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Declarations of Interest

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Abbreviations

ASB	Asymptomatic bacteriuria
AZT	Zidovudine
BCG	Bacille Calmette-Guérin
BMGF	Bill and Melinda Gates Foundation
BPMD	Automated and semi-automated blood pressure measuring device
CHAI	Clinton Health Access Initiative
CPAP	Continuous positive airway pressure
CSF	Cerebrospinal fluid
EBF	Exclusive breastfeeding
EDL	WHO Essential Diagnostics List
EIBF	Early initiation of breastfeeding
EML	Essential Medicines List
ENAP	Every Newborn Action Plan
ENC	Essential Newborn Care
EPMM	Ending Preventable Maternal Mortality
ET	Endotracheal
FBC	Full blood count
FHR	Fetal heart rate
FIGO	The International Federation of Gynecology and Obstetrics
FP	Family planning
GBS	Group B Streptococcus
GFF	The Global Financing Facility for Women, Children and Adolescents
GNI	Gross National Income
HIV	Human Immunodeficiency Virus
HSC	Heat-stable carbetocin
HT	Hypertension
IARH	Inter-Agency Emergency Reproductive Health
IAWG	Inter-Agency Working Group
ICCM	Integrated Community Case Management
ICM	International Confederation of Midwives
ICU	Intensive Care Unit
IFA	Iron-folic acid
IMNCH	International Maternal Newborn Health Conference
IMNCI	Integrated management of newborn and childhood illness
IU	International unit
IV	Intravenous
IVD	In vitro diagnostics
IVF	Intravenous fluid
KMC	Kangaroo mother care
LBW	Low birth weight
LMIC	Low- and middle-income country
MH	Maternal health

MISP	Minimum initial service package for reproductive health in crisis
MMR	Maternal mortality rate
MNCH	Maternal, newborn and child health
MNCHN	Maternal, newborn, child health and nutrition
MNH	Maternal and newborn health
MVA	Manual vacuum aspiration
NASG	Non-pneumatic anti-shock garment
NAT	Nucleic acid test
NLU	New and lesser used
NS	Normal saline
NVP	Nevirapine
OAE	Otoacoustic emissions
ORS	Oral rehydration salts
PCV	Packed cell volume
PE	Preeclampsia
PNC	Postnatal care
PP	Postpartum
PPH	Postpartum haemorrhage
PQ	WHO Prequalification
PRA	Product readiness assessment
PTB	Preterm labour/birth
RDT	Rapid diagnostic test
RH	Reproductive health
RHC	Reproductive health commodity
RHSC	Reproductive Health Supplies Coalition
RL	Ringer lactate
RMNCH	Reproductive, maternal, newborn and child health
SNCU	Special Newborn Care Unit
SRH	Sexual and reproductive health
SSNC	Small and sick newborn care
STAGE	WHO Strategic and Technical Advisory Group of Experts for Maternal, Newborn, Child and Adolescent Health and Nutrition
STI	Sexually Transmitted Infection
TB	Tuberculosis
TPP	Target product profile
TXA	Tranexamic acid
UAD	Uterine artery doppler
UBT	Uterine balloon tamponade
UN	United Nations
UNCoLSC	UN Commission on Life-Saving Commodities for Women and Children
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WG	Working group
WHO	World Health Organization
WHO/MCA	WHO Department of Maternal, Newborn, Child and Adolescent Health and Ageing

Introduction

Maternal and newborn mortality and morbidity and stillbirths remain unacceptably high with almost 800 maternal deaths, over 5 000 stillbirths, and 6 400 neonatal deaths every day.

Reducing mortality and improving health and well-being requires a strong health system, including access to quality commodities (medicines, devices, diagnostics). WHO guidelines and recommendations include a comprehensive set of commodities that are effective to reduce maternal and newborn mortality and morbidity and stillbirths.

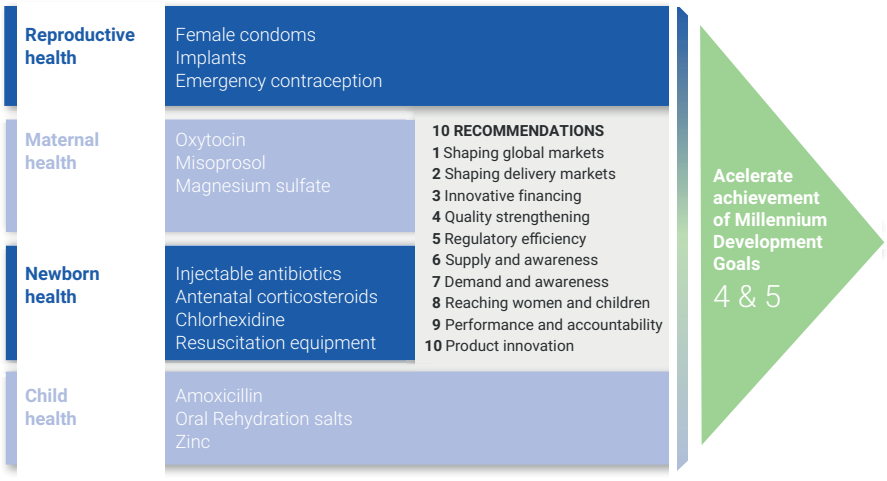
This document provides a list of key WHO-recommended commodities for maternal and newborn health (MNH), as of April 2024. The first part of the document provides an overview of the origins and purpose of the list, as well as the process used to develop the list of key WHO-recommended MNH commodities.

