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OVERVIEW OF HOSPICE AND PALLIATIVE CARE DRUGS IN SELECTED PEPFAR COUNTRIES

AIDSTAR-One
AIDS SUPPORT AND TECHNICAL ASSISTANCE RESOURCES

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AIDS Support and Technical Assistance Resources Project

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ACRONYMS

ART	antiretroviral therapy
ARV	antiretroviral (drug)
BEDAP	Botswana Essential Drug Action Programme
BEDL	Botswana Essential Drugs List
CAMERWA	Centrale d'Achats des Médicaments Essentiels du Rwanda
CDC	Centers for Disease Control and Prevention
CMAM	Community-based Management of Acute Malnutrition
CMS	Central Medical Stores
CMV	cytomegalovirus
CNS	central nervous system
CSF	cerebrospinal fluid
DACA	Drug Administration and Control Authority
DDAs	Dangerous Drugs
DFID	Department for International Development (UK)
DRA	drug regulatory authority
EDLIZ	Essential Drugs List for Zimbabwe
EDLU	Essential Drugs List for Uganda
EFV	efavirenz
EML	Essential Medicines List
FDA	U.S. Food and Drug Administration
FMOH	Federal Ministry of Health (Nigeria)
HAART	highly active antiretroviral therapy
HCl	hydrochloric acid
HCT	HIV Counseling and Testing
HCP	Health Commodities Project
IAHPC	International Association of Hospice and Palliative Care
IMAI	Integrated Management of Adolescent and Adult Illness
INCB	International Narcotics Control Board
INN	International Nonproprietary Name

IV	intravenous
IV/NG	intravenous/nasogastric fluid
LFT	live function test
LOE	level of effort
MAC	membrane attack complex
MAO	Monoamine oxidase (inhibitor)
MCAZ	Medicines Control Authority of Zimbabwe
MG	milligram
ML	milliliter
MSD	Medical Stores Department
MSL	Medical Stores Limited (Zambia)
NACP	National AIDS Control Programme
NAFDAC	National Agency for Food and Drug Administration Control
NaSSa	noradrenergic and specific serotonergic antidepressants
NDA	National Drug Authority (Uganda)
NEMLIT	National Essential Medicines List Tanzania
NDTPAC	National Drug and Therapeutics Policy Advisory Committee
NG	nasogastric
NGO	nongovernmental organization
NMS	National Medical Stores (Uganda)
NRTI	nucleoside reverse transcriptase inhibitor
NSAIDS	Nonsteroidal anti-inflammatory drugs
NVP	nevirapine
OHA	Office of HIV/AIDS
OI	opportunistic infection
ORS	oral rehydration solution or oral rehydration salts
OTC	over the counter
PCP	pneumocystis carinii pneumonia
PEPFAR	President's Emergency Plan for AIDS Relief
PFSA	Pharmaceutical Fund and Supply Agency
PMTCT	preventing mother-to-child transmission
POM	prescription only medicine
PPASS	Pharmaceutical Administration and Supply Services

PRA	Pharmaceutical Regulatory Authority
PSP	Pharmacie de la Santé Publique (Public Health Pharmacy Cote d'Ivoire)
REG	registered
SCMS	Supply Chain Management System (project)
SNRI	serotonin–norepinephrine reuptake inhibitor
SOW	scope of work
SSRI	selective serotonin reuptake inhibitor
STG	Standard Treatment Guidelines
STTA	short term technical assistance
TB	tuberculosis
TFDA	Tanzania Food and Drug Authority
TMP/SMX	Trimethoprim-sulfamethoxazole or Co-trimoxazole
TNF	Tanzania National Formulary
TRAC	Traitement et de Recherche sur le SIDA
USAID	United States Agency for International Development
USFDA	U.S. Food and Drug Administration
USG	United States Government
VZV	Varicella Zoster Virus
WHO	World Health Organization

INTRODUCTION

DESCRIPTION OF WORK PERFORMED

The following tables are the product of a focused effort to collect and present information on hospice and palliative care drugs included in the list of medicines compiled by the International Association of Hospice and Palliative Care (IAHPC) for 11 PEPFAR countries: Botswana, Côte d'Ivoire, Ethiopia, Mozambique, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

This effort was undertaken by a consultant to AIDSTAR-One at the request of the PEPFAR Care and Support Technical Working Group (TWG). The deliverable described in the scope of work (SOW) is a brief summary report, consisting mostly of tables, of country-specific characteristics of the medicines included in the IAHPC list.

The analysis included a detailed look at the following documents to determine if the IAHPC medicines were included:

- list of registered drugs
- standard treatment guidelines for HIV and AIDS
- essential medicines list
- central medical stores catalog.

The SOW identified interest primarily in registration status and specifications of the registered medicines (e.g., strength and form). Indication for use was also requested. However, indications are not routinely included in registered drug lists. In addition, only analyzing registration status would provide a limited view of the characteristics of the medicines, and the factors that influence their availability. As a result, the consultant sought to collect all of the above documents for each of the 11 countries in order to provide a more complete view of the factors that influence product availability.¹

Following are comments about the medicine characteristics listed in the SOW and below. This information influenced the analysis and the presentation of the data.

- Generic drug name
- Proprietary name
- International Nonproprietary Name (INN)
- Dose and formulation

¹ Product availability depends on a range of factors extending beyond procurement characteristics, recognizing that the ability to procure a product is essential. Commodity security considers the ability to forecast, finance, procure, and distribute essential health products. The analysis undertaken here focuses on the procurement elements in the commodity security rubric.

- Strength (adults and pediatric)
- Indications

MEDICINE NAMES

(Generic, INN, Proprietary)

A generic name, a nonproprietary name, and WHO's INNs are essentially the same, and therefore, that information is presented together in the tables.² A proprietary name is a brand name coined by a manufacturer for their particular product, which is often patented; it is the name that manufacturers use for marketing their product.

For each country that had a registered drug list available, except Nigeria, the generic name was provided in the list of registered drugs along with proprietary names. However, Nigeria's list of registered drugs did not include generic names. This means that the data for Nigeria is, in all likelihood, incomplete since it was not possible to comprehensively search for registered drugs using the generic name. It is possible that some of the medicines on the IAHPD list are indeed registered in Nigeria, but when the proprietary name did not include the generic drug name, it could not be found conducting a search using the generic name.

STRENGTH AND FORMULATION

For the countries in which a list of registered drugs was available, drug strength and formulation information is provided along with the proprietary name, when that information was included in the registered drug list. In some cases, information about a particular medicine was incomplete or simply not included in the list of registered drugs. When specific information about adult and pediatric strengths were provided, it was noted. However, this was uncommon.

INDICATIONS AND DOSAGE

Indication information is typically contained in treatment guidelines. However, some essential drug lists also include indications. Drug registration lists do not typically include indication information, unless the registration information is folded into another type of document. Where information about indications was found, it is included in the country analyses. Similarly, information about suggested doses to treat particular conditions was not routinely available, but where it was available, it was provided.

The SOW is included as Appendix A.

REGISTRATION STATUS CONSIDERATIONS

It is important to recognize that drug registration is fluid. One month a drug may be registered, and the next month it may not be. Conversely, a drug that is not registered this month, may be registered next month. For example, in the former case, a registration period may expire and the manufacturer may opt to not renew the registration. In the latter case, a drug dossier may be under consideration for approval by the drug regulatory authority, but it simply hasn't gotten all the way through the

² "A nonproprietary name is also known as a generic name." <http://www.who.int/medicines/services/inn/en/index.html> (accessed January 2010)

process to approval and inclusion on the list. Another consideration about registration is the frequency with which registration databases and lists are updated. Some may be updated daily, while others are updated monthly. In some cases, the list is only updated yearly, or on an even less frequent basis.

In the tables included in this analysis, if the drug is listed as registered, it was included in the drug registry on the date the research was conducted. Some of the registries used are static printed lists that are being updated, but which have not yet been released by the government. In these cases, medicines included in the table may no longer be registered, or drugs that aren't included should be. In other cases, an online registration database was searched. It is important to recognize that the online databases are typically more up-to-date since products are added and deleted from the list on a regular basis.

It is also important to consider that a manufacturer's registration is typically for a discrete period of time. The national drug regulatory authority (DRA) dictates when a manufacturer needs to reapply for registration. Either the manufacturer reapplies on a regular basis or they request an extension of their registration. In either case, it is the manufacturer that assumes the responsibility to seek registration. Therefore, in the case of the palliative care medicines that are not registered, it may be necessary for a palliative care advocacy organization to meet with manufacturer representatives to request that the manufacturer seek registration of products in their country. Manufacturers will want assurance that there will be significant demand for their medicines since the registration process can be costly and time-consuming.

Finally, even though a drug may be found in country, it doesn't necessarily mean that the medicine is registered in that country. Well-meaning individuals may hand carry medicines as "gifts" for private health facilities without the understanding that even though the product is approved, for example, by the US FDA, it may not be approved in the country to which they are taking it. Typically, medicines for individual consumption are permitted for importation. Any amount larger than that is usually subject to the medicines importation rules for that country, including registration of the product.

NEXT STEPS INCLUDE MORE ANALYSIS

The SOW background statement reads: "The IAPHC list was developed by international palliative care experts and may not fully reflect what is often not available in low resource settings."

Based on general observations of the data contained in the country analysis tables, an assumption can be made that many of the medicines included in the IAPHC list are not routinely available in the 11 countries analyzed. Even if medicines are registered, they may not be included in the essential medicines list, or the standard treatment guidelines for HIV and AIDS. In this situation, health providers at public sector service delivery points would not likely have the medicine available. And even if a client/patient could obtain it on the open retail market with a prescription (or without), a health provider may not know how to write a prescription for palliative care using the medicine if it is not included in the standard treatment guidelines. Conversely, if a palliative care medicine is included on an essential medicines list and the standard treatment guidelines, but it is not registered in the country, then a service provider would be unable to provide that care because the drug would not be available in the country.

In order to determine how to best approach the expanded availability of hospice and palliative care medicines for each country, a detailed analysis of each country analysis table will be required. This would result in the generation of specific country recommendations.

Comparative analysis of the tables is challenging due to the fact that the data sources in each country are not identical. However, an overall analysis, beyond what is described here, would likely result in helpful general observations and recommendations to expand access to hospice and palliative care drugs in PEPFAR countries.

DATA QUALITY DISCLAIMER

While every attempt was made to identify the IAHPC medicines in drug registries, standard treatment guidelines, essential medicines lists, and central medical stores product catalogs, the search functions available are imperfect. Spelling errors in documents, variability in spelling, document file type, and user oversight may have contributed to a medicine being overlooked. Although every attempt was made to identify the medicines in all of the documents, some omissions may be discovered by the reader. In those cases, please contact the author so that corrections can be made.

BOTSWANA

Generic drug name/INN	Product Registered? Proprietary name, strength and form (If a variation of the medicine is identified, the generic name is also listed before the proprietary name.)	Product included in STGs? If so, for what indications?	Included in Essential Medicines List? Information included: Location and personnel authorized to use Classification Drug name, strength and formulation	Included in Central Medical Stores Product Catalogue?
Amitriptyline	<p>Yes: registered drugs list</p> <p>TREPILINE 25MG TABLETS AMITRYPTALINE 25MG TABLETS</p> <p>Yes: list of B93 products</p> <p>APO-AMITRIPTYLINE 10MG TABLETS APO-AMITRIPTYLINE 25MG, 50MG, AND 75MG TABLETS SANDOZ AMITRIPTYLINE HCL 25MG TABLETS</p> <p>AMITRIPTYLINE HYDROCHLORIDE: TREPILINE 10 TABLETS TRYPTANOL 10MG TABLETS TRYPTANOL 25MG TABLETS AMITRIPTYLINE 25MG TABLETS AMITRIPTYLINE 50MG TABLETS</p>	<p>Yes</p> <p>Symptomatic treatment of HIV/ARVrelated peripheral neuropathy should begin with amitriptyline or imipramine, in increasing doses as needed: increase by 25 mg weekly until sufficient benefit is reached, anticholinergic effects appear, or the maximum recommended dose is attained (75-100mg). <i>A common management error is not aggressively increasing the dose until symptomatic relief is obtained</i></p>	<p>Yes</p> <p>Hospital, midwives, psych nurse Antidepressant Amitriptyline 25mg tablet Amitriptyline 50mg tablet</p>	<p>Yes</p>
Bisacodyl	<p>No: registered drug list</p> <p>Yes: list of B93 products</p> <p>ORALAX 5MG TABLETS BROOKLAX 5MG PILLS TABLETS BISACODYL 5MG TABLETS APO-BISACODYL 10MG SUPPOSIT APO-BISACODYL 5MG TABLETS DULCOLAX 10MG SUPPOSITORIES DULCOLAX 5MG SUPPOSITORIES PERILAX 5MG SUPPOSITORIES DULCOLAX 5MG TABLETS FRESHEN BISACODYL 5MG LAXATIVE TABLETS PERILAX 5MG TABLETS</p>	<p>No</p>	<p>Yes</p> <p>Hospital Laxative (cathartic) Bisacodyl 5mg tablet</p>	<p>Yes (also includes suppository form)</p>

<p>Carbamazepine</p>	<p>Yes: registered drugs list</p> <p>CARZEPIN 200MG TABLETS TEGRETOL S 100MG/5ML SUSPENSION TEGRETOL 200 TABLETS TEGRETOL CR 200 TABLETS TEGRETOL CR 400 TABLETS STORILAT 200MG TABLETS DEGRANOL 200MG TABLETS</p> <p>Yes: list of B93 products</p> <p>STORILAT R 400MG TABLETS APO-CARBAMAZEPINE 200MG TABLETS PROZINE 200MG TABLETS SANDOZ CARBAMAZEPINE 200MG TABLETS TEMPEROL 200MG TABLETS</p>	<p>Yes</p> <p>Symptomatic treatment of HIV/ARVrelated peripheral neuropathy should begin with amitriptyline or imipramine, in increasing doses as needed: increase by 25 mg weekly until sufficient benefit is reached, anticholinergic effects appear, or the maximum recommended dose is attained (75-100mg). <i>A common management error is not aggressively increasing the dose until symptomatic relief is obtained.</i></p> <p>Although not part of the national formulary, gabapentin can be especially effective. Carbamazepine is another therapeutic alternative (avoid with EFV due to adverse drug interactions).</p>	<p>Yes</p> <p>Hospital Antiepileptic Anticonvulsant Carbamazepine 20mg/mL mixture Carbamazepine 200mg tablet</p> <p>Hospital, health center Mood stabilizer (Drug used in bipolar disorder) Carbamazepine 200mg tablet</p>	<p>Yes</p>
<p>Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) <i>These would include: escitalopram, fluoxetine, or sertraline.</i></p>	<p>Yes: registered drugs list</p> <p>CITALOPRAM: DEPRAMIL 40MG TABLETS DEPRAMIL 20MG TABLETS HYDROBROMIDE RAN-CITALOPRAM 40MG TABLETS HYDROBROMIDE RAN-CITALOPRAM 10MG TABLETS HYDROBROMIDE RAN-CITALOPRAM 20MG TABLETS</p> <p>ESCITALOPRAM: OXALATE CIPRALEX 20MG TABLETS</p> <p>FLUOXETINE HYDROCHLORIDE: LILLY-FLUOXETINE 20MG CAPSULES LILLY-FLUOXETINE 20MG/5ML ORAL SOLUTION NUZAK 20MG CAPSULES PROZAC 20MG TABLETS PROZAC 40MG CAPSULES FOR SPECIFIC INDICATION PROZAC 60MG CAPSULES FOR SPECIFIC INDICATION SANDOZ FLUOXETINE 20MG CAPSULES</p> <p>SERTRALINE HYDROCHLORIDE: ZOLOFT 50MG CAPSULES</p>	<p>No</p>	<p>Yes (only Fluoxetine)</p> <p>Specialist (Psychiatrist) Antidepressant Fluoxetine 20mg tablet</p>	<p>Yes</p> <p>Includes citalopram, fluoxetine and sertraline</p>

	SERDEP 50MG TABLETS Yes: list of B93 products FLUOXETINE HYDROCHLORIDE: SANDOZ FLUOXETINE 20 TABLETS			
Codeine	Yes: registered drugs list CODEINE, MEPYRAMINE MALEATE & EPHEDRINE HYDROCHLORIDE: CODEF SYRUP Yes: list of B93 products ASPIRIN; CODEINE PHOSPHATE: ETHICOD 300/10MG TABLETS CODEINE PHOSPHATE: CODEINE PHOSPHATE 15 and 30MG TABLETS CODEINE PHOSPHATE 25MG SYRUP CODEINE PHOSPHATE; DIPHENHYDRAMINE HCL;AMMON. CHLORIDE; MENTHOL: BENYLIN WITH CODEINE CODEINE PHOSPHATE; EPHEDRINE HCL; PROMETHAZINE HCl: LENAZINE FORTE SYRUP DIHYDROCODEINE BITARTRATE: PARACODIN 12.1MG/5ML SYRUP DIPHENHYDRAMINE HCL; CODEINE PHOS & AMMONIUM CHLORIDE: HISTALIX SYRUP FLUTEX COUGH LINCTUS DIPHENHYDRAMINE HCL; CODEINE PHOS; AMMONIUM CHLORIDE; SOD.Cl: TUSSITOT SYRUP DIPHENHYDRAMINE HCL; CODEINE PHOSPHATE; AMMON.CHLOR; SOD.CIT: BRONCLEER WITH CODEINE SYRUP	No	Yes Hospital Opioid analgesic Dihydrocodeine 30mg tablet Codeine phosphate 30mg tablet Hospital Drug used in diarrhea Codeine phosphate 30mg tablet	Yes

