

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ



ក្រសួងសុខាភិបាល

បញ្ជីឱសថសាស្ត្រ

Essential Medicines List

9th Edition, 2018

ខែ ឧសភា ឆ្នាំ២០១៨

ឧបត្ថម្ភដោយ អង្គការសុខភាពពិភពលោក (WHO)
និង គម្រោងមូលនិធិសកល (GFATM)

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PREFACE

Access to medicines and vaccines is one of the cornerstones of universal health coverage (UHC) and is critical to the achievement of the health-related Sustainable Development Goals (SDGs).

This 9th Edition of the Essential Medicines List, Ministry of Health, Cambodia (EML) builds upon the foundation of the 8th edition which was published in 2015. The EML is designed to be a vital tool to strengthen and standardize treatment of common conditions in Cambodia for both the public and private sectors. It is expected that the document be used as the basis for prescribing and dispensing in our health system whether public, private or non-governmental organizations operating under the umbrella of the Ministry of Health, Kingdom of Cambodia.

The EML also provides crucial recommendations on priorities for procurement, donations and distribution of medicines and consumables in Cambodia. The four tiers (i.e., MPA, CPA1, CPA2, CPA3) of the healthcare delivery system of the country should have these medicines available at all times.

It promotes the essential medicines concept as recommended by the Medicines Policy of the Kingdom of Cambodia, 2010 *“Essential medicines are those that satisfy the priority health care needs of the population. They are selected with due regard to public health relevance, evidence on efficacy and safety, and comparative cost-effectiveness. Essential medicines are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford”*.

The First Cambodian Essential Medicines was published in 1986. There are many reasons and benefits to support the use of a limited number of essential medicines: easier procurement, storage and distribution, coordinated medicines donation, better quality assurance, reduction and containment of antimicrobial resistance, more rational prescribing, lower costs, improved medicines availability and increased adherence to treatment. Moreover, selection of medicines is based on evidence of safety, efficacy and bioavailability, cost-effectiveness and therapeutic advantage and their international non-proprietary (INN) or generic names are used.

EML is also meant to guide policy, focus of attention and resources in areas and activities which support the above aims, such as training, quality assurance, financing, donation, regulation and monitoring and rational use. As such the EML must be fully responsive to the aims and objectives of national health policies and strategies such as the Health Strategic Plan, 2016-2020. In this respect, the EML has incorporated the most current guidance to adequately address burden of diseases following a wide range of consultations with medical specialists and other pharmaceutical experts as well as public health specialists across the healthcare delivery system in Cambodia. Expert opinions were gathered from various vertical programs like HIV, TB, Malaria, Mental Health to mention a few.

The 9th Edition of Essential Medicines List was developed by the following steps:

- Determining the parameters for the careful vetting of every molecule of drug that was selected to be included in the Essential Medicine List (EML);
- Categorizing each drug molecule in the EML based on the four tiers of the healthcare delivery system of Cambodia (MPA, CPA1, CPA2, CPA3);
- Reached a critical decision to adopt the WHO Model of Medicines Classification of medicines by Anatomic, Therapeutic, and Chemical (ATC) Classification.

Essential Medicines List (9th Edition 2018)

This 9th Edition is designed to provide current and up-to-date, practical and reader friendly information for both upper and lower levels of the current four tiers of the healthcare delivery system of Cambodia and therefore it includes several changes.

The most significant change is the adoption of the WHO Model Essential List format where medicines are grouped according therapeutic actions (such as anti-infectives, cardiovascular medicines etc) to provide a better capture and overview of the medicines listed. Moreover, the ATC (Anatomical Therapeutic Chemical) classification scheme is introduced in order to enable a deeper understanding of medicine utilization in the country. In the ATC system, medicines are divided into difference groups based on the body organ or system on which they act and their chemical, pharmacological, and therapeutic properties. Currently, the National Medicines Formulary is under development in order to provide objective unbiased information to health workers and to promote the safe, effective and rational use of medicines.

Secondly, all medicines are also classified according to their priority: **VEN classification** which is a most important tool to assist in giving priority to medicines based on economic considerations.

- **V** medicines are **vital**, they are considered life-saving, or their unavailability would cause serious harm and efforts should always be aimed at making them 100% available.
- **E** medicines are **essential**, and are given second priority. Without E medicines there would be major discomfort or irreversible harm.
- **N** medicines are still **necessary** but are lower in priority than V and E medicines.

Thirdly, a total of 34 medicine-specific changes (additions/removals) were made to the 8th edition. The current Selection Committee, which was updated on the 2nd February 2017, has reviewed additions and removals resulting in the inclusion of 891 items in the 2018 EML.

Medicines:	Consumables:	Microbiology Items:
- MPA: 206	- MPA: 168	- MPA: 9
- CPA1: 288	- CPA1: 234	- CPA1: 11
- CPA2: 379	- CPA2: 284	- CPA2: 17
- CPA3: 442	- CPA3: 327	- CPA3: 122

On behalf of the Ministry of Health, I would wish to acknowledge and sincerely express my deep gratitude to the **National EML Committee members** for their careful, thorough, and dedicated work and all those who have contributed to the preparation of this very important “users friendly” publication. I also wish to thank World Health Organization (WHO) for their continuous financial and technical support and Diagnostic Microbiology Development Program (DMP) for technical advice throughout this complex process.

Like the immediate past edition, this will be subject to constant review and revision to reflect the current realities of health practices in the country. It is expected, and will therefore be encouraged that all healthcare professionals get familiar with the content of the document and constantly evaluate its relevance and appropriateness to their daily operations in the health facilities nationwide. The review and revision exercise of the document was necessitated by the protocols set to do same every two years. We continue to revise the EML and consider medicine developments and new health problems.

Essential Medicines List (9th Edition 2018)

The regular and consistent use of the EML can be expected to improve health outcomes, and to contribute to achievements of universal health coverage and to the attainment of “Health for All”.

I therefore strongly encourage all relevant health professionals and international and national health partners to make the best use of this 9th Edition of the Essential Medicines List, Ministry of Health, Cambodia and to provide feedback on its use, and any suggestions towards its improvement and future editions. Using the Essential Medicines List is Good Professional Practice and Conduct, let’s promote it.

Handwritten initials/signature

Phnom Penh, Dated: *11. May 2018*



Handwritten signature of Dr. Mam Bunheng

Dr. MAM BUNHENG
MINISTER OF HEALTH

Essential Medicines List

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
1. ANAESTHETICS, PREOPERATIVE MEDICINES AND MEDICAL GASES									
1.1 General anaesthetics and oxygen									
1.1.1 Inhalational medicines									
AD0100	Halothane	N01AB01	Inhalation	99.9 % v/v	/	/	*	*	V
	Nitrous Oxide	N01AX13	Inhalation	100% v/v	/	/	*	*	V
	Oxygen	V03AN01	Inhalation	100%	/	/	*	*	V
1.1.2 Injectable medicines									
AB0260	Ketamine	N01AX03	Injection	50 mg (as hydrochloride) /mL in 10-mL vial	/	/	*	*	V
	Propofol	N01AX10	Injection	20 mg/mL in ampoule/vial	/	/	*	*	E
	Thiopental	N01AF03	Powder for Injection	1 g in vial	/	/	*	*	E
1.2 Local anaesthetics									
AB0040	Bupivacaine	N01BB01	Injection	0.5% (hydrochloride) in vial, 20 mg/4 ml	/	/	*	*	V
			Injection for spinal anaesthesia	0.5% (hydrochloride) in 4-mL ampoule to be mixed with 7.5% glucose solution	/	/	*	*	V
AB0181	Ephedrine	C01CA26	Injection	30 mg (hydrochloride)/mL in 1-mL ampoule	/	/	*	*	E
AB0270	Lidocaine	N01BB02	Injection	2% (hydrochloride) in 50-ml vial	*	*	*	*	V
			Injection for spinal anaesthesia	5% (hydrochloride) in 2-mL ampoule to be mixed with 7.5% Glucose solution	/	/	/	SN	V
			Dental cartridge	2% (hydrochloride) in 1.8ml cartridge	*	*	*	*	V
			Topical forms	4% (hydrochloride)	/	/	*	*	V
NI0220	Lidocaine + Epinephrine (Adrenaline)	N01BB52	Dental cartridge	2% (hydrochloride) + Epinephrine 1:80 000	*	*	*	*	V
1.3 Preoperative medication and sedation for short-term procedures									
AB0030	Atropine	A03BA01	Injection	1 mg (sulfate) in 1-mL ampoule	*	*	*	*	V
	Morphine	N02AA01	Injection	10 mg (sulfate or hydrochloride) in 1-mL ampoule	/	/	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
1.4 Medical gases									
	Oxygen	V03AN01	Inhalation	100%	*	*	*	*	V
2. MEDICINES FOR PAIN AND PALLIATIVE CARE									
2.1 Non-opioids and non-steroidal anti-inflammatory medicines									
	Acetylsalicylic acid	N02BA01	Tablet	100 mg	*	*	*	*	V
AA0010				500 mg	*	*	*	*	V
	Diclofenac	M01AB05	Injection	25 mg/ ml in 3-mL ampoule	/	*	*	*	N
AA0170			Tablet	50 mg (potassium salt)	/	*	*	*	N
	Ibuprofen	M01AE01	Oral liquid	20 mg/mL	/	*	*	*	E
AA0590			Tablet	200 mg	/	*	*	*	V
NQ0402			Tablet	400 mg	/	*	*	*	V
AA0413	Paracetamol	N02BE01	Oral liquid	125 mg/ 5mL	*	*	*	*	V
AA0410			Tablet	100 mg	*	*	*	*	V
AA0411				500 mg	*	*	*	*	V
			Suppository	100 mg	*	*	*	*	V
AB0341			Injection IV	150 mg/mL in 2 -mL ampoule	*	*	*	*	V
2.2 Opioid analgesics									
AA0156	Codeine	N02AA08	Tablet	30 mg (phosphate)	/	/	SN	SN	V
	Fentanyl	N01AH01	Injection	50 micrograms/mL in 2- mL ampoule	/	/	*	*	N
AB0320	Morphine	N02AB03	Injection	10 mg (morphine hydrochloride or morphine sulfate) in 1-mL ampoule	/	/	*	*	V
	Morphine (lasting 4 hours)	N02AB03	Tablet (immediate release)	5 mg (morphine sulfate)	/	/	SN	SN	V
				10 mg (morphine sulfate)					
	Morphine (lasting 12 hours)	N02AB03	Tablet (slow release)	10 mg (morphine sulfate)	/	/	SN	SN	V
				20 mg (morphine sulfate)					
				30 mg (morphine sulfate)					
				100 mg (morphine sulfate)					

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
	Oxycodone	N02AA05	Tablet	5 mg (immediate release)	/	/	SN	SN	N
				20 mg (prolonged release)					
	Tramadol	N02AX02	Tablet	50 mg (immediate release)	/	/	SN	*	V
				100 mg (prolonged release)	/	/	*	*	V
			Injection	100 mg/mL in 2-mL ampoule	/	/	/	*	N
2.3 Medicines used for other common symptoms in palliative care									
NG0010	Amitriptyline	N06AA09	Tablet	25 mg (hydrochloride)	SN	SN	SN	SN	V
NG0011				50 mg (hydrochloride)	/	/	SN	SN	V
	Bisacodyl	A06AB02	Tablet	5 mg	/	SN	*	*	E
	Cetirizine	R06AE07	Tablet	10 mg	*	*	*	*	N
			Oral Solution	1 mg/mL	*	*	*	*	N
AB0130	Dexamethasone	H02AB02	Injection	4 mg/mL in 1-mL ampoule (as disodium phosphate salt)	/	*	*	*	V
AB0150	Diazepam	N05BA01	Injection	10 mg/2 mL	SN	*	*	*	V
AA0160			Tablet	5 mg	SN	*	*	*	V
AB0050	Hyoscine	N05CM05	Injection	20 mg/mL (as Butylbromide) in 2-mL ampoule	SN	*	*	*	V
	Lactulose	A06AD11	Oral liquid	3.35 mg/ 5 mL	/	SN	*	*	E
NQ0551	Loperamide	A07DA03	Tablet or capsule	2 mg	/	SN	SN	SN	E
AB0300	Metoclopramide	A03FA01	Injection	5 mg (hydrochloride)/mL in 2-mL ampoule	*	*	*	*	V
NJ0100	Ondansetron	A04AA01	Injection	2 mg base/mL in 4-mL ampoule (as hydrochloride)	/	/	/	SN	E
			Tablet or capsule	Eq. 8 mg base	/	/	/	SN	E
3. ANTIALLERGICS AND MEDICINES USED IN ANAPHYLAXIS									
AA0110	Chlorpheniramine	R06AB04	Tablet	4 mg (hydrogen maleate)	*	*	*	*	E
AB0130	Dexamethasone	H02AB02	Injection	4 mg/mL in 1-mL ampoule (as disodium phosphate salt)	/	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
AB0130	Diphenhydramine	R06AA02	Injection	50 mg/mL in 1-ml vial (as hydrochloride)	/	SN	SN	SN	N
AB0010	Epinephrine (adrenaline)	C01CA03	Injection	1 mg (as hydrochloride or hydrogen tartrate) in 1-mL ampoule	SN	*	*	*	V
AB0250	Hydrocortisone	H02AB09	Powder for injection	100 mg (as sodium succinate) in vial	SN	SN	*	*	V
	Cetirizine	R06AE07	Tablet	10 mg	*	*	*	*	N
			Oral Solution	1 mg/mL	*	*	*	*	N
AA0470	Prednisolone	H02AB06	Tablet	5 mg	SN	*	*	*	V
4. ANTIDOTES AND OTHER SUBSTANCES USED IN POISONINGS									
AA0101	Charcoal, activated	A07BA01	Tablet	125 mg	*	*	*	*	V
	Acetylcysteine	V03AB23	Injection	200 mg/mL in 10-mL ampoule	/	/	SN	*	V
AB0030	Atropine	A03BA01	Injection	1 mg (sulfate) in 1-mL ampoule	*	*	*	*	V
AB0060	Calcium gluconate	A12AA03	Injection	100 mg/mL in 10-mL ampoule	SN	*	*	*	N
	Deferoxamine	V03AC01	Powder for injection	500 mg (mesilate) in vial	/	/	SN	*	N
	Flumazenil	V03AB25	Injection	100 micrograms/mL in 1-mL ampoule	/	/	SN	*	E
	Glucagon	H04AA01	Injection	1 mg/mL	/	SN	SN	SN	N
	Naloxone	V03AB15	Injection	400 micrograms (hydrochloride) in 1-mL ampoule	SN	SN	SN	SN	V
	Pralidoxime	V03AB04	Powder for injection	1 gram	/	/	SN	*	E
5. ANTICONVULSANTS/ANTIEPILEPTICS									
NG0030	Carbamazepine	N03AF01	Tablet	200 mg	/	/	SN	SN	V
AB0150	Diazepam	N05BA01	Injection	10 mg/2 mL in ampoule	SN	*	*	*	E
	Gabapentin	N03AX12	Tablet or capsule	100 mg	/	/	SN	SN	E
				300 mg	/	/	SN	SN	E
	Lamotrigine	N03AX09	Tablet	50 mg (chewable)	/	/	*	*	N
				100 mg (chewable)	/	/	*	*	N
	Magnesium Sulfate (only for the prevention of seizures in eclampsia and preeclampsia)	A06AD04	Injection	0.5g/ mL in 10- mL ampoule (equivalent to 5 g in 10 mL; 50% weight/volume)	SN	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
	Phenobarbital	N03AA02	Injection	200 mg/mL (sodium)	/	SN	*	*	E
AA0450			Tablet	50 mg	SN	*	*	*	V
NG0120	Phenytoin	N03AB02	Tablet or capsule	100 mg (sodium salt)	SN	SN	*	*	V
	Valproic Acid (sodium valproate)	N03AG01	Tablet	500 mg (enteric coated, sodium valproate)	/	/	/	SN	V

6. ANTI-INFECTIVE MEDICINES

Antimicrobial Resistance (AMR) is becoming a global health problem. To reduce AMR and assist in the development of tools for antibiotic stewardship, WHO recommended three different categories: **ACCESS**, **WATCH** and **RESERVE** groups.