Development of the list

Background

In 2010, the UN Secretary-General's Global Strategy for Women's and Children's Health drew the attention of the global community to the lack of timely access to proven life-saving commodities (medicines, medical devices and health supplies) that could effectively address the major preventable causes of death during pregnancy, childbirth and childhood. In September 2012, and with a strong focus on the reproductive, maternal, newborn and child health (RMNCH) continuum of care, the UN Commission on Life-Saving Commodities for Women and Children (UNCoLSC) endorsed a list of 13 overlooked life-saving commodities that, if more widely accessed and properly used, could save the lives of millions of women and children worldwide (Figure 1).

Figure 1. UNCoLSC recommendations to improve access to 13 life-saving commodities.
Source: Pronyk, Paul M et al. The UN Commission on Life Saving Commodities 3 years on: global progress update and results of a multicountry assessment. The Lancet Global Health, Volume 4, Issue 4, e276 - e286.



Since then, the number of potentially life-saving commodities (particularly those related to maternal and newborn health) has increased. WHO has made additional recommendations on effective interventions that involve the use of commodities with an impact on the major causes of mortality and severe morbidity for both mothers and babies. In May 2022, the STAGE recommended the establishment of a WG to identify all of the life-saving maternal and neonatal health commodities and develop an implementation strategy for scale-up. WHO MCA initiated this work in partnership with the STAGE. In addition to WHO's efforts and countries' progress in this area, a number of partners have also been working to improve access to MNH

commodities since the UNCoLSC, including Clinton Health Access Initiative (CHAI), Concept Foundation, PATH, Reproductive Health Supply Coalition Maternal Health Caucus, Results for Development, UNFPA, UNICEF, USAID and others.

Purpose and scope of the list of key WHO-recommended MNH commodities

The WHO-recommended list of key MNH commodities aims to accelerate progress towards the SDGs. This user-friendly resource consolidates essential commodities from various WHO guidelines on MNH. Combining maternal and newborn needs in one document fosters coordinated action and streamlines care delivery across the entire continuum.

Commodities on the list (Tables 1–5) are either critical for reducing maternal, fetal, and newborn deaths or essential for providing high-quality care. Consumables and training materials (e.g., neonatal mannequins) are excluded.

Primarily intended for programmatic staff working to improve MNH outcomes in countries, the list can also be valuable for stakeholders involved in MNH commodity procurement, as well as regional and global actors.

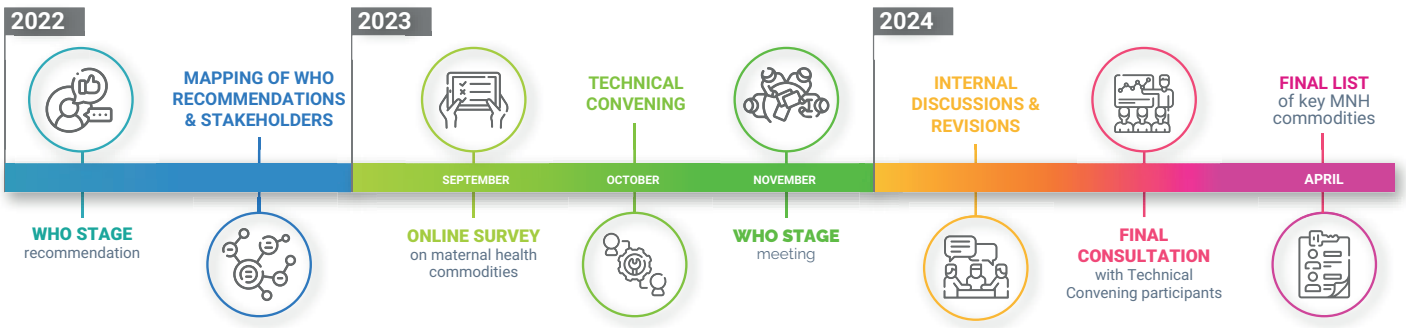
Process followed to develop the list of key WHO-recommended MNH commodities

Since the WHO STAGE recommendation in May 2022, a number of steps have been completed:

- mapping of WHO-recommended commodities for MNH;
- mapping of stakeholders relevant to MNH commodities and the creation of a STAGE WG on MNH commodities;
- online survey on maternal health commodities in September 2023;
- a technical convening in Geneva, Switzerland in October 2023;
- WHO STAGE meeting in November 2023;
- further revisions;
- a final consultation with technical convening participants in March 2024; and
- the development of the final list of key WHO-recommended MNH commodities in May 2024.

Figure 2 below provides an overview of the steps followed during the development of the list of WHO-recommended key commodities for MNH. These steps are described in more detail below.

Figure 2. Overview of the process to develop the list of key WHO-recommended MNH commodities.



WHO STAGE recommendation

At the fifth meeting of the WHO Strategic and Technical Advisory Group of Experts for Maternal, Newborn, Child and Adolescent Health and Nutrition (STAGE) convened in May 2022, it was recommended to establish a WG to develop an implementation strategy for scaling up WHO recommended commodities as part of health systems strengthening. The WG was tasked with:

a. identifying life-saving maternal and neonatal health commodities; and
b. developing an implementation strategy for scaling up across different country contexts as part of strengthening health systems in line with WHO recommendations.