	<p>IBUPROFEN; PARACETAMOL; CODEINE: MYPRODOL 250MG, 200MG & 10MG CAPSULES</p> <p>PARACETAMOL; ASPIRIN; CODEINE PHOSPHATE; MEPROBAMATE; CAFFEI: TENSTON SA CAPSULES</p> <p>PARACETAMOL; CODEINE PHOSPHATE; MEPROBAMATE; CAFFEI: TENSTON TABLETS</p> <p>PARACETAMOL; CAFFEINE; CODEINE PHOSPHATE; DOXYLAMINE SUCCINATE: ADCO-DOL TABLETS</p> <p>PARACETAMOL; CAFFEINE; CODEINE; DOXYLAMINE SUCC.: BETAPYN TABLETS FORPYN TABLETS SEDINOL TABLETS PYNSTOP TABLETS</p> <p>PARACETAMOL; CODEINE PHOS.; DIPHENHYDRAMINE; PHENOBARB; CAFFEINE: PROPAIN FORTE TABLETS PROPAIN FORTE CAPSULES</p> <p>PARACETAMOL & CODEINE PHOSPHATE: DOLOROL FORTE TABLETS EMPACOD TABLETS PAEDAGESIC SYRUP DINO COD TABLETS ADCO-NAPACOD 500/10MG TABLETS</p> <p>PARACETAMOL & CODEINE & VITAMIN C: PARACETACOD 500/10/50MG TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE: ANTIPYN TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE;</p>			
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	<p>CAFFEINE; DIPHENHYDRAMINE HC: PROPAIN TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE & MEPROBAMATE: PAINAGON TABLETS MEPROGESIC TABLETS STILPANE CAPSULES ANTIPYN FORTE TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE; MEPROBAMATE: SCRIPTO-GESIC CAPSULES STILPANE TABLETS STOPAYNE CAPSULES STOPAYNE TABLETS TENSTON SA TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; DOXYLAMINE SUCCINT; CAFFEINE: SYNDOL TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; PROMETHAZINE HYDROCHLORIDE: ANTIPYN SYRUP PAINAGON SYRUP LETOGESIC SYRUP STOPAYNE SYRUP TENSTON SYRUP</p> <p>PARACETAMOL; CODEINE; PROMETHAZINE; CAMPHORATED OPIUM TINCT: STILPANE SYRUP</p> <p>PARACETAMOL; CODEINE; PROMETHAZINE; PSEUDOEPHEDRINE: COLCAPS SYRUP</p> <p>PROMETHAZINE HYDROCHLORIDE CODEINE PHOSPHATE & EPHEDRINE HCL: PHENSEDYL COUGH LINCTUS</p> <p>TRIPROLIDINE HCL; PSEUDOEPHEDRINE HCL; CODEINE PHOSPHATE:</p>			
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	<p>ENDCOL 1.25/30/10MG PER 5ML COUGH LINCTUS</p> <p>TRIPROLIDINE HCL & PSEUDOEPHEDRINE HCL: ENDCOL 1.25/30MG PER 5ML SYRUP</p> <p>TRIPROLIDINE HCL; PSEUDOEPHEDRINE; GUAIPHENESIN; COD. PHOS.: LINCTIFED ADULT EXPECTORANT ENDCOL PAEDIATRIC EXPECTORANT SYRUP</p> <p>TRIPOLIDINE HCL; PSEUDOEPHEDRINE HCL; CODEINE PHOSPHATE: FLUDACTIL EXPECT. SYRUP</p>			
Dexamethasone	<p>Yes: registered drugs list</p> <p>CIPROFLOXACIN & DEXAMETHASONE: CILODEX 0.3/0.1% OTIC SUSPENSION</p> <p>DEXAMETHASONE SODIUM PHOSPHATE: DECASONE 4MG/ML INJECTION OFTALMOLOSA CUSI DEXAMETHASONE 0.05% EYE OINTMENT</p> <p>Yes: list of B93 products</p> <p>MAXIDEX 1MG/ML OPHTHALMIC SUSPENSION PERAZONE 0.5MG TABLETS PERAZONE 1.5MG TABLETS</p> <p>DEXAMETHASONE DISODIUM PHOSPHATE: DEXONE 5MG/ML INJECTION</p> <p>DEXAMETHASONE DISODIUM PHOSPHATE; CHLORAMPHENICOL; HPMC: SPERSADEX COMPOUND 1MG, 5MG & 2MG/ML EYE DROPS</p> <p>DEXAMETHASONE SODIUM PHOSPHATE: SPERSADEX 0.1% EYE DROPS</p> <p>DEXAMETHASONE; TOBRAMYCIN: TOBRADEX 1MG & 3MG/G OPHTHALMIC OINTMENT and OPHTHALMIC DROPS</p>	No	<p>Yes</p> <p>Hospital Anti-allergics and drugs used in anaphylaxis Dexamethasone 0.5mg tablet Dexamethasone 4mg/mL injection</p> <p>Hospital Hormones and antihormones Dexamethasone 0.5mg tablet Dexamethasone 4mg/mL injection</p> <p>Hospital Adrenal hormones and synthetic substitutes Dexamethasone 0.5mg tablet Dexamethasone 4mg/mL injection</p>	Yes

	<p>FRAMYCETIN SULPH.; GRAMICIDIN; DEXAMETHASONE; PHENYLETHANOL: SOFRADEX 5MG, 0.05MG, 0.5MG & 0.5% PER ML EYE/EAR DROPS</p> <p>NEOMYCIN & DEXAMETHASONE: NEODEXONE 5 & 0.5MG/G EYE OINTMENT NEODEXONE 5 & 1MG/ML EYE/EAR DROPS</p> <p>POLYMYXIN B SULPHATE; DEXAMETHASONE; NEOMYCIN SULPHATE: MAXITROL 6000IU, 1MG & 3500IU/G OPTHALMIC OINTMENT and OPTHALMIC SUSPENSION</p>			
Diazepam	<p>Yes: registered drugs list</p> <p>REEDIUM 5MG TABLETS</p> <p>Yes: list of B93 products</p> <p>APO-DIAZEPAM 10MG TABLETS APO-DIAZEPAM 2MG TABLETS APO-DIAZEPAM 5MG TABLETS VALIUM 10MG TABLETS VALIUM 10MG/2ML AMPOULES VALIUM 2MG TABLETS VALIUM 5MG TABLETS ETHIPAM 2MG TABLETS ETHIPAM 5MG TABLETS DIZAM 2MG TABLETS DIZAM 5MG TABLETS DIZAM 10MG/2ML INJECTION BETAPAM 5MG TABLETS REEDIUM 2MG TABLETS</p>	No	<p>Yes</p> <p>Hospital and health center Pre-operative medication and sedation for short-term procedure Diazepam 2mg tablet Diazepam 5mg tablet Diazepam 5mg/mL injection (rectal)</p> <p>Hospital and health center Antiepileptic Anticonvulsant Diazepam 5mg/mL injection (rectal)</p> <p>Hospital and health center Anxiolytic and anti-insomnia Diazepam 2mg tablet Diazepam 5mg tablet Diazepam 5mg/mL injection</p>	Yes
Diclofenac	<p>Yes: registered drugs list</p> <p>DICLOFENAC POTASSIUM: CATAFLAM 50MG TABLET CATAFLAM D 50MG TABLET</p> <p>DICLOFENAC SODIUM: DEFLAMAT 75MG CAPSULES</p>	No	<p>Yes</p> <p>Hospital (injectable form) and by specialist Analgesics, Antipyretics, Nsaids, Drugs Used In Gout & Diseases Modifying Agent Used In Rheumatic Disorders Diclofenac sodium 25mg tablet Diclofenac sodium 25mg/mL injection Diclofenac sodium 50mg SR tablet</p>	Yes Also includes 75mg/3ml for injection, and 20g gel

	<p>DEDOLOR 100MG CAPSULES DILOFEN 25MG TABLETS INFLABAN SR 100MG TABLETS SANDOZ-DICLOFENAC SODIUM 100 SIMPLE REGIMEN PANAMOR AT 50MG TABLETS TRIO-DICLOFENAC 75MG/3ML INJECTION OSTEOFAM 75MG/3ML INJECTION MERCK-DICLOFENAC 75MG/3ML INJECTION REMETHAN 1% GEL REMETHAN 100MG SUPPOSITORIES</p> <p>DICLOFENAC SODIUM & MISOPROSTOL: ARTHROTEC 50MG/200mcg TABLETS</p> <p>Yes: list of B93 products</p> <p>DICLOFENAC DIETHYLAMINE: REMETHAN 1% GEL</p> <p>DICLOFENAC SODIUM: VOLTAREN 1G/100G EMULGEL ADCO-DICLOFENAC 25MG TABLETS ADCO-DICLOFENAC 75MG/3ML INJECTION APO-DICLO 25MG TABLETS PANAMOR-25 TABLETS PANAMOR-75 AMPOULES PANAMOR-75 TABLETS INFLABAN SR 100 TABLETS RHUMALGAN 25MG TABLETS RHUMALGAN 50MG TABLETS SANDOZ DICLOFENAC 25MG TABLETS SANDOZ DICLOFENAC SODIUM 100 SIMPLE REGIMEN REMETHAN 25MG TABLETS REMETHAN 50MG TABLETS REMETHAN 100MG SUSTAINED RELEASE TABLETS</p>			
Diphenhydramine	<p>Yes: registered drugs list</p> <p>DIPHENHYDRAMINE HCL & AMMONIUM CHLORIDE: CLEAR COUGH SYRUP BETALIN SYRUP TUSQUIT SYRUP BENYLIN CHILDERN COUGH SYRUP, 100ML</p>	No	No	No

	<p>BENYLIN CHILDERN COUGH SYRUP, 200ML</p> <p>DIPHENHYDRAINE, PARACETAMOL & PSEUDOEPHEDRINE HYDROCHLORIDE: BENYLIN FOUR FLU LIQUID</p> <p>PARACETAMOL, CODEINE PHOSPHATE, DIPHENHYDRAMINE & CAFFEINE: TENSOLVE TENSION HEADACHE TEBLETS LENADOL TABLET</p> <p>List: list of B93 products</p> <p>DIPHENHYDRAMINE HCL; AMMON. CHLORIDE; SODIUM CITRATE; MENTHOL: LINCTOSAN SYRUP BE EXPECT SYRUP LENNAMINE EXPECTORANT SYRUP</p> <p>DIPHENHYDRAMINE HCL; AMMON.CL; SOD.CITR.; MENTHOL; CHLOROFORM: DIFCO EXPECTORANT SYRUP</p> <p>DIPHENHYDRAMINE HCL; AMMONIUM CHLORIDE; SODIUM CITRATE: BRONCLEER SYRUP TUSSILINCT SYRUP DINO EXPECT</p> <p>DIPHENHYDRAMINE HCL; BENZOCAINE; CALAMINE; CAMPHOR: HISTAMED LOTION</p> <p>DIPHENHYDRAMINE HCL; CODEINE PHOS & AMMONIUM CHLORIDE: HISTALIX SYRUP DIPHENHYDRAMINE HCL; CODEINE PHOS; AMMONIUM CHLORIDE; SOD.CI: TUSSITOT SYRUP</p> <p>DIPHENHYDRAMINE HCL; CODEINE PHOSPHATE; AMMON.CHLOR; SOD.CIT: BRONCLEER WITH CODEINE SYRUP</p>			
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	<p>DIPHENHYDRAMINE HCL; CODEINE PHOSPHATE; AMMONIUM CHLORIDE: FLUTEX COUGH LINCTUS</p> <p>DIPHENHYDRAMINE HCL; DEXTROMETHORPHAN & AMMONIUM CHLORIDE: HISTALIX -D SYRUP</p> <p>DIPHENHYDRAMINE HCL: BETASLEEP 50MG CAPSULES DIPHENHYDRAMINE 10MG/5ML SYRUP SLEEPEZE-PM 25MG TABLETS</p> <p>DIPHENHYDRAMINE HCL;AMMON. CHLORIDE;CHLOROFORM;MENTHOL: BENYLIN ORIGINAL</p> <p>DIPHENHYDRAMINE HYDROCHLORIDE; AMMONIUM CHLORIDE: D.P.H. EXPECTORANT SYRUP HISTODOR 12/50MG PER 5ML ELIXIR</p> <p>DIPHENHYDRAMINE HYDROCHLORIDE; BENZOCAINE; CALAMINE: BERACAL LOTION</p> <p>ETOPHYLLINE; DIPHENHYDRAMINE HCL; AMMON. CL; POLYSORBATE 20: DILINCT SYRUP</p> <p>PARACETAMOL; CODEINE PHOSPHATE; DIPHENHYDRAMINE; PHENOBARB; CAFFEINE: PROPAIN FORTE TABLETS PROPAIN FORTE CAPSULES</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE; DIPHENHYDRAMINE HC: PROPAIN TABLETS</p> <p>PARACETAMOL; DEXTROPROPOXYPHENE NAPSYLATE; DIPHENHYDRAMINE:</p>			
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	<p>SYNAP FORTE TABLETS</p> <p>THEOPHYLLINE; ETOFYLLINE; DIPHENHYDRAMINE HCL; AMMON.CHLORID: ALCOPHYLLEX MIXTURE</p> <p>CALAMINE;CAMPBOR;DIPHENHYDRAMINE HCL: CALADRYL CREAM</p> <p>CALAMINE;DIPHENHYDRAMINE HCL;ALCOHOL: CALADRYL LOTION</p> <p>CODEINE PHOSPHATE;DIPHENHYDRAMINE HCL;AMMON. CHLORIDE;MENTHOL: BENYLIN WITH CODEINE</p> <p>DIPHENHYDRAMINE HCL; AMMON. CHLORIDE; SODIUM CITRATE; MENTHOL: LINCTOSAN SYRUP BE EXPECT SYRUP LENNAMINE EXPECTORANT SYRUP</p> <p>DIPHENHYDRAMINE HCL; AMMON.CL; SOD.CITR.; MENTHOL; CHLOROFOR: DIFCO EXPECTORANT SYRUP</p> <p>DIPHENHYDRAMINE HCL; AMMONIUM CHLORIDE; SODIUM CITRATE: BRONCLEER SYRUP TUSSILINCT SYRUP DINO EXPECT</p> <p>DIPHENHYDRAMINE HCL; BENZOCAINE; CALAMINE; CAMPBOR: HISTAMED LOTION</p> <p>DIPHENHYDRAMINE HCL; CODEINE PHOS & AMMONIUM CHLORIDE: HISTALIX SYRUP</p> <p>DIPHENHYDRAMINE HCL; CODEINE PHOS; AMMONIUM CHLORIDE; SOD.CI: TUSSITOT SYRUP</p>			
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	<p>BRONCLEER WITH CODEINE SYRUP</p> <p>DIPHENHYDRAMINE HCL; CODEINE PHOSPHATE; AMMONIUM CHLORIDE: FLUTEX COUGH LINCTUS DIPHENHYDRAMINE HCL;</p> <p>DEXTROMETHORPHAN & AMMONIUM CHLORIDE: HISTALIX -D SYRUP DIPHENHYDRAMINE HCL BETASLEEP 50MG CAPSULES ADCOCK INGRAM, S.A 3 B9323160 DIPHENHYDRAMINE HCL: DIPHENHYDRAMINE 10MG/5ML SYRUP SLEEPEZE-PM 25MG TABLETS</p> <p>DIPHENHYDRAMINE HCL;AMMON. CHLORIDE;CHLOROFORM;MENTHOL: BENYLIN ORIGINAL</p> <p>DIPHENHYDRAMINE HYDROCHLORIDE; AMMONIUM CHLORIDE: D.P.H. EXPECTORANT SYRUP HISTODOR 12/50MG PER 5ML ELIXIR</p> <p>DIPHENHYDRAMINE HYDROCHLORIDE; BENZOCAINE; CALAMINE: BERACAL LOTION</p>			
Fentanyl (transdermal patch)	<p>No: registered drugs list</p> <p>No: list of B93 products</p> <p>Other forms included: FENTANYL: SUBLIMAZE 50mcg/ML INJECTION</p> <p>FENTANYL CITRATE: FENTANYL-FRESENIUS 100mcg/2ML FENTANYL-FRESENIUS 500mcg/2ML</p>	No	No (Fentanyl 0.05mg/mL injection is available in hospitals as a Pre-operative medication and sedation for short-term procedure. But the transdermal patch is not included in the EML)	Yes, but not a transdermal patch; only Fentanyl 0.05mg/ml Injection 2ml Ampoule is included in the catalogue
Gabapentin	<p>No: registered drugs list</p> <p>No: list of B93 products</p>	Yes	Yes Specialist Anti-epileptic anti-convulsant Gabapentin 300mg tablet/capsule	Yes

		<p>increasing doses as needed: increase by 25 mg weekly until sufficient benefit is reached, anti-cholinergic effects appear, or the maximum recommended dose is attained (75-100mg). <i>A common management error is not aggressively increasing the dose until symptomatic relief is obtained.</i></p> <p>Although not part of the national formulary, gabapentin can be especially effective. Carbamazepine is another therapeutic alternative (avoid with EFV due to adverse drug interactions).</p>		
Haloperidol	<p>Yes: registered drugs list</p> <p>HALOXEN 5MG TABLETS</p> <p>Yes: list of B93 products</p> <p>APO-HALOPERIDOL 0.5MG TABLETS HALOPERIDOL APO-HALOPERIDOL 10MGTABLETS APO-HALOPERIDOL 1MG TABLETS APO-HALOPERIDOL 2MG TABLETS APO-HALOPERIDOL 5MG TABLETS SANDOZ HALOPERIDOL 1.5MG TABLETS SANDOZ HALOPERIDOL 5MG TABLETS SERENACE 0.5MG CAPSULES SERENACE 10MG TABLETS SERENACE 20MG TABLETS SERENACE 20MG/2ML LIQUID SERENACE 5MG TABLETS SERENACE 5MG/ML INJECTION SERENACE 20MG/2ML INJECTION HALOPERIDOL 1.5MG TABLETS HALOPERIDOL 5MG TABLETS HALOPERIDOL 10MG TABLETS</p>	No	<p>Yes</p> <p>Hospital, health center, psych nurse Antipsychotic Haloperidol 1.5 tablet Haloperidol 10 mg/mL injection (hosp. only) Haloperidol 5 mg/mL injection Haloperidol 5mg tablet</p>	Yes
Hyoscine butylbromide	<p>Yes: registered drugs list</p> <p>HYOSPAMOL 10MG TABLETS</p> <p>HYOSCINE N-BUTYLBROMIDE: HYOSPASMOL 20MG/ML INJECTION BUSCOPAN 0.1% SYRUP</p>	No	<p>Yes</p> <p>Hospital Pre-operative medication and sedation for short-term procedure Hyoscine butylbromide 20mg/mL injection</p>	Yes