Group 1- "KEY ACCESS" ANTIBIOTICS

To improve both access and clinical outcomes antibiotics that were first or second choice antibiotics in at least one of the reviewed syndromes are designated as key ACCESS antibiotics, emphasizing their role as the antibiotics that should be widely available, affordable and quality-assured. ACCESS antibiotics are listed below. Selected (*) ACCESS antibiotics may also be included in the WATCH group.

Beta-lactam medicines		Other antibacterials	
amoxicillin	cefotaxime*	amikacin	gentamicin
amoxicillin + clavulanic acid	ceftriaxone*	azithromycin*	metronidazole
ampicillin	cloxacillin	chloramphenicol	nitrofurantoin
benzathine benzylpenicillin	phenoxymethylpenicillin	ciprofloxacin*	spectinomycin (EML only)
benzylpenicillin	piperacillin + tazobactam*	clarithromycin*	sulfamethoxazole + trimethoprim
Cefalexin, cefazolin	procaine benzylpenicillin	clindamycin	vancomycin (oral)*
Cefazolin, cefixime*	meropenem*	clindamycin	vancomycin (parenteral)*

* WATCH Group antibiotics included in the EML only for specific, limited conditions.

Group 2- "WATCH" GROUP ANTIBIOTICS

This group includes:

- antibiotic classes that have higher resistance potential and so are recommended as first or second choice treatments only for a specific, limited number of indications. These should be prioritized as key targets of stewardship programs and monitoring.
- most of the highest priority agents among the Critically Important Antimicrobials for Human Medicine¹ and/or antibiotics that are at relatively high risk of selection of bacterial resistance.

Quinolones and fluoroquinolones: e.g. ciprofloxacin, levofloxacin, moxifloxacin
3rd generation cephalosporins (with or without beta-lactamase inhibitor): e.g. cefixime, ceftriaxone, cefotaxime, ceftazidime
Macrolides - e.g. azithromycin, clarithromycin, erythromycin; Glycopeptides - e.g. teicoplanin, vancomycin
Antipseudomonal penicillins + beta-lactamase inhibitor: e.g. piperacillin-tazobactam
Carbapenems - e.g. meropenem, imipenem + Cilastatin; Penems - e.g. faropenem

Group 3 "RESERVE" GROUP ANTIBIOTICS

This group includes antibiotics that should be treated as "last resort" options that should be accessible, but whose use should be tailored to highly specific patients and settings, when all alternatives have failed (e.g., serious, life-threatening infections due to multi-drug resistant bacteria). These medicines could be protected and prioritized as key targets of national and international stewardship programs involving monitoring and utilization reporting, to preserve their effectiveness.

Aztreonam	Fosfomycin (IV)
4th generation cephalosporins - e.g. cefepime	Oxazolidinones - e.g. linezolid
5th generation cephalosporins - e.g. ceftaroline	Tigecycline
Polymyxins - e.g. polymyxin B, colistin	Daptomycin

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
6.1 Antihelmintics									
6.1.1 Intestinal antihelmintics									
NQ0004	Albendazole	P02CA03	Tablet	400 mg (chewable)	*	*	*	*	V
AA0280	Mebendazole	P02CA01	Tablet	500 mg (chewable)	*	*	*	*	V
AA0360	Niclosamide	P02DA01	Tablet	500 mg (chewable)	*	*	*	*	V
ND0130	Praziquantel	P02BA01	Tablet	600 mg	SN	SN	SN	SN	V
6.1.2 Antifilarials									
NQ0004	Albendazole	P02CA03	Tablet	400 mg (chewable)	*	*	*	*	V
ND0230	Diethylcarbamazine	P02CB02	Tablet	100 mg (dihydrogen citrate)	SN	SN	SN	SN	V
	Ivermectin	P02CF01	Tablet	3 mg (scored)	SN	SN	SN	SN	E
6.1.3 Antischistosomes and other antitrepatode medicines									
ND0130	Praziquantel	P02BA01	Tablet	600 mg	SN	SN	SN	SN	V
6.2 Antibacterials									
6.2.1 Beta-lactam medicines									
AA0040	Amoxicillin	J01CA04	Powder for suspension	125 mg (as trihydrate)/5 mL	*	*	*	*	V
AA0060			Tablet or capsule	250 mg (as trihydrate)	*	*	*	*	V
AA0061				500 mg (as trihydrate)					
	Amoxicillin + Clavulanic Acid (Sepsis from respiratory focus (moderate to severe community acquired pneumonia requiring hospitalization; hospital acquired pneumonia, aspiration pneumonia), urinary tract focus, abdominal source)	J01CR02	Suspension	250 mg amoxicillin + 62.5 mg clavulanic acid/5 mL	/	*	*	*	V
AA0050			Tablet	500 mg (as trihydrate) + 125 mg (as potassium salt)	/	*	*	*	V
			Powder for injection	1 g (as sodium) + 200 mg (as potassium salt) in vial	/	SN	SN	*	V
AB0020	Ampicillin	J01CA01	Powder for injection	1 g (as sodium salt) in vial	SN	*	*	*	V
NF0040	Benzathine benzylpenicillin	J01CE08	Powder for injection	1.44 g benzylpenicillin (= 2.4 million IU) in 5-mL vial	/	SN	SN	SN	V
AB0350	Benzylpenicillin (penicillin G)	J01CE01	Powder for injection	3 g (= 5 million IU) (sodium or potassium salt) in vial	/	*	*	*	V
	Cefalexin	J01DB01	Tablet or capsule	500 mg (as monohydrate)	/	/	*	*	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
	Cefazolin (for surgical prophylaxis administered within 1 hour prior to incision)	J01DB04	Powder for injection	1 g (as sodium salt) in vial	/	/	*	*	N
NQ0101	Cefixime (WATCH)	J01DD08	Capsule or Tablet	200 mg (as trihydrate)	SN	SN	SN	*	N
AB0081	Ceftazidime (WATCH) (Reserve for culture confirmed burkholderia pseudomallei (melioidosis), b. cepacia, acinetobacter, p. aeruginosa)	J01DD02	Powder for injection	1 g (as pentahydrate) in vial	/	/	/	*	E
AB0080	Ceftriaxone (WATCH)	J01DD04	Powder for injection	1 g (as sodium salt) in vial	/	SN	*	*	V
	Colistin (RESERVE) (Restricted to CPA3 with micro lab. Reserve for carbapenem-resistant enterobacteriaceae cultured from sterile site)	J01XB01	Powder for injection	150 mg colistin base in vial	/	/	/	SN	E
AA0138	Cloxacillin	J01CF02	Capsule	500 mg (as sodium salt)	/	*	*	*	V
AB0120			Powder for injection	1 g (as sodium salt) in vial	/	*	*	*	V
	Meropenem (WATCH) (restricted to CPA3 with micro lab. reserve for ESBL gram-negative bacteria cultured from sterile site)	J01DH02	Powder for injection	1 g (as trihydrate) in vial	/	/	/	SN	E
AA0440	Phenoxymethylpenicillin	J01CE02	Tablet	250 mg (as potassium salt)	*	*	*	*	V
6.2.2 Other antibacterials									
GA3901	Amikacin (REVERSE) (reserve for MDR gram-negative bacteria)	J01GB06	Injection	500 mg (as sulfate) in vial	/	/	/	SN	E
NF0030	Azithromycin (WATCH) (Culture proven salmonella, resistant to fluoroquinolones. Syndromic treatment of urethritis)	J01FA10	Capsule or Tablet	500 mg (anhydrous)	/	SN	SN	SN	V
			Oral liquid	200 mg/5 mL	/	*	*	*	V
	Chloramphenicol (Restricted to CPA3 with micro lab)	J01BA01	Powder for injection	1 g (sodium succinate) in vial	/	/	/	SN	E
AA0130	Ciprofloxacin (WATCH) (Reserve as oral stepdown option for culture proven NF gram-negative bacteria (pseudomonas, acinetobacter).	J01MA02	Tablet	500 mg (as hydrochloride)	SN	*	*	*	V
	Clarithromycin (WATCH)	J01FA09	Tablet or capsule	500 mg	/	/	SN	*	E
AA0190	Doxycycline	J01AA02	Tablet or capsule	100 mg (as hydrochloride)	*	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
AA0201	Erythromycin (<i>WATCH</i>) (Alternative for PCN allergic patients. Also used as a prokinetic agent)	J01FA01	Tablet	500 mg (as stearate base)	*	*	*	*	V
AA0199			Powder for oral liquid	125 mg/5 mL (as stearate base)	*	*	*	*	V
AB0230	Gentamicin	J01GB03	Injection	80 mg (as sulfate)/mL in 2-mL vial	SN	*	*	*	V
AB0310	Metronidazole	J01XD01	Injection	500 mg in 100-mL vial	/	*	*	*	V
			Oral liquid	200 mg (as benzoate)/5 mL	*	*	*	*	V
AA0300			Tablet	250 mg	*	*	*	*	V
	Nitrofurantoin	J01XE01	Tablet	100 mg	/	/	/	SN	V
AA0154	Sulfamethoxazole + Trimethoprim (co-trimoxazole)	J01EE01	Suspension	200 mg + 40 mg/5 mL	*	*	*	*	V
AA0151			Tablet	400 mg + 80 mg	*	*	*	*	V
NQ0111				800 mg + 160 mg	/	SN	SN	SN	V
			Injection	80 mg + 16 mg/ mL in 5-mL ampoule	/	SN	SN	SN	V
	Vancomycin (<i>WATCH</i>) (reserve for culture confirmed MRSA from a sterile site)	J01XA01	Powder for injection	1 g (as hydrochloride) in vial	/	/	/	SN	N
6.2.3 Antileprosy medicines									
Medicines used in the treatment of leprosy must never be used alone as monotherapy for leprosy. They are used in combination in Multidrug Therapy (MDT). Combination therapy is essential to prevent the emergence of drug resistance.									
NC0120	Clofazimine	J04BA01	Capsule	100 mg	/	*	*	*	V
NQ0156	Dapsone	J04BA02	Tablet	100 mg	/	SN	SN	SN	V
NC0083	Rifampicin [R]	J04AB02	Tablet or capsule	150 mg	/	*	*	*	V
NC0020	Multibacillary (MB) Leprosy	Adult	Colour-coded blister packs	Multi-drug therapy (MDT)	*	*	*	*	V
NC0030	Multibacillary (MB) Leprosy	Child			*	*	*	*	V
NC0040	Paucibacillary (PB) Leprosy	Adult			*	*	*	*	V
NC0050	Paucibacillary (PB) Leprosy	Child			*	*	*	*	V
6.2.4 Antituberculosis medicines									
Antituberculosis medicines should be used according to the national treatment guidelines.									
NC009	Ethambutol [E]	J04AK02	Tablet	100 mg	*	*	*	*	V
NC0010				400 mg					
NC0082	Ethambutol + Isoniazid + Pyrazinamide + Rifampicin	J04AM06	Tablet	275 mg + 75 mg +400 mg + 150 mg	*	*	*	*	V
NC0011	Isoniazid [H]	J04AC01	Tablet	100 mg	/	*	*	*	V
				300 mg					

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
NC0081	Isoniazid + Pyrazinamide + Rifampicin	J04AM05	Tablet	50 mg + 150 mg + 75 mg	*	*	*	*	V
NC0071	Isoniazid + Rifampicin	J04AM02	Tablet	75 mg + 150 mg	*	*	*	*	V
NC0069			Tablet	50 mg + 75 mg	*	*	*	*	V
NC0060	Pyrazinamide [Z]	J04AK01	Tablet	400 mg	/	*	*	*	V
NC0083	Rifampicin [R]	J04AB02	Tablet or capsule	150 mg	/	*	*	*	V
Reverse second-line drugs for the treatment of multidrug-resistance tuberculosis (MDR-TB) must be used in TB clinics adhering to the national treatment guidelines.									
GA3901	Amikacin (<i>RESERVE</i>)	J01GB06	Powder for injection	500 mg (as sulfate) in vial	/	/	/	SN	E
	Bedaquiline (<i>RESERVE</i>)	J04AK05	Tablet	100 mg	/	/	/	SN	E
	Capreomycin (<i>RESERVE</i>)	J04AB30	Powder for injection	1 g (as sulfate) in vial	/	/	/	SN	E
	Clofazimine (<i>RESERVE</i>)	J04BA01	Capsule	100 mg	/	/	/	SN	E
	Cycloserine (<i>RESERVE</i>)	J04AB01	Tablet or capsule	250 mg	/	/	/	SN	E
	Ethionamide (<i>RESERVE</i>)	J04AD03	Tablet	250 mg	/	/	/	SN	E
NC0015	Kanamycin (<i>RESERVE</i>)	J01GB04	Powder for injection	1 g (as sulfate) in vial	/	/	/	SN	E
	Levofloxacin	J01MA12	Tablet	250 mg	/	/	/	SN	E
	Linezolid (<i>RESERVE</i>)	J01XX08	Tablet	600 mg	/	/	/	SN	E
	Moxifloxacin (<i>RESERVE</i>)	J01MA14	Tablet	400 mg	/	/	/	SN	E
AA0400	Ofloxacin (<i>RESERVE</i>)	J01MA01	Tablet	200 mg	/	/	/	SN	E
	p-aminosalicylic acid (<i>RESERVE</i>)	J04AA01	Granules	4 g in sachet	/	/	/	SN	E
	Prothionamide	J04AD01	Tablet	250 mg	/	/	/	SN	E
NC0092	Streptomycin (<i>RESERVE</i>)	J01GA01	Powder for injection	1 g (as sulfate) in vial	SN	*	*	*	E
6.3 Antifungal medicines									
AB0022	Amphotericin B	J02AA01	Powder for Injection	50 mg in vial (as sodium deoxycholate or liposomal complex)	/	SN	SN	SN	V
	Clotrimazole	G01AF02	Tablet	100 mg	*	*	*	*	V
NF0100			Vaginal tablet	500 mg	SN	SN	SN	SN	V
NQ2286		D01AC01	Topical cream	1%	/	*	*	*	V
AA0221	Fluconazole	J02AC01	Tablet or capsule	200 mg	SN	*	*	*	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
NF0130	Griseofulvin	D01BA01	Tablet or capsule	500 mg	*	*	*	*	V
	Itraconazole	J02AC02	Tablet or capsule	200 mg	/	SN	SN	SN	E
AA0380	Nystatin	G01AA01	Tablet	500 000 IU	SN	*	*	*	V
6.4 Antiviral medicines									
6.4.1 Antiherpes medicines									
NF0010	Aciclovir	J05AB01	Tablet	200 mg	/	SN	SN	SN	V
NF0011				400 mg					
6.4.2 Antiretrovirals									
These medicines should be used according to the national treatment guidelines of HIV/AIDS.									
6.4.2.1 Nucleoside/Nucleotide reverse transcriptase inhibitors									
NE0010	Abacavir (ABC)	J05AF06	Tablet	60 mg (as sulfate)	SN	SN	SN	SN	V
				300 mg (as sulfate)					
NE0070	Lamivudine (3TC)	J05AF05	Tablet	150 mg	SN	SN	SN	SN	V
NE0270	Tenofovir disoproxil fumarate (TDF)	J05AF07	Tablet	300 mg	SN	SN	SN	*	V
NE0302	Zidovudine	J05AF01	Oral liquid	50mg/5ml	SN	SN	SN	SN	V
6.4.2.2 Non-nucleoside reverse transcriptase inhibitors									
NE0051 NE0052	Efavirenz (EFV or EFZ)	J05AG03	Capsule	200 mg	SN	SN	SN	SN	V
				400 mg					
				600 mg					
	Etravirine (ETV)	J05AG04	Tablet	25 mg	SN	SN	SN	SN	V
				100 mg					
NE0180	Nevirapine (NVP)	J05AG01	Oral liquid	50 mg/5 mL	SN	SN	SN	SN	V
NE0170			Tablet	200 mg					
6.4.2.3 Protease inhibitors									
NE0015	Atazanavir + Ritonavir		Tablet	300 mg (as sulfate) +100 mg	SN	SN	SN	SN	V
NE0047	Darunavir	J05AE10	Tablet	75 mg	SN	SN	SN	SN	V
				150 mg					
				600 mg					