Mapping of MNH WHO-recommended commodities

In early 2023, a mapping exercise identified life-saving maternal commodities – defined as medicines, medical devices, and health products that have the capacity to effectively treat or prevent the primary causes of maternal and newborn mortality as recommended in WHO guidelines – essential to reducing maternal and newborn mortality. Commodities were extracted from WHO guidelines and classified into the following categories: medicines, medical devices and diagnostic tools. Two lists were produced and used as inputs for the technical convening.

Stakeholder mapping and creation of STAGE Working Group on MNH commodities

A stakeholder mapping exercise identified partners involved in clinical, epidemiological or implementation research related to scaling up commodities for MNH particularly in low- and middle-income countries (LMICs). 42 potential stakeholders were initially identified through searches of relevant journal articles and grey literature. To form a balanced STAGE WG, 10 stakeholders were invited based on their expertise in maternal and neonatal health and the geographic regions of their research.

The stakeholder mapping also informed the selection of participants for the technical convening. Stakeholder input led to the proposal of additional names, resulting in a list of over 300 by October 2023. This expanded list was used for both the technical convening and the online survey on MNH commodities.

WHO STAGE WG on recommended MNH commodities

The first virtual meeting of the expert WG was held on 27 April 2023, with 13 participants. Six of the 10 identified stakeholders agreed to join the WG. Five STAGE members, along with the STAGE secretariat and four WHO members, also participated in this two-hour meeting.

The work of the group was presented at the subsequent STAGE meeting in May 2023. The WG met again on 12 July 2023. During these meetings, experts reviewed background materials, provided input on the assessment criteria for the online survey and guided the overall process.

The WHO STAGE WG developed and agreed upon draft assessment criteria with three dimensions:

1. burden, determinants and knowledge (including effectiveness or impact);
2. acceptability and equity; and
3. feasibility (including accessibility and cost).

Survey on maternal health commodities

An online survey was conducted as part of a series of consultations on the WHO-recommended MNH commodities. This survey, disseminated in English to 254 stakeholders at country, regional and national levels, used a standard criteria-based approach to assess a list of WHO-recommended maternal health commodities (excluding newborn health commodities)[1].

The survey received responses from 130 participants, representing all six WHO regions and a variety of organization types including health authorities and hospitals, academics, consultants, funders and intergovernmental organizations. The key findings are listed below.

- Devices and diagnostics were deemed equally important in terms of effectiveness.
- The majority of commodities were available at country level, except for heat stable carbetocin (HSC), uterine balloon tamponade (UBT), non-pneumatic anti-shock garment (NASG) and uterine artery doppler (UAD).
- There were common barriers, but also differences among the barriers for different medicines, devices and diagnostics. The key barriers were costs, uncoordinated supply chain and limited health workers with adequate training.
- It may not be feasible to have a shorter list, as all WHO-recommended commodities are effective and the prioritization may need to be context-specific.

Technical convening

WHO convened an expert meeting to provide feedback on the key list of WHO-recommended MNH commodities in Geneva from 30 October to 1 November 2023. The purpose of the convening was to build consensus on a key list of WHO-recommended MNH commodities and discuss the strategy for scaling up their use, building on learning from the UN Commission on Life-Saving Commodities and other efforts. Close to 100 participants joined the hybrid meeting, with the majority attending in-person. There was broad representation from stakeholders and experts in the field, with participation from academics, clinicians, programme and procurement specialists, professional associations, development partners, donors, the World Bank/ The Global Financing Facility for Women, Children and Adolescents (GFF) and representation from a number of UN agencies, including UNFPA, UNICEF, UNITAID and WHO.

The meeting was interactive and consisted of a series of presentations, panel discussions, breakout groups and plenary sessions. The presenters and panel discussion members provided information on the range of efforts undertaken to increase access to MNH commodities since the UN Commodities Commission, as well as the current opportunities and challenges.

The participants provided rich and varied feedback on the proposed list of key MNH commodities and the draft implementation strategy, and identified opportunities for scaling up these commodities. The participants emphasized that it is not sufficient for the commodities to simply be available, they need to be both quality-assured and delivered in the right way, at the right time, as part of a package of care (see examples in Figures 3 and 4). This should be reflected in the design, implementation and monitoring of any scale-up strategy.

1 The reasons for this were: (i) newborn commodities could already be mapped onto functions required to be performed by level of care, which results in an inherent prioritization of commodities; (ii) all commodities related to essential newborn care should be universally available at all levels of care; (iii) commodities linked to small and/or sick newborn care (SSNC) should be available at level 2 facilities where such babies are cared for. Commodities related to SSNC are necessary to manage the three major contributors to neonatal mortality i.e. prematurity, perinatal asphyxia and sepsis. There is significant overlap between the conditions (prematurity, perinatal asphyxia, and sepsis) and the commodities needed to manage them. For example, premature babies are more susceptible to sepsis, as are those who experience perinatal asphyxia. Due to this overlap, conducting an online survey for prioritization among SSNC commodities was not considered an appropriate approach.

WHO STAGE meeting in November 2023

The WHO STAGE was updated on the outcomes of the technical convening, the draft list of key commodities and consulted on the next steps during its meeting on 14–16 November 2023.

Further revisions and finalization

Following the WHO STAGE meeting in November 2023, additional discussions among WHO teams took place to further refine the list of key WHO-recommended MNH commodities. In March 2024, the participants at the technical convening were invited to review the revised list and provide feedback. In May 2024, the list was finalized and aligned with WHO's Essential Medicines List (EML)*(1)* and the interagency list of priority medical devices for essential interventions for RMNCH*(2)*.