	<p>DIVIDOL 10MG TABLETS</p> <p>Yes: list of B93 products</p> <p>HYOSCINE-N-BUTLYBROMIDE: BUSCOPAN 20MG/ML INJECTION BUSCOPAN 10MG TABLETS SCOPEX 10MG TABLETS SCOPEX 20MG/ML INJECTION HYOSPASMOL 10MG TABLETS</p> <p>HYOSCINE-N-BUTLYBROMIDE; DIPYRONE: BUSCOPAN 20MG & 2.5G/ML COMPOSITUM INJECTION BUSCOPAN 10MG & 250MG COMPOSITUM TABLETS</p>		<p>Hospital</p> <p>Antispasmodic drugs</p> <p>Hyoscine butylbromide 20mg/mL injection</p>	
<i>Ibuprofen</i>	<p>Yes: registered drugs list</p> <p>BUPROL 400MG TABLETS INZA 400MG TABLETS INZA 200MG TABLETS NORFLAM T 200MG TABLETS PEROFEN 400MG FC TABLETS RANFEN 200MG TABLETS RANFEN 400MG TABLETS IBUPROFEN 400MG TABLETS BETAPROFEN 400 FC TABLETS BUTAFEN 400MG TABLETS</p> <p>IBUPROFEN, PARACETAMOL & CODEINE: MYPRODOL 200/250/10MGPER 10ML SUSPENSION</p> <p>PSEUDOEPHEDRINE & IBUPROFEN: ADVIL CS 30/200MG TABLETS</p> <p>Yes : list of B93 products</p> <p>ADCO-IBUPROFEN 400MG TABLETS APO-IBUPROFEN 200MG TABLETS APO-IBUPROFEN 300MG TABLETS APO-IBUPROFEN 400MG TABLETS APO-IBUPROFEN 600MG TABLETS BETAGESIC 200MG TABLETS BRUFEN 200MG TABLETS BRUFEN 400MG TABLETS BRUFEN 600MG TABLETS</p>	No	<p>Yes</p> <p>Hospital, health center, and specialist (for injectable form)</p> <p>Non – opioid analgesics and NSAIDs</p> <p>Ibuprofen 400mg tablet</p> <p>Ibuprofen 5mg/mL I.V sol for Infusion</p> <p>Hospital (intravenous), and health center</p> <p>Migraine treatment</p> <p>Ibuprofen 100mg/5mL solution</p> <p>Ibuprofen 400mg tablet</p>	<p>Yes</p> <p>Also includes 200 mg tablets</p>

	<p>BRUFEN 100MG/5ML PAEDIATRIC SUSPENSION INZA 600MG TABLETS NUROFEN 200MG TABLETS ANTIFLAM 200 TABLETS SANDOZ IBUPROFEN 200MG TABLETS SANDOZ IBUPROFEN 400MG TABLETS SANDOZ IBUPROFEN 600MG TABLETS SECLOVIL 200MG TABLET DOLEX 200MG TABLETS DOLEX 400MG TABLETS BETAPROFEN 200MG TABLETS</p> <p>IBUPROFEN; PARACETAMOL; CODEINE: MYPRODOL 250MG, 200MG & 10MG CAPSULES</p> <p>PARACETAMOL; IBUPROFEN: IBUMOL TABLETS</p>			
Levomepromazine	<p>No: registered drugs list</p> <p>No: list of B93 products</p>	No	No	No
Loperamide	<p>Yes: registered drugs list</p> <p>LOPERAMIDE HYDROCHLORIDE: LOPERASTAT 2MG/10ML SYRUP</p> <p>Yes: list of B93 products</p> <p>LOPERAMIDE HYDROCHLORIDE: IMODIUM 2MG TABLETS IMODIUM 0.2MG/ML SYRUP LOPERIUM 2MG TABLETS</p>	<p>Yes</p> <p>Indicated in the treatment of chronic diarrhea. Loperamide, calcium carbonate, avoidance of milk and milk products. <i>Because of serious adverse events, loperamide must not be used for children who are < 3 years of age, moderately or severely dehydrated, systemically ill, or with bloody diarrhea.</i></p>	<p>Yes</p> <p>Hospital and health center Drugs used in diarrhoea Loperamide 2mg tablet</p>	<p>Yes</p> <p>Lorazepam 4mg/ml injection 1ml Ampoules</p>
Lorazepam	<p>Yes: registered drugs list</p> <p>ATIVAN 4MG/ML INJECTION ATIVAN 0.5MG TABLETS</p> <p>Yes: list of B93 products</p> <p>APO-LORAZEPAM 0.5MG TABLETS APO-LORAZEPAM 1MG TABLETS APO-LORAZEPAM 2MG TABLETS ATIVAN 1MG TABLETS ATIVAN 2.5MG TABLETS</p>	No	No	Yes

	ATIVAN 4MG/ML SOLUTION FOR INJECTION TRANQIPAM 1MG TABLETS TRANQIPAM 2.5MG TABLETS TRANQIPAM 5MG TABLETS			
Magestrol Acetate	No: registered drugs list No: list of B93 products	No	No	No
Methadone (immediate release)	No: registered drugs list No: list of B93 products	No	No	No
Metoclopramide	Yes: registered drugs list METOCLOPRAMIDE HYDROCHLORIDE: SABAX METOCLOPRAMIDE 10MG/2ML INJECTION CLOPAMON 10MG/2ML INJECTION Yes: list of B93 products APO-METOCLOP 10MG TABLETS APO-METOCLOP 5MG TABLETS CLOPAMON 10MG/2ML INJECTION SANDOZ METOCLOPRAMIDE HCL 10 TABLETS METOCLOPRAMIDE HYDROCHLORIDE: CONTROMET 5MG/5ML SYRUP CONTROMET 10MG TABLETS CLOPERAN 10MG TABLETS BETACLOPRAMIDE 10MG TABLETS	No	Yes Hospital Antiemetic drug Metoclopramide 10mg tablet Metoclopramide 5mg/mL injection	Yes Also included 1mg/ml mixture (100ml)
Midazolam	No: registered drugs list Yes: list of B93 products DORMICUM 15MG TABLETS DORMICUM 15MG/3ML AMPOULES DORMICUM 5MG/5ML AMPOULES	No	Yes Specialist Pre-operative medication and sedation for short-term procedure Midazolam HCl 5mg/mL injection	Yes Listed as 5mg/3ml injection
Mineral oil enema	No: registered drugs list No: list of B93 products (not explicitly listed as enema) MINERAL OIL OILATUM BAR	No	No	No

<p>Mirtazapine (or any other generic dual action <i>NassA</i> or <i>SNRI</i>). <i>NaSSAs</i>: <i>Mianserin</i>, <i>Setiptiline</i>. <i>SNRIs</i>: <i>Duloxetine</i>, <i>venlafaxine</i>.</p>	<p>Yes: registered drugs list</p> <p>DULOXETINE HYDROCHLORIDE: CYMBALTA 60MG TABLETS CYMBALTA 30MG TABLETS YENTREVE 20MG CAPSULES YENTREVE 40MG CAPSULES</p> <p>VENLAFAXINE HYDROCHLORIDE: EFEXOR XR 75MG CAPSULES EFEXOR XR 150G CAPSULES VENLOR XR 75MG CAPSULES VENLOR XR 150MG CAPSULES</p> <p>Yes: list of B93 products</p> <p>MIANSERIN HYDROCHLORIDE: LANTANON 10MG TABLETS LANTANON 30MG TABLETS</p>	No	No	Yes Duloxetine 30mg tablets/capsules only
<p>Morphine</p>	<p>Yes: registered drugs list</p> <p>APOMORPHINE: UPRIMA 2MG SUBLINGUAL TABLETS UPRIMA 3MG SUBLINGUAL TABLETS</p> <p>MORPHINE SULPHATE: MERCK-MORPHINE SULPHATE 15MG/ML INJECTION MORPHINE SULPHATE-FRESENIUS 15MG/ML INJECTION</p> <p>Yes: list of B93 products</p> <p>MORPHINE SULPHATE: MORPHINE SULPHATE 10MG/ML INJECTION MORPHINE SULPHATE 15MG/ML INJECTION MST CONTINUS 10MG TABLETS MST CONTINUS 30MG TABLETS MORPHINE 10MG INJECTION</p>	No	<p>Yes</p> <p>Hospital Pre-operative medication and sedation for short-term procedure</p> <p>Morphine sulphate 10mg tablet Morphine sulphate 10mg/mL injection Morphine sulphate 15mg/mL injection Morphine sulphate 2mg/mL mixture/syrup Morphine sulphate 30mg tablet</p> <p>Hospital Opioid analgesic Morphine sulphate 10mg tablet Morphine sulphate 10mg/mL injection Morphine sulphate 15mg/mL injection Morphine sulphate 2mg/mL mixture Morphine sulphate 30mg tablet</p> <p>Hospital Drugs used in myocardial infarction Morphine sulphate 10mg/mL injection</p>	Yes

Octreotide	No: registered drugs list No: list of B93 products	No	No	Yes Octreotide 0.1mg/ml Injection 1ml ampoule included
Oral rehydration salts	Yes: registered drugs list ORAL REHYDRATION SALTS REHIDRAT ORANGE POWDER FOR ORAL SOLUTION Yes: list of B93 products ORAL REHYDRATION SALTS SCRIPTO-LYTE SOLUTION (Potassium chloride 3358mg, Sodium citrate 4698mg, Sodium chloride 4736mg, Detr. monohydr 3,96g)	No	Yes Hospital and health center Drugs used in diarrhoea Oral Rehydration Salt (ReSoMal) Oral Rehydration Salts 27.9g (Low Osmolar) Hospital and health center Oral preparation of drugs for correcting water, electrolyte and acid-base disturbances Oral Rehydration Salt (ReSoMal) Oral Rehydration Salts 27.9g (Low Osmolar)	Yes Also includes regular type
Oxycodone	No: registered drugs list No: list of B93 products	No	No	Yes
Paracetamol (Acetaminophen)	Yes: registered drugs list ASPIRIN, PARACETAMOL & CAFFEINE: COMPRAL 453.6/324/64.8MG HEADACHE POWDERS DIPHENHYDRAINE, PARACETAMOL & PSEUDOEPHEDRINE HYDROCHLORIDE: BENYLIN FOUR FLU LIQUID IBUPROFEN, PARACETAMOL & CODEINE: MYPRODOL 200/250/10MGPER 10ML SUSPENSION PYRADOL 120MG/5ML SYRUP PAINBLOK 120MG/5ML SYRUP PAINBLOK 500MG TABLETS NOVADOL (500MG) 30'S & 100'S TABLETS NOVADOL (500MG) 1000'S TABLETS DOLOROL ELIXIR 120MG/5ML SYRUP PANADO 120MG/5ML PAEDIATRIC SYRUP STRAWBERRY, 50ML PANADO 120MG/5ML PAEDIATRIC SYRUP STRAWBERRY, 100ML PANADO 500MG TABLETS	Yes Indicated for the symptomatic management of fever in cryptococcal meningitis treatment with amphotericin B. Two common infusion-related side effects often require symptomatic management: pethidine is effective in the management of rigors, and paracetamol can lessen fever.	Yes Hospital and health center (specialist for combination drug with Tramadol) Analgesics, Antipyretics, Nsaids, Drugs Used In Gout & Diseases Modifying Agent Used In Rheumatic Disorders Paracetamol 24mg/mL syrup Paracetamol 500mg tablet Hospital and health center Acute treatment of migraine headaches Paracetamol 500mg tablet	Yes Also includes 1 g solution for infusion

	<p>PANADO 500MG TABLETS PANADO 500MG TABLETS PANADO 500MG TABLETS PANADO 500MG TABLETS</p> <p>PARACETAMOL, CAFFEINE & ASCORBIC ACID: PANADO MEDSIP HONEY LEMON 800/50/10MG PER 5G SACHETS PANADO MEDSIP GINGER 800/50/10MG PER 5G SACHETS</p> <p>PARACETAMOL AND CODEINE: PAINAMOL 500/8MG TABLETS (1000s PACK) PAINAMOL 500/8MG TABLETS (20s PACK) PAINCODEIN 500/8MG TABLETS</p> <p>PARACETAMOL, CODEINE PHOSPHATE, CAFFEINE & MEPROBAMATE: VACUDOL FORTE TABLETS</p> <p>PARACETAMOL, CODEINE PHOSPHATE & PROMETHAZINE HYDROCHLORIDE: VACUDOL SYRUP</p> <p>PARACETAMOL & DEXTROPROPOXYPHENE: DISTALGESIC 325/50MG TABLETS</p> <p>PARACETAMOL, DIPHENHYDRAMINE, CAFFEINE & CODEINE PHOSPHATE: TENSOLVE TENSION HEADACHE TABLETS LENADOL TABLET</p> <p>PARACETAMOL, DOXYLAMINE SUCCINATE, CAFFEINE & CODEINE: PAINAMOL PLUS TABLETS B-DOL TABLETS TENSOPYN EFFERVESCENT TABLETS</p> <p>PARACETAMOL, PSEUDOEPHEDRINE & DEXTROMETHORPHAN HYDROBROMIDE: DEMAZINE 500/30/15MG TABLETS</p> <p>Yes: list of B93 products</p> <p>ASPIRIN; PARACETAMOL; CAFFEINE:</p>			
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	<p>GRAND-PA 453.6MG, 324MG & 64.8MG HEADACHE POWDERS GRAND-PA 226.8MG, 162MG & 32.4MG TABLETS</p> <p>DEXTROPROPOXYPHENE HCL; PARACETAMOL; PEMOLINE; L-GLUTAMINE: LENTOGESIC 35MG, 400MG & 25MG CAPSULES</p> <p>DEXTROPROPOXYPHENE HCI; PARACETAMOL & CAFFEINE: DOXYPOL 65/300/30MG CAPSULES</p> <p>IBUPROFEN; PARACETAMOL; CODEINE: MYPRODOL 250MG, 200MG & 10MG CAPSULES</p> <p>ORPHENADRINE CITRATE & PARACETAMOL: NORFLEX Co 35/450MG TABLETS</p> <p>ANTALGIC 120MG/5ML SYRUP ANTALGIC 500MG TABLETS DOLOROL 500MG TABLETS EMPAPED 250MG SUPPOSITORIES EMPAPED 125MG SUPPOSITORIES NAPAMOL 120MG/5ML ELIXIR NAPAMOL 500MG TABLETS PANADO 500MG TABLETS PANADO 500MG EFFERVESCENT TABLETS PANADO CHILDRENS 120MG CHEWABLE TABLETS PANADO INFANT 60MG/0.6ML DROPS PANADO PAEDIATRIC SYRUP ALCOHOL AND SUGAR FREE PARACETAMOL 500MG TABLETS PARACETAMOL SAD 120MG/5ML ELIXIR PROLIEF 500MG TABLETS SANDOZ PARACETAMOL 500 TABLETS CALPOL 120MG/5ML PAEDIATRIC SYRUP PARAMED 120MG/10ML SYRUP PARAMED 500MG TABLETS REMEDOL 500MG TABLETS REMEDOL 125MG SUPPOSITORIES REMEDOL 250MG SUPPOSITORIES REMEDOL 125MG/5ML SUSPENSION PAINAMOL 125MG/5ML SYRUP PAINAMOL 500MG TABLETS (GREEN)</p>			
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	<p>PARACETAMOL; ASCORBIC ACID: MED-LEMON COLD AND FLU CAPSULES</p> <p>PARACETAMOL; ASCORBIC ACID; PHENYLEPHRINE; CHLORPHENIRAMINE: COLDVICO CAPSULES COLSTAT CAPSULES ENDCOL CAPSULES GRIPPON CAPSULES</p> <p>PARACETAMOL; ASPIRIN; CAFFEINE: COMPRAL COMPOUND ANALGESIC TABLETS</p> <p>PARACETAMOL; ASPIRIN; CAFFEINE CITRATE & CAFFEINE ANHYDROUS: EXCEDRIN POWDER</p> <p>PARACETAMOL; ASPIRIN; CODEINE PHOSPHATE; MEPROBAMATE; CAFFEI: TENSTON SA CAPSULES</p> <p>PARACETAMOL; CODEINE PHOSPHATE; MEPROBAMATE; CAFFEI: TENSTON TABLETS</p> <p>PARACETAMOL; CAFFEINE; CODEINE PHOSPHATE; DOXYLAMINE SUCCINATE: ADCO-DOL TABLETS BETAPYN TABLETS FORPYN TABLETS SEDINOL TABLETS PYNSTOP TABLETS</p> <p>PARACETAMOL; CHLORPHERINAMINE MALEATE; EPHEDRINE: GRIPPON COLD & FLU SYRUP GRIPPON SYRUP</p> <p>PARACETAMOL; CHLORPHERINAMINE MALEATE; PHENYLEPHERINE & CAFFEINE: DEGORAN PLUS TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE;</p>			
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	<p>DIPHENHYDRAMINE; PHENOBARB; CAFFEINE: PROPAIN FORTE TABLETS PROPAIN FORTE CAPSULES</p> <p>PARACETAMOL & CODEINE PHOSPHATE: DOLOROL FORTE TABLETS EMPACOD TABLETS PAEDAGESIC SYRUP DINO COD TABLETS ADCO-NAPACOD 500/10MG TABLETS</p> <p>PARACETAMOL & CODEINE & VITAMIN C: PARACETACOD 500/10/50MG TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE: ANTIPYN TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE; DIPHENHYDRAMINE HC: PROPAIN TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE & MEPROBAMATE: PAINAGON TABLETS SCRIPTO-GESIC CAPSULES STILPANE TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; CAFFEINE; MEPROBAMATE: STOPAYNE CAPSULES STOPAYNE TABLETS TENSTON SA TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; DOXYLAMINE SUCCINT; CAFFEINE: SYNDOL TABLETS</p> <p>PARACETAMOL; CODEINE PHOSPHATE; MEPROBAMATE: MEPROGESIC TABLETS STILPANE CAPSULES</p> <p>PARACETAMOL; CODEINE PHOSPHATE;</p>			
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	<p>CAFFIENE; MEPROBAMATE: ANTIPYN FORTE TABLETS, 100S</p> <p>PARACETAMOL; CODEINE PHOSPHATE; PROMETHAZINE HYDROCHLORIDE: ANTIPYN SYRUP PAINAGON SYRUP LENTOGESIC SYRUP STOPAYNE SYRUP TENSTON SYRUP</p> <p>PARACETAMOL; CODEINE; PROMETHAZINE; CAMPHORATED OPIUM TINCT: STILPANE SYRUP</p> <p>PARACETAMOL; CODEINE; PROMETHAZINE; PSEUDOEPHEDRINE: COLCAPS SYRUP</p> <p>PARACETAMOL, DEXTROMETHORPHAN, PHENYLEPHERINE & CHLORPHENIRAMINE: 4C'S SYRUP</p> <p>PARACETAMOL; DEXTROPROPOXYPHENE NAPSYLATE; DIPHENHYDRAMINE: SYNAP FORTE TABLETS</p> <p>PARACETAMOL; DOXYLAMINE SUCCINATE: SYNETTE SYRUP</p> <p>PARACETAMOL; EPHEDRINE HCL; CHLORPHENIRAMINE MAL; CAFFEINE: COLCLEER TABLETS</p> <p>PARACETAMOL; IBUPROFEN: IBUMOL TABLETS</p> <p>PARACETAMOL; MEPHENESIN: SPASMEND TABLETS</p> <p>PARACETAMOL & ORPHENADRINE CITRATE: ADCO-BESENOL 450/35MG TABLETS</p> <p>PARACETAMOL; PHENYLEPHRINE HCL:</p>			
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	<p>FLUTEX JUNIOR COLD AND FLU SYRUP</p> <p>PARACETAMOL; PHENYLEPHRINE HCL; CHLORPHENIRAMINE; CAFFEINE: HISTACON CAPSULES</p> <p>PARACETAMOL; PHENYLEPHRINE HCL & CHLORPHENIRAMINE: FLUMEL TABLETS FLUSTOP CAPSULES</p> <p>PARACETAMOL; PHENYLEPHRINE HCL, CHLORPHENIRAMINE & CAFFEINE: ASALEN TABLETS</p> <p>PARACETAMOL; PSEUDOEPHEDRINE HCL: SINUMAX TABLETS SUDAGESIC TABLETS</p> <p>PARACETAMOL; SALICYLAMIDE; ASCORBIC ACID; PHENYLEPHRINE; CHL: HISTAMED COMPOUND CAPSULES</p> <p>PROPOXYPHENE HYDROCHLORIDE; PARACETAMOL: DOXYFENE 65/250MG CAPSULES</p>			
<p>Prednisolone (as an alternative to Dexamethasone)</p>	<p>Yes: registered drugs list</p> <p>PULMISON 20MG TABLETS PREDNISOLONE 5MG TABLETS PRELONE 15MG/5ML SYRUP CONOPRED PLUS 1% EYE DROPS COROTROPE 5MG TABLETS, BP PREDNISOLONE PULMISON PAEDIATRIC 5MG/5ML SOLUTION PREFLAM 15MG/5ML SYRUP PREDNISOLONE 5MG TABLETS</p> <p>Yes: list of B93 products</p> <p>METHYLPREDNISOLONE ACETATE: DEPO-MEDROL 80MG INJECTION DEPO-MEDROL 40MG INJECTION DEPO-PROVERA 150 INJECTION</p>	<p>Yes</p> <p>Indicted in the treatment of Pneumocystis Jiroveci Pneumonia.</p> <p>ξ If oxygen saturation is < 90%, or if there is clinical evidence of oxygen desaturation, administer high-dose steroids, with gradual tapering over 21 days (prednisolone 40mg BD X 5 days, then 40mg OD X 5 days, then 20mg OD X 11 days; alternative regimen: prednisolone 1mg/kg BD X 5 days, then taper over next 16 days).</p>	<p>Yes</p> <p>Specialist and hospital Non – opioid analgesics and NSAIDs Methylprednisolone 1g pvd injection Methylprednisolone 80mg/mL injection</p> <p>Hospital Anti-Allergics And Drugs Used In Anaphylaxis Methylprednisolone 80mg/mL injection Prednisolone 5mg tablet</p> <p>Hospital Hormones and antihormones Prednisolone 1mg tablet Prednisolone 5mg tablet</p> <p>Hospital</p>	<p>Yes</p> <p>Also includes an enema preparation</p>