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
NE0150	Lopinavir + Ritonavir (LPV/r)	J05AR10	Oral Liquid	400 mg + 100 mg/ 5 mL	SN	SN	SN	SN	V
NE0142			Capsule	100 mg + 25 mg					
NE0141			Capsule	200 mg + 50 mg	SN	SN	SN	SN	V
NE0143			Tablet	40 mg + 10 mg					
NE0220	Ritonavir	J05AE03	Tablet	100 mg	SN	SN	SN	SN	V
6.4.2.4 Integrase Inhibitors									
NE0048	Dolutegravir	J05AX12	Tablet	50 mg	SN	SN	SN	SN	V
	Raltegravir	J05AX08	Tablet	25 mg	SN	SN	SN	SN	V
FIXED - DOSE COMBINATIONS									
NE0017	Abacavir + Lamivudine	J05AR02	Tablet	120 mg (as sulfate) + +60 mg	SN	SN	SN	SN	V
NE0014				600 mg (as sulfate) + +300 mg					
	Abacavir + Lamivudine + Zidovudine	J05AR04	Capsule	60 mg + 30 mg + +60 mg	SN	SN	SN	SN	V
NE0271	Efavirenz + Lamivudine + Tenofovir	J05AR11	Tablet	600 mg + 300 mg + +300 mg	SN	SN	SN	SN	V
NE0111	Lamivudine + Nevirapine + Zidovudine	J05AR05	Tablet	30 mg + 50 mg + +60 mg	SN	SN	SN	SN	V
NE0014 4				150 mg + 200 mg + +300 mg					
NE0272	Lamivudine + Tenofovir	J05AR12	Tablet	300 mg + 300 mg (disoproxil fumarate)	SN	SN	SN	SN	V
NE0113	Lamivudine + Zidovudine	J05AR01	Tablet	30 mg + 60 mg	SN	SN	SN	SN	V
6.4.3 Antihepatitis medicines									
6.4.3.1 Medicines for Hepatitis B									
6.4.3.1.1 Nucleoside/nucleotide reverse transcriptase inhibitors									
	Entecavir	J05AF10	Tablet	500 micrograms	/	/	/	*	N
			Oral liquid	50 micrograms/ mL					
	Tenofovir disoproxil fumarate (TDF)	J05AF07	Tablet	300 mg (equivalent to 245 mg tenofovir disoproxil)	/	/	/	*	V
6.4.3.2 Medicine for Hepatitis C									
6.4.3.2.1 Nucleotide polymerase inhibitors									
	Sofosbuvir	J05AX15	Tablet	400 mg	/	/	/	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
6.4.3.2.2 NS5A inhibitors									
	Daclatasvir	J05AX14	Tablet	30 mg (as hydrochloride)	/	/	/	*	N
				60 mg (as hydrochloride)					
6.4.3.2.3 Other antivirals									
	Ribavirin (in combination with with peginterferon and/or DAA medicines)	J05AB04	Tablet or capsule	200 mg	/	/	/	*	N
				400 mg					
FIXED- DOSE COMBINATIONS									
	Ledipasvir + Sofosbuvir	J05AX65	Tablet	90 mg + 400 mg	/	/	/	*	E
6.5 Antiprotozoal medicines									
6.5.1 Antiamoebic and anti giardiasis medicines									
AB0310	Metronidazole	P01AB01	Injection	500 mg in 100- mL vial	/	*	*	*	V
			Oral liquid	200 mg (as benzoate)/ 5 mL	*	*	*	*	V
AA0300			Tablet	250 mg	*	*	*	*	V
6.5.2 Antileishmaniasis Medicines									
AB0022	Amphotericin B	J02AA01	Powder for Injection	50 mg in vial (as sodium deoxycholate or liposomal complex)	/	SN	SN	SN	V
6.5.3 Antimalarial medicines									
The use of antimalarial medicines should be based on the national treatment guidelines of malaria to avoid drug-resistance. Medicines for the treatment of P. falciparum malaria cases should be used in combination.									
6.5.3.1 For curative treatment									
ND0040	Artemether	P01BE02	Oily injection	80 mg/ mL in 1- mL ampoule	SN	*	*	*	V
ND0041	Artesunate	P01BE03	Injection	60 mg anhydrous artesunic acid with a separate ampoule of 5% sodium bicarbonate solution	SN	*	*	*	V
ND0056	Artesunate + Mefloquine	P01BF02	Tablet (FDC)	25 mg + 50 mg (blister/3 Tabs)	*	*	*	*	V
				25 mg + 50 mg (blister/6 Tabs)					
				100 mg + 200 mg (blister/3 Tabs)					
ND0058				100 mg + 200 mg (blister/6 Tabs)					

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
ND0051	Artesunate rectocap	P01BE03	Rectal dosage form	50 mg	*	*	*	*	V
ND0051				200 mg	*	*	*	*	V
AA0190	Doxycycline	J01AA02	Capsule	100 mg (as hydrochloride)	*	*	*	*	V
	Primaquine base	P01BA03	Tablet	15 mg (as diphosphate)	SN	*	*	*	E
ND0140	Quinine	P01BC01	Injection	300 mg quinine hydrochloride/ mL in 2- mL ampoule	SN	*	*	*	V
ND0150			Tablet	300 mg (quinine sulfate) or 300 mg (quinine bisulfate)	SN	*	*	*	V
6.5.4 Antipneumocystosis and antitoxoplasmosis medicines									
AA0153	Sulfamethoxazole + Trimethoprim (co-trimoxazole)	J01EE01	Oral liquid	200 mg + 40 mg/5mL	*	*	*	*	V
AA0151			Tablet	400 mg + 80 mg	/	SN	SN	SN	V
AA0152				800 mg + 160 mg					
7. ANTIMIGRAINE MEDICINES									
7.1 For treatment of acute attack									
AA0010	Acetylsalicylic acid	N02BA01	Tablet	500 mg	*	*	*	*	V
AA0590	Ibuprofen	M01AE01	Tablet	200 mg	/	*	*	*	V
NQ0402				400 mg	/	*	*	*	V
AA0410	Paracetamol	N02BE01	Tablet	100 mg	*	*	*	*	V
AA0411				500 mg					
AA0413			Oral liquid	125 mg/5 mL	*	*	*	*	V
7.2 For Prophylaxis									
	Propranolol	C07AA05	Tablet	40 mg (hydrochloride)	/	*	*	*	V
8. ANTINEOPASTICS AND IMMUNOSUPPRESSIVES									
8.1 Cytotoxic and adjuvant medicines									
	Allopurinol	M04AA01	Tablet	100 mg	*	*	*	*	E
	Asparaginase	L01XX02	Powder for injection	10 000 IU in vial	/	/	/	SN	E
NJ0010	Bleomycin	L01DC01	Powder for injection	15 mg (as sulfate) in vial	/	/	/	SN	V
	Carboplatin	L01XA02	Injection	150 mg/15 mL	/	/	/	SN	N
NJ0020	Cisplatin	L01XA01	Injection	50 mg/50 mL	/	/	/	SN	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V*EN
NJ0030	Cyclophosphamide	L01AA01	Powder for injection	500 mg in vial	/	/	/	SN	N
	Cytarabine	L01BC01	Powder for injection	100 mg in vial	/	/	/	SN	V
NJ0040	Dacarbazine	L01AX04	Powder for injection	100 in vial	/	/	/	SN	N
	Dactinomycin	L01DA01	Injection	500 micrograms in vial	/	/	/	SN	N
	Daferiprone	V03AC02	Tablet	500 mg	/	/	/	SN	N
			Oral suspension	100 mg	/	/	/	SN	N
	Daunorubicin	L01DB02	Powder for injection	50 ml (hydrochloride) in vial	/	/	/	SN	E
NJ0050	Doxorubicin	L01DB01	Powder for injection	50 mg (hydrochloride) in vial	/	/	/	SN	E
NJ060	Etoposide	L01CB01	Injection	20 mg/mL in 5-mL in ampoule	/	/	/	SN	V
NJ0070	Fluorouracil	L01BC02	Injection	50 mg/mL in 5-mL ampoule	/	/	/	SN	E
	Ifosfamide	L01AA06	Injection	1 g in vial	/	/	/	SN	E
NJ0080	Methotrexate	L04AX03	Powder for injection	50 mg (as sodium salt) in vial	/	/	/	SN	V
NJ0090	Mitomycin	L01DC03	Injection	2 mg in ampoule	/	/	/	SN	N
	Vinblastine	L01CA01	Powder for injection	10 mg (sulfate) in vial	/	/	/	SN	V
NJ0130	Vincristine	L01CA02	Powder for injection	1 mg/ml (sulfate) in vial	/	/	/	SN	V
8.2 Hormones and antihormones									
AB0130	Dexamethasone	H02AB02	Injection	4 mg/mL in 1-mL ampoule (as disodium phosphate salt)	/	*	*	*	V
AB0250	Hydrocortisone	H02AB09	Powder for injection	100 mg (as sodium succinate) in vial	SN	SN	*	*	V
AA0470	Prednisolone	H02AB06	Tablet	5 mg	SN	*	*	*	V
NJ0120	Tamoxifen	L02BA01	Tablet	20 mg (as citrate)	/	/	/	SN	V
9. ANTIPARKINSONISM MEDICINES									
NG0020	Benzotropine mesylate	N04AC01	Injection	2 mg/ml	/	/	/	SN	V
	Levodopa + carbidopa	N04BA02	Tablet	250 mg + 25 mg	/	/	/	SN	V
NJ0120	Trihexyphenidyl	N04AA01	Tablet	5 mg	SN	SN	SN	SN	N
			Injection	10 mg/5 ml	/	/	/	SN	N

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
10. MEDICINES AFFECTING THE BLOOD									
10.1 Antianaemia medicines									
AA0212	Ferrous Fumarate	B03AA02	Suspension	100 mg/5 ml	*	*	*	*	V
AA0210	Ferrous Salt + Folic Acid (supplement to use during pregnancy)	B03AD03	Tablet	equivalent to 60 mg iron + 400 micrograms folic acid	*	*	*	*	V
AA0230	Folic Acid	B03BB01	Tablet	5 mg	*	*	*	*	V
	Hydroxocobalamin (Vitamin B ₁₂)	B03BA03	Injection	1 mg (as acetate, as hydrochloride or as sulfate) in 1-mL ampoule	/	/	SN	*	V
10.2 Medicines affecting coagulation									
AB0200	Etamsylate		Injection	250 mg/ 2 ml in vial	/	/	*	*	V
	Heparin sodium	B01AB01	Injection	5 000 IU/mL in ampoule	/	/	SN	SN	V
AB0420	Phytomenadione (Vitamin K ₁)	B02BA01	Injection	1 mg/ml in ampoule 10 mg/1 ml in 5-mL ampoule	*	*	*	*	V
	Tranexamic acid	B02AA02	Injection	100 mg/ mL in 5-mL ampoule	/	/	*	*	E
11. BLOOD PRODUCTS OF HUMAN ORIGIN AND PLASMA SUBSTITUTES									
11.1 Plasma- derived medicines									
11.1.1 Human immunoglobulins									
	Antirabies immunoglobulin	J06BB05	Injection	150 IU/mL in vial	/	SN	SN	SN	E
NB0020	Antitetanus immunoglobulin	J06BB02	Injection	1500 IU/1mL in vial	/	/	*	*	V
11.2 Plasma Substitutes									
	Hydroxyethyl Starch (HES) in isotonic sodium chloride solution	B05AA07	Injection	6% HES 130 / 0.4	/	/	*	*	V
12. CARDIOVASCULAR MEDICINES									
12.1 Antianginal medicines									
AA0550	Isosorbide dinitrate	C01DA08	Tablet	10 mg	/	*	*	*	V
12.2 Antiarrhythmic medicines									
	Amiodarone	C01BD01	Injection	50 mg/mL in 3-mL ampoule (hydrochloride)	/	/	SN	*	N
			Tablet	100 mg (hydrochloride)	/	/	SN	*	N

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V*EN
	Adenosine	C01EB10	Injection	3 mg/mL in 2- mL ampoule	/	/	SN	*	E
AB0160	Digoxin	C01AA05	Injection	250 micrograms/mL in 2-mL	/	/	*	*	V
AA0180			Tablet	250 micrograms	/	*	*	*	V
AB0010	Epinephrine (Adrenaline)	C01CA24	Injection	1 mg (as hydrochloride or hydrogen tartrate) in 1- mL	SN	*	*	*	V
12.3 Antihypertensive medicines									
AA0081	Amlodipine	C08CA01	Tablet	5 mg (as maleate, mesylate or besylate)	*	*	*	*	V
AA0080	Atenolol	C07AB03	Tablet	50 mg	*	*	*	*	V
AA0202	Enalapril	C09AA02	Tablet	10 mg (as hydrogen maleate)	/	/	SN	SN	V
AB0240	Hydralazine	C02DB02	Powder for injection	20 mg (hydrochloride) in ampoule	SN	*	*	*	V
AA0250			Tablet	25 mg (hydrochloride)	*	*	*	*	V
AA0260	Hydrochlorothiazide	C03AA03	Scored tablet	25 mg	*	*	*	*	V
				50 mg					
AA0290	Methyldopa <i>(for use only in the management of pregnancy-induced hypertension)</i>	C02AB01	Tablet	250 mg	SN	*	*	*	V
	Nicardipine	C08CA04	Injection	10 mg/50 ml in bottle	/	/	SN	*	N
AA0370	Nifedipine	C08CA05	Tablet	20 mg (modified release)	/	*	*	*	V
				10 mg (immediate release)	/	SN	SN	SN	E
	Losartan potassium	C09CA01	Tablet (film-coated)	50 mg	/	SN	SN	*	E
12.4 Medicines used in heart failure									
AA0155	Captopril	C09AA01	Tablet	25 mg	SN	*	*	*	V
AA0180	Digoxin	C01AA05	Tablet	250 micrograms	/	*	*	*	V
AB0160			Injection	250 micrograms/mL in 2-mL ampoule	/	/	*	*	E
	Dobutamine	C01CA07	Injection	5 mg/mL (as hydrochloride)	/	SN	SN	SN	E
AB0170	Dopamine	C01CA04	Injection	40 mg/mL in 5-mL vial (hydrochloride)	/	/	SN	*	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
AA0202	Enalapril	C09AA02	Tablet	10 mg (as hydrogen maleate)	/	/	SN	SN	V
AB0220	Furosemide	C03CA01	Injection	10 mg/mL in 2-mL ampoule	/	*	*	*	V
AA0240			Tablet	40 mg	SN	*	*	*	V
AA0260	Hydrochlorothiazide	C03AA03	Scored tablet	25 mg	*	*	*	*	E
				50 mg					
	Losartan potassium	C09CA01	Tablet (film-coated)	50 mg	/	SN	SN	*	E
12.5 Antithrombotic medicines									
12.5.1 Antiplatelet medicines									
	Acetylsalicylic acid	B01AC06	Tablet	100 mg	*	*	*	*	V
12.5.2 Thrombolytic medicines									
	Streptokinase	B01AD01	Powder for injection	1.5 million IU in vial	/	/	SN	SN	E
12.5.3 Lipid - lowering agents									
AA0203	Fenofibrate	C10AB05	Tablet	200 mg	/	/	*	*	N
AA0505	Simvastatin	C10AA01	Tablet	20 mg (for use in high-risk patients)	/	/	*	*	E
13. DERMATOLOGICAL ITEMS (topical)									
13.1 Anti-infective and antifungal medicines									
AD0270	Aciclovir	D06BB03	10g	5%	/	SN	SN	*	E
AD0010	Benzoic acid + salicylic acid	D01AE20	Ointment	6%+3% (500 g/Jar)	*	*	*	*	V
NQ2286	Clotrimazole	D01AC01	Cream	1%	/	*	*	*	V
NF0120	Fusidic acid	D09AA02	Cream	2%	/	SN	SN	SN	V
NF0180	Ketoconazole	D01AC08	Cream	2%	/	SN	SN	*	V
NP0190	Miconazole	D01AC02	Cream or Ointment	2% (nitrate)	SN	SN	SN	SN	V
13.2 Anti-inflammatory, antipruritic medicines and treatment of acne vulgaris									
	Betamethasone	D07AC01	Cream or Ointment	0.1% (as valerate)	SN	SN	SN	SN	E
	Betamethasone + salicylic acid	D07XC01	Cream or Ointment	0.05% + 3%	/	SN	SN	SN	E
NF0082	Clobetasole propionate	D07AD01	Lotion	0.05%	/	SN	SN	SN	E
NF0080			Cream	0.05%	/	SN	SN	SN	E
NF0151	Hydrocortisone	D07AA02	Cream or Ointment	1 % (acetate)	SN	SN	SN	SN	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
	Triamcinolone acetonide	D07AB09	Cream	0.10%	/	SN	SN	SN	V
	Tretinoin	D10AD01	Cream	0.05%	/	SN	SN	SN	E
13.3 Medicines affecting skin differentiation and proliferation									
	Benzoyl Peroxide	D10AE01	Cream or Lotion	5%	/	SN	SN	SN	E
	Urea	D02AE01	Cream	10%	/	SN	SN	SN	E
13.4 Scabicides and pediculicides									
AD0020	Benzyl benzoate	P03AX01	Lotion	25%	*	*	*	*	E
NF0112	Crotamiton	-	Cream	10%	/	SN	SN	SN	E
14. DIAGNOSTIC AGENTS									
14.1 Ophthalmic Medicines									
NA0051	Fluorescein	S01JA01	Eye drops	2%	/	/	SN	*	E
NA0130	Tropicamide	S01FA06	Eye drops	1%	/	/	SN	*	E
15. DISINFECTANTS AND ANTISEPTICS									
15.1 Antiseptics									
AD0040	Chlorhexidine	D08AC02	Solution	20% 1 Litre/bottle (diguconate)	*	*	*	*	V
AD0140	Povidone iodine	D08AG02	Solution	10% (equivalent to 1% available iodine)	*	*	*	*	V
15.2 Disinfectants									
	Alcohol based hand rub	-	Solution	Containing ethanol 80% volume/volume	*	*	*	*	V
				Containing isopropyl alcohol 75% v/v					
	Chlorine dioxide	-	Solution	500 mL	*	*	*	*	V
NQ5121	Ethanol		Solution	96% V/V	*	*	*	*	V
	Glutaral	-	Solution	2%	*	*	*	*	V
XA1410	Glycerol		Solution	98%	*	*	*	*	V
	Isopropyl alcohol		Solution	99.80%	*	*	*	*	V
	Peracetic Acid		Solution	0.20%	*	*	*	*	V
	Sodium Hypochlorite	D08AX07	Solution	5%	*	*	*	*	V
	Zinc oxide		Powder for solution		*	*	*	*	N

