for children under 12.

IMPORTANT
The information is given as indication. All prescriptions must be verified, adapted to the clinical context of the patient (including age and weight).

ANNEX 6.

Sample form for hospital-to-hospital transfer

Date:	Time:
Contact No.:	

Transferring personnel:
Receiving personnel:

Mother

Name:	Room/bed:
	Age:
Code Status / Hospital ID:	
Transferring from:	
Receiving hospital:	
Allergies:	
Diagnosis and History:	
Special precautions or infections:	
Significant Procedures or Lab Results:	
Medications:	
Recommendations:	
Special message:	

Time:		BP:	P:
RR:	HR:	Temp:	Wt:

Child

Name:	Room/bed:
	Age:
Code Status / Hospital ID:	
Transferring from:	
Receiving hospital:	
Allergies:	
Diagnosis and History:	
Special precautions or infections:	
Significant Procedures or Lab Results:	
Medications:	
Recommendations:	
Special message:	

Time:		BP:	P:
RR:	HR:	Temp:	Wt:

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Barcode