Updating the list

Given that WHO recommendations evolve over time, it is expected that the list will be reviewed and updated on an annual basis.

Summary list of key WHO-recommended maternal and newborn health commodities

Table 1. Summary list of key and enabling WHO-recommended MNH commodities (in alphabetical order).

Maternal health commodities

KEY

- Alcohol-based chlorhexidine
- Aqueous chlorhexidine or povidone iodine
- Aspirin
- Benzathine benzyl penicillin
- Calcium
- Calibrated drapes
- Dexamethasone or betamethasone
- Doppler fetal heart rate (FHR) detector or fetal stethoscope
- Dual HIV/Syphilis RDTs
- Elemental Iron & Folic Acid
- Ergometrin
- HS-Carbetocin
- Hydralazine
- Inactivated influenza vaccine
- Labetalol
- Magnesium Sulphate *(19)*
- Manual vacuum aspirator (MVA)
- Methyldopa
- Mifepristone
- Misoprostol
- Nifedipine
- Non pneumatic anti-shock garment (NASG)
- Oral Antibiotics
- Oxytocin
- Parenteral Antibiotics
- Rubella vaccine
- Tetanus vaccine
- Tranexamic acid
- Uterine Balloon Tamponade (UBT)

ENABLING

- Automated and semi-automated blood pressure measuring devices (BPMDs)
- Commodities for assisted vaginal delivery (Forceps or Vacuum extractor)
- Commodities for blood grouping and matching
- Commodities for GRAM Staining
- Commodities to evacuate retained products after birth
- Hemoglobinometer
- Isotonic crystalloids
- Non-mercury thermometer
- Safe blood & blood products
- Ultrasound
- Ultrasound for Uterine Artery Doppler

Newborn health commodities

KEY

- AZT (zidovudine), Nevirapine
- BCG vaccine
- Bilirubinometer
- Breast pump
- Bubble CPAP with blender
- Caffeine
- Digital weighing scale
- Direct ophthalmoscope
- Glucometer
- Hepatitis B vaccine
- Incubator
- Infusion pump
- Iron
- Isoniazid
- KMC bed
- Neonatal stethoscope
- Nucleic Acid Test (NAT) for HIV
- Oral Antibiotic: Amoxicillin
- Oral Azithromycin and Erythromycin
- Oral polio vaccine
- Oxygen source (cylinder or concentrator)
- Parenteral Antibiotics: Ampicillin and Gentamicin, procaine benzylpenicillin
- Phenobarbital
- Phototherapy unit
- Pulse oximeter
- Radiant warmer with functioning probes
- Reclining chair
- Respiration Counter
- Self-inflating bag with appropriate mask, (size 0 & 1)
- Suction device
- Syringe pumps
- Thermometer
- Topical tetracycline and erythromycin
- Vitamin K (Phytomenadione)

ENABLING

- Blood products (packed cells)
- Commodities to measure serum electrolytes, blood gas, FBC, microbiology (B/C and CSF analysis), blood glucose
- Cup and spoon
- Fluxmeter
- Nasal prongs
- Nasogastric/orogastric tubes for the newborn
- Power back up

List of WHO-recommended quality-assured maternal health commodities, by indication and major condition

Key commodities

Table 2. List of key WHO-recommended maternal health commodities.

	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
1	Elemental Iron & Folic Acid*(3)*	Tablet: equivalent to 60 mg elemental iron + 400 micrograms folic acid	Anaemia prevention and treatment	Postpartum haemorrhage (PPH)/ Infections leading to sepsis / Low Birth Weight (LBW) / Preterm birth
2	Oxytocin*(4–6)*	Injection: 10 IU in 1 mL.	PPH prevention and treatment / induction, augmentation of labour	PPH / Fetal – neonatal mortality
3	HS-Carbetocin*(7)*	Injection (heat stable): 100 micrograms/mL.	PPH prevention[i]	PPH
4	Ergometrin*(6,8,9)*	Injection: 200 micrograms (hydrogen maleate) in 1 mL ampoule.	PPH prevention and treatment[i]	PPH
5	Misoprostol*(10,11,12)*	Tablet: 200 micrograms.	PPH prevention and treatment[ii]/ Abortion care	PPH / Abortion
6	Tranexamic acid*(13)*	Injection: 100 mg/mL in 10 mL ampoule.	PPH treatment	PPH
7	Uterine Balloon Tamponade (UBT)*(14)*	Medical device[iii]	PPH management[iv]	PPH
8	Non pneumatic anti-shock garment (NASG)*(6)*	Medical device	PPH management	PPH
9	Calibrated drapes*(15)*	Medical device[iii]	PPH prevention and management	PPH
10	Calcium*(16)*	Tablet: 500 mg (elemental).	PE prevention[v]	Preeclampsia/eclampsia (PE-E)
11	Aspirin*(17)*	Tablet: 100 mg	PE prevention[vi]	PE-E
12	Labetalol*(18–20)*	Tablet: 100 mg / Injection: 5 mg/mL in 20 mL ampoule[vii]	Management of HT	PE-E
13	Methyldopa*(18, 19)*	Tablet: 250 mg.	Management of HT	PE-E
14	Nifedipine*(20, 21)*	Immediate-release capsule: 10 mg.[viii]	Management of HT / Management of preterm labour	PE-E / Preterm birth
15	Hydralazine*(20)*	Powder for injection: 20 mg (hydrochloride) in ampoule.	Management of HT	PE-E
16	Magnesium Sulphate*(19,22)*	Injection: 0.5 g/mL in 2 mL ampoule (equivalent to 1 g in 2 mL; 50% weight/volume); 0.5 g/mL in 10 mL ampoule (equivalent to 5 g in 10 mL; 50% weight/volume). [ix]	PE-E prevention and treatment / management of preterm labour for neuroprotection[x]	PE-E / Preterm birth
17	Oral Antibiotics*(3, 21, 23)*	Tablets[xi]	Treatment of ASB / completion of initial parenteral treatment	Infections leading to sepsis / LBW / Preterm birth

i If oxytocin not available or cold chain not assured.