	<p>MEDROL 16MG TABLETS MEDROL 4MG TABLETS</p> <p>METHYLPREDNISOLONE ACETATE; LIGNOCAINE HYDROCHLORIDE: DEPO-MEDROL WITH LIDOCAINE 40MG & 10MG/ML INJECTION</p> <p>METHYLPREDNISOLONE SODIUM SUCCINATE: METYPRESOL 125MG POWDER FOR INJECTION METYPRESOL 1G POWDER FOR INJECTION METYPRESOL 2G POWDER FOR INJECTION METYPRESOL 500MG POWDER FOR INJECTION SOLU-MEDROL 1000G POWDER FOR INJECTION SOLU-MEDROL 125MG POWDER FOR INJECTION SOLU-MEDROL 40MG POWDER FOR INJECTION SOLU-MEDROL 500MG POWDER FOR INJECTION</p> <p>PREDNISOLONE 5MG TABLETS</p> <p>PREDNISOLONE SODIUM PHOSPHATE: PRED-FORTE 10MG/ML STERILE EYE SUSPENSION MINIMS PREDNISOLONE SODIUM PHOSPHATE 0.5% EYE DROPS</p> <p>PREDNISOLONE ACETATE: PRED-MILD 1.2MG/ML STERILE EYE SUSPENSION</p> <p>PREDNISOLONE CAP; CINCHOCAINE: SCHERIPROCT 1.9/5MG PER 1G OINTMENT SCHERIPROCT 1.3/1MG SUPPOSITORIES</p>		<p>Adrenal hormones and synthetic substitutes Prednisolone 5mg tablet</p> <p>Hospital and health center Anti-inflammatory and astringent ophthalmic agents Prednisolone 0.12% eye drops Prednisolone 1% eye drops</p> <p>Hospital Antiasthmatic drugs Prednisolone 3mg/mL oral solution</p>	
Senna	<p>No: registered drugs list</p> <p>Yes: list of B93 products</p> <p>PLANTAGO OVATA SEED; ISPAGHULA HUSK; TINNEVELLY SENNA PODS: AGIOLAX GRANULES</p> <p>SENNA GLYCOSIDES BLACK FOREST SENNA 15MG TABLETS</p> <p>SENNA LEAVES BLACK FOREST HERBAL TEA</p>	No	No	<p>Yes Senna Extract (7.5mg Sennosides) Tablets</p>

Tramadol	Yes: registered drugs list TRAMADOL HYDROCHLORIDE: TRAMAHEXAL 100MG/2ML INJECTION No: list of B93 products	No	Yes Specialist Non – opioid analgesics and NSAIDs Tramadol 37.5mg+Paracetamol 325mg	Yes
Trazodone	No: registered drugs list No: list of B93 products	No	No	Yes Trazodone 50mg Tablets and 100mg tablets
Zolpidem (still patented)	Yes: registered drugs list ZOLPIDEM HEMITARTARATE: ADCO-ZOLPIDERM 10MG TABLETS No: list of B93 products	No	No	No

The following information resources were utilized in this analysis:

- Registered BOT products blue book (as pdf) and listed B93 products blue book (as pdf). These two documents together form the complete list of drugs registered for importation into Botswana.
- Botswana National HIV/AIDS Treatment Guidelines: 2008 Version. Ministry of Health, Department of HIV/AIDS Prevention and Care, November 1, 2008 Edition.
- “BEDL for 2nd edition” (Botswana Essential Drugs List).
- “CMS ordering list excel 6 march 2009 v17 to BEDAP xls 2.xls” (Central Medical Stores product list). A Central Medical Stores price list (Central Medical Stores Ordering Module VI.05.01 16/07/2009 08:35 ORD1020 Price) is available, but was not consulted in this analysis beyond random spot checks to verify that the drugs listed in the product catalogue and the price list were the same.

The 2008 version of the Botswana National HIV/AIDS Treatment Guidelines does not contain a reference to hospice or palliative care. Some of the medicines listed in the IAHP list are identified in the guidelines for treatment of specific conditions.

Medicines on the IAHP list that are in the STGs, on the EML, and are registered (+ STG + EML + Reg)	Medicines on the IAHP list that are in the STGs, on the EML, and not registered (+STG +EML – Reg)
Amitriptyline (included in CMS list)	Gabapentin (included in CMS list)
Carbamazepine (included in CMS list)	
Loperamide (included in CMS list)	
Paracetamol (included in CMS list)	
Prednisolone (included in CMS list)	
Medicines on the IAHP list that are not in the STGs nor on the EML, and not registered (- STG - EML - Reg)	Medicines on the IAHP list that are not in the STGs, nor on the EML, and are registered (-STG –EML + Reg)
Fentanyl (transdermal patch) (not in CMS list)	Diphenhydramine (not in CMS list)
Levomepromazine (not in CMS list)	Lorazepam (included in CMS list)
Magestrol Acetate (not in CMS list)	Duloxetine, venlafaxine (only Duloxetine included in CMS list)
Methadone (not in CMS list)	Senna (included in CMS list)
Mineral oil enema (not in CMS list)	Zolpidem (not in CMS list)
Octreotide (included in CMS list)	
Oxycodone (included in CMS list)	
Trazodone (included in CMS list)	
Medicines on the IAHP list that are not in the STGs, but are on the EML, and are not registered (-STG +EML –REG)	Medicines on the IAHP list that are not in the STGs, but that are on the EML, and are registered (-STG +EML + Reg)
	Bisacodyl (included in CMS list)
	Citalopram, escitalopram, fluoxetine, sertraline (only citalopram, fluoxetine, sertraline included in CMS list)
	Codeine (included in CMS list)
	Dexamethasone (included in CMS list)
	Diazepam (included in CMS list)
	Diclofenac (included in CMS list)
	Haloperidol (included in CMS list)
	Hyoscine butylbromide (included in CMS list)
	Ibuprofen (included in CMS list)
	Metoclopramide (included in CMS list)
	Midazolam (included in CMS list)
	Morphine (included in CMS list)
	Oral rehydration salts (included in CMS list)
	Tramadol (included in CMS list)

COTE D'IVOIRE

Generic drug name/INN	Product included in STGs?	Included in Essential Medicines List?
Amitriptyline	Yes Laroxyl (amitriptyline) is indicated in the treatment of post-herpetic pain.	Yes
Bisacodyl	No	No
Carbamazepine	Yes Tegretol (carbamazepine) is indicated in the treatment of post-herpetic pain.	Yes
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	No	No
Codeine	Yes Treatment of headaches indicated with paracetamol with codeine. Paracetamol with codeine indicated in the treatment of post-herpetic pain.	Yes (in combination with with paracetamol)
Dexamethasone	Yes Corticosteroids are indicated in the treatment of pneumonia.	Yes
Diazepam	No	Yes
Diclofenac	No	Yes (in combination with Ketoprofen / Piroxicam)
Diphenhydramine	Yes Antihistamines indicated in the treatment of pruritis associated with HIV infection.	No
Fentanyl (transdermal patch)	No	Yes (but does not include the patch, only oral and injectable)
Gabapentin	No	No
Haloperidol	No	Yes
Hyoscine butylbromide	No	No
Ibuprofen	No	No
Levomepromazine	No	No
Loperamide	No	Yes
Lorazepam	No	No
Magestrol Acetate	No	No
Methadone (immediate release)	No	No
Metoclopramide	No	No
Midazolam	No	Yes
Mineral oil enema	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setipiline. SNRIs: Duloxetine, venlafaxine.	No	No

Morphine	Yes Treatment of headaches indicated with a morphine derivative.	Yes
Octreotide	No	No
Oral rehydration salts	No	Yes
Oxycodone	No	No
Paracetamol (Acetaminophen)	Yes Treatment of headaches indicated with paracetamol with codeine. Paracetamol indicated in the treatment of pain associated with herpes infection. Paracetamol with codeine indicated in the treatment of post-herpetic pain. Paracetamol is indicated in the treatment of fever in the following dose/schedule: 20-30mg/kg/dose every 6 hours, not to exceed 5 doses.	Yes
Prednisolone (as an alternative to Dexamethasone)	Yes Corticosteroids are indicated in the treatment of pneumonia.	No
Senna	No	No
Tramadol	No	Yes
Trazodone	No	No
Zolpidem (still patented)	No	No

The following information resources were utilized in this analysis:

- Standard Treatment Guidelines: Republique de Cote D'Ivoire, Guide de Prise en Charge de L'infection a VIH/SIDA de L'adulte et de L'enfant, NIVEAUC 2e Edition, Aout 2005, PN PEC: Programme National de Prise en Charge Medicale des Personnes Vivants Avec le V.I.H/SIDA. Ministere d'Etat, Ministere de la Sante et de la Population, Ministere de la Lutte contre le SIDA. (Note: there is no mention of hospice or palliative care in the STGs.)
- Essential Medicines List: Liste Nationale De Medicaments Essentiels-Côte D'ivoire 2007.

A list or database of registered drugs and a Central Medical Stores (PSP) Catalog were unavailable.

Medicines on the IAHP list that are in the STGs and on the EML (+ STG +EML)	Medicines on the IAHP list that are not in the STGs, nor on the EML (-STG -EML)
Amitriptyline	Bisacodyl
Carbamazepine	Citalopram and related drugs
Codeine	Gabapentin
Dexamethasone	Hyoscine butylbromide
Morphine	Ibuprofen
Paracetamol	Levopromazine
	Lorazepam
	Magestrol Acetate
	Methadone
	Metoclopramide
	Mineral Oil Enema
	Mirtazapine and related drugs
	Octreotide
	Oxycodone
	Senna
	Trazodone
	Zolpidem

Medicines on the IAHP list that are in the STGs, but not on the EML (+ STG - EML)	Medicines on the IAHP list that are not in the STGs, but are on the EML, (- STG +EML)
Diphenhydramine	Diazepam
Prednisolone	Diclofenac
	Fentanyl
	Haloperidol
	Loperamide
	Midazolam
	Oral rehydration salts
	Tramadol

ETHIOPIA

Generic drug name/INN	Product Registered? Proprietary name(s), strength and form	Product included in STGs?	Included in Essential Medicines List?
Amitriptyline	Yes Tryptizol 25mg tablet Tryptizol 10mg tablet Amitriptyline + Chlordiazepoxide 12.5mg+5mg capsule	No	Yes S.300 Antidepressants Amitriptyline Tablet, 10mg, 25mg, 50mg
Bisacodyl	Yes Ducolax 10mg suppository Ducolax 5mg suppository Ducolax 5mg tablet Laxocodyl 5mg tablet Bisacodyl 5mg tablet Laxin 10mg tablet	No	Yes GI.500 Cathartics and Laxatives Bisacodyl Suppository, 5mg, 10mg
Carbamazepine	Yes Tegretol 200mg tablet Carbatol-200 200mg tablet Convulax 200mg tablet Carbatol 200mg tablet	No Mentioned only in relation to adverse reactions and drug interactions.	Yes NS.400 Anticonvulsants Carbamazepine Syrup, 100mg/5ml Tablet, 200mg
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	Yes Prozac (fluoxetine HCl) 20mg capsule Fludac (fluoxetine HCl) 20mg capsule Trizax (fluoxetine HCl) 20mg capsule Serlin (sertraline HCl) 50 mg tablet	No	None of the qualified products are included
Codeine	No	Yes Opioids are indicated in the control of pain in children when NSAIDS do not effectively control pain.	No
Dexamethasone	Yes Decadron Phosphate 4mg/ml Injection Dexona 0.5mg Tablet Dexona 4mg/ml Injection Dexamethasone Phosphate 4mg/ml Injection Maxidex 1mg/ml Eye drop	Yes Indicated as part of the treatment for toxoplasmosis in the pediatric guidelines. Dexamethasone 4mg po or IV every six hours if there is cerebral oedema or CSF protein is very elevated (>1000mg/dl). This should be discontinued as soon as possible.	Yes ED.100 Corticosteroidal preparations Dexamethasone Tablet ,0.5mg, 0.75mg, 1mg, 2mg Injection, 4mg/ml, 25mg/ml

	<p>Maxidex 0.10% Eye ointment Maxidex 0.1% Eye suspension Dexamethasone 8mg/2ml Injection Dexamethasone 4mg/ml Injection Doxiproct Plus (Calcium Dobesilate + Lidocaine+ dexamethasone) 40mg + 20mg + 0.25mg/gm Ointment Dexamethasone sodium phosphate 4mg/ml Injection Ronic (Dexamethasone sodium phosphate) 1mg/ml Eye drops</p>	<p>Indicated as part of the treatment for toxoplasmosis in the adult and adolescent guidelines. Corticosteroids (dexamethasone 4mg PO or IV q6hrs) used if cerebral oedema present, discontinued as soon as clinically feasible. Corticosteroids might mask the evaluation of the clinical response particularly when therapy is initiated empirically.</p> <p>Indicated as part of the treatment for CNS TB in the adult and adolescent guidelines. Dexamethasone intravenously for the first three weeks (initially 0.4 mg/kg per day, tapering to 0.1 mg/kg per day), followed by oral administration beginning 4mg per day, tapered over three to four weeks at the rate of 1 mg decrease in the daily dose each week.</p>	<p>OP.304 Anti-Inflammatories Dexamethasone Solution (eye drop), 5%</p>
Diazepam	<p>Yes</p> <p>22 registered products under the following brand names:</p> <p>Dialag Valium Stesolid Stesolid action Tranquin</p> <p>And in the following strengths and forms:</p> <p>2mg tablet 5mg tablet 10mg tablet 10mg/ml injection 10mg/2ml injection 5mg/ml injection 2mg/5ml syrup 5mg suppository 10mg suppository 0.4mg/ml suspension 0.4mg/ml syrup</p>	<p>Yes</p> <p>Indicated in the treatment of seizure. Slowly administer Diazepam 5-10 mg possibly repeat dose according to need and then Dilantinization.</p>	<p>Yes</p> <p>NS.200 Sedatives, Hypnotics and Tranquilizers Diazepam Injection, 5mg/ml Tablet, 2mg, 5mg Syrup, 2mg/5ml</p>
Diclofenac	<p>Yes</p> <p>57 registered products under 39 brand names (see list below table) representing all three chemical compounds:</p>	<p>Yes</p> <p>NSAIDS are indicated in the control of pain in children.</p>	<p>Yes</p> <p>MS.100 Antirheumatics Diclofenac sodium</p>

	<p>Diclofenac Diclofenac sodium Diclofenac potassium</p> <p>And in the following strengths and forms:</p> <p>25mg tablet 50mg tablet 100mg tablet 50mg E.C. tablet 50mg disp. tablet 75mg S.R. tablet 12.5mg suppository 100mg suppository 25mg/ml injection 75mg/3ml injection 25mg capsule 100mg capsule 50mg/sachet powder for solution</p>	<p>However, there is no specific reference to Diclofenac in either of the guidelines.</p>	<p>Injection, 25mg/ml, 3ml ampoule Suppository, 100mg Tablet, (e/c /coated), 25mg, 50mg</p>
Diphenhydramine	<p>Yes</p> <p>Allergina 25mg tablet Allergina 25mg cream</p>	<p>Yes</p> <p>Recommended for pre-treatment care of patients receiving amphotericin B.</p> <p>Patients treated with amphotericin B should be monitored for dose-dependent nephrotoxicity and electrolyte disturbances. Infusion-related adverse reactions (e.g., fever, chills, renal tubular acidosis, hypokalemia, orthostatic hypotension, tachycardia, nausea, headache, vomiting, anaemia, anorexia, and phlebitis) might be ameliorated by pre-treatment with acetaminophen, diphenhydramine, or corticosteroids administered approximately 30minutes before the infusion.</p>	<p>No</p>
Fentanyl (transdermal patch)	<p>No</p>	<p>No</p>	<p>No</p>
Gabapentin	<p>No</p>	<p>No</p>	<p>No</p>
Haloperidol	<p>Yes</p> <p>Serenace 5mg/ml injection Serenace 1.5mg capsule Serenace 5mg tablet Serenace 10mg tablet Serenace (no strength noted) tablet</p>	<p>No</p>	<p>NS.200 Sedatives, Hypnotics and Tranquilizers Haloperidol Injection, 5mg/ml in 1ml ampoule</p>