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
16. DIURETICS									
AB0220	Furosemide	C03CA01	Injection	10 mg/mL in 2-mL ampoule	/	*	*	*	V
AA0240			Tablet	40 mg	SN	*	*	*	V
AA0260	Hydrochlorothiazide	C03AA03	Scored tablet	25 mg	*	*	*	*	V
				50 mg					
17. GASTROINTESTINAL MEDICINES									
17.1 Antiulcer medicines									
	Aluminium Hydroxide + Magnesium Hydroxide	A02AD03	Tablet	125 mg + 250 mg	*	*	*	*	N
AA0120	Cimetidine	A02BA01	Tablet	200 mg	*	*	*	*	E
AB0110			Injection	200 mg/ 2ml in ampoule	/	*	*	*	E
	Omeprazole	A02BC01	Powder for injection	40 mg in vial	/	/	SN	*	E
NQ0735			Tablet	20 mg	/	*	*	*	V
17.2 Antiemetic medicines									
AB0130	Dexamethasone	A01AC02	Injection	4 mg/ mL in 1- mL ampoule (as disodium phosphate salt)	/	*	*	*	V
	Domperidone	A03FA03	Tablet	10 mg	SN	SN	*	*	N
AB0300	Metoclopramide	A03FA01	Injection	5 mg (hydrochloride)/ mL in 2- mL ampoule	*	*	*	*	E
NJ0100	Ondansetron	A04AA01	Injection	2 mg base/mL in 4-mL ampoule (as hydrochloride)	/	/	/	SN	E
			Tablet or capsule	Eq. 8 mg base	/	/	/	SN	E
17.3 Laxatives									
	Bisacodyl	A06AB02	Tablet	5 mg	/	SN	*	*	N
17.5 Medicines used in diarrhea									
17.5.1 Oral rehydration									
AA0390	Oral rehydration salts (ORS)	A07CA	<i>Powder for dilution</i> in sachet. Reduced osmolarity ORS grams/litre: glucose- 13.5 g/L; sodium chloride-2.6 g/L; potassium chloride- 1.5 g/L; trisodium citrate dihydrate- 2.9 g/L. Reduced osmolarity ORS mmol/Litre: glucose- 75 mEq; sodium- 75 mEq or mmol/L; chloride- 65 mEq or mmol/L; potassium- 20 mEq or mmol/L; citrate- 10 mmol/L. Total osmolarity: 245		*	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
17.5.2 Medicines for diarrhea									
NL0040	Zinc sulphate	A12CB01	Tablet (dispersible)	20 mg	*	*	*	*	V
18. HORMONES, OTHER ENDOCRINE MEDICINES AND CONTRACEPTIVES									
18.1 Contraceptives									
18.1.1 Oral hormonal contraceptives									
NH0050	Ethinylestradiol + Levonorgestrel + Ferrous Fumarate	G03AA07	Tablet	30 micrograms + 150 micrograms+ 75 mg (COC)	*	*	*	*	V
NH0053	Levonorgestrel	G03AC03	Tablet	30 micrograms (POP) 1 pack=3 cycles/35 tablets	*	*	*	*	V
NH0052		G03AD01		1.5 mg (as emergency contraception)	*	*	*	*	V
18.1.2 Injectable hormonal contraceptives									
NH0020	Medroxyprogesterone acetate (depo-provera)	G03AC06	Injection (intra-muscular)	150 mg/ mL in 1- mL vial	*	*	*	*	V
18.1.3 Intrauterine devices									
NH0030	Intrauterine copper-containing device	G02BA02	IUD	Copper T380A	*	*	*	*	V
18.1.4 Barrier methods									
NH0010	Condoms	V07AY		49 mm	*	*	*	*	V
18.1.5 Implantable contraceptives									
	Etonogestrel- releasing implant (subdermal)	G03AC08	Single- rod implant	contains 68 mg of etonogestrel	*	*	*	*	V
	Levonorgestrel- releasing implant (subdermal)	G03AC03	Two-rod implant	each rod containing 75 mg of levonorgestrel (150 mg total)	*	*	*	*	V
18.2 Insulins and other medicines used for diabetes									
NK0010	Glibenclamide	A10BB01	Tablet	5 mg	SN	*	*	*	E
NK0031	Insulin, long- acting	A10AE01	Injection	100 IU/ mL	/	SN	SN	SN	V
NK0032	Insulin, rapid acting (3-6 hours)	A10AB01	Injection	40 IU/mL in 10-mL vial	/	SN	SN	SN	V
NK0033				100 IU/mL in 10-mL vial	/	SN	SN	SN	V
NK0034	Premixed Insulin 70/30 (Semi-lente 70/ Rapid 30)	A10AD01	Injection	100 IU/mL	/	/	SN	SN	V
NK0040	Metformin	A10BA02	Tablet	500 mg (hydrochloride)	SN	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
18.3 Thyroid hormone and antithyroid hormones									
	Carbimazole	H03BB01	Tablet	5 mg	/	/	SN	SN	N
				20 mg	/	/	SN	SN	N
	Levothyroxine	H03AA01	Tablet	50 micrograms (sodium salt)	/	/	SN	SN	V
	Propylthiouracil	H03BA02	Tablet	50 mg	/	/	SN	SN	E
19. IMMUNOLOGICALS/BIOLOGICALS									
Biological products, including vaccines, are distinguished from chemical pharmaceuticals by being derived from living organisms with a molecular composition too complex to be defined by physical or chemical means. In addition, the inherent variability of living organisms, the potential for contamination of materials with agents coming from starting materials or the environment, require special quality control and quality assurance mechanisms. To maintain quality, biological must be protected from temperature extremes. Heat exposure must be monitored using Vaccine Vial Monitors (VVM) throughout the entire supply chain.									
19.1 Vaccines									
NB0031	BCG (Bacille Calmette-Guerin) vaccine with diluent	ATC code: L03AX03		0.05 mL in 20 doses vial with VVM (vaccine vial monitor)	*	*	*	*	V
NB0033	DTP-Hep B-Hib (Diphtheria, Tetanus, whole-cell Pertussis [DTP], Hepatitis B and Haemophilus influenzae type B)	J07CA11		0.5 mL in single-dose vial with VVM	*	*	*	*	V
NB0051	Hepatitis B vaccine	J07BC01		0.5 mL in single dose vial with VVM	*	*	*	*	V
NB0049	Human papillomavirus (HPV) vaccine	J07BM03		0.5 mL in 2 doses vial with VVM	*	*	*	*	V
NB0053	Japanese encephalitis (JE) vaccine with diluent	J07BA03		0.5 mL in 5 doses vial with VVM	*	*	*	*	V
NB0071	Measles + Rubella (MR) vaccine with diluent	J07BD53		0.5 mL in 10 doses vial with VVM	*	*	*	*	V
NB0028	Pneumococcal conjugate vaccine 13 (PCV13)	J07AL02		0.5 mL in single-dose vial with VVM	*	*	*	*	V
NB0064	Inactivated Poliomyelitis vaccine	J07BF03		0.5 mL in 5 doses vial with VVM	*	*	*	*	V
NB0062	Oral Poliomyelitis vaccine with dropper	J07BF04		2 drops at dose, 10 doses vial with VVM	*	*	*	*	V
	Rabies vaccine	J07BG01		2.5 IU/ml in 1- mL ampoule	SN	SN	SN	SN	V
NB0028	Tetanus toxoid vaccine	J07AM01		0.5 mL in 10 doses in vial	*	*	*	*	V
19.2 Sera and immunoglobulins									
	Diphtheria antitoxin	J06AA01	Injection:	10 000 IU or 20 000 IU in vial	/	*	*	*	V
NB0011	Hematoxic polyvalent snake antivenom (HPAV) (Asian snakes as Malayan Pit Viper, Green Pit Viper and	J06AA03	Powder for injection	Freeze-dried antivenom in vial to be reconstituted with the solution supplied	/	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
	Russell's Viper			(or 10 ml of sterile water for injection) prior to the administration					
NB0012	Neurotoxic polyvalent snake antivenom (NPAV) Cobra, King Cobra, Banded Krait & Malayan Krait snakes	J06AA03			/	*	*	*	V
20. MUSCLE RELAXANTS (PERIPHERALLY- ACTING) AND CHOLINESTERASE INHIBITORS									
AB0330	Neostigmine	N07AA01	Injection	500 micrograms in 1- mL ampoule	/	/	*	*	V
AB0392	Suxamethonium	M03AB01	Injection	50 mg (chloride)/ mL in 2- mL ampoule	/	/	*	*	E
AB0410	Vecuronium	M03AC03	Powder for injection	4 mg (bromide)/1 mL in vial with diluent	/	/	*	*	N
21. OPHTHALMOLOGICAL PREPARATIONS									
21.1 Anti-infective agents									
	Moxifloxacin	S01AE07	Eye drops	0.50%	/	/	SN	*	E
	Natamycin	S01AA10	Eye drops	5% (eye drops)	/	/	SN	*	E
	Neomycin - polymycin B - dexamethasone	NA	Eye drops	-	/	/	SN	*	E
NQ3142	Tetracycline	S01AA09	Eye ointment	1% (hydrochloride)	*	*	*	*	E
	Tobramycin	S01CA01	Eye drops	0.30%	*	*	*	*	E
21.2 Anti-inflammatory agents									
	Fluorometholone	D07XB04	Eye drops	0.10%	/	/	SN	*	E
	Olopatadine	S01GX09	Eye drops	1 mg/mL	/	/	SN	*	E
NA0108	Prednisolone	S02BA03	Eye drops	1%	/	/	SN	*	E
21.3 Local anaesthetics									
NA0110	Tetracaine	S01HA03	Solution (eye drops)	0.5% (hydrochloride)	/	/	SN	*	E
21.4 Miotics and antiglaucoma medicines									
	Acetazolamide	S01EC01	Tablet	250 mg	/	/	SN	*	E
NA0071	Hydroxypropyl methylcellulose	S01KA02	Intraocular injection	2% (3 ml pre – filled syringe pack)	/	/	SN	*	N
NA0100	Pilocarpine	S01EB01	Eye drops	2% (as sodium phosphate)	/	/	SN	*	E
NA0100	Timolol	S01ED01	Eye drops	0.5% (as hydrogen maleate)	/	/	SN	*	E
	Travoprost (Travatan)	S01EE04	Eye drops	0.004%	/	/	/	*	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V*EN
21.5 Mydriatics									
NA0020	Atropine	S01FA01	Eye drops	1% (sulfate)	/	/	SN	*	E
21.6 Antivascular endothelial growth factor (VEGF) preparations									
	Bevacizumab	L01XC07	Injection	25 mg/ml , 4 ml-vial	/	/	/	*	E
22. OXYTOCICS AND ANTIOXYTOCICS									
22.1 Oxytocics									
Depending upon the manufacturer, oxytocin products should be stored at either controlled room temperature (25°C or less) or in refrigerated storage (2°- 8°C) in order to ensure quality and comply with the labelled storage conditions.									
AB0190	Ergometrine	G02AB03	Injection	200 micrograms (hydrogen maleate) in 1-mL ampoule	SN	SN	SN	SN	V
	Mifepristone-misoprostol	G03XB51	Tablet/ vaginal tablet	Combi pack of 200 mg (single)- four vaginal tablets of 200 micrograms	SN	SN	SN	SN	N
AA0330	Misoprostol	G02AD06	Tablet	200 micrograms	/	SN	*	*	V
AB0440	Oxytocin	G02AC01	Injection	10 IU in 1-mL in ampoule	*	*	*	*	V
22.2 Antioxytocics (tocolytic)									
	Nifedipine	C08CA05	Capsule	10 mg (immediate release)	/	SN	SN	SN	E
23. MEDICINES FOR MENTAL AND BEHAVIORAL DISORDERS									
23.1 Medicines used in psychotic disorders									
AB0100	Chlorpromazine	N05AA01	Injection Tablet	25 mg (hydrochloride)/ mL in 2- mL ampoule	/	/	SN	SN	V
NG0041				25 mg (hydrochloride)	SN	*	*	*	V
				100 mg (hydrochloride)	SN	SN	SN	SN	V
	Clozapine	N05AH02	Tablet or capsule	100 mg	/	/	SN	SN	E
NG0060	Fluphenazine	N05AB02	Injection	25 mg (decanoate or enantate) in 1- mL ampoule	/	/	/	SN	V
NG0070	Haloperidol	N05AD01	Tablet Injection	5 mg	/	/	SN	SN	V
NG0071				10 mg	/	/	SN	SN	V
NG0073				5 mg in 1- mL ampoule	/	/	SN	SN	V
	Risperidone	N05AX08	Tablet	2 mg	/	/	/	SN	V
	Olanzapine	N05AH03	Tablet	10 mg	/	/	/	SN	E