ii If oxytocin not available or cold chain not assured, or as a strategy of antenatal distribution in settings where women give birth outside of a health facility and in the absence of skilled health personnel.

iii Not listed in Inter agency list of priority medical devices for essential interventions for reproductive, maternal, newborn and child health.

iv Under certain safety conditions (trained personnel, emergency protocols available, rapid access to surgery and safe blood).

v In women with low dietary calcium intake.

vi In women at moderate or high risk of preeclampsia.

vii Not listed in EML

viii Only listed as tocolytic in EML.

ix Should be bundled with Calcium gluconate

x For women at risk of imminent preterm birth before 32 weeks of gestation.

xi According to local prevalence. Suggested: nitrofurantoin, ampicillin, 1st generation cephalosporins, clindamycin, amoxicillin-clavulanic acid, erythromycin.

	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
18	Parenteral Antibiotics*(22,24,25)*	Ampoules[xii]	Prophylaxis at C-Section, manual removal of the placenta, 3rd or 4th degree perineal tears, instrumental delivery / management of chorioamnionitis and endometritis / management of prolonged or preterm rupture of membranes / GBS colonization	Infections leading to sepsis / Preterm birth / Neonatal infections
19	Aqueous chlorhexidine or povidone iodine *(26)*	Solution: 5% (digluconate).	Vaginal preparation for C-Section	Infections leading to sepsis
20	Alcohol-based chlorhexidine *(27)*	Solution: (70% alcohol and 2% Chlorhexidine gluconate)	Skin preparation for C-Section	Infections leading to sepsis
21	Benzathine benzyl penicillin *(28)*	Powder for injection: 1.2 million IU (≈ 900 mg) in vial; 2.4 million IU (≈ 1.8 g) in vial.	Syphilis treatment	Fetal mortality / Neonatal infection
22	Tetanus vaccine*(3)*	Ampoules / vials	Maternal immunization	Neonatal mortality
23	Inactivated influenza vaccine*(29)*	Ampoules / vials	Maternal immunization	Infections leading to sepsis / Neonatal mortality
24	Rubella vaccine*(30)*	Ampoules / vials	Maternal immunization	Neonatal mortality
25	Dual HIV/Syphilis RDTs*(31–33)*	Clinical laboratory device	HIV & syphilis screening	Fetal mortality / Neonatal infection
26	Dexamethasone or betamethasone*(21, 33)*	Injection: 4 mg/mL (as disodium phosphate salt) in 1 mL ampoule.[xiii]	Antenatal corticosteroid therapy	Neonatal mortality
27	Doppler fetal heart rate (FHR) detector or fetal stethoscope*(34)*	Medical devices	Assessment of fetal wellbeing on labour	Fetal mortality / Neonatal mortality
28	Mifepristone*(12)*	Tablet 200 mg	Abortion management	Abortion
29	Manual vacuum aspirator (MVA)*(12)*	Medical device	Abortion management	Abortion

xii According to local prevalence. Suggested: ampicillin, 1st generation cephalosporins, clindamycin, amoxicillin-clavulanic acid, gentamicin, penicillin G.

Enabling commodities

Table 3. List of enabling WHO-recommended maternal health commodities.

	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
1	Hemoglobinometer*(3)*	Clinical laboratory device	Screening of anaemia	PPH/infections leading to sepsis/ LBW/preterm birth
2	Automated and semi-automated blood pressure measuring devices (BPMDs)*(35, 36)*	Medical diagnostic device[iii]	Diagnosis of hypertension or hypotension	PPH/infections leading to sepsis/ PE-E
3	Commodities for blood grouping and matching	Non-perishable and perishable consumables	Management of haemorrhage	PPH/antenatal haemorrhages/ abortion
4	Safe blood & blood products*(37)*	Blood and blood components(1) and blood transfusion devices(2)	Management of haemorrhage	PPH/antenatal haemorrhages/abortion
5	Isotonic crystalloid*s(8)*	Injectable solution: 0.9% isotonic (equivalent to Na+ 154 mmol/L, Cl- 154 mmol/L)[xiii]	Initial fluid resuscitation	PPH/antenatal haemorrhages/ infections leading to sepsis/abortion
6	Non-mercury thermometer *(38,39)*	Medical diagnostic device	Temperature control	Infections leading to sepsis
7	Commodities for GRAM Staining*(3)*	Kits[iii, xiv]	Screening for infections	Infections leading to sepsis
8	Commodities for assisted vaginal delivery (Forceps[iii] or Vacuum extractor)*(40)*	Medical devices	Management of labour	Fetal mortality/ neonatal mortality
9	Ultrasound *(3, 19, 22)*	Medical diagnostic device	Gestational age assessment (ideally from first trimester ultrasound)/risk assessment for PE	LBW/preterm birth/PE-E
10	Commodities to evacuate retained products after birth*(39)*	Medical devices	PPH management/prevention and management of endometritis	PPH/infections leading to sepsis
11	Ultrasound for Uterine Artery Doppler[xv]	Medical diagnostic device	Risk stratification for PE	PE-E

xiii Lactated Ringer not listed in EML

xiv If cultures are not available

xv Although there is no WHO recommendation regarding the use of UAD in pregnancy, it is mentioned (along with other clinical criteria), for risk assessment of women at high risk of developing pre-eclampsia.