	Serenace liquid		Injection (Depot. oily), 50mg/ml, 100mg/ml in ampoule of 1ml Tablet, 0.5mg, 1mg
Hyoscine butylbromide	Yes Copan 20mg/ml injection Buscopan 10mg tablet Buscopan 1mg/ml liquid Buscopan 20mg/ml injection Butopan 10mg tablet Hypopan 5mg/ml syrup	No	No
Ibuprofen	Yes 29 registered products under 16 brand names (see list below table) in the following strengths and forms: 200mg tablet 400mg tablet 100mg/5ml oral suspension 100mg/5ml syrup 300mg capsule	Yes NSAIDS are indicated in the control of pain in children.	Yes MS.100 Antirheumatics Ibuprofen Capsule, 300mg Syrup, 100mg/5ml Tablet, 200mg, 400mg
Levomepromazine	No	No	No
Loperamide	Yes Immodium (loperamide HCl) 0.2mg/ml solution	Yes Indicated in the management of diarrhea in adults and adolescents. Use anti-diarrhoeal agents Loperamide 4mg stat then 2mg after each bowel motion or Diphenoxylate 5mg QID. Necessary caution should be taken to avoid anti-diarrhoeal agents in bacterial or parasitic infectious colitis or enteritis, since toxic mega colon may occur.	Yes GI.600 Drugs Used in Diarrhea Loperamide Hydrochloride Capsule, 2mg
Lorazepam	Yes Loperamide 2mg tablet	No	No
Magestrol Acetate	No	No	No
Methadone (immediate release)	No	No	No
Metoclopramide	Yes Premosan 4mg/ml oral drops Premosan 10mg tablet	Yes Indicated in the treatment of nausea from ARV treatment. Antiemetics such as metoclopramide, promethazine given half	Yes GI.400 Antiemetics Metoclopramide

	Premosan 5mg/ml injection Metoclopramide 5mg/ml injection Meoclor 5mg/ml syrup	an hour before the antiretroviral dose up to three times daily may be helpful. If the nausea does not settle, refer for expert advice or consider changing ARV regimen (see Table 16).	Injection, 5mg/ml in 2ml ampoule Tablet, 10mg (Hydrochloride)
Midazolam	No	No Identified as a contraindicated drug with some ARVs.	No
Mineral oil enema	No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	No	No	None of the qualified products are included
Morphine	No	Yes Opioids are indicated in the control of pain in children when NSAIDS do not effectively control pain.	Yes NS.100 Analgesics/Antipyretics Morphine hydrochloride Injection, 10mg/ml
Octreotide	No	No	No
Oral rehydration salts	No	No	No
Oxycodone	No	No	No
Paracetamol (Acetaminophen)	Yes Pacimol 500mg tablet Pacimol tablet 500mg tablet Panadol 500mg tablet Pyral 100/ml syrup Pyral 2.4g/100ml syrup Paracetamol 120mg/5ml oral suspension	Yes Indicated for pain control in children. Palliative care for dying children should be at home if possible. The local primary healthcare service must assist in providing care. It is important to reassure the parents/caregivers, that the child has not been abandoned by the health service. Pain control is an important aspect of palliative care often overlooked in children. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However, if pain control cannot be achieved with these, it is essential children be helped to be pain free, and opioids should be used if unavoidable. Indicated for pain control with bacterial upper respiratory tract infections in adults and adolescents. Give paracetamol for pain. Indicated for treatment of fever of unknown origin in adults and adolescents. Management of fever includes supportive care, palliative care and treatment of underlying cause. Supportive care includes correction of fluid and electrolyte deficit; and because fever enhances catabolism, offer adequate nutritional supplement.	Yes NS.100 Analgesics/Antipyretics Paracetamol Elixir, 120mg/5ml Tablet, 500mg

		The fever should come down to normal using antipyretics such as a standing dose of paracetamol.	
Prednisolone (as an alternative to Dexamethasone)	Yes Sinitosone (Prednisolone Stearoylglycolate eq. to Prednisolone) 3.5mg tablet	Yes Used in the treatment of pneumonia jiroveci in adults and adolescents. Treatment: use Trimethoprim 15-25 mg/Kg, which amounts to cotrimoxazole 3-4 single-strength tablets three or four times daily for 21 days. Close monitoring is necessary during the initial five days of treatment and if patient grows sicker, administration of oxygen is useful. In severely ill patients with marked respiratory distress and extensive chest X-ray findings, prednisolone has to be given simultaneously; 80mg for the first five days, 40 mg until 11 days and 20 mg until completion of cotrimoxazole. Used in the treatment of pruritic popular eruption in adults and adolescents. Excoriation results in pigmentation, scarring and nodules. Treat with topical steroid and oral antihistamines; however it is often refractory to treatment and hence short course prednisolone may be used.	Yes ED.100 Corticosteroidal preparations Prednisolone Tablet, 5mg OP.304 Anti-Inflammatories Prednisolone Suspension (eye drop, Acetate), 0.25% +0.2% Methylprednisolone acetate Injection (Acetate), 40mg/ml in 1ml ampoule
Senna	No	No	No
Tramadol	Yes Domadol (tramadol) 50mg capsule Domadol (tramadol)50mg/ml injection Domadol (tramadol) 100mg/ml injection Pengesic (tramadol HCl) 100mg tablet Traloflam (tramadol HCl) 50mg capsule	No	No
Trazodone	No	No	No
Zolpidem (still patented)	No	No	No

The following information resources were utilized in this analysis:

- Copy of list of registered drug products (Excel spreadsheet).
- Standard Treatment Guidelines: Guidelines for Paediatric HIV/AIDS Care and Treatment in Ethiopia, Federal HIV/AIDS Prevention and Control Office, Federal Ministry of Health, July 2008, and Guidelines for Management of Opportunistic Infections and Anti-Retroviral Treatment in Adolescents and Adults in Ethiopia (2008), Federal HIV/AIDS Prevention and Control Office Federal Ministry of Health, March 2008.
- List of Essential Drugs for Ethiopia, 2007.

Diclofenac brand names:

Voltaren (diclofenac sodium)
 Voltaren 12.5 (diclofenac sodium)
 Voltaren 50 (diclofenac sodium)
 Voltaren D50 (diclofenac sodium)
 Voltaren 100
 Analpan
 Deflamat (diclofenac sodium)
 Dedlor (diclofenac sodium)
 Betafil (diclofenac sodium)
 Remethan (diclofenac sodium)
 Remethan E.C. (diclofenac sodium)
 Remethan S.R. (diclofenac sodium)
 Diclon 50 (diclofenac sodium)
 Diclo-Denk 100 Retard (diclofenac sodium)
 Diclo denk
 Diclo-Denk (diclofenac sodium)
 Taks (diclofenac sodium)
 Dicloflame (diclofenac sodium)
 Grofenac (diclofenac sodium)
 Dicloran (diclofenac sodium)

Almiral (diclofenac sodium)
 Dflam (diclofenac sodium)
 Dyclomax
 Diclofenac sodium
 Inflan
 Optifenac-50
 Vurdon
 Cataflam 50 (diclofenac potassium)
 Diclonap (diclofenac sodium)
 Dicloas
 Diclofenac (diclofenac sodium)
 Volfast (diclofenac potassium)
 Voldic-K (diclofenac potassium)
 Clofenac SR (diclofenac sodium)
 Grofrenac Retard (diclofenac sodium)
 Grofrenac (diclofenac sodium)
 Parafortan
 Declophen (diclofenac sodium)
 Flugofenac (diclofenac sodium)

Ibuprofen brand names:

Ibuprofen-denk
 Ibulgan
 Febid
 Fenbid Spansule
 Fenbid
 Ibunate
 Ibuprofen
 Brufen 400

Uniprofen
 I-Profen
 Brufen
 Ibu
 Intafen
 Butafen
 Ibuprofen F.C.
 Metorin I.B

Medicines on the IAHPC list that are in the STGs, not on the EML, and are registered (+ Reg + STG -EML)	Medicines on the IAHPC list that are in the STGs, on the EML, and not registered (- Reg + STG +EML)
Diphenhydramine	Morphine

Medicines on the IAHPC list that are in the STGs, on the EML, and are registered (+ Reg + STG +EML)	Medicines on the IAHPC list that are in the STGs, not on the EML, and not registered (- Reg + STG -EML)
Dexamethasone	Codeine
Diazepam	
Diclofenac	
Ibuprofen	
Loperamide	
Metoclopramide	
Paracetamol	
Prednisolone	

Medicines on the IAHPC list that are not in the STGs nor on the EML, and not registered (-Reg - STG -EML)	Medicines on the IAHPC list that are not in the STGs, nor on the EML, and are registered (+ Reg -STG -EML)
Fentanyl	Carbamazepine (and related drugs)
Gabapentin	Hyoscine butylbromide
Levomepromazine	Lorazepam
Magestrol Acetate	Tramadol
Methadone	
Midazolam	
Mineral oil enema	
Mirtazapine (and related drugs)	
Octreotide	
Oral rehydration salts	
Oxycodone	
Senna	
Trazodone	
Zolpidem	

Medicines on the IAHPC list that are not in the STGs, but are on the EML, and are not registered (-REG -STG +EML)	Medicines on the IAHPC list that are not in the STGs, but that are on the EML, and are registered (+ Reg -STG +EML)
	Amitriptyline
	Bisacodyl
	Carbamazepine
	Haloperidol

Guidelines for Pediatric HIV/AIDS Care and Treatment in Ethiopia, Federal HIV/AIDS Prevention and Control Office, Federal Ministry of Health, July 2008

“13. Palliative Care

Children who are terminally ill should be provided with supportive care to:

- Provide emotional support to the dying child and grieving family
- Keep the patient as comfortable as possible and maintain a good quality of life

It is important to:

- Relieve stress and pain in the child
- Treat easily manageable conditions
- Limit hospitalizations and reduce length of stay

13.1 Home Care

Palliative care for dying children should be at home if possible. The local primary healthcare service must assist in providing care. It is important to reassure the parents/caregivers, that the child has not been abandoned by the health service. Pain control is an important aspect of palliative care often overlooked in children. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However, if pain control cannot be achieved with these, it is essential children be helped to be pain free, and opioids should be used if unavoidable. Management of the underlying condition is an important part of pain control. Collaboration with NGOs and community groups which provide palliative care services will improve service utilization. Refer to the IMAI Palliative Care Guidelines for first level facility health workers for further details.

13.2 Inpatient Management

Patients should be managed in hospital if they have respiratory distress, need IV/NG fluids or if caregivers are unable to cope at home. Laboratory tests should be kept to a minimum and pain should be controlled. Pain medications should be provided on a regular, not as-needed basis. Assess pain frequently, anticipating complications of analgesic medications (e.g. constipation) and manage accordingly.”

Guidelines for Management of Opportunistic Infections and Anti-Retroviral Treatment in Adolescents and Adults in Ethiopia (2008), Federal HIV/AIDS Prevention and Control Office Federal Ministry of Health, March 2008

There is no section within the guidelines that addresses hospice and palliative care. However, palliative care is referenced three times, but in relation to comfort measures for specific conditions. In these cases, no specific medications are identified.

- Palliative care is mentioned in the section on peri-anal abscess: “Palliative care including Sitzz baths and analgesics are also important.”
- In the section on management of fever, the guidelines say: “Treatment: Management of fever includes supportive care, palliative care and treatment of underlying cause.”
- Palliative care is also mentioned in the section on post-partum care: “Patients who need palliative care should be referred to the appropriate agencies for home-based care with clinic backup.”

PFSA: The Pharmaceutical Fund and Supply Agency³

Pharmaceutical Fund and Supply Agency (PFSA) was established in order to overcome the historical challenges and problems in the public pharmaceuticals supply system and assure uninterrupted supply of pharmaceuticals to the public at an affordable price.

³ <http://www.moh.gov.et> (accessed February 4, 2010)

The objectives of PFSA are to:

- Enable public health institutions to supply to the public essential and quality pharmaceuticals at affordable price in a sustainable manner.
- Create enabling conditions to mobilize funds.

The PFSA core process represents sub-processes that are designed to provide an end-to-end process in order to provide quality product and service as well as to satisfy the needs and expectations of customers/stakeholders.

The sub-processes are:

- **Forecasting & Capacity Building:** involves reviewing the prevalent health problems, health expansion data, need based pharmaceuticals query from health facilities, and produce empirical purchase request.
- **Procurement:** involves in preparation of tender document, selecting procurement method, managing tenders, establishing contract terms, assuring drug quality and adherence to contract terms.
- **Storage & Inventory Management:** ensures the receipt of pharmaceuticals, stock control and management, dispatching stock, and manage procurement & stock movements via computerized system.
- **Distribution:** focuses on the delivery of pharmaceuticals to depots and public health facilities.

Pharmaceutical Services⁴

The objective of the pharmaceutical services component is to ensure a regular adequate supply of effective, safe and affordable essential drugs, medical supplies and equipment in the public and private health sector. It also ensures the rational usage of pharmaceuticals.

The Drug Administration and Control Authority (DACA) and Pharmaceutical Administration and Supply Services (PPASS) of the Federal Ministry of Health are the two responsible bodies in the pharmaceutical sector.

The local production of pharmaceuticals and medical supplies has increased consistently. By the end of 2003, 3 of the 13 pharmaceutical manufacturers have received DACA's licenses which give them the legal authority to export pharmaceuticals to Ethiopia. The number of importers has also increased from 49 in 2001/02 to 70 in 2003/04.

The national availability of essential key drugs, based on a survey result published in 2003, was 75%, 85% and 95% for public health facilities, regional drug stores and private retail drug outlets, respectively. The general availability of drugs has improved significantly. On the other hand, the presence of expired drugs by year 2003 was, on average, 8%, 2% and 3% in health facilities, regional drug stores and private retail drug outlets, respectively.

Drug formulary and standard treatment guide for different levels of health facilities have also been developed. Furthermore, guidelines have been developed and distributed on drug and pesticide registration, adverse drug reaction reporting, drug advertising and promoting, imports and wholesalers working methods and intravenous fluid production standards in hospitals. Inspection guideline has also been distributed in all regions where the regional pharmacists were given delegated responsibilities for inspection and licensing. In year 2003/04 (1996 EFY), achievements made in inspection of health care units and drug outlets; and in-service training on drug management were 65% and 76% of the planned targets respectively. To provide new equipments and build the capacity of drug and quality laboratories including a complete condom testing equipment has been installed at a cost of Birr 3.5 million.

With regards to the availability of adequate human resource in this field, the number of schools offering diploma programs for pharmacy technicians has increased resulting in an increased supply of technicians and pharmacists in the public health sector. In 2002 (1994 EFY), a School of Pharmacy has opened in Jimma University. In the same year, the School of Pharmacy in Addis Ababa University started two postgraduate courses. The private institutions have also started providing training in the field of Pharmacy.

No documents or dedicated website was found for the Pharmaceutical Administration and Supply Services (PPASS) of the Federal Ministry of Health.

⁴ <http://www.moh.gov.et> (accessed February 4, 2010)

The Drug Administration and Control Authority (DACA)⁵

List of Drugs and Formularies

- **Ethiopian National Drug Formulary, First Edition**
Drug Administration and Control Authority, 2008
- **Formulary of Narcotic Drugs and Psychotropic Substances for Ethiopia**
Drug Administration and Control Authority (DACA) of Ethiopia. Addis Ababa, February 2004 (Word document)
- **List of Drugs for Ethiopia**
Lide (Fifth Edition)
Drug Administration and Control Authority (DACA) of Ethiopia
Addis Ababa September, 2007
- **Ethiopia Essential Drugs List**
(No descriptive information provided on or for this Word document)
- **Ethiopia List of Registered Drugs**
02-Feb-0533
- **Ethiopia List of Registered Drug Products**
(Excel file)

Strategic Framework for Referral and Linkages Between HCT and Chronic HIV Care Services in Ethiopia, 2009⁶

Mentions palliative care in three instances.