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
NG0110	Perphenazine	N05AB03	Tablet	8 mg	/	/	SN	SN	E
NG0130	Thioridazine	N05AC02	Tablet	10mg	/	/	SN	SN	E
23.2 Medicines used in mood disorders									
23.2.1 Medicines used in depressive disorders									
NG0010	Amitriptyline	N06AA09	Tablet	25 mg (hydrochloride)	SN	SN	SN	SN	V
NG0011				50 mg (hydrochloride)	/	/	SN	SN	V
	Fluoxetine	N06AB03	Tablet or capsule	20 mg (as hydrochloride)	/	/	/	SN	V
NG0081	Imipramine	N06AA02	Tablet	25 mg	/	SN	SN	SN	N
NGNG0100	Nortriptyline	N06AA10	Tablet	25 mg (as hydrochloride)	/	/	SN	SN	E
23.2.2 Medicines used in bipolar disorder									
NG0030	Carbamazepine	N03AF01	Tablet	200 mg	/	/	SN	SN	V
NG0090	Lithium carbonate	N05AN01	Tablet	300 mg	/	/	SN	SN	V
	Valproic acid	N03AG01	Tablet	500 mg (sodium valproate)	/	/	/	SN	V
23.3 Medicines for anxiety disorders									
AA0160	Diazepam	N05BA01	Tablet	5 mg	SN	*	*	*	V
23.4 Medicines for obsessive compulsive disorders									
NG0050	Clomipramine	N06AA04	Capsule	25 mg (hydrochloride)	/	/	SN	SN	E
23.5 Medicines used in disorders due to psychoactive substance use									
	Nicotine replacement therapy (NRT)	N07BA01	Chewing gum	2 mg	/	SN	SN	SN	N
			Transdermal patch	14 mg	/	SN	SN	SN	N
NG0096	Methadone	N07BC02	concentrate for oral liquid	10 mg/mL (as hydrochloride)	/	SN	SN	SN	E
24. MEDICINE ACTING ON THE RESPIRATORY TRACT									
24.1 Antiasthmatic and medicines for chronic obstructive pulmonary disease									
AA0030	Aminophylline	R03DA05	Tablet	100 mg	/	*	*	*	E
	Beclometasone	R03BA01	Inhalation	100 micrograms per dose	/	/	*	*	E
AB0010	Epinephrine (adrenaline)	R03AA01	Injection	1 mg (as hydrochloride or hydrogen tartrate) in 1- mL ampoule	SN	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'EN
	Ipratropium bromide	R03BB01	Inhalation (aerosol)	20 micrograms/ metered doses	/	/	*	*	V
AA0500	Salbutamol	R03AC02	Tablet	4 mg	*	*	*	*	E
			Aerosol	100 micrograms (as sulfate) per dose	SN	*	*	*	V
AB0370			Injection	0.5 mg (as sulfate)/ mL in 1- mL ampoule	/	*	*	*	E
24.2 Mucolytic agent									
AA0090	Bromhexine	R05CB02	Tablet	8 mg	*	*	*	*	E
AA0640			Oral liquid	4 mg/5 ml in 60 ml bottle	*	*	*	*	E
25. SOLUTIONS CORRECTING WATER, ELECTROLYTE ND ACID-BASE DISTURBANCES									
25.1 Oral									
AA0390	Oral rehydration salts	A07CA	Powder for dilution	see 17.5.1	*	*	*	*	V
AA0460	Potassium chloride	A12BA01	Powder for solution	600 mg	SN	*	*	*	E
25.2 Parenteral									
AC0020	Glucose/Dextrose	B05CX01	Injectable solution with IV giving set	5% (isotonic) in 500 mL	*	*	*	*	V
AC0031				10% (hypertonic) in 500 mL	SN	*	*	*	
AB0140				50% in 50- mL vial	SN	*	*	*	
AC0036	Glucose (5%) + sodium chloride (or Saline)	B05BB02	Injectable solution with IV giving set	5% glucose in 1/3 NaCl - 500 mL	/	SN	SN	SN	V
				5% glucose, 0.225 % NaCl - 500 mL	/	*	*	*	
AC0030				5% glucose, 0.45 % NaCl - 500 mL	/	*	*	*	
AC0034				5% glucose, 0.9 % NaCl -500 mL	SN	*	*	*	
AC0035	Glucose 5% in Acetate Ringer's Solution		Injectable solution with IV giving set	5% glucose in acetate Ringer's Solution in 500 mL	/	SN	SN	SN	V
AB0360	Potassium chloride 10%	A12BA01	Injection	10% in 10-mL ampoule	/	*	*	*	V
	Ringer's lactate	B05BB01	Injection with IV giving set	500 mL	*	*	*	*	V
AC0060				1000 mL					

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
AC0041	Sodium chloride (NaCl)	B05XA03 B05CB01	Injectable solution	0.9% isotonic in 10 mL ampoule	/	*	*	*	V
				0.9% isotonic in 100 mL	*	*	*	*	
				0.9% isotonic in 500 mL	/	*	*	*	
				0.9% isotonic in 1000 mL	*	*	*	*	
AB0380	Sodium hydrogen carbonate/sodium bicarbonate (NaHCO ₃)	B05XA02	Injectable solution	8.4% in 20- mL ampoule	/	*	*	*	V
25.3 Miscellaneous									
AB0430	Water for injection		Injection	5-mL ampoule	SN	*	*	*	V
26. VITAMINS AND MINERALS									
	Hydroxocobalamin (Vitamin B ₁₂)	B03BA03	Injection	1 mg (as acetate, as hydrochloride or as sulfate) in 1-mL ampoule	/	/	SN	*	E
AA0340	Multivitamin + Mineral	A11AA03	Tablet		*	*	*	*	N
AA0541 NQ1053	Pyridoxine (Vitamin B ₆)	A11HA02	Tablet	10 mg	*	*	*	*	V
50 mg									
AA0490 AA0491	Retinol (vitamin A)	A11CA01	Capsule	100 000 IU (as palmitate)	*	*	*	*	V
200 000 IU (as palmitate)									
AA0531	Thiamine (Vitamin B ₁)	A11DA01	Tablet	50 mg	*	*	*	*	E
27. EAR, NOSE AND THROAT MEDICINES									
	Budesonide	R01AD05	Nasal Spray	100 micrograms per dose	/	/	*	*	V
	Ciprofloxacin	S03AA07	Topical	0.3% eye/ear drops	*	*	*	*	V
	Clotrimazole	D01AC01	Topical	1% ear drops	*	*	*	*	V
28. SPECIFIC MEDICINES FOR NEONATAL CARE									
28.1 Medicines administered to the neonate									
	Caffeine citrate	N06BC01	Injection	20 mg/ mL	/	SN	SN	SN	V
28.2 Medicines administered to the mother									
AB0130	Dexamethasone	H02AB02	Injection	4 mg/mL in 1-mL ampoule (as disodium phosphate salt)	/	*	*	*	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V/E/N
29. MEDICINES FOR DISEASES OF JOINTS									
29.1 Medicines used to treat gout									
	Allopurinol	M04AA01	Tablet	100 mg	*	*	*	*	V
	Colchicine		Tablet	600 micrograms	/	SN	*	*	N
29.2 Disease-modifying agents used to treat rheumatoid arthritis (DMARD's)									
	Hydroxychloroquine	P01BA02	Tablet	200 mg (as sulfate)	/	/	*	*	V
29.3 Juvenile joint disease									
	Acetylsalicylic acid	N02BA01	Tablet	100 mg	*	*	*	*	V
30. SPECIALIZED NUTRITION PRODUCTS									
	Iron-Folate weekly Iron-(WIFS) Folic Supplementation	B03AD03	Tablet	60 mg iron element +2.8 mg folic acid	*	SN	SN	SN	V
NL0037	F-75 therapeutic milk	-	Powder	410 grams [Energy 448Kcal, Protein 5% energy, Lipids 31% energy, Vit A (0.9mg), Vit D (18µg), Vit E (20mg), Vit C (59mg), Vit B1 (0.5mg), Vit B2 (1.2mg), Vit B6 (0.8mg), Folic acid (200µg), Vit B12 (1.6µg), Vit K (15µg), Biotin (60µg), Pantothenic acid (3mg), Sodium (<87mg), Calcium (560mg), Phosphor (330mg), Potassium (1100mg), Magnesium (50µg), Zinc (12.2mg), Iodine (100µg), Cuivre/Copper (1.7mg), Selenium (30µg) and Fer/Iron (<0.3mg)]	/	/	SN	SN	V
NL0038	F-100 therapeutic milk	-	Powder	456 grams [Energy 520Kcal, Protein >10% of energy, Lipids >45% of energy, Vit A (800 µg), Vit D (15 µg), Vit E (20 mg), Vit C (50 mg), Vit B1 (0.5 mg), Vit B2 (1.6 mg), Vit B6 (0.6 mg), Niacin (5 mg), Folic acid (200 µg), Vit B12 (1.6 µg), Vit K (15 µg), Biotin (60 µg),	/	/	SN	SN	V

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CMS code	Name	ATC code	Dosage form	Strength	MPA	CPA1	CPA2	CPA3	V'E'N
				Pantothenic acid (6 mg), Sodium (<290 mg), Calcium (300 mg), Phosphor (300 mg), Potassium (1100 mg), Magnesium (80 µg), Zinc (11 mg), Iodine (70 µg), Cuivre/Copper (1.4 mg), Selenium (20 µg) and Fer/Iron (<0.2 mg)]					
AA0341	Multiple Micronutrient Powder (MNP)	-	Powder	1 g [Iron (12.5 mg), Zinc (10 mg), Vitamin A (300 µg), Iodine (90 µg), Vit B1 (0.5 mg), Vit B2 (0.5 mg), Vit B6 (0.5 mg), Vit B12 (0.9 µg), Niacin (6 mg), Folate/Folic acid (160 µg), Vit C (Ascorbic acid) (30 mg), Copper (0.3 mg), Selenium (17 µg), Vit D (5µg) and Vit E (6 mg)]	*	SN	SN	SN	V
NL0039	Ready to Use Therapeutic Food	-	Powder or biscuits	510 g Energy: 500kcal/100 g minimum Proteins: 10-12% total energy: 12.3-15.5% by weight Lipids: 45-60% total energy: 24.8-33.3% by weight	SN	SN	SN	SN	V
NL0030	Rehydration Solution for Malnutrition (ReSoMal)	-	Powder	42.0 grams in sachet. Component Concentration (mmol/l): Glucose 125; Sodium 45; Potassium 40; Chloride 70; Citrate 7; Magnesium 3; Zinc 0.3; Copper 0.045	/	/	SN	SN	V



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Essential Consumables List

Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
1	1	QA0354	Intra Ocular Lens	#18	Pcs	/	/	/	*
2	2	QA0355		#19	Pcs	/	/	/	*
3	3	QA0356		#20	Pcs	/	/	/	*
4	4	QA0357		#21	Pcs	/	/	/	*
5	5	QA0358		#22	Pcs	/	/	/	*
6	6	QA0359		#23	Pcs	/	/	/	*
7	7			#24	Pcs	/	/	/	SN
8	8			#25	Pcs	/	/	/	SN
9	9	QA0031	Adhesive Tape Zinc Oxide perforated	18 cm x 5 m	Roll	*	*	*	*
10	10	QA0030		5 cmx5 m	Roll	*	*	*	*
11	11		Ambu bag with mask (adult size)	1000 ml	Pcs	*	*	*	*
12	12		Ambu bag with mask (newborn size)	250 ml	Pcs	*	*	*	*
13	13		Ambu bag with mask (pediatric size)	500 ml	Pcs	*	*	*	*
14	14		Autoclave bags	310 x 660 mm	Pcs/b ox	/	/	SN	*
15	15			415 x 600 mm	Pcs/b ox	/	/	SN	*
16	16			610 x 810 mm	Pcs/b ox	/	/	SN	*
17	17		Bacterial and Heat and moisture exchanging (HME) filter for ventilator		Pcs	/	/	*	*
18	18		Bacterial filter for ventilator		Pcs	/	/	*	*
19	19		Bag for Medical Surgical Capacity 10-15 litres	10-15 Litres	Pcs	/	/	*	*
20	20	QA0241	Bandage Tubular Elastic	8 mm x 4 cm	Pcs	/	/	*	*
21	21	QA0060	Bandage, Crepe	8 cmx 4 m	Roll	/	*	*	*
22	22	QA0070	Bandage, Gauze Non-sterile	7.5cm x10 m	Roll	*	*	*	*
23	23		Biological indicators	e.g. 3M indicators	Pcs	SN	SN	SN	*
24	24	QA0090	Blades for Surgical Knife	#15	Pcs	*	*	*	*
25	25	QA0091		#22	Pcs	/	*	*	*
26	26	QA0092		# 30	Pcs	/	*	*	*
27	27	QA0040	Blood Collection Bag, 350 ml, CPDA1	Single	Pcs	/	/	*	*
28	28	QA0041		Double	Pcs	/	/	*	*
29	29	QA0051		Triple	Pcs	/	/	*	*
30	30	New	Blood Collection Bag, 350 ml, CPD	Triple	Pcs	/	/	*	*
31	31	QA0039	Blood Collection Bag (CPD) + additive solution: Blood Bag for 42days	350 ml	Pcs	/	/	*	*
32	32		Blood culture bottle (25 ml brain heart infusion broth and SPS, autoclavable)	50 ml	Btl	*	*	*	*

Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
33	33		Blood culture bottles (50 ml brain heart infusion broth and SPS, autoclavable)	100 ml	Btl	*	*	*	*
34	34		Bulb Syringe / mucous aspirator	Small	Pcs	*	*	*	*
35	35			Medium	Pcs	*	*	*	*
36	36			Large	Pcs	*	*	*	*
37	37	QA0131	Catheter Foley, Silicone, Ballon 2 ways 10ml, sterile	CH12	Pcs	/	*	*	*
38	38	QA0132		CH14	Pcs	/	*	*	*
39	39	QA0128		CH16	Pcs	/	*	*	*
40	40		Catheter Foley, Silicone, Ballon 3 ways 10 ml, sterile for prostatectomie irrigation	CH18	Pcs	/	/	/	*
41	41			CH20	Pcs	/	/	/	*
42	42		Catheter IV cap, sterile (e.g. luer lock) 		Pcs	*	*	*	*
43	43		Catheter Foley, Silicone, Ballon 3 ways 10ml, sterile for prostatectomie irrigation	CH20	Pcs	/	/	/	*
44	44		Catheter IV extension for injection, sterile (e.g.luer lock)		pcs	*	*	*	*
45	45	QA0160	Catheter IV with injection port	18G	Pcs	SN	*	*	*
46	46	QA0161		20G	Pcs	SN	*	*	*
47	47	QA0162		22G	Pcs	SN	*	*	*
48	48	QA0163		24G	Pcs	SN	*	*	*
49	49	QA0164		26G	Pcs	SN	*	*	*
50	50		Cervical collar (Rigid)	Small	Pcs	/	*	*	*
51	51			Medium	Pcs	/	*	*	*
52	52			Large	Pcs	/	*	*	*
53	53	QA0170	Colostomy Bag, Disposable	38 mm	Pcs	/	/	*	*
54	54		Cotton gauze, sterile pack	2"x2"	Pack	*	*	*	*
55	55			3"x3"	Pack	*	*	*	*
56	56			4"x4"	Pack	*	*	*	*
57	57	QA0190	Cotton Wool Absorbent	500 g	Roll	*	*	*	*
58	58	QA0180	Cotton Wool Non-Absorbent	500 g	Roll	/	*	*	*
59	59		Developer for X-Ray Film (automatic)	1 Gallon	Btl	/	SN	*	*
60	60	QA0210	Developer for X-Ray Film (manual)	1 Gallon	Btl	/	SN	*	*
61	61	QA0220	Drainage Strip (Delbet)	25 cm x 3 cm	Pcs	/	/	*	*

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#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
62	62	QA0230	Dressing for burns with Paraffin	10 cm x10 cm	Pcs	/	*	*	*
63	63		Dressing, ABD pad	10 cm x 20 cm or 20 cm x25 cm	Pcs	SN	SN	SN	SN
64	64		Electric Syringe		Pcs	/	/	/	*
65	65		Extension Three ways Stopcock	25 cm	Pcs	/	*	*	*
66	66	QA0270	Eye Shields		Pcs	/	/	/	*
67	67	QA0880	Fixer for X-Ray Film (automatic)	1 Gallon	Btl	/	SN	*	*
68	68	QA0920	Fixer for X-Ray Film (manual)	1 Gallon	Btl	/	SN	*	*
69	69	QA0290	Gauze roll, absorbent (BP17g/m ²)	90 cm x 91 m	Roll	*	*	*	*
70	70	QA0300	Glove examination, non-sterile, Latex, powder free	Small	Pcs	*	*	*	*
71	71	QA0301		Medium	Pcs	*	*	*	*
72	72	QA0302		Large	Pcs	*	*	*	*
73	73	QA0319	Glove Surgical, sterile, latex	6.5	Pair	*	*	*	*
74	74	QA0320		7	Pair	*	*	*	*
75	75	QA0321		7.5	Pair	*	*	*	*
76	76	QA0322		8	Pair	SN	SN	SN	SN
77	77	QA0360	Glove, sterile, Long Cuff (for Gynaecological use)	Small	Pair	*	*	*	*
78	78	QA0361		Medium	Pair	*	*	*	*
79	79	QA0362		Large	Pair	*	*	*	*
80	80	QA0330	High Quality Printing Paper UPP- 110s	110 mm x 20 m	Pcs	/	*	*	*
81	81		Infusion set with burette 100ml, Disposable	60 drops/minute	Pcs	/	*	*	*
82	82		Infusion set with filter, sterile, single use, single pack	20 drops/minute	Pcs	*	*	*	*
83	83		Intraosseous needle	Adult	Pcs	SN	SN	SN	SN
84	84			Pediatric	Pcs	SN	SN	SN	SN
85	85		Laryngeal mask airway	1	Pcs	/	/	*	*
86	86			2	Pcs	/	/	*	*
87	87			2.5	Pcs	/	/	*	*
88	88			3	Pcs	/	/	*	*
89	89			4	Pcs	/	/	*	*
90	90			5	Pcs	/	/	*	*
91	91		Lubrication gel for Urinary catheter single use, sterile	5 ml	Pack	*	*	*	*
92	92		Manual Vacuum Aspiration (MVA) Kit (Gynecological)		Kit	SN	SN	SN	SN
93	93	QA0370	Medical Plastic Bags (Khmer printing, as sample)	7 cm x 11cm	Pcs	*	*	*	*