List of WHO-recommended quality-assured newborn health commodities, by indication and major condition

Key commodities

Table 4. List of key WHO-recommended newborn health commodities.

	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
1	Self-inflating bag with appropriate mask, (size 0 and 1)*(42)*	Medical devices	Newborn resuscitation	Newborn resuscitation
2	Suction device *(42)*	Medical device	Newborn resuscitation	Newborn resuscitation
3	Pulse oximeter *(43)*	Medical device	Oxygen saturation monitoring	Oxygen saturation monitoring
4	Oxygen source (cylinder or concentrator)*(43)*	Medical device	Oxygen administration	Hypoxia
5	Thermometer*(42)*	Medical diagnostic device	Routine care - thermal care	Routine care
6	Digital weighing scale*(42)*	Medical device	Routine care - weight monitoring	Routine care
7	Neonatal stethoscope*(42)*	Medical device	Routine care	Routine care
8	Respiration counter	Medical diagnostic device	Routine care - respiratory rate measurement	Routine care
9	Vitamin K (phytomenadione) *(42)*	Injection: 1 mg/mL; 10 mg/mL in ampoule	Routine care	Routine care
10	Topical tetracycline and erythromycin*(42)*	T: Hydrochloride 1% eye ointment; E: 0.5% eye ointment	Routine care - prevention of opthalmia neonatorum	Routine care
11	Oral antibiotic: amoxicillin*(42)*	Powder for oral liquid: 125 mg/5 mL; 250 mg/5 mL (as trihydrate); tablet (dispersible, scored): 250 mg; 500 mg (as trihydrate)	Neonatal sepsis	Neonatal sepsis
12	Oral azithromycin and erythromycin*(42)*	Powder for oral liquid: 200 mg/5 mL (anhydrous)	Opthalmia neonatorum	Opthalmia neonatorum
13	Parenteral antibiotics: ampicillin and gentamicin, procaine benzylpenicillin*(42)*	A: Powder for injection: 500 mg; 1 g (as sodium) in vial. G: injection: 10 mg/mL (as sulfate); 40 mg/mL (as sulfate) in 2 mL vial. P: Powder for injection: 1 g (=1 million IU); 3 g (=3 million IU) in vial[xvi]	Neonatal sepsis	Neonatal sepsis
14	Isoniazid	Tablet/dispersible 100 mg isoniazid [xvii]	Tuberculosis (TB) exposure prophylaxis	Newborns exposed to TB
15	AZT, nevirapine*(42)*	A: Oral liquid: 50 mg/5 mL N: Oral liquid: 50 mg/5 mL	HIV exposure prophylaxis	Newborns exposed to HIV
16	Reclining chair[xviii]	Medical furniture[iii]	KMC for preterm and low birth weight infants	Provision of KMC
17	KMC bed*(43)*	Medical furniture[iii]	Thermal care	Provision of KMC

xvi Procaine benzylpenicillin is not recommended as first-line treatment for neonatal sepsis except in settings with high neonatal mortality, when given by trained health workers in cases where hospital care is not achievable.

xvii Parenteral isoniazid not listed in EML

xviii A reclining chair is an important support for KMC.

	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
18	Radiant warmer with functioning probes*(42)*	Medical device	Thermal care	Thermal care
19	Incubator*(42)*	Medical device	Thermal care	Thermal care
20	Bubble CPAP with blender*(42)*	Medical device	Provide respiratory support through continuous positive airway pressure (CPAP)	Respiratory distress syndrome or preterm <32 weeks
21	Caffeine	Injection: 20 mg/mL (equivalent to 10 mg caffeine base/mL)	Treatment of apnoea in preterm neonates	Apnoea in preterm infants
22	Phototherapy unit*(42)*	Medical device	Phototherapy for the management of jaundice	Neonatal jaundice
23	Bilirubinometer*(42)*	Medical device	Phototherapy for the management of jaundice	Neonatal jaundice
24	Infusion pump*(44)*	Medical device	Perform blood transfusion, exchange transfusion	Severe anaemia
25	Syringe pumps*(44)*	Medical device	Provide IV fluids	Routine care
26	Breast pump	Medical device	Assisted feeding with expressed breast milk	Nutrition
27	Direct ophthalmoscope[xix]	Medical diagnostic device	Screening for retinopathy of prematurity	Retinopathy of prematurity
28	Nucleic acid testing (NAT) for HIV*(42)*	Clinical laboratory device	Early infant diagnosis for HIV	
29	Phenobarbital*(42)*	Injection: 30 mg/mL or 60 mg/mL	Seizure control	Neonatal seizures
30	Iron*(42)*	Oral liquid: equivalent to 25 mg iron (as sulfate)/mL.	Human milk-fed preterm or low-birth-weight infants who are not receiving iron from another source	Iron supplementation
31	Glucometer*(45)*	Clinical laboratory device	Blood glucose monitoring	Hypoglycaemia
32	Hepatitis B vaccine*(42)*	Ampoule/vial	Neonatal immunization [xx]	Routine care
33	Oral polio vaccine*(42)*	Ampoule/vial	Neonatal Immunization [xxi]	Routine care
34	BCG vaccine*(42)*	Ampoule/vial	Neonatal immunization[xxii]	Routine care

xix It is required for screening of retinopathy of prematurity.