⁵ <http://www.daca.gov.et/> (accessed February 4, 2010)

⁶ <http://www.moh.gov.et> (accessed February 4, 2010)

MOZAMBIQUE

Generic drug name/INN (Name in Portuguese follows the English name if it is different than the English)	Product included in the National Formulary?	Formulary reference number, generic name, form and strength, followed by dosing recommendations.	Product included in STGs?
Amitriptyline / Amitriptilina	Yes	<p>(3) 7-G-1 AMITRIPTILINA Comp. 10 mg</p> <p>(3) 7-G-2 AMITRIPTILINA Comp. 25 mg</p> <p>DOSES:</p> <p>(1) No tratamento da depressão: Iniciar com 25-50 mg/dia ao deitar e aumentar gradualmente ao longo de 2-3 semanas até se obter efeito desejado ou se atingir a dose máxima de 150-200 mg/dia dividida em 2-3 tomas. Dose usual de manutenção 25-100 mg/dia. Reduzir as doses para metade nos idosos e adolescentes.</p> <p>(2) Na enurese nocturna:</p> <p>a) Crianças com mais de 12 anos: 25-50 mg/dia.</p> <p>b) Crianças dos 6-12 anos: 10-25 mg/dia.</p> <p>Administrar numa dose única ao deitar. Duração máxima do tratamento, 3 meses.</p> <p>(3) Profilaxia da enxaqueca: 10-75 mg/dia.</p> <p>(4) Adjuvante no alívio da dor crónica neuropática (neuropatia do SIDA, pós-herpética, tóxica, diabética): começar com 10 mg e aumentar até 25 mg (máximo 100 mg/dia). As doses baixas são habitualmente suficientes para esta indicação.</p>	<p>Included in the treatment of peripheral neuropathy, in the section on antiretroviral treatment.</p> <p>“Piridoxina 25-50 mg, 1x dia Amitriptilina 25-75 mg, à noite”</p> <p>Included in the treatment of peripheral neuropathy, in the section on treatment of opportunistic infections.</p> <p>Amitriptilina: 25 a 75mg VO a noite (até 200mg/dia)*: iniciar com 12,5mg à noite e ir aumentando</p> <p>Included in the treatment of herpes zoster, in the section on treatment of opportunistic infections.</p> <p>Analgésicos: Paracetamol ou AAS, associado a Diclofenac ou Ibuprofeno, e Amitriptilina (12,5mg à noite nos primeiros 3 dias, e após, 25mg à noite) até desaparecimento da dor.</p>
Bisacodyl / Bisacodil	Yes	<p>(1) 2-D-1 BISACODIL Comp. 5 mg</p> <p>DOSES:</p> <p>(1) Obstipação:</p> <p>a) Adultos e crianças de mais de 10 anos: 5 a 10 mg à noite;</p> <p>b) Crianças de 4-10 anos: 5 mg à noite.</p> <p>(2) Antes de cirurgia ou procedimentos radiológicos:</p> <p>a) Adultos e crianças de mais de 10 anos: 10-20 mg na noite anterior.</p> <p>b) Crianças de 4-10 anos: 5 mg na noite anterior.</p>	No
Carbamazepine / Carbamazepina	Yes	<p>(3) 7-D-1 CARBAMAZEPINA Comp. 200 mg</p> <p>DOSES:</p> <p>(1) Na epilepsia:</p> <p>a) Adultos e crianças maiores de 12 anos: Iniciar com 100-200 mg, 2 x/dia e aumentar semanalmente a dose em 100-200 mg/dia, até se obter resposta clínica adequada ou até ao máximo de 1600 mg/dia no adulto ou 1000 mg/dia nas crianças dos 12-15 anos. (Dose habitual de manutenção, entre 800-1200 mg/dia).</p>	<p>It is cited in numerous locations as a medicine that interacts with several different ARVs.</p> <p>Included in the treatment of peripheral neuropathy, in the section on treatment of opportunistic infections.</p> <p>“- Carbamazepina: começar com 100mg l a</p>

		<p>b) Crianças de 6-12 anos: iniciar com 100 mg 2x/dia; aumentar depois 100 mg/dia semanalmente até ao máximo de 1000 mg/dia (dose usual de manutenção 10-30 mg/kg/dia ou 400-800 mg/dia).</p> <p>c) Crianças menores de 6 anos: 10-20 mg/kg/dia aumentando a dose semanalmente, até se obter resposta ou até ao máximo de 100 mg/dia divididos em 2-3 tomas (máximo 400 mg/dia).</p> <p>(2) Nas nevralgias do trigémeo, do glossofaríngeo ou outras: começar com 100 mg, 1-2 x/dia aumentando progressivamente até se obter resposta ou até ao máximo de 1200 mg/dia.</p> <p>(3) Na profilaxia das crises maniaco-depressivas: usar a dose da epilepsia, a dose usual é de 400-600 mg/dia.</p> <p>(4) No tratamento do humor disfórico: iniciar com 200 mg /dia e ir aumentando progressivamente até se obter efeito desejado.</p> <p>(5) No síndrome de agitação psico-motora por lesão estrutural: iniciar com 400 mg /dia divididos em duas tomas e ajustar de acordo com a resposta clínica.</p> <p>A carbamazepina pode ser administrada numa ou em várias tomas diárias. Em regra, doses superiores a 400 mg devem ser divididas em 2-4 tomas/dia.</p>	<p>2xdia, aumentando-se progressivamente até obter resposta clínica. Máximo de 1200mg/dia**</p> <p>Included in the treatment of herpes zoster, in the section on treatment of opportunistic infections.</p> <p>“A Amitriptilina é indicada para casos de dor contínua. No caso da dor ser paroxística, a Carbamazepina é o fármaco de escolha (400-800mg/dia).”</p>
<p>Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine / fluoxetina, or sertraline / sertralina.</p>	<p>Yes Fluoxetine & Sertraline</p>	<p>(3) 7-G-3 FLUOXETINA, hidrocloreto Cáps. 20 mg</p> <p>DOSES:</p> <p>(1) Na depressão: 20 mg/dia dada de preferência de manhã. Poderá ser aumentada progressivamente, se necessário em 20 mg/dia até um máximo de 60 mg/dia.</p> <p>(2) Na bulimia nervosa: até 60 mg /dia.</p> <p>(3) Nos distúrbios obsessivos-compulsivos: 20-60 mg/dia até um máximo de 80 mg/dia.</p> <p>(4) 7-G-8 SERTRALINA Comp. 50 mg</p> <p>DOSES:</p> <p>(1) Adultos:</p> <p>a) Na depressão: iniciar com 50 mg/dia; dose usual varia de 50-100 mg/dia. Pode ser aumentada se necessário em 50 mg/semana até um máximo de 200 mg/dia.</p> <p>b) No pânico: inicialmente 25 mg/dia; aumentar para 50 mg/dia após 1 semana e posteriormente se necessário em 50 mg até ao máximo de 200 mg/dia.</p>	<p>No</p>

		c) Neurose obsessiva-compulsiva: 50 mg/dia. Aumentar se necessário em 50 mg/semana até ao máxima 200 mg/dia.	
Codeine / codeína	Yes	<p>(2) 7-B-1 CODEÍNA, fosfato Comp. 30 mg DOSES: (1) Como analgésico: a) Adultos: 15-60 mg de 4/4-6/6 h se necessário (dose máxima 240 mg/dia); b) Crianças de 1-12 anos: 1 mg/kg de 8/8 h se necessário. (2) Como anti-tússico: Adultos: 10-20 mg de 6/6-8/8 h se necessário. (3) Como anti-diarreico: 30 mg até 4 x/dia. Reduzir as doses nos idosos.</p> <p>(2) 7-B-2 CODEÍNA Xpe. 25 mg/5 mL DOSES, CONTRA-INDICAÇÕES, NOTAS E PRECAUÇÕES: Ver 7-B-1.</p>	<p>Included in chronic diarrhea treatment algorithm. Untreated - Inibidor de trânsito: Loperamida 2 mg: 2 / 1 / 1 / 1 ou mais SOS ou Difenoxilato de atropina 5mg: 1 / 1 / 1 ou mais SOS ou Codeína 10mg 3 vezes ao dia. Previously Treated - Inibidor de trânsito. Loperamida 2 mg: 2 / 1 / 1 / 1 – ou mais SOS ou Difenoxilato de atropina 5mg: 1 / 1 / 1 – ou mais SOS ou Codeína 10mg, 3 vezes ao dia. Important - Os antidiarréicos (loperamida, difenoxilato de atropina ou codeína): a loperamida deve ser administrada iniciando com uma dose de 2cp e, em seguida, 1cp após cada episódio de dejeção (dose máxima diária de 6cp), difenoxilato de atropina (5mg 4xdia), codeína (10mg 3xdia)</p> <p>Included in Herpes Zoster Treatment - Se dor intensa e sem alívio com as medidas acima, considerar o uso de Codeína. Important 2. A nevralgia pós herpética pode ser grave, intolerante e de difícil controlo, sendo, por vezes, necessário utilizar opiáceos (por exemplo, Codeína)</p>
Dexamethasone/ Dexametasona	Yes	<p>(3) 3-A-1 DEXAMETASONA, fosfato sódico Inj. 4 mg/mL- Amp. DOSES: (1) Por via I.M., E.V. lenta ou perfusão E.V.: a) Adultos: 0,5-2 mg/dia(doses altas, até 24 mg/dia, podem ser necessárias). b) Crianças: 200-400 µg/kg/dia. (2) No edema cerebral: a) Adultos: Iniciar com 10 mg E.V. lento, seguido de 4 mg I.M. de 6/6 h durante 2-4 dias segundo a necessidade, e depois reduzir gradualmente e parar em 5-7 dias. b) Crianças: 0,25 mg/kg/dia divididos em 4 tomas em 48 horas, depois reduzir gradualmente em 5 dias.</p>	<p>It is cited as a medicine that interacts with Saquinavir. - Dexametasona (corticoide) reduz os níveis de SQV</p> <p>It is cited in the section on TB Treatment. No caso de Meningite Tuberculosa, o uso de corticosteróide está indicado: prednisolona 1mg/kg/dia ou dexametasona 1 a 2mg/kg/dia, por 4 a 6 semanas.</p>

		<p>(3) 15-B-10 DEXAMETASONA, acetato a 0,1% + CLOTRIMAZOL a 1% Creme 30 g DOSES: Aplicar uma pequena quantidade em camada fina com fricção suave 2 x/dia. Obtido o efeito desejado, passar a uma aplicação diária até à regressão dos sintomas.</p> <p>(3) 16-A-5 FRAMICETINA+GRAMICIDINA+DEXAMETASONA Gotas auriculares - (5 mg de sulfato de frameticina + 0,05 mg de gramicidina + 0,5 mg de dexametasona + feniletanol a 0,5%, por mL de solução) - Fr. 10 mL DOSES: 2-3 gotas 3-4 x/dia.</p> <p>(3) 17-D-1 DEXAMETASONA Colírio a 0,5% DOSES: a) Casos graves: 1-2 gotas/h, reduzindo depois gradualmente. b) Casos moderados: 1-2 gotas 4-6 x/dia.</p>	
Diazepam	Yes	<p>(1) 7-I-5 DIAZEPAM Comp. 2 mg DOSES E EFEITOS SECUNDÁRIOS: Os mesmos de 7-I-6.</p> <p>(1) 7-I-6 DIAZEPAM Comp. 10 mg DOSES: (1) Na ansiedade: 2 mg até 3 x/dia; aumentar se necessário até 5-10 mg 3 x/dia (na criança 0,2 mg/kg/dia divididos em 3-4 tomas). (2) Na insónia: 5-15 mg ½ h antes do deitar. (3) Nos espasmos musculares locais e espasticidade: 2-15 mg/dia aumentando se necessário até 60 mg/dia, em doses divididas (no tétano utilizar de preferência e sobretudo nas fases iniciais 7-I-7). (4) Na medicação pré-anestésica: 5-10 mg meia a uma hora antes da anestesia.</p> <p>(1) 7-I-7 DIAZEPAM Inj. 10 mg/2 mL - Amp. DOSES: (1) Para estados graves de ansiedade e crises de pânico: a) Adultos: 10 mg E.V. lento (1 mL/min.); b) Crianças: 0,1-0,2 mg/kg. Repetir, se necessário, em intervalos de 4 ou mais h. (2) No síndrome de privação alcoólica (delirium tremens): 10-20 mg E.V. seguido de 5-10 mg cada 3-4 h. (3) Como anti-convulsivante: a) Adultos: 10-20 mg E.V. lento (1 mL/min) a repetir se necessário passados 30-60 min. Em caso de necessidade fazer manutenção com uma perfusão E.V. na dose de 3 mg /kg durante 24 h. 139 CAPÍTULO 7 - SISTEMA NERVOSO b) Crianças: 0,2-0,3 mg /kg E.V. lento.</p>	<p>No treatment included. Only mentioned as a medicine that interacts with Ritonavir.</p> <p>- Uso concomitante contra-indicado: meperidina, piroxicam, propoxifeno, amiodarona, encainida, flecainida, propafenona, quinidina, beperidil, derivados do ergot, sinvastatina, lovastatina, astemizol, terfenadina, cisaprida, bupropiona, ciosapina, pimizida, clorazepato, alprazolam, diazepam, estazolam, flurazepam, midazolam, triazolam, zolpidem, cápsula de alho.</p>

		<p>Quando não é possível a via E.V. e sobretudo em crianças a administração rectal pode ser uma boa alternativa nas seguintes doses: maiores de 3 anos, 10 mg; 1-3 anos, 5 mg e menores de 1 ano, 2,5 mg.</p> <p>(4) Nos espasmos musculares agudos: 5-10 mg E.V. lento a repetir passadas 4 h se necessário (0,1-0,2 mg /kg nas crianças).</p> <p>(5) No tétano por via E.V. lenta:</p> <p>a) Adultos: 20 mg cada 2-8 h segundo as necessidades.</p> <p>b) Crianças: maiores de 5 anos: 5-10 mg; 1 mês a 5 anos: 1-2 mg, a repetir em intervalos de 3-4 h, se necessário.</p> <p>Pode-se usar como alternativa a perfusão E.V. ou administração por sonda naso-gástrica na dose de: 3-10 mg /kg/dia.</p> <p>(6) Na medicação pré-anestésica: 0,1-0,2 mg /kg por via E.V. lenta.</p> <p>(7) Para manobras diagnósticas ou terapêuticas e intervenções de pequena cirurgia:</p> <p>a) Adultos: 5-20 mg E.V. lento (1 mL /min) imediatamente antes da intervenção;</p> <p>b) Crianças: 0,1-0,2 mg/kg E.V. lento.</p>	
Diclofenac	Yes	<p>(2) 14-A-1 DICLOFENAC, sal sódico Comp. 50 mg</p> <p>DOSES:</p> <p>a) Adultos: 25 a 50 mg 3 x/dia (8/8 h)</p> <p>b) Crianças maiores de 2 anos 1-3 mg/kg/dia divididos em 3 tomas.</p> <p>(2) 14-A-2 DICLOFENAC Inj. 75 mg/3 mL - Amp.</p> <p>DOSES:</p> <p>Em adultos: 75 mg 1-2 x/dia</p> <p>(3) 17-F-5 DICLOFENAC Colírio 1 mg/mL</p> <p>DOSES:</p> <p>Aplicar até 5 gotas 3 h antes da cirurgia, 3 gotas após a cirurgia e depois 1 gota 4-5 x/dia.</p>	Included in Herpes Zoster Treatment - Analgésicos: Paracetamol ou AAS, associado a Diclofenac ou Ibuprofeno, e Amitriptilina (12,5mg à noite nos primeiros 3 dias, e após, 25mg à noite) até desaparecimento da dor.
Diphenhydramine / Difenidramina	Yes	<p>(1) 13-A-4 DIFENIDRAMINA Inj. 50 mg/5 mL - Amp.</p> <p>DOSE:</p> <p>Uma amp. a repetir se necessário. Continuar com 13-A-2 se necessário.</p>	No
Fentanyl (transdermal patch)	No		No
Gabapentin / Gabapentina	Yes	<p>(4) 7-D-9 GABAPENTINA Cáps. 100 mg</p> <p>DOSES:</p> <p>Iniciar com 300-400 mg no primeiro dia, 300-400 mg 2x/dia no segundo dia, 300-400 mg 3x/dia no terceiro dia depois aumentar gradualmente de acordo com a resposta sem ultrapassar 2400 mg/dia. A dose usual é de 900-1800 mg/dia divididas em 3 doses.</p> <p>(4) 7-D-10 GABAPENTINA Cáps. 300 mg</p>	No

		DOSES: As mesmas de 7-D-9.	
Haloperidol	Yes	(3) 7-J-6 HALOPERIDOL Comp. 5 mg DOSES: (1) Na esquizofrenia, outras psicoses, mania, agitação psicomotora, comportamento impulsivo e violento: a) Adultos: iniciar com 2,5-20 mg/dia dividida em 1-3 tomas diárias. Aumentar gradualmente até se obter resposta adequada (em geral 100 mg ou, excepcionalmente, 200 mg/dia nos doentes gravemente afectados). Nos doentes idosos reduzir as doses iniciais a metade. b) Adolescentes: até 30 mg/dia (excepcionalmente 60 mg). c) Crianças: 25-50 µg/kg/dia (máximo 10 mg/dia); (2) Como adjuvante na terapêutica de curta duração de estados graves de ansiedade: ¼ a ½ comp. 2 x/dia. (3) Nos soluços rebeldes: ½ comp. 2x/dia com ajustamento posterior de acordo com a resposta clínica. (4) Nos tiques motores e como adjuvante no tratamento da coreia: Iniciar com 0,5-2,5 mg 3 x/dia e ajustar de acordo com a resposta. (3) 7-J-7 HALOPERIDOL Inj. 5 mg/1 mL - Amp. DOSES: Por via I.M.: 2,5-10 mg de início e depois 5 mg cada 4-8 h conforme as necessidades.	No
Hyoscine butylbromide / Butilbrometo de escopolamina	No		No
Ibuprofen / Ibuprofeno	Yes	(2) 14-A-3 IBUPROFENO Comp. 200 mg DOSES: a) Adultos: 200-400 mg de 8/8 h. Dose máxima diária 2400 mg. b) Crianças: 20 mg/kg/dia divididas em 3-4 tomas. (2) 14-A-4 IBUPROFENO Susp. 100 mg/5 mL DOSES: a) Crianças: 20 mg/kg/dia divididos em 3-4 tomas diárias.	Included in Herpes Zoster Treatment - Analgésicos: Paracetamol ou AAS, associado a Diclofenac ou Ibuprofeno, e Amitriptilina (12,5mg à noite nos primeiros 3 dias, e após, 25mg à noite) até desaparecimento da dor.
Levomepromazine / Levomepromazina	No		No
Loperamide / Loperamida	Yes	(2) 2-E-2 LOPERAMIDA Comp. 2 mg DOSES: a) Adultos: 4 mg seguido de 2 mg após cada dejectão não moldada, até 5 dias. Dose habitual 6-8 mg/dia. Dose máxima de 16 mg/dia. b) Crianças: 9-12 anos, 2 mg 4 x/dia até 5 dias; 4-8 anos, 1 mg 3-4 x/dia só até 3 dias.	Included in treatment of diarrhea stemming from treatment with ARVs. Tranquilizar o doente. Dar mistura oral e loperamida 2cp na 1ª evacuação diarreica e depois 1cp após cada evacuação. Máximo de 6cp/dia Included in the algorithm for diarrhea

			-Loperamida Included in the algorithm for chronic diarrhea - Inibidor de trânsito: Loperamida 2 mg: 2 / 1 / 1 / 1 ou mais SOS ou Difenoxilato de atropina 5mg: 1 / 1 / 1 ou mais SOS ou Codeína 10mg 3 vezes ao dia.
Lorazepam	No		No
Magestrol Acetate / Magestrol Acetato	No		No
Methadone / Metadona (immediate release)	No		No treatment included. It is only cited in numerous locations as a medicine that interacts with several different ARVs.
Metoclopramide/ Metoclopramida	Yes	(1) 2-C-1 METOCLOPRAMIDA Comp. 10 mg DOSES: a) Adultos: 10 mg 3x/dia. b) Crianças: 9-14 anos (30 kg ou mais) 5 mg 3 x/dia; 5-9 anos (20-29 kg): 2,5 mg 3 x/dia; 3-5 anos (15-19 kg): 2 mg 2-3 x/dia; 1-3 anos (10-14 kg): 1 mg 2-3 x/dia; até 1ano (menos de 10 kg): 1 mg 2 x/dia; dose máxima de 0,5 mg/kg/dia especialmente em crianças e jovens adultos. Procedimentos diagnósticos: a) Adultos: dose única, 5-10 min. antes do exame, de 10-20 mg (10 mg em jovens adultos de 15-19 anos). b) Crianças: 9-14 anos: 5 mg; 3-9 anos: 2 mg e menores de 3 anos: 1 mg. (2) 2-C-2 METOCLOPRAMIDA Inj. 10 mg/2 mL-Amp. DOSES: As mesmas de 2-C-1. A injeção E.V. deve ser feita em 1-2 min. (2) 2-C-3 METOCLOPRAMIDA Xp. 5 mg/5 mL DOSES: As mesmas de 2-C-1.	Included in the treatment of vomiting stemming from treatment with ARVs. Metoclopramida 10 mg antes de cada refeição Pedir ALT + amilase, lipase se possível Indicated as a preventive treatment prior to the administration of chemotherapy for Kaposi's Sarcoma. • Recomenda-se a administração prévia de Hidrocortisona 100mg IV e de Metoclopramida 1 ampola IV, para controlar/minimizar os efeitos secundário dos citostáticos.
Midazolam	Yes	(3) 18-F-4 MIDAZOLAM Inj. 15 mg/3 mL - Amp. DOSES: (1) Como sedativo: administrar em um ou mais "bólus" E.V. a) Adultos: 2,5 mg (0,04 mg/kg) 5-10 min antes da endoscopia; administrar depois "bólus" de 1 mg até um total de 5 mg. Nos idosos, 1-1,5 mg e não ultrapassar 3,5 mg. b) Crianças: de início uma injeção E.V. lenta de 0,1-0,2 mg/kg, durante 1-2 min. (2) Na medicação pré-anestésica:	No treatment included. It is cited in numerous locations as a medicine that interacts with several different ARVs.