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#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
94	94	QA0913	Medical X-Ray films, Green sensitive	18 cm x 24 cm	Pcs	/	SN	*	*
95	95	QA0910		18 cm x 43 cm	Pcs	/	SN	*	*
96	96	QA0911		24 cm x 30 cm	Pcs	/	SN	*	*
97	97	QA0914		30 cm x 40 cm	Pcs	/	SN	*	*
98	98	QA0912		35 cm x 35 cm	Pcs	/	SN	*	*
99	99	QA0915		35 cm x 43 cm	Pcs	/	SN	*	*
100	100		Monitoring electrode with Micropore Tape Backing and solid gel	Ag/Agcl	Pcs	/	/	/	*
101	101	QA0390	Needle Disposable	18G x 1.½"	Pcs	SN	*	*	*
102	102	QA0391		19G x 1.½"	Pcs	SN	*	*	*
103	103	QA0392		21G x 1.½"	Pcs	SN	*	*	*
104	104	QA0393		23G x 1"	Pcs	SN	*	*	*
105	105	QA0394		25G x 1"	Pcs	SN	*	*	*
106	106			26G x ½"	Pcs	SN	*	*	*
107	107	QA0403	Needle Spinal Disposable	22G/0.7 x 90 mm	Pcs	/	*	*	*
108	108			24G/0.7 x 90 mm	Pcs	/	*	*	*
109	109	QA0402		25G/0.5 x 90 mm	Pcs	/	*	*	*
110	110		Original Perfusor Tubing (Infusion Set)	150 cm	Pcs	*	*	*	*
111	111		Oxygen mask (Adolescent)	4	Pcs	*	*	*	*
112	112		Oxygen mask (Children)	3	Pcs	*	*	*	*
113	113		Oxygen mask (Infant)	2	Pcs	*	*	*	*
114	114		Oxygen mask (Neo-natal)	1	Pcs	*	*	*	*
115	115		Oxygen mask (Pre-Term)	0	Pcs	*	*	*	*
116	116	QA0451	Oxygen mask with reservoir bag	Children	Pcs	SN	*	*	*
117	117	QA0450		Adult	Pcs	SN	*	*	*
118	118	QA0470	Paper face mask 2 plies		Pcs	*	*	*	*
119	119		Parafilm 50 mm x 75 m			/	/	/	*
120	120	QA0490	Plaster of Paris	10 cm	Roll	/	*	*	*
121	121	QA0491		15 cm	Roll	/	*	*	*
122	122	QA0492		20 cm	Roll	/	*	*	*
123	123	NP0130	Safety Box for Used Syringe	5 L	Pcs	*	*	*	*
124	124	NP0131		10 L	Pcs	*	*	*	*
125	125		Safety Box for Used Syringe/needles/ sharp, puncture proof plastic	0.5L	Pcs	*	*	*	*

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#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
126	126	QA0541	Scalp Vein	23G	Pcs	*	*	*	*
127	127	QA0542		25G	Pcs	*	*	*	*
128	128	QB0500	Sphygmomanometer, Aneroid	Adult	Pcs	*	*	*	*
129	129			Newborn	Pcs	*	*	*	*
130	130	QB0501		Pediatric	Pcs	*	*	*	*
131	131		Sphygmomanometer, Digital	Adult	Pcs	SN	SN	SN	SN
132	132			Newborn	Pcs	SN	SN	SN	SN
133	133			Pediatric	Pcs	SN	SN	SN	SN
134	134		Spinal board long with securing straps		Pcs	SN	SN	SN	SN
135	135		Splint (pelvic binder)		Pcs	SN	SN	SN	SN
136	136		Splint femur traction		Pcs	SN	SN	SN	SN
137	137		Splint rigid		Pcs	SN	SN	SN	SN
138	138		SporAmpule steam BI (100/box)		Amp	/	/	SN	*
139	139		Sterile Cotton swabs-individually wrapped, 1000/pack 2 packs/box		pcs	SN	*	*	*
140	140		Sterile Culture Swab Plus (Amies W/O CH single applicator) 50/pack	Code 220116	Pcs	SN	*	*	*
141	141	QA0271	Sterile eyes pads		Pcs	/	/	/	*
142	142		Sterile specimen containers plastic	50 ml	Pcs	*	*	*	*
143	143	QB0530	Stethoscope, Binaural		Pcs	*	*	*	*
144	144		Stomach Wash Out tube, Fraucher Type	CH27	Pcs	/	/	*	*
145	145		Suture/ Black monofilament double arms spatulated 30cm (Nylon)	10/0	Pcs	/	/	/	*
146	146	QA0581	Suture/ Polyglycolic Acid 30 mm½ circle round body 75 cm (Vicryl)	0	Pcs	/	*	*	*
147	147	QA0579		2/0	Pcs	/	*	*	*
148	148	QA0578		3/0	Pcs	/	*	*	*
149	149			4/0	Pcs	/	SN	SN	*
150	150	QA0576	Suture/ Polyglycolic Acid double arms spatulated (S 24)	6/0	Pcs	/	/	/	*
151	151	QA0553	Suture/Catgut Plain 22 mm curved cutting 75cm	3/0	Pcs	*	*	*	*
152	152	QA0554	Suture/Catgut Plain 25 mm½ circle Rb 75 cm	2/0	Pcs	*	*	*	*
153	153	QA0555	Suture/Catgut Plain 30 mm½ circle Rb 75 cm	0	Pcs	*	*	*	*
154	154	QA0561	Suture/Polyamide 26 mm Curved Rev cutting 75 cm (Nylon)	3/0	Pcs	*	*	*	*
155	155	QA0563	Suture/Polyamide 30 mm ½ circle cutting 75 cm (Nylon)	2/0	Pcs	*	*	*	*
156	156	QA0575		4/0	Pcs	*	*	*	*

Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
157	157	QA0582	Suture/Polyglycolic Acid 30 mm½ circle round body 75 cm (Vicryl)	1	Pcs	/	*	*	*
158	158		Suture/Silk 8mm double needle micro-point spatula ½ circle 30 mm	8/0	Pcs	/	*	*	*
159	159	QA0644	Suture/Silk 16 mm curved 45 mm	4/0	Pcs	/	*	*	*
160	160	QA0640	Suture/Silk 6 mm curved 38 mm	6/0	Pcs	/	*	*	*
161	161		Suture/Silk double needle micro-point spatula curved 30 mm	10/0	Pcs	/	*	*	*
162	162	QA0692	Syringe Disposable	20 ml	Pcs	/	*	*	*
163	163	QA0693		50 ml	Pcs	/	/	/	*
164	164	QA0661	Syringe Disposable & Needle 23G	5 ml	Pcs	*	*	*	*
165	165	QA0662		10 ml	Pcs	*	*	*	*
166	166	QA0680	Syringe Disposable & Needle 25G	2 ml	Pcs	*	*	*	*
167	167	QA0663		3 ml	Pcs	*	*	*	*
168	168	QA0664		5 ml	Pcs	*	*	*	*
169	169		Syringe Disposable & Needle 26 G	1ml	Pcs	*	*	*	*
170	170		Syringe Disposable & Needle 26 G-28G	0.1 ml	Pcs	*	*	*	*
171	171		Syringe Disposable, sterile, single use	1 ml	Pcs	*	*	*	*
172	172			2 ml	Pcs	*	*	*	*
173	173			5 ml	Pcs	*	*	*	*
174	174			10 ml	Pcs	*	*	*	*
175	175		Syringe for Insulin	1 ml (100 UI)	Pcs	S N	SN	SN	SN
176	176		Syringe with Spiral	50 ml	Pcs	/	/	/	*
177	177			50 cc	Pcs	/	/	*	*
178	178	QA0710	Talc	1 kg	Box	*	*	*	*
179	179	QA0730	Tape Test for Autoclave	19 mm x 50 m	Roll	*	*	*	*
180	180	QB0560	Thermometer Oral/Rectal °C		Pcs	*	*	*	*
181	181	QA0751	Thorax Antireturn Valve Drain + Trocar	CH12	Pcs	/	/	*	*
182	182	QA0752		CH14	Pcs	/	/	*	*
183	183	QA0753		CH16	Pcs	/	/	*	*
184	184	QA0754		CH18	Pcs	/	/	*	*
185	185	QA0755		CH20	Pcs	/	/	*	*
186	186		Three-way Stopcock, sterile, single use		Pcs	*	*	*	*
187	187	QA0760	Tongue depressor (Adult)	wood	Pcs	*	*	*	*
188	188		Tourniquet, rubber, single use		Pcs	*	*	*	*

Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
189	189		Tracheal tube with balloon	#1	Pcs	/	/	*	*
190	190			#2	Pcs	/	/	*	*
191	191			#2.5	Pcs	/	/	*	*
192	192			#3	Pcs	/	/	*	*
193	193			#3.5	Pcs	/	/	*	*
194	194			#4	Pcs	/	/	*	*
195	195			#4.5	Pcs	/	/	*	*
196	196			#5	Pcs	/	/	*	*
197	197			#5.5	Pcs	/	/	*	*
198	198			#6	Pcs	/	/	*	*
199	199			#6.5	Pcs	/	*	*	*
200	200			#7	Pcs	/	/	*	*
201	201			#7.5	Pcs	/	/	*	*
202	202		Tracheotomy tube	#4	Pcs	/	/	*	*
203	203	QA0775		#6	Pcs	/	/	*	*
204	204	QA0774		#5	Pcs	/	/	*	*
205	205	QA0772		#7	Pcs	/	/	*	*
206	206	QA0800	Tube Nasogastric/Feeding with Cover	CH5	Pcs	/	SN	*	*
207	207			CH6	Pcs	/	SN	*	*
208	208			CH7	Pcs	/	SN	*	*
209	209	QA0801		CH8	Pcs	/	SN	*	*
210	210			CH10	Pcs	/	SN	*	*
211	211	QA0802		CH12	Pcs	/	SN	*	*
212	212	QA0803		CH14	Pcs	/	SN	*	*
213	213	QA0804		CH16	Pcs	/	SN	*	*
214	214	QA0780	Tube Redon Drain	CH12	Pes	/	/	SN	*
215	215	QA0781		CH16	Pcs	/	/	SN	*
216	216		Tube Suction, Disposable	CH5	Pcs	/	*	*	*
217	217			CH6	Pcs	/	*	*	*
218	218	QA0810		CH8	Pcs	/	*	*	*
219	219	QA0811		CH12	Pcs	/	*	*	*
220	220	QA0812	Tube Suction, Disposable	CH16	Pcs	/	*	*	*



Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
221	221	QA0830	Ultra-Sound Gel	1 kg	Bttl	*	*	*	*
222	222			5 kg	Bttl	/	/	*	*
223	223	QA0840	Umbilical cord clamp		Pcs	*	*	*	*
224	224		Urine Drainage Bag with non-return valve, sterile, single use	2litre	Pcs	/	*	*	*
225	225		Vacutainer blood collection needle, sterile, disposable	19G	box	*	*	*	*
226	226	XB0400		21G	box	*	*	*	*
227	227	XB0401		23G	box	*	*	*	*
228	228			Vacutainer blood collection tubes (type of tube, refer to laboratory guidance). Example: BD Vacutainer® Blood Collection Tubes	red, lavender, black, grey, light blue	Pcs	*	*	*
229	229		Vacutainer direct draw adapter, sterile, disposable. Example: BD Vacutainer® Direct Draw Adapter.		Pcs	*	*	*	*
230	230		Vacutainer holder		Pcs	*	*	*	*
NATIONAL PROGRAM									
Anticancer/Palliative									
231	1		Acetic acid 5%	750ml	Btl	SN	SN	SN	SN
Malaria programme									
232	1	ND0080	Rapid Diagnostic Test for PF and others	25 tests	Kit	*	*	*	*
233	2		Rapid Diagnostic Test for G6PD	25 tests	Kit	/	/	/	SN
Mental Health Program									
234	1		Amphetamine urine test		Strip	SN	SN	SN	SN
235	2		Methamphetamine urine test		Strip	SN	SN	SN	SN
236	3		Morphine urine test		Strip	SN	SN	SN	SN
Oral Health Program									
237	1		Barbed broach (tire -nerf) to take the nerf from dental canal		Pcs	/	*	*	*
238	2	NV0021	Burr, Cylinder	High-speed	Pcs	/	*	*	*
239	3	NV0023		Low-speed	Pcs	/	*	*	*
240	4	NV0024		Burr, Round for Contra Angle	High-speed	Pcs	/	*	*
241	5	NV0025	Low-speed		Pcs	/	*	*	*
242	6	NI0070	Calcium Hydroxide		B/2P	/	*	*	*
243	7	NV0030	Catridge syringe (metal)	1,8 ml	Pcs	*	*	*	*
244	8		Composite light cure high briand microfiller 4g (color A3, A3.5) for restorative filling dental cavity		Pcs	/	*	*	*
245	9		Dental curve Elevator		Pcs	*	*	*	*


Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
246	10		Dental Probe		Pcs	*	*	*	*
247	11		Dental straight Elevator		Pcs	*	*	*	*
248	12		Eugenol USP	10ml	Vial	SN	*	*	*
249	13		Files Complete set length 21 mm (files used for root treatment)	#15,#20,#25, #30,#35,#40	Pcs	/	*	*	*
250	14		Fluoride Gel	113 g	Tube	*	*	/	/
251	15		Fluoride Varnish	10 ml	Tube	*	*	/	/
252	16	NI0140	Glass ionomer for Rest Gc Fuji II	Powder 15g + liquid 10g	Box	*	*	*	*
253	17	NI0141	Glass ionomer for Rest Gc Fuji IX	Powder 15g + liquid 10g	Box	*	*	*	*
254	18		Glass ionomer for Rest Gc Fuji VII	Powder 15g + liquid 10g	Box	*	*	*	*
255	19	NV0111	Lentulo, Complete set (used for root canal treatment)		Pcs	/	*	*	*
256	20	NV0129	Matrix bands medium (Metal Matrix)		Pcs	/	*	*	*
257	21		Mouth mirror		Pcs	*	*	*	*
258	22	NV0160	Needle, Dental	27G .21 mm	Pcs	SN	*	*	*
259	23	NV0161		27G . 30 mm	Pcs	SN	*	*	*
260	24	NV0162		27G . 35 mm	Pcs	SN	*	*	*
261	25		Polyhexa+didecyl St 72.17 Hexanios for Soaking instruments before Sterilization	Sachets /25ml	Sachet	*	*	*	*
262	26		Surgical blade #11		Pcs	/	*	*	*
263	27		Tweezer		Pcs	*	*	*	*
264	28	NI0210	Zinc Oxide Powder	1 kg	Jar	*	*	*	*
Immunization program									
265	1	NP0010	Syringe, Autodestruct 0.05 ml + Needle	27 G x 3/8	Pcs	*	*	*	*
266	2	NP0012	Syringe, Autodestruct 0.5 ml + Needle	23G x 1	Pcs	*	*	*	*
Infection, Prevention and Control Program									
267	1		Alcoholmeter (for alcohol hand rub)		Pcs	*	*	*	*
268	2		Apron, plastic, disposable (Liquid and Splash Resistant)	Small	Pcs	*	*	*	*
269	3			Medium	Pcs	*	*	*	*
270	4			Large	Pcs	*	*	*	*
271	5		Apron, plastic, disposable (waterproof)	Extra- Large	Pcs	*	*	*	*
272	6	NR3101	Cadaver bag (body bag), leak-proof		Pcs	*	*	*	*
273	7		Chlorine dioxide	500 ml	Btle	*	*	*	*
274	8		Coverall, with hood, fluid resistant, disposable	Small	Pcs	SN	SN	*	*
275	9			Medium	Pcs	SN	SN	*	*