xx All infants should receive their first dose of hepatitis B vaccine as soon as possible after birth, preferably within 24 hours. This is crucial in areas of high hepatitis B endemicity, but important even in intermediate and low endemicity areas.

xxi Oral polio vaccine, including a birth dose (known as zero dose because it does not count towards the primary series), is recommended in all polio-endemic countries and in countries at high risk for importation and subsequent spread. The birth dose should be administered at birth, or as soon as possible after birth.

xxii In settings where tuberculosis is highly endemic or in settings where there is high risk of exposure to tuberculosis a single dose of BCG vaccine should be given to all infants.

Enabling commodities

Table 5. List of enabling WHO-recommended newborn health commodities.

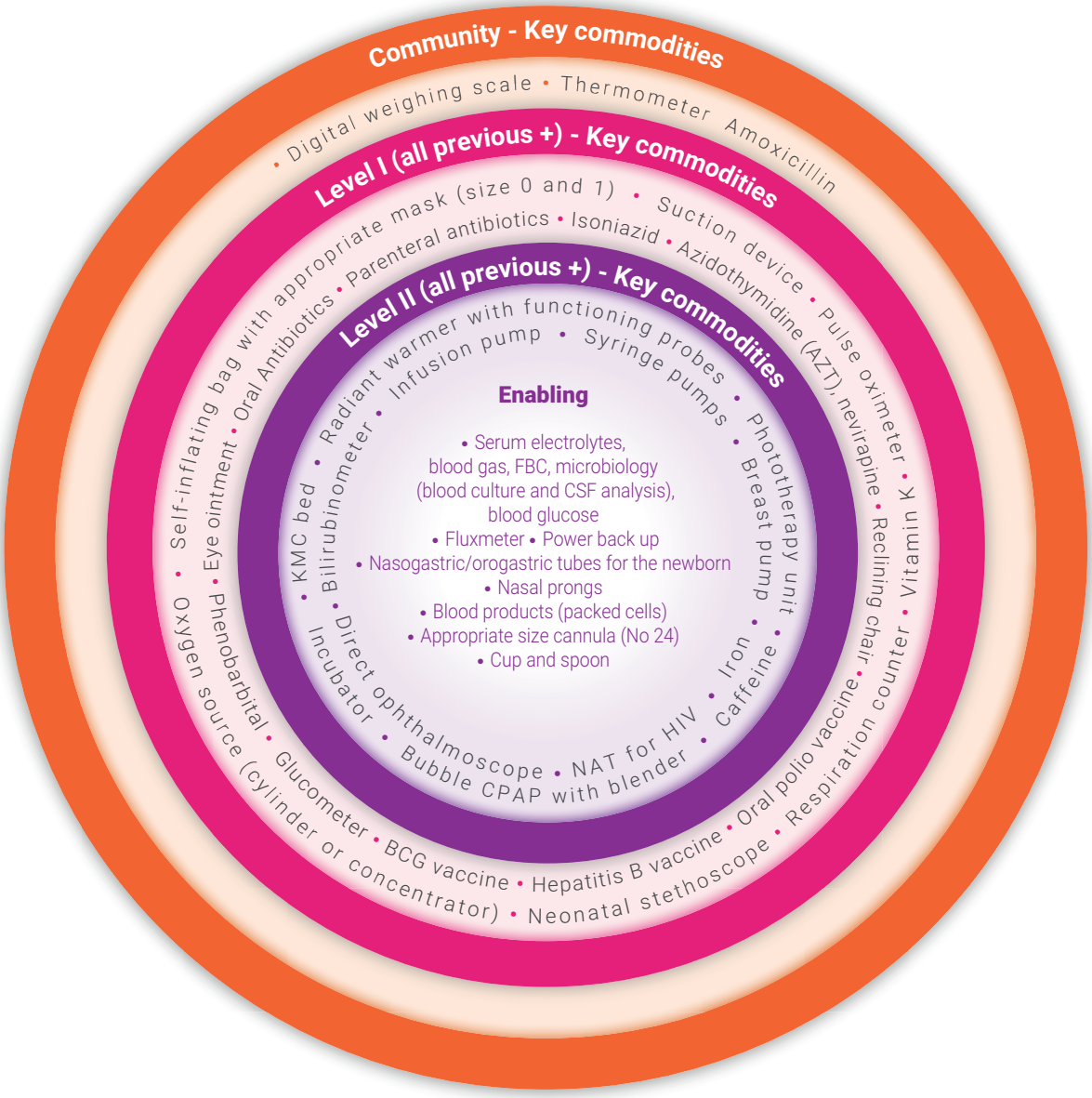
	Commodities	Presentation*(1)* / Type*(2)*	Indication	Major Condition
1	Commodities to measure serum electrolytes, blood gas, FBC, microbiology (blood culture and cerebrospinal fluid [CSF] analysis), blood glucose*(42)*	Clinical laboratory devices	Diagnostics	
2	Fluxmeter[xxiii]	Medical diagnostic device [iii]	Monitoring efficiency of the phototherapy unit	Neonatal jaundice
3	Power back up	Other	Ensuring continuous supply of power	
4	Nasogastric/orogastric tubes for the newborn*(43)*	Medical device	Assisted feeding	Assisted feeding
5	Nasal prongs*(43)*	Medical device	Oxygen administration	Hypoxia
6	Blood products (packed cells)*(45)*	Appropriately sized neonatal bags	Blood transfusion	Severe anaemia
7	Appropriately sized cannula (size 24)*(46)*	Medical device	IV fluid and parenteral drug administration	IV fluids and drug administration
8	Cup and spoon*(43)*	Medical device [iii]	Assisted feeding	Assisted feeding

xxiv To check efficiency of the phototherapy unit

List of WHO-recommended quality-assured newborn health commodities, by level of care

The figure below divides the newborn health commodities by level of care.

Figure 3. List of WHO-recommended newborn health commodities divided by the level of care.

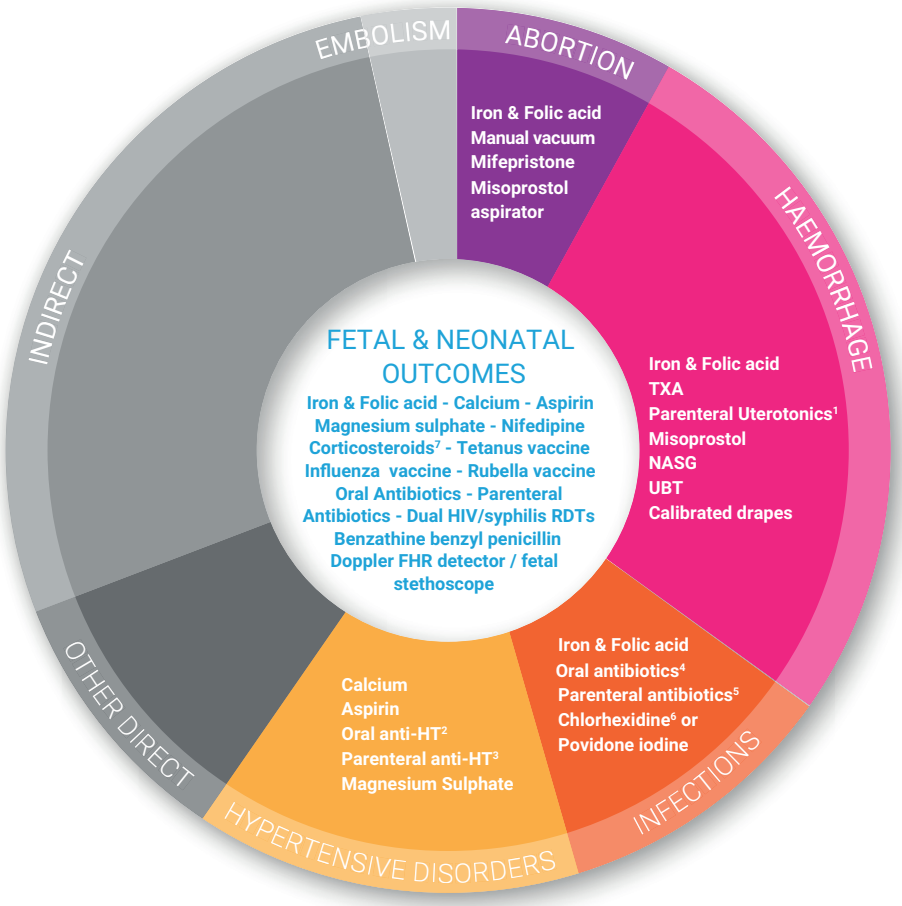


2 Only major direct causes of death included

List of WHO-recommended quality-assured maternal health commodities, by burden of disease

The figure below organizes the maternal health commodities according to the burden of disease.[4]

Figure 4. List of WHO-recommended maternal health commodities according to the burden of disease.*(50)*



Enabling

Same as Haemorrhage & Sepsis

Haemoglobinometer
BPMDs
Blood grouping & matching
Safe blood & blood products
Isotonic crystalloids
CERP*

Commodities for GRAM staining
Non-mercury thermometer
Isotonic crystalloids
BPMDs
CERP*

Enabling
BPMDs
Isotonic crystalloids
Ultrasound for UAD

Enabling
Forceps or Vacuum
Ultrasound / UAD

References

- Abortion
- Haemorrhage
- Infections
- Hypertensive disorders
- Fetal & Neonatal Outcomes
- Other direct
- Indirect
- Embolism

1 Parenteral uterotonics: oxytocin, HS-carbetocin, ergometrine, Syntometrine
2 Oral anti-HT: labetalol, methyldopa, nifedipine
3 Parenteral anti-HT: labetalol, hydralazine
4 Oral Antibiotics: nitrofurantoin, ampicillin, 1st generation cephalosporins, clindamycin, amoxicillin-clavulanic acid, erythromycin
5 Parenteral Antibiotics: ampicillin, 1st generation cephalosporins, clindamycin, amoxicillin-clavulanic acid, gentamicin, penicillin G
6 Chlorhexidine: aqueous & alcohol-based
7 Corticosteroids: dexamethasone or betamethasone
* CERP: commodities to evacuate retained products after birth

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