		<p>a) Adultos: administrar uma dose de 0,07-0,1 mg/kg por via I.M. (habitualmente 5 mg) 30 min antes da indução. Nos idosos e debilitados: I.M. 0,025-0,05 mg/kg.</p> <p>b) Crianças: 0,15-0,2 mg/kg 30 min antes da cirurgia.</p> <p>(3) Na indução da anestesia:</p> <p>a) Adultos: 0,015-0,2 mg/kg E.V. Usar doses reduzidas nos debilitados e idosos.</p> <p>b) Crianças com idade superior a 8 anos: 0,15 mg/kg.</p> <p>(4) Sedação em Cuidados Intensivos: a dose é individualizada e titulada até obter o efeito desejado: dose inicial, 0,03-0,3 mg/kg; dose de manutenção, 0,03-0,2 mg/kg/h; não administrar a dose inicial em doentes hipovolémicos, vasoconstritos ou hipotérmicos.</p>	
Mineral oil enema/ Enema de óleo mineral	No		No
Mirtazapine/ Mirtazapina (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin/Mianserina, Setiptiline. SNRIs: Duloxetine/Duloxetina, venlafaxine/venlafaxina.	No None of the meds listed are included		No
Morphine/morfina	Yes	<p>(3) 7-B-4 MORFINA, sulfato Comp. de libertação prolongada de 10 mg DOSES: 10-20 mg/dia de 12/12 h, aumentando progressivamente de acordo com a resposta clínica.</p> <p>(3) 7-B-5 MORFINA, sulfato Comp. de libertação prolongada de 30 mg DOSES, EFEITOS SECUNDÁRIOS, CONTRA-INDICAÇÕES, NOTAS E PRECAUÇÕES: As mesmas de 7-B-4.</p> <p>(3) 7-B-6 MORFINA, sulfato Inj. 10 mg/mL - Amp. DOSES: (1) Na dor aguda: a) Adultos: Por via S.C.: 5-10 mg de 4/4 ou de 6/6 h (baseado em peso médio 70 kg). Por via E.V. lenta: 2,5 mg repetir de 5-10 min, até obter o efeito analgésico (máximo de 10 mg). b) Crianças: Por via I.M. ou S.C.: 50-200 µ/kg de 4/4-6/6 h. Por via E.V. lenta: administrar 50-100 µ/kg até obter o efeito analgésico desejado (máximo 200 µ/kg).</p> <p>(2) Na dor crónica intensa associada às neoplasias: Por via S.C.: 5-20 mg a repetir de 4/4-6/6 h se necessário (preferir 7-B-5 ou 7-B-7).</p> <p>(3) No edema pulmonar agudo cardiogénico (se a TA é aceitável): 2-4 mg E.V. lento (durante 1-5 min) e repetir cada 30 min.</p> <p>(4) Na dor torácica que acompanha os síndromes coronários agudos incluindo o enfarte agudo do miocárdio que não responde à nitroglicerina, por via E.V. lenta: 2-4 mg de preferência em perfusão (durante 1-5 min) e repetir cada 30 min.</p> <p>(5) Na medicação pré-anestésica, por via S.C.: a) Adultos: 10 mg</p>	No

		<p>b) Crianças: 100-200 ig/kg, 1 h antes da intervenção.</p> <p>(3) 7-B-7 MORFINA, sulfato Sol. 5 mg/5 mL - Fr.</p> <p>DOSES:</p> <p>5-20 mg (1-4 colheres de chá) de 4/4 h, iniciar o tratamento com doses baixas e ir aumentando, se necessário, de acordo com a resposta clínica, até se atingir a dose mais baixa que permita controlar a dor.</p>	
Octreotide	No		No
Oral rehydration salts/ Sais de reidratação oral	No		No
Oxycodone	No		No
Paracetamol (Acetaminophen)	Yes	<p>(0) 7-A-3 PARACETAMOL Comp. 500 mg</p> <p>DOSES:</p> <p>a) Adultos: 0,5-1 g de 4/4-6/6 h. Máximo, 4 g/dia</p> <p>b) Crianças: 6-12 anos, 250-500 mg de 4/4-6/6 h até um máximo de 4 doses/dia; 1-5 anos: 120-250 mg; 3-12 meses: 60-120 mg; menores de 3 meses: 10 mg/kg (5 mg/kg se icterícia presente).</p> <p>(2) 7-A-4 PARACETAMOL Inj. 1 g/ 100 mL</p> <p>DOSES:</p> <p>a) Doentes com mais de 50 kg: 1 g de 4/4 h, não ultrapassando 4 g/dia.</p> <p>b) Doentes com menos de 50 kg: 15 mg/kg de peso, dose máxima de 60 mg/kg/dia.</p> <p>(0) 7-A-5 PARACETAMOL Sup. 250 mg</p> <p>DOSES:</p> <p>As mesmas de indicadas para a via oral (ver 7-A-3).</p> <p>(0) 7-A-6 PARACETAMO Susp. 120 mg/5 mL - Fr. 100 mL</p> <p>DOSES:</p> <p>Ver 7- A- 3.</p>	<p>Identified in the treatment of: persistent headache; fever in malaria; and pain in herpes zoster. Cited as a possible contributing factor in the presence of elevated transaminases. Indicated as a drug that could result in increased levels of AZT.</p>
Prednisolone/ Prednisolona (as an alternative to Dexamethasone)	Yes	<p>(3) 2-F-2 PREDNISOLONA, fosfato sódico</p> <p>DOSES:</p> <p>Adultos: inicialmente 1 enema ao deitar durante 2-4 semanas, prolongar o tratamento se se obtiver boa resposta.</p> <p>(2) 3-A-4 PREDNISOLONA Comp. 5 mg</p> <p>DOSES:</p> <p>(1) Como anti-inflamatório ou imunossupressor, em média:</p> <p>a) Adultos: entre 10-20 mg/dia (podendo ir até 60 mg/dia), de preferência de manhã depois do pequeno-almoço; pode muitas vezes ser reduzida ao fim de alguns dias, mas pode ser necessário continuar por várias semanas ou meses. Dose de manutenção: habitualmente de 2,5-15 mg/dia, mas podem ser necessárias doses mais elevadas; efeitos</p>	<p>Mentioned in the treatment of pneumocystic pneumonia.</p> <p><input type="checkbox"/> Casos graves (PaO₂ inicial <70mmHg ou cianose), corticoterapia é recomendada durante 2 a 3 semanas. Iniciar preferencialmente 24 a 72h antes do CTZ.</p> <p>- Prednisolona 40mg "per os" 12/12h por 5 dias, seguidos de 40mg 1xdia por 5 dias e após, 20mg 1xdia por 10 dias.</p> <p>Indicated in the treatment of meningeal</p>

	<p>cushingóides mais prováveis com doses superiores a 7,5 mg/dia. b) Crianças: 0,5-2 mg/kg/dia. A dose é estabelecida por tentativas de forma individual para cada doente e para cada afecção é ajustada também (em função de reavaliações periódicas) à fase da evolução da doença.</p> <p>(3) 3-A-5 PREDNISOLONA Comp. 20 mg DOSES, EFEITOS SECUNDÁRIOS, CONTRA-INDICAÇÕES, NOTAS E PRECAUÇÕES: Ver 3-A-4. PREDNISOLONA Fosfato sódico, enema (ver 2-F-2)</p> <p>(1) 3-A-6 PREDNISOLONA Inj. 50 mg/10 mL- Amp. DOSES: a) Adultos: 25-100 mg. Asma brônquica: Iniciar com 2 mg/kg E.V. e continuar com 1 mg/kg E.V. de 6/6 h até melhorar. b) Crianças: 1-2 mg/kg. Dose máx. 50 mg/dia Repetir estas doses conforme a evolução clínica. Nas situações mais urgentes como asma ou reacções anafiláticas pode ser necessário repetir a dose até 2/2 h.</p> <p>(4) 3-A-7 PREDNISOLONA, acetato de metal Inj. 80 mg/2 mL- Amp. DOSES: Variável conforme o tamanho da articulação. Em média 4-10 mg para articulação pequena; 10-20 mg para articulação de tamanho médio; 20-40 mg para as grandes articulações.</p> <p>(4) 14-A-8 METILPREDNISOLONA, acetate Inj. 40 mg/mL - Amp. de 2 mL DOSES: a) Nas grandes articulações (joelhos, tornozelos, ombros): 20-80 mg. b) Nas articulações médias (cotovelo, punho): 10-40 mg. c) Nas pequenas articulações (metacarpo-falangicas, inter-falangicas, esterno-clavicular, acromio-clavicular): 4-10 mg. d) Nos tecidos moles: até 60 mg dependendo do local a infiltrar.</p> <p>(3) 15-B-16 METILPREDNISOLONA, aceponato Creme a 0,1% - 30 g DOSES: Aplicar, em camada fina, 1 x/dia, sobre as áreas afectadas da pele. Em geral, o tratamento não deve exceder, nos adultos, 12 semanas e nas crianças 4 semanas.</p> <p>(3) 15-B-16 METILPREDNISOLONA, aceponato Creme a 0,1% - 30 g DOSES: Aplicar, em camada fina, 1 x/dia, sobre as áreas afectadas da pele. Em geral, o tratamento não deve exceder, nos adultos, 12 semanas e nas crianças 4 semanas.</p>	<p>tuberculosis. No caso de Meningite Tuberculosa, o uso de corticosteróide está indicado: prednisolona 1mg/kg/dia ou dexametasona 1 a 2mg/kg/dia, por 4 a 6 semanas.</p> <p>Indicated as the steroid of choice when one is needed in the course of treatment for Kaposi's Sarcoma. Evitar corticosteróides: estes devem ser utilizados somente em situação de comprometimento respiratório grave, trombocitopenia imune severa ou em situação de outras infecções oportunistas associadas, nomeadamente: meningite ou pericardite tuberculosa. O corticóide de escolha é a prednisolona 60 – 80 mg/dia em curtos cursos (10 a 15 dias) mensais.</p> <p>Indicated in the treatment ofazole toxicity. Usar Prednisolona nos casos graves e com precaução;</p>
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		<p>(3) 15-B-17 METILPREDNISOLONA, aceponato Emulsão a 0,1% - 100 mL DOSES: As mesmas de 15-B-16.</p> <p>(3) 15-B-18 METILPREDNISOLONA, aceponato Pomada a 0,1% - 30 g DOSES: As mesmas de 15-B-16.</p> <p>(3) 17-D-3 PREDNISOLONA, acetate Colírio a 1% - 5 mL - Fr. DOSES: Aplicação de uma ou duas gotas de 2-2 h até obtenção da resposta. Depois a frequência pode ser reduzida.</p>	
Senna/sena	No		No
Tramadol	Yes	<p>(3) 7-B-9 TRAMADOL, hidrocloreto Cáps. 50 mg DOSES: Adultos: 50-100 mg de 4/4-6/6 h (máximo 400 mg/dia).</p> <p>(3) 7-B-10 TRAMADOL, hidrocloreto Comp. Libertação lenta 100 mg DOSES: Adultos: 100 mg de 12/12 h podendo aumentar-se para 150 a 200 mg 2 x/dia (intervalo mínimo 8 h).</p> <p>(3) 7-B-11 TRAMADOL Inj. 100 mg/2 mL- Amp DOSES: a) Adultos: 50-100 mg de 4/4-6/6 h (máximo 600 mg/dia) por via I.M. ou E.V. (durante 2 a 3 min). b) Crianças: não está estabelecida a segurança.</p>	No
Trazodone	No		No
Zolpidem (still patented)	Yes	<p>(4) 7-I-11 ZOLPIDEM Comp. 10 mg DOSES: 10 mg ao deitar; 5 mg nos idosos e na insuficiência hepática.</p>	<p>No treatment included. Cited as a contraindicated drug when taking Ritonavir.</p> <p>- Uso concomitante contra-indicado: meperidina, piroxicam, propoxifeno, amiodarona, encainida, flecainida, propafenona, quinidina, beperidil, derivados do ergot, sinvastatina, lovastatina, astemizol, terfenadina, cisaprida, bupropiona, ciosapina, pimozida, clorazepato, alprazolam, diazepam, estazolam, flurazepam, midazolam, triazolam, zolpidem, cápsula de alho.</p>

The following information resources were utilized in this analysis:

- Formulary: FORMULÁRIO NACIONAL DE MEDICAMENTOS, 5th Edition, September, 2007. Produced by the Comissão Técnica de Terapêutica e Farmácia. Given that there is no registry of authorized drugs in Mozambique, nor an essential medicines list, nor a central medical stores catalog, and given the following article cited in the ministerial decree of the formulary, it is used as the sole source of information on authorized medicines in this analysis.
 - “Artigo 2º: Serão adquiridos para o Serviço Nacional de Saúde apenas os medicamentos constantes do Formulário Nacional de Medicamentos, com as exceções previstas no artigo 13 da Lei n.º 4/98 de 14 de Janeiro;”
 - Translated by Google as: “Article 2: will be acquired for the National Health Service only medicines in the National Formulary of Medicines, with the exceptions in Article 13 of Law No. 4 / 98 14 January;”
- Standard Treatment Guidelines: MINISTÉRIO DA SAÚDE DE MOÇAMBIQUE DIRECÇÃO NACIONAL DE SAÚDE, DIRECÇÃO NACIONAL DE ASSISTÊNCIA MÉDICA, GUIA DE TRATAMENTO ANTIRETROVIRAL E INFECÇÕES OPORTUNISTAS NO ADULTO, ADOLESCENTE E GRÁVIDAS 2009/2010.

Regarding a product catalogue:

Mozambique does not have a product list at present, although plans are afoot to define a "product catalogue." Common practice is for CMAM to buy what's in the national formulary. They also purchase products that the programs or specialists identify; these products require approval by the Minister of Health.

Regarding registration:

In September 2009, products imported for the Public Sector did not need registration if they were consigned to CMAM. However, a new policy, which is not available for review, was developed by the National Drug Regulatory Authority. Essentially, they are seeking to have pharmaceutical companies register their products. In sum, there is no database of registered drugs available at the time this document was developed.

Medicines on the IAHP list that are in the STGs, and that are included in the National Formulary (+ STG + Formulary)	Medicines on the IAHP list that are in the STGs, but are not included in the National Formulary (+ STG - Formulary)
Amitriptyline / Amitriptilina	(None)
Carbamazepine / Carbamazepina	
Codeine / codeine	
Dexamethasone/ Dexametasona	
Diclofenac	
Ibuprofen / Ibuprofeno	
Loperamide / Loperamida	
Metoclopramide/ Metoclopramida	
Paracetamol	
Prednisolone/ Prednisolona	

Medicines on the IAHP list that are not in the STGs, and that are included in the National Formulary (- STG + Formulary)	Medicines on the IAHP list that are not in the STGs, and that are not included in the National Formulary (- STG -Formulary)
Bisacodyl / Bisacodil	Fentanyl
fluoxetine / fluoxetina, and sertraline / sertralina only	Hyoscine butylbromide / Butilbrometo de escopolamina
Diazepam	Levomopromazine / Levomopromazina
Diphenhydramine / Difenidramina	Lorazepam
Gabapentin / Gabapentina	Magestrol Acetate / Magestrol Acetato
Haloperidol	Methadone / Metadona
Midazolam	Mineral oil enema/ Enema de óleo mineral
Morphine/morfina	Mirtazapine/ Mirtazapina, Mianserin/Mianserina, Setiptiline, Duloxetine/Duloxetina, venlafaxine/venlafaxina.
Tramadol	Octreotide
Zolpidem	Oral rehydration salts/ Sais de reidratação oral
	Oxycodone
	Senna/sena
	Trazodone

NIGERIA

Generic drug name/INN	Product located in 2007 Green Pages? Product name and form, where indicated (strength and generic names not provided). <i>Because generic names not included in document, it is not possible to state that this data is complete and reliable since search function using generic name could only be used in comparison with proprietary names since the document does not contain generic drug names.</i>	Product included in STGs? If so, for what indications? <i>(Specific treatment regimens not included and often only a class of drugs is listed, however, sometimes a specific drug is named.)</i>	Included in Essential Medicines List?	Included in HCP minimum service package list of products?
Amitriptyline	Yes Amitriptyline tablets	Yes Amitriptyline is indicated in the treatment of neuropathic pain.	Yes	No
Bisacodyl	Not found	No	Yes	No
Carbamazepine	Yes Akri-Carbamazepine	Yes Anticonvulsants are indicated in the treatment of neuropathic pain.	Yes	Yes
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	Not found	No, none of the meds listed are included	Fluoxetine only	No, none of the meds listed are on the list.
Codeine	Yes Benylin with codeine Tussirex-F (with codeine)	Yes Opioids are indicated in the treatment of somatic and visceral pain, neuropathic pain, and dyspnea associated with pneumonia. Codeine is indicated as a cough suppressant in the treatment of cough.	Yes	No
Dexamethasone	Yes Dexamethasone 0.1%	Yes Corticosteroids are indicated in the treatment of fever and sweats, and somatic and visceral pain. Dexamethasone is indicated in the treatment of depression.	Yes	Yes
Diazepam	Yes Apo-Diazepam X 10mg X 100's Apo-Diazepam X 5mg X 100's Diazepam Tabs Diaze-Pam Tabs. Dr. Kim's Diazepam Tablets FMI Diazepam Inj. FMI Diazepam Tabs	Yes Anticonvulsants are indicated in the treatment of neuropathic pain. Benzodiazepines are indicated in the treatment of nausea and vomiting, dyspnea associated with pneumonia, and delirium and agitation.	Yes	Yes

Diclofenac	Yes Akri Diclofenac Diclofenac Sodium injection Diclomax-50 (Diclofenac Sodium Tablets-50mg Diclofenac MJ)	Yes NSAIDS indicated in the treatment of fever and sweats, somatic and visceral pain, and neuropathic pain.	Yes	No
Diphenhydramine	None found	No	No	No
Fentanyl (transdermal patch)	None found	No	Yes, but for injection only	No
Gabapentin	None found	Yes Anticonvulsants are indicated in the treatment of neuropathic pain.	No	No
Haloperidol	None found	Yes Haloperidol is indicated in the treatment of nausea and vomiting, and delirium and agitation.	Yes	No
Hyoscine butylbromide	None found	No	No	No
Ibuprofen	Yes CSC Ibuprofen Tablets CSC Ibuprofen Tablets (POM) Ibuprofen Tablet (OTC) Ibuprofen Ibuprofen Tables 400mg Ibuprofen Tabs Nkoyo Ibuprofen x 20's Tenderwell Ibuprofen Tab (POM)	Yes Ibuprofen is indicated in the treatment of fever and sweats. NSAIDS are indicated in somatic and visceral pain, and neuropathic pain.	Yes	Yes
Levomepromazine	None found	No	No	No
Loperamide	Yes Akri-Loperamide x 20	Yes Loperamide is indicated in the treatment of diarrhea.	No	No
Lorazepam	None found	Yes Anticonvulsants are indicated in the treatment of neuropathic pain. Benzodiazepines are indicated in the treatment of nausea and vomiting, dyspnea associated with pneumonia, and delirium and agitation. Lorazepam is indicated in the treatment of delirium and agitation.	No	No

Magestrol Acetate	None found	No	No	No
Methadone (immediate release)	None found	No	Yes, not clear if it is immediate release or not	No
Metoclopramide	None found	Yes Metoclopramide is indicated in the treatment of nausea and vomiting.	Yes	Yes
Midazolam	None found	Yes Anticonvulsants are indicated in the treatment of neuropathic pain. Benzodiazepines are indicated in the treatment of nausea and vomiting, dyspnea associated with pneumonia, and delirium and agitation.	No	No
Mineral oil enema	None found	No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setipiline. SNRIs: Duloxetine, venlafaxine.	None found	No, none of the meds listed are included	None of the meds listed are included	No, none of the meds listed are on the list.
Morphine	None found	Yes Opioids are indicated in the treatment of somatic and visceral pain, neuropathic pain, and dyspnea associated with pneumonia.	Yes	Yes
Octreotide	None found	No	No	No
Oral rehydration salts	None found	No	Yes	Yes
Oxycodone	None found	No	No	No
Paracetamol (Acetaminophen)	Yes Actimol Paracetamol Syrup AMC Paracetamol Tablets Amidol Paracetamol Syrup (OTC) Arco Paracetamol Syrup Arenol Paracetamol X 1000's Atilab Paracetamol Syrup Avipol Paracetamol Syrup x 60ml Barbimol Children's Paracetamol (Chewable) x 100 Barbimol Paracetamol Syr (OTC) BCN Paracetamol Tablets Bentos Paracetamol Tabs Bespha Paracetamol Elixir Syrup Bonababe Paracetamol Elixir Bonadol Paracetamol Caplets (Coloured)	No	Yes	Yes

	<p> Cenomol Paracetamol X60 Cromwell Paracetamol Syrup (OTC) Domicol Paracetamol Syrp x 60ml Dr Vamis Paracetamol Drops Elkay Paracetamol Emzor Paracetamol Emzor Paracetamol BP Tabs Evans Paracetamol Faith Paraceta-mol Elixir Fatina Paracetamol Tablet-x100 Kunimed Paracetamol Paracetamol Paracetamol Caplets Paracetamol Y Caplets Paracetamol Elixir Paracetamol Syrup Paracetamol Syrup B.P. Paracetamol Tablets Paracetamol Tablets B.P. Paradana Paracetamol SAA Paracetamol Taobat Dol (Paracetamol) Syrup Tuyil Paracetamol UPGA Paracetamol Weldol Paracetamol Syrup (OTC) Ecwamol Syrup (Paracetamol 125/5ml) Albumecc Paracetamol Syrup Ceenek Paracetamol Febrilix Paracetamol Syrup Fermatol Paracetamol x 1000's Fermatol Paracetamol x 2L Feron-Jon Paracetamol Tabs x Fevran-A Paracetamol Syrup Fidson Paracetamol Tabs. Gawo Paracetamol 500mg Gawo Paracetamol Caplets 500mg Gemini Paracetamol Glamour Paracetamol Syrup Goz Paracetamol Syrup Jollido Paracetamol x 60ml Lotemp Paracetamol Tablets </p>			
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	M& B 5 Paracetamol Syrup 60ml Matrix Paracetamol x 60ml Mykids Paracetamol Syrup Neimeth Paracetamol Tablet Nemel Paracetamol x 1000's Nica Paracetamol Syrup Nichben Paracetamol Caplets Nichben Paracetamol Syrup Novadex Tabs (Paracetamol) Novamol Kid Paracetamol Novel Paracetamol Tablet Orfemol Paracetamol x 1000's Paedamol Paracetamol x 60ml Painrid Paracetamol x 50's Panda Paracetamol Panpek Paracetamol x 60ml Parabol Paracetamol Tablet Paravard Tablets Children's Paracetamol Peace Paracetamol x 60ml Penstop Paracetamol x 96 & 1000 Pharco Paracetamol x 1000's Pharma-P Paracetamol Tablets Palanol Paracetamol x 60ml PR Paracetamol Tablets Pyremol Paracetamol Syrup Polanol Paracetamol x 60 ml Rico Paracetamol x 60ml Roberts Paracetamol Tabs Simol Paracetamol Tabs Simol Paracetamol Caplets SPS Paracetamol x 60ml's Starcimol Paracetamol Tablets Toptabs Tablets (Paracetamol) Troop Paracetamol Tablets Tumol Paracetamol Ulticare Paracetamol Uncle Joe Paracetamol Vital Paracetamol Tablets. Zamba Paracetamol x 96's			
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<i>Prednisolone</i> (as an alternative to Dexamethasone)	Yes Prednisolone Prednisolone Tablets (POM)	Yes Corticosteroids are indicated in the treatment of fever and sweats, somatic and visceral pain, and depression.	Yes	Yes
<i>Senna</i>	None found	No Two types of laxatives are identified for the treatment of constipation (surfactant and osmotic). However, purgative laxatives, such as Senna, are not included.	Yes	Yes
<i>Tramadol</i>	Yes Akri x 20's Tramadol	No	No	No
<i>Trazodone</i>	None found	No	No	No
<i>Zolpidem</i> (still patented)	None found	No	No	No

The following information resources were utilized in this analysis:

- Database of registered drugs: NAFDAC (National Agency for Food and Drug Administration Control) Green Pages 1st edition 2007. *The NAFDAC does not publish an up-to-date list of registered drugs. The most recent published document is the 2007 version of their "Green Pages." Although NAFDAC has a website (<http://www.nafdac.gov.ng>), they don't provide access to their updated list of registered drugs on the site. To obtain information on registered drugs, they have to be contacted about specific drugs/formulations. Therefore the 2007 Green Pages were used for this analysis.*
- Standard Treatment Guidelines: National Guideline for HIV and AIDS Treatment and Care in Adolescents and Adults. Federal Ministry of Health. Abuja, Nigeria, May 2007.
- Essential Medicines List: Essential Drugs List - Fourth Revision 2003 - Federal Republic of Nigeria, Published by The Federal Ministry of Health Abuja, Nigeria. In Collaboration with World Health Organization.
- The DfID Health Commodities Project (HCP) Minimum Service Package for the Delivery of Health Services in Nigeria, published in 2007 in collaboration with the FMOH and WHO. This list is not widely disseminated nor adopted by the State Ministries of Health; virtually all medical supplies procurement for secondary facilities is devolved to the States. However, this list provides an idea of prioritized products.

Regarding a price catalogue, staff in Nigeria conveyed the following information: "Essential drugs are largely handled by the states, and therefore prices vary. Those that CMS do handle are program-related (OI drugs for HIV/AIDS, etc.) and largely free, or else Class One/restricted narcotics, which the CMS does sell."

Medicines on the IAHP list that are in the STGs, not on the EML, and not registered (- Reg +STG - EML)	Medicines on the IAHP list that are in the STGs, not on the EML, and are registered (+ Reg +STG - EML)
Gabapentin	Loperamide
Lorazepam	
Midazolam	

Medicines on the IAHP list that are in the STGs, on the EML, and are registered (+Reg +STG +EML)	Medicines on the IAHP list that are in the STGs, on the EML, and not registered (-Reg +STG +EML)
Amitriptyline	Haloperidol
Carbamezapine	Metoclopramide
Codeine	Morphine
Dexamethasone	
Diazepam	
Diclofenac	
Ibuprofen	
Prednisolone	

Medicines on the IAHP list that are not in the STGs nor on the EML, and not registered (-Reg -STG -EML)	Medicines on the IAHP list that are not in the STGs, nor on the EML, and are registered (+ Reg -STG -EML)
Diphenhydramine	Tramadol
Hyoscine butylbromide	
Levomepromazine	
Magestrol Acetate	
Mineral oil enema	
Mirtazapine (and related drugs)	
Octreotide	
Oxycodone	
Trazodone	
Zolpidem	

Medicines on the IAHP list that are not in the STGs, but are on the EML (-REG -STG +EML)	Medicines on the IAHP list that are not in the STGs, but that are on the EML, and are registered (+ Reg -STG +EML)
Bisacodyl	Paracetamol
Fluoxetine only (none of the other related drugs were listed)	
Fentanyl (injection only)	
Methadone	
Oral Rehydration Salts	
Senna	

National Guideline for HIV and AIDS Treatment and Care in Adolescents and Adults, Federal Ministry of Health, Abuja, Nigeria, May 2007

Table 10.2 Common Symptoms Associated With HIV Infection And Possible Disease Specific And Palliative Interventions.

Symptoms		Possible causes	Disease specific Treatment	Palliative Treatment
CONSTITUTIONAL	Fatigue Weakness	AIDS OIs Anemia	HAART Treat specific infections, erythropoietin, transfusion	Psychostimulants (dextroamphetamine)
	Weight loss Anorexia	HIV Malignancy	HAART Chemotherapy Nutritional support, enteral feedings	Testosterone/androgens Recombinant growth hormone
	Fever, sweats	MAC CMV HIV Lymphoma	Azithromycin, ethambutol ganciclovir, foscarnet, HAART Cytotoxic chemotherapy	NSAIDS (Ibuprofen, indomethacin), corticosteroids, anticholinergics/hyoscine) H2 receptor antagonists (cimetidine)
PAIN	Nociceptive • Somatic • Visceral	OIs HIV-related malignancy Non specific	Treat specific disease entities	NSAIDS Opioids Corticosteroids
	Neuropathic	HIV related Malignancy Neuropathy CMV VZV NRTIs didanosine, zalcitabine, stavudine and other medications	Treat specific disease entities HAART Ganciclovir, foscarnet, acyclovir Change antiretrovirals, or offending medication	NSAIDS Opioids and adjuvants Tricyclic antidepressants, (amitryptilline, imipramine) Benzodiazepines Anticonvultants

Symptoms		Possible causes	Disease specific Treatment	Palliative Treatment
GASTRO- INTESTINAL	Nausea/vomiting	Esophageal candidiasis CMV	Fluconazole Ganciclovir, change antiretroviral regimen	Dopamine antagonist (haloperidol) Prokinetic agents (metoclopramide) Antihistamines, Serotonin inhibitors, proton pump inhibitors (omeprazole) Benzodiazepines
	Diarrhea	MAC Cryptosporidiosis CMV Microsporidiosis, Other intestinal parasite Bacterial gastroenteritis, Malabsorption	Azithromycin, Ethambutol, Paromomycin, Albendazole, other anti-parasitic agents	Bismuth methylcellulose, kaolin, diphenoxylate + atropine, loperamide
	Constipation	Dehydration, malignancy, anticholinergics, opioids	Hydration, radiation/ chemotherapy	Softening agents, surfactant laxative, bulk-forming agents Osmotic laxatives: lactulose, sorbitol, saline laxatives (magnesium hydroxide)
RESPIRATORY	Dyspnea	PCP Bacterial pneumonia Anemia Pleural effusion/mass/obstruction Decreased muscle function	TMP/SMX Pentamidine, Antibiotics Erythropoetin Transfusion Drainage/radiation/ Surgery	Use fan, open windows, oxygen, opioids, bronchodilators, methylxathines, benzodiazepines
	Cough	PCP, Bacterial pneumonia TB	Anti-Infective agents, therapy as above. Anti-TB chemotherapy	Cough suppressants (codeine) Decongestants, Expectorants
	Increased secretion (death rattle)	Fluid shifts, Ineffective cough, sepsis, pneumonia	Antibiotics	Anticholinergics (atropine, scopolamine) fluid restriction (discontinue IV fluid)

Symptoms		Possible causes	Disease specific Treatment	Palliative Treatment
DERMATOLOGIC	Dry skin	Dehydration End-stage renal disease, end stage liver disease Malnutrition	Hydration Dialysis Nutritional support	Emollients +/- salicylates Lubricating ointments
	Pruritus	Fungal infections End-stage renal disease End-stage liver disease, Dehydration, Eosinophilic folliculitis	Antifungals, Dialysis Hydration Steroids	Topical agents (menthol, phenol, calamine, doxepin, antihistamines (diphenhydramine) serotonin antagonists
	Decubitus/ pressure sores	Poor nutrition decreased	Nutrition, Increase mobility	Prevent (nutrition, mobility, skin integrity) Wound protection (semi permeable film hydrocolloid dressing) Debridement (normal saline, enzymatic agents, alginates)
NEURO-PSYCHIATRIC	Delirium/ agitation	Electrolyte imbalances Dehydration Toxoplasmosis Cryptococcal meningitis Sepsis	Correct imbalances Hydration Sulphadiazine Antifungals Antibiotics	Neuroleptics (haloperidol, chlorpromazine, risperidone) Benzodiazepines (lorazepam)
	Dementia	AIDS related dementia	HAART	Psychostimulants, low dose neuroleptics
	Depression	Chronic illness Reactive depression Major depression	Antidepressants Tricyclics, SSRIs, MAO inhibitors	Psychostimulants (dextroamphetamines, pemoline) corticosteroids (prednisone, dexamethasone)

RWANDA

Generic drug name/INN	Product included in STGs? If so, for what indications?	Included in Essential Medicines List?	Included in Central Medical Stores Product Catalogue?
Amitriptyline	No	Yes	Yes
Bisacodyl	No	Yes	No
Carbamazepine	No It is mentioned in a table regarding drug interactions only.	Yes	Yes
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	No (none of the meds are mentioned)	No (None of the meds are included)	No (None of the meds are included)
Codeine	Yes It is mentioned in the care of patients with herpes zoster	Yes	Yes
Dexamethasone	No	Yes	Yes
Diazepam	Yes It is mentioned in a section regarding drug interactions, and it is identified in the treatment of "molluscum contagiosum."	Yes	Yes
Diclofenac	No	Yes	Yes
Diphenhydramine	No	No	No
Fentanyl (transdermal patch)	No	No (Injection only)	No (Injection only)
Gabapentin	No	No	No
Haloperidol	No	Yes	Yes
Hyoscine butylbromide	No	No	No
Ibuprofen	Yes It is mentioned in the care of patients with herpes zoster	Yes	Yes
Levomepromazine	No	No	Yes
Loperamide	Yes It is mentioned in relation to managing the side effect of diarrhea when taking Nelfinavir.	Yes	Yes
Lorazepam	No	No	Yes
Magestrol Acetate	No	No	No
Methadone (immediate release)	No	No	No
Metoclopramide	No	Yes	Yes
Midazolam	No It is mentioned in a table regarding drug interactions only.	No	No
Mineral oil enema	No	No	No

Mirtazapine (or any other generic dual action NasaA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	No (none of the meds are mentioned)	No (None of the meds are included)	No (None of the meds are included)
Morphine	Yes It is mentioned in the treatment of esophageal candidiasis and molluscum contagiosum.	Yes	Yes
Octreotide	No	No	No
Oral rehydration salts	No	No	Yes
Oxycodone	No	No	No
Paracetamol (Acetaminophen)	Yes It is mentioned in the treatment of esophageal candidiasis, molluscum contagiosum, and herpes zoster.	Yes	Yes
Prednisolone (as an alternative to Dexamethasone)	Yes It is mentioned in the treatment of pneumocystis pneumonia jiroveci.	Yes	Yes
Senna	No	No	No
Tramadol	No	Yes	Yes
Trazodone	No	No	No
Zolpidem (still patented)	No	Yes	Yes

The following information resources were utilized in this analysis:

- Standard Treatment Guidelines: Guide de Prise en Charge des Personnes Infectees par le VIH au Rwanda. Le Centre de Traitement et de Recherche sur le SIDA (TRAC), WHO, Lux-Development, DCD. July 2007.
- Essential Medicines List: Republique du Rwanda, Ministere de la Sante, Liste Nationales des Medicaments Essentiels, 4eme Edition, December 2005. (A new EML has been developed but it has not gone through all steps of the approval process. Therefore, the 2005 version is the most up-to-date.)
- Central Medical Stores Price Catalog: CAMERWA online searchable database accessed March 2010 <http://www.camerwa.rw/index.cgi?screenize=2>.

Database of registered drugs: Unavailable. According to SCMS staff in Rwanda there is no Drug Regulatory Board and therefore there is no registration process.

Medicines on the IAHPC list that are in the STGs, on the EML, and included in CAMERWA database (+ STG +EML +CAMERWA)	Medicines on the IAHPC list that are in the STGs, on the EML, and not included in the CAMERWA database (+ STG +EML -CAMERWA)
None	None

Medicines on the IAHPC list that are in the STGs, not on the EML, and included in CAMERWA database (+ STG -EML +CAMERWA)	Medicines on the IAHPC list that are in the STGs, not on the EML, and not included in the CAMERWA database (+ STG -EML -CAMERWA)
Codeine	
Diazepam	
Ibuprofen	
Loperamide	
Morphine	
Paracetamol