Essential Consumables List (EML 9th Edition 2018)

#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
276	10		Coverall, with hood, fluid resistant, disposable	Large	Pcs	SN	SN	*	*
277	11			Extra-Large	Pcs	SN	SN	*	*
278	12		Face shield, disposable		Pcs	*	*	*	*
279	13		Face shield	Small	Pcs	/	/	/	*
280	14			Medium	Pcs	/	/	/	*
281	15			Large	Pcs	/	/	/	*
282	16		Glove examination, non-sterile, Nitrile	Small	Pcs	/	/	/	*
283	17	NR3204		Medium	Pcs	/	/	/	*
284	18	NR3156		Large	Pcs	/	/	/	*
285	19		Gown, disposable (Liquid and Splash Resistant)	Small	Pcs	*	*	*	*
286	20			Medium	Pcs	*	*	*	*
287	21			Large	Pcs	*	*	*	*
288	22			Extra- Large	Pcs	*	*	*	*
289	23		Goggles (reusable)	Small	Pcs	*	*	*	*
290	24			Medium	Pcs	*	*	*	*
291	25			Large	Pcs	*	*	*	*
292	26		Hair cover, disposable		Pcs	*	*	*	*
293	27		Head cover, disposable		Pcs	/	/	/	*
294	28		N95 Mask, Health Care Particulate Respirator-cone or flat fold (95% or greater filter efficiency against particulate aerosols free of oil, fluid or splash resistant, double elastic bands)	Small	Pcs	/	/	/	*
295	29			Medium	Pcs	/	/	/	*
296	30			Large	Pcs	/	/	/	*
297	31		Particulate Respirator, duck shape (95% or greater filter efficiency against particulate aerosols free of oil, fluid or splash resistant, double elastic bands)	Small	Pcs	/	/	/	*
298	32			Medium	Pcs	/	/	/	*
299	33			Large	Pcs	/	/	/	*
									
300	34		Particulate Respirator, cone shape (95% or greater filter efficiency against particulate aerosols free of oil, fluid or splash resistant, double elastic bands)	Small	Pcs	/	/	/	*
301	35			Medium	Pcs	/	/	/	*
302	36			Large	Pcs	/	/	/	*
									
303	37		Yellow biohazard waste bag	220 L	pcs	*	*	*	*
304	38		Ziplock, biohazard sign	20 cm x25 cm	Pcs	*	*	*	*
305	39		Yellow container with label	20 cm x30cm	Pcs	*	*	*	*

Essential Consumables List (EML 9th Edition 2018)


#	No.	CMS Code	Description	Specifications	Unit	MPA	CPA1	CPA2	CPA3
306	40		Yellow container with label	10 litre	Pcs	*	*	*	*
307	41			20 litre	Pcs	*	*	*	*
308	42			40 litre	Pcs	/	/	*	*
309	43			220 litre	Pcs	/	/	*	*
310	44		Brown containers with label	20 litre	Pcs	/	/	*	*
311	45		Red containers with label	20 litre	Pcs	/	/	*	*
312	46		Yellow plastic bag with label	20 litre	Pcs	*	*	*	*
313	47			40 litre	Pcs	/	/	*	*
314	48			220 litre	Pcs	/	/	/	*
315	49		Brown plastic bag with label	20 litre	Pcs	*	*	*	*
316	50		Red plastic bag with label	20 litre	Pcs	*	*	*	*
317	51		Fit test kit	1 kit		/	/	/	*
318	52		Hoots (disposable)		Pcs	/	/	/	*
319	53		Boots	Small	Pcs	*	*	*	*
320	54			Medium	Pcs	*	*	*	*
321	55			Large	Pcs	*	*	*	*
322	56		Shoe covers, single use (disposable) 	Disposable	Pcs	/	/	/	*
323	57		Surgical mask, fluid resistant, disposable		Pcs	SN	SN	SN	SN
324	58		Yellow biohazard waste bag	20 cm x30 cm	Pcs	*	*	*	*
325	59			10 L	Pcs	*	*	*	*
326	60			20 L (450 mm x560 mm)	Pcs	*	*	*	*
327	61			40 L	Pcs	*	*	*	*

Note: *: Available, /: Not available, SN: Special Need

MPA: 168 items, CPA1: 234 items, CPA2: 284 items, CPA3: 328 items.

**Essential
Microbiology
Items List**

Essential Microbiology Items List
(Essential Medicines List, 9th Edition 2018)

#	CMS Code	Description	Unit	MPA	CPA1	CPA2	CPA3
I. REAGANTS							
1		API (Analytical Profile Index)- 20 E, Biochemical test strip (for identification and differentiation of members of the family <i>Enterobacteriaceae</i>) 	Box/25pcs	/	/	/	*
2		API- 20 E Reagents Set (James reagent, TDA, VP1, VP2, Nit 1, Nit 2, Zn)		/	/	/	*
3		API 20 NE Biochemical test strip ((for identification of <i>non-enteric Gram negative bacilli</i>)	Box/25pcs	/	/	/	*
4		API 20 NE Reagents Set (James reagent, Nit 1, Nit 2, Zn)		/	/	/	*
5		<i>Burkholderia pseudomallei</i> monoclonal antibody specific, latex agglutination test	pack	/	/	/	*
6		Lateral flow immunoassay for detection of <i>B.pseudomallei</i> antigen, rapid test	box (25 tests)	/	/	/	*
7		Catalase - (50 vials/box)	box	/	/	/	*
8		Coagulase plasma - (6 x 5ml/1 box)	box	/	/	/	*
9		<i>Cryptococcus</i> Antigen Lateral Flow Assay (CrAg LFA) (50 tests/pack)	pack	/	/	/	*
10		Gram Stain Kit and four reagent - (4 x 500ml)	kit	/	/	SN	*
11		India Ink	bottle	/	/	*	*
12		Indoxyl Acetate Disc (for rapid identification and differentiation of <i>Campylobacter</i> , <i>Helicobacter</i> , and <i>Wolinella</i> species and <i>Acinetobacter</i> and <i>Moraxella catarrhalis</i>)	25 discs/vial	/	/	/	*
13		Kovacs Indole Reagent	100 ml/bottle	/	/	/	*
14		KWIK-STIK Antimicrobial Sensitivity Testing QC set (2 x 7 organisms listed / pack) <i>S. Pneumoniae</i> ATCC 49619, <i>H. Influenzae</i> ATCC 49247, <i>E. coli</i> ATCC 25922, <i>P. aeruginosa</i> ATCC 27853, <i>S. aureus</i> ATCC 25923, <i>E. faecalis</i> ATCC 29212, <i>Neisseria gonorrhoeae</i> ATCC 49226	pack	/	/	/	*
15		KWIK-STIK E.coli ATCC 35218 (2 /pack) (beta lactamase producer)	pack	/	/	/	*
16		McFarland Standard, Latex 0.5	vial	/	/	/	*
17		Novobiocin Differentiation Disk 5ug	50 discs/unit	/	/	/	*
18		Optochin Disk	50 discs/unit	/	/	/	*
19		Oxidase reagent (N, N, N, N-Tetramethyl-p-phenyl-enediamine dihydrochloride)	bottle	/	/	/	*
20		Polymyxin B disks (300 IU)	50 discs/unit	/	/	/	*
21		PYR test kit - (100 disc/box and 20ml chromogenic solution)	box	/	/	/	*
22		Rapid Indole (DMACA) - (1 box/200 tests)	box	/	/	/	*
23		Salmonella O Antiserum Group Poly A-I and Vi - (1 x 3ml vial)	vial	/	/	/	*


Essential Microbiology Items List
(Essential Medicines List, 9th Edition 2018)

#	CMS Code	Description	Unit	MPA	CPA1	CPA2	CPA3
II. ANTIBIOTIC DISKS							
<p>The expiry date applies exclusively to disks contained in intact cartridges stored according to the manufacturer's instructions. The expiry date and batch number are indicated on each packaging (cartridge and container).</p> <ul style="list-style-type: none"> • Cartridges of disks must be stored in their containers at a temperature between +2°C and +8°C in a dry place. • Container must be allowed to adjust to room temperature (18-30°C) before opening. After applying the disks, return unused cartridges to a temperature between +2°C and +8°C. • Do not use disks after the expiry date. Do not use any cartridge of disks left at room temperature (18-30°C) for more than 8 hours without verifying an acceptable level of performance before continuing to use this cartridge (this varies on manufacturers 'condition) • If the cartridge remains in the distributor after dispatch, it is necessary to preserve at +2-8°C in a dry place with desiccants inside. <p>The stability of the disks, of open cartridges placed in distributors (preserved according to the recommendations with desiccants) was validated in routine conditions during 6 weeks.</p>							
1		Amikacin 30 µg (micrograms) (AN)	Cartridge	/	/	/	*
2		Amoxycillin + Clavulanic Acid 20 µg + 10 µg (AMX)	Cartridge	/	/	/	*
3		Ampicillin 10 µg (AMP)	Cartridge	/	/	/	*
4		Azithromycin 15 µg (AZM)	Cartridge	/	/	/	*
5		Cefazolin 30 µg(CZ)	Cartridge	/	/	/	*
6		Cefepime 30 µg (FEP)	Cartridge	/	/	/	*
7		Cefinase paper 50 discs per cartridge	Cartridge	/	/	/	*
8		Cefotaxime 30 µg (CTX)	Cartridge	/	/	/	*
9		Cefotaxime-clavulanate 30 µg/10 µg	Cartridge	/	/	/	*
10		Cefoxitin 30 µg (FOX)	Cartridge	/	/	/	*
11		Ceftazidime 30 µg (CAZ)	Cartridge	/	/	/	*
12		Ceftazidime-clavulanate 30 µg/10 µg	Cartridge	/	/	/	*
13		Ceftriaxone 30 µg (CRO)	Cartridge	/	/	/	*
14		Chloramphenicol 30 µg (C)	Cartridge	/	/	/	*
15		Ciprofloxacin 5 µg (CIP)	Cartridge	/	/	/	*
16		Clindamycin 2 µg (CM)	Cartridge	/	/	/	*
17		Doxycycline 30 µg (DO)	Cartridge	/	/	/	*
18		E Test Benzylpenicillin PG 0.016-256 µg/ml	30 strips/ pack	/	/	/	*
19		E Test Ceftriaxone TXL 0.002-32 µg/ml	30 strips/ pack	/	/	/	*
20		E Test Trim/Sulfa (1/19) (TS 0.002-32)	30 strips/ Pack	/	/	/	*
21		E Test Vancomycin VA 0.016- 256 µg/ml, 30 strips/pack	30 strips/ pack	/	/	/	*
22		Erythromycin 15 µg (E)	Cartridge	/	/	/	*
23		Fosfomycin 200 µg (FOS200)	Cartridge	/	/	/	*
24		Gentamicin 10 µg (GM)	Cartridge	/	/	/	*
25		Imipenem 10 µg (IPM)	Cartridge	/	/	/	*

Essential Microbiology Items List
(Essential Medicines List, 9th Edition 2018)

#	CMS Code	Description	Unit	MPA	CPA1	CPA2	CPA3
26		Levofloxacin 5 µg (LVX)	Cartridge	/	/	/	*
27		Meropenem 10 µg (MEM)	Cartridge	/	/	/	*
28		Nalidixic Acid 30 µg (NA)	Cartridge	/	/	/	*
29		Nitrofurantoin 300 µg (FT)	Cartridge	/	/	/	*
30		Norfloxacin 10 µg (NOR10)	Cartridge	/	/	/	*
31		Oxacillin 1 µg (OX1)	Cartridge	/	/	/	*
32		Pefloxacin 5 µg (PEF)	Cartridge	/	/	/	*
33		Penicillin 6 µg/10 IU (P)	Cartridge	/	/	/	*
34		Tetracycline 30 µg (TE)	Cartridge	/	/	/	*
35		Trimethoprim - Sulfamethoxazole (co-trimoxazole) 1.25 µg + 23.75 µg (SXT)	Cartridge	/	/	/	*
36		Vancomycin 30 µg (VA)	Cartridge	/	/	/	*
III. CONSUMABLES							
1		Alcohol hand gel 500 ml	Bottle	*	*	*	*
2		Bleach solution	1L/Bottle	*	*	*	*
3		Conical Tubes with lid 15 ml (17mmx120mm), graduated 5x50 pcs/pack/box	box	/	/	/	*
4		Conical Tubes with lid 50 ml, graduate 5x50 pcs/pack/box (30 mm x115 mm)	box	/	/	/	*
5		Cotton Sterile swabs-individually wrapped, 1000pcs/pack 2 packs/box	pcs	*	*	*	*
6		Coverslips 24 x 24 mm 100 pieces/box 10 boxes/pack	pack	*	*	*	*
7		Culture Swab Plus transport medium (eg. Amies or Stuart medium) 50 pcs/pack	pcs	/	/	*	*
8		Cryo tubes sterile 2 ml 100 pcs/pack; 10 packs/box	pcs	/	/	/	*
9		Disposable culture media tube 13 mm x 100 mm	pcs	/	/	/	*
10		Disposable culture media tube cap 13 mm	pcs	/	/	/	*
11		Glass tube 12 x 75 mm (5 ml)	100pcs /box	/	*	*	*
12		Filter paper Grade 1 circles 185 mm 100 pieces/pack, porosity 15 to 20 µm	1 pack	/	/	/	*
13		Frosted end glass slides 72 boxes/pack	pack	*	*	*	*
14		Lens tissue 100 x 150mm (25pcs/pack)	pcs	*	*	*	*
15		Metalic loop 0.01 µ l	pcs	/	/	/	*
16		Metalic loop 0.001 µ l	pcs	/	/	/	*
17		Methanol 2.5 litre/ Bottle	Bottle	/	*	*	*
18		Plastic transfer pipettes sterile 3 ml individual wrapped 20pcs/pack, 20 packs/bag	pcs	/	/	/	*
19		Plastic loop 0.01 µ l sterile (1000 pcs /box	box	/	/	/	*

Essential Microbiology Items List
(Essential Medicines List, 9th Edition 2018)

#	CMS Code	Description	Unit	MPA	CPA1	CPA2	CPA3
20		Plastic loop 0.001 µ l sterile (1000 pcs/box)	box	/	/	/	*
21		Plastic Petri dishes 90 mmD	500 pcs/box	/	/	/	*
22		Soap hand liquid 5 Litre/bottle	bottle	*	*	*	*
23		Washing Bottle plastic 250ml	bottle	/	/	*	*
24		Weighing boat, 100 ml non-sterile	pcs	/	/	/	*
25		Wooden applicator sticks 150 mm	1000 pcs/box	*	*	*	*
26		40 ml specimen containers plastic 600pcs/box	box	*	*	*	*
IV. CULTURE MEDIA REQUIREMENTS							
1		Adult Blood Culture bottle (50ml Brain Heart infusion in 100ml bottle)	100 ml	/	/	*	*
2		Ashdown's agar plate-ready made	pack	/	/	/	*
3		Ashdown's broth-ready made	5 ml tube	/	/	/	*
4		Blood agar plate-ready made	pack	/	/	/	*
5		Chocolate agar plate-ready made 	pack	/	/	/	*
6		Columbia Agar powder	500 g	/	/	/	*
7		Hektoen Enteric agar	500 gm	/	/	/	*
8		Hektoen Enteric agar plate-ready made	pack	/	/	/	*
9		Hemoglobine Powder	500 g	/	/	/	*
10		Isovitalex 10ml vials x 6/ box	Box	/	/	/	*
11		Kligler Iron Agar	500 gm	/	/	/	*
12		Kligler Iron Agar tube-ready made	pack	/	/	/	*
13		Lysine Iron Agar	500 gm	/	/	/	*
14		Lysine Iron Agar tube-ready made	5ml tube	/	/	/	*
15		MacConkey agar plate-ready made	pack	/	/	/	*
16		MacConkey Agar	500 g	/	/	/	*
17		Mannitol salt agar	500 gm	/	/	/	*
18		Mannitol salt agar plate-ready made	pack	/	/	/	*
19		Modified Thayer Martin Media	500 g	/	/	/	*
20		Modified Thayer Martin Media-ready made	pack	/	/	/	*
21		Muller Hinton II Agar	500 g	/	/	/	*
22		Mueller Hinton II agar plate-ready made	pack	/	/	/	*

Essential Microbiology Items List
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#	CMS Code	Description	Unit	MPA	CPA1	CPA2	CPA3
23		Mueller Hinton II agar plus sheep blood agar plate-ready made	pack	/	/	/	*
24		Nutrient Agar	500 gm	/	/	/	*
25		Pediatric blood culture bottle (25ml Brain Heart infusion in 50ml bottle)	50 ml	/	/	*	*
26		Sabouraud Dextrose Agar	500 g	/	/	/	*
27		Simmons Citrate Agar	500 g	/	/	/	*
28		Simmons Citrate Agar tube-ready made	5ml tube	/	/	/	*
29		Sheep blood	bag/ 250ml	/	/	/	*
30		Sulfide-Indole-Motility (SIM) 500 g	unit	/	/	/	*
31		Sulfide-Indole-Motility (SIM) tube-ready made	5ml tube	/	/	/	*
32		TCBS agar plate-ready made	pack	/	/	/	*
33		Tripticase soya broth powder (for isolate storage)	500 gm	/	/	/	*
34		Tripticase soya broth + 15% glycerol (for isolate storage)-ready made	2.5 ml tube	/	/	/	*
35		Urea agar base 500 g/unit (needs SR0020-Urea 40% ampules)	500 gm	/	/	/	*
36		Urea 40% (SR0020) – 5 ml ampules x 10/ box	box	/	/	/	*
37		Urea agar tube-ready made	5ml tube	/	/	/	*

* **Available**
/ : **Not available**
SN: **Special Need**

MPA: 9 items, CPA1: 11 items, CPA2: 17, CPA3: 124 items.

Annex 1. Acknowledgement

This 9th Edition of the Essential Medicines List, as the previous edition, was developed by Department of Drugs and Food, Ministry of Health through wider consultations with policy makers, pharmacists, clinicians, national program managers, hospital managers and international experts as well as participants of two consecutive consultative meetings which were organized in September and October 2017.

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Annex 2. Major amendments to the Essential Medicines List

1) Addition and Deletion/Removal

The 9th edition has resulted in significant changes to the items (including dosage form and strength) listed in the 8th Essential Medicines List and Essential Consumables List.

This updated EML includes several new medicines, such as cancer treatments, a new pill for hepatitis C that combines two medicines, a more effective treatment for HIV, Malaria, MDR-TB etc based on national treatment guidelines. Moreover, medicines were deleted from the C-EML considering their obsolete use or other alternatives that are considered more cost-effective based on available evidence.

A. Medicines Added

#	Item added	Group	Indication/notes
1.	asparaginase	8.1	adjunct treatment of acute lymphoblastic leukaemia
2.	benzylpenicillin (penicillin G) powder for infection 3 mg	6.2.1	replaces 1 mg (3 million IU)
3.	bedaquiline	6.2.4	reserved for management of MDR Tuberculosis
4.	bupivacaine	1.2	injection for spinal anaesthesia
5.	carboplatin	8.1	indicated for many form of cancer including early stage breast cancer, Epithelial ovarian cancer; nasopharyngeal cancer, Non-small cell lung cancer; osteosarcoma; retinoblastoma; treatment of advanced ovarian cancer and lung cancer (particularly the small cell type
6.	cefalexin	6.2.1	for serious susceptible infections due to gram- negative and gram-positive bacteria. Also used for management of chronic urinary tract infections.
7.	cetirizine	2.3	symptomatic relief of allergy such as high fever, chronic idiopathic urticaria, atopic dermatitis. It has the advantage of not causing severe sedation and psychomotor impairment in comparison to older antihistamines
8.	clofazimine	6.2.3; 6.2.4	reversed as antileprosy and antituberculosis medicine
9.	cytarabine	8.2	acute lymphoblastic leukaemia and burkitt lymphoma.
10.	daclatasvir	6.4.3	for hepatitis C
11.	dactinomycin	8.1	management of gestational trophoblastic neoplasia, rhabdomyosarcoma, wilmstumour
12.	daferiprone	8.1	used as a second line agent in thalassemia syndromes when iron overload from blood transfusions occurs.
13.	daunorubicin	8.1	for cancers including acute lymphoblastic cancer, acute myelogenous cancer, acute promyelocytic leukaemia
14.	deferoxamine	4.2	managing chronic iron overload and aluminium overload

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15.	diphtheria antitoxin	19.2	antibodies used in the treatment of diphtheria
16.	dolutegravir	6.4.2.4	integrase inhibitors/antiretroviral
17.	entecavir	6.4.3	for the treatment of hepatitis B
18.	glucagon	4	it is suggested by Preventive Medicine Department and is used an emergency medicine used to treat severe hypoglycemia (low blood sugar) in diabetes patients treated with insulin who have passed out or cannot take some form of sugar by mouth.
19.	hydroxyethyl starch (HES)	11.2	replaces Dextran 40
20.	ifosfamide	8.1	for various cancers including testicular germ cell tumour, ovarian germ cell tumour, osteosarcoma, rhabdomyosarcoma, ewing sarcoma
21.	isoniazid	6.2.4	tablet , 300 mg
22.	isoniazid + rifampicin	6.2.4	tablet, 50 mg+ 75 mg
23.	isoniazid- pyrazinamide- rifampicin	6.2.4	tablet, 50mg+ 150 mg + 75 mg
24.	lamotrigine	5	monotherapy of focal seizures, monotherapy of primary and secondary generalised tonic-clonic seizures, monotherapy of seizures associated with Lennox-Gastaut syndrome.
25.	ledipasvir + sofosbuvir	6.4.3	for the treatment of hepatitis C
26.	lidocaine topical	1.2	commonly used for many dental procedures, small procedures on the skin requiring an anaesthetic, and procedures requiring insertion of endotracheal tubes
27.	linezolid	6.2.4	reserved for management of MDR Tuberculosis
28.	lopinavir+ ritonavir		capsule, 40 mg+ 10 mg
29.	losartan	12.4	chronic heart failure when ACE inhibitors are unsuitable or contra-indicated. It is an Angiotensin II Receptor Blocker.
30.	measles+ rubella vaccine	19.1	recommended by national immunization program
31.	nevirapine	6.4.2.2	oral liquid added. Non-nucleoside reverse transcriptase inhibitors
32.	nicardipine	12.3	antihypertensive
33.	phytomenadione (vit K1)	10.2	injection 1 mg/ml added (medicines affecting coagulation)
34.	ribavirine	6.4.3	for the treatment of hepatitis C
35.	sofosbuvir	6.4.3	for the treatment of hepatitis C
36.	tobramycin	21.1	as ophthalmological anti-infective agents
37.	vinblastine	8.1	hodgkin lymphoma, kaposi sarcoma, testicular germ cell tumour, ovarian germ cell tumour

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B. Medicines removed/deleted

#	Item deleted	Remarks
1.	abacavir + lamivudine	tablet, 60 mg+ 30 mg
2.	alcohol iodine	a wide range of disinfectants exist in the list
3.	amlodipine, 10 mg tablet	5 mg tablet exists in the list
4.	atazanavir	as recommended by the national program
5.	beclomethasone	aerosol 50 micrograms
6.	benzylpenicillin (penicillin G)	powder for injection, 600 mg (1 million IU) is replaced with 3 mg (5 million IU)
7.	charcoal Activated powder	replaced by charcoal, activated tablet
8.	chloroquine (29.2)	removed from EML due to its toxic nature when used long term
9.	ciprofloxacin	500 mg exist in the list
10.	codeine phosphate	“syrup” form was deleted but other forms remain in the list
11.	dextran 40	replaced with hydroxyethyl starch (HES)
12.	diltiazem	calcium channel blocker used in the treatment of hypertension, angina pectoris, and some types of arrhythmia but other alternatives exist in the list
13.	efavirenz	capsule, 50 mg deleted, other strengths exist
14.	erythromycin	250 mg deleted
15.	fluconazole	100 mg tablet deleted
16.	flucytosine	500 mg tablet deleted
17.	fosfomycin	reserved antibiotic
18.	gatifloxacin	second-line TB medicine is deleted as recommended by the TB program
19.	gentian violet	It was removed due to safety concerns based on evidence. The WHO Expert Committee noted that there is evidence that gentian violet may act as a carcinogen. Although noting that this agent is widely used as an antifungal and antiseptic, the Committee decided to delete gentian violet from the WHO Model List in 2011. A wide arrange of antifungal and antiseptics exist in the Cambodian EML.
20.	hydrogen peroxide	a wide range of antiseptics exist in the list and it is not regarded as essential
21.	ibuprofen	200 mg deleted
22.	ipratropium bromide	500 micrograms deleted
23.	isoniazide+ rifampicin	tablet 30 mg+ 60 mg; 60 mg+ 60 mg deleted
24.	lidocaine 1% (hydrochloride) injection	2% and 5% exist

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25.	measles vaccine	measles+ rubella has been recommended by the national immunization program
26.	mefloquine	based on the treatment protocol for malaria, however it is used in combination with artesunate
27.	nitroglycerin	not commonly used, other alternative exists
28.	noradrenaline	not commonly used
29.	octreotide	not commonly used and not regarded as essential
30.	paracetamol, suppository	250 mg and 500 mg is replaced with 100 mg suppository
31.	petroleum jelly	not classified as an essential medicine/item
32.	promethazine	Promethazine is a phenothiazine derivate available as a medicine since its introduction in 1946. It acts as a histamine H1-receptor antagonist with moderate muscarinic and dopamine (D2) receptor blocking activities. There are lot of reported cases of severe sedation and breathing problems in paediatric patients. Due to safety concerns promethazine was deleted from the WHO Model EML in 2011 as premedication and/or sedative for short term anesthetic procedures ¹ . This medicine was removed from C-EML because there are newer antihistamine alternatives which do not cause as much sedation and psychomotor problems.
33.	ranitidine	cimetidine remains in the list.
34.	soda lime	not classified as a necessary item
35.	tetracycline	capsule 250 mg was deleted
36.	tiemonium methylsulphate	not commonly used and not regarded as essential
37.	zidovudine	capsule 250 mg is replaced with oral liquid, 50 mg/5 ml as recommended by the national program

2) Antibacterials (6.2)

Taking account of the global recognition of the need for effective antimicrobial stewardship, as well as the need to ensure access to necessary antibiotics and appropriate prescribing, the WHO Expert Committee proposed that these antibiotics could be categorized in three groups: KEY ACCESS, WATCH and RESERVE groups². The 9th Edition has classified antibiotics according these groups to ensure their appropriate use. See page 5.

- **KEY ACCESS GROUP.** This group includes antibiotics recommended as empiric, first or second choice treatment options for common infectious syndromes and are listed in the EML/EMLc with the syndromes for which they are recommended. They should be widely available, at an affordable cost, in appropriate formulations and of assured quality. First choices are usually narrow spectrum agents with positive benefit-to-risk ratios, and low resistance potential, whereas second choices are generally broader spectrum antibiotics with higher resistance potential, or less favorable benefit-to-risk ratios.

- **WATCH GROUP.** This group includes antibiotic classes that are considered generally to have higher resistance potential and that are still recommended as first or second choice treatments but for a limited

¹ 18th Expert Committee on the Selection and Use of Essential Medicines, 2011- Proposal for deletion of promethazine as premedication and/or sedative for short term anesthetic procedures from the WHO Model List

² Report of the 21st WHO Expert Committee on the Selection and Use of Essential Medicines, 27-31 March 2017

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number of indications. These medicines should be prioritized as key targets of local and national stewardship programs and monitoring. This group includes the highest priority agents on the list of Critically Important Antimicrobials (CIA) for Human Medicine.

- **RESERVE GROUP.** This group includes antibiotics that should be treated as ‘last-resort’ options, or tailored to highly specific patients and settings, and when other alternatives would be inadequate or have already failed (e.g., serious life-threatening infections due to multi-drug resistant bacteria). These medicines could be protected and prioritized as key targets of high-intensity national and international stewardship programs involving monitoring and utilization reporting, to preserve their effectiveness.

3) Presentation in Essential Medicines List

The medications under the sections are listed in the following format:

CMS Code	Medicine Name (INN)	ATC Code	Form	Strength	MPA	CPA1	CPA2	CPA3	V, E, N
AB0170	Dopamine	C01CA04	Injection	40 mg/mL (hydrochloride) in 5-mL vial	/	/	SN	*	V

/ this means a medicine is not available for use at that level of institution

* this means a medicine is available for use to patients at that level of institution

SN this means **Special Need**; a medicine may be available to an institution by special order.

V, E, N this means **Vital, Essential, and Necessary**, a coding system used for medicines

	Health Care Facility
MPA	Minimum Package Activity (health centers and health posts)
CPA1	Complementary Package of Activity 1 (district referral hospitals)
CPA2	Complementary Package of Activity 2 (provincial or district referral hospitals)
CPA3	Complementary Package of Activity 3 (provincial hospitals)

Notes:

Diagnostic facilities: Health facility levels have different degrees of laboratory diagnostic support facilities available.

Medicine availability: All the items listed are distributed from the Central Medical Stores (CMS). Restricted and referral level medicines will be available from the CMS only at the request of the relevant program or institution. It is, therefore, important that accurate estimates for the annual requirements for these items are made by the programs or institutions concerned well in advance and the information forwarded to the CMS so that sufficient quantities of the required items may be procured and held in stock.

4) Grouping of medicines

Information about medicines and pharmaceutical products is a prerequisite at all health care levels to ensure proper utilization and promote rational prescribing. Therefore, medicines are grouped according to **relevant therapeutic category** (for example, anaesthetics, anti-infectives, cardiovascular medicines) unlike the previous editions in which they are grouped by dosage forms and the use for programs (for instance, basic medicines, oral medicines,

injections, programs). This grouping considers indications of an individual medicine as recommended in treatment guidelines. See “*Table of Contents*”.

5) Anatomical Therapeutic Chemical (ATC) Classification System

The 9th Edition has adopted the ATC classification system for grouping medicines based on anatomical site of action, therapeutic category, pharmacological action, chemical classification, and name of medicine. This is an important system in the public health as it enables a deeper understanding of drug utilization in the country, and improves procurement and distribution of medicines, and rational prescribing and dispensing practices. It can be used for collection of drug utilization statistics in a variety of settings and from a variety of sources, for example: sales data such as wholesale data at a national, regional or local level; dispensing data either comprehensive or sampled; patient encounter based data; patient survey data and health Facility data³.

Each medicine is accorded a unique code making use of the following parameters:

- a) 1st level Fourteen main groups based on organ of action (*Anatomical Classification*)
- b) 2nd level based on therapeutic subgroup (94 levels) (*Therapeutic subcategory*)
- c) 3rd level based on pharmacological subgroup (267 levels) (*pharmacology subcategory*)
- d) 4th level based on *chemical/pharmacological/therapeutic subgroups* (885 levels)
- e) 5th level is the *chemical substance* (4822 levels)

The complete classification of **metformin** illustrates the structure of the code:

A	Alimentary tract and metabolism (1st level, anatomical main group)
A10	Drugs used in diabetes (2nd level, therapeutic subgroup)
A10B	Blood glucose lowering drugs, excl. insulins (3rd level, pharmacological subgroup)
A10BA	Biguanides (4th level, chemical subgroup)
A10BA02	Metformin (5th level, chemical substance)

6) VEN system

The VEN system sets priorities for selection, procurement and use according to the potential health impact of individual medicines. VEN assigns each pharmaceutical product on the formulary or essential medicines list to one of the following three categories:

- **V: vital** medicines are potentially life-saving, have significant withdrawal effects (making regular supply mandatory), or are crucial to providing basic health services.
- **E: essential** medicines are effective against less severe but nevertheless significant forms of illnesses but are not absolutely vital providing basic health care.
- **N: necessary** medicines are used for minor or self-limited illnesses, are of questionable efficacy, or have a comparatively high cost for a marginal therapeutic advantage. In many cases, medicines for minor illnesses are included on the EML but may be considered a lower priority for procurement than other medicines.

The classification of medicines should not be a one-time exercise. As the national guideline or essential medicines list is updated, and as public health priorities change, the VEN categories should be reviewed and updated.

The selection of essential medicines is a continuing process, taking into account changing priorities for public health action and epidemiological conditions, as well as progress in pharmacological and pharmaceutical knowledge. It should be accompanied by a concomitant effort in education, training and information of health personnel in the proper use of the medicines.

³ https://www.whooc.no/atc/structure_and_principles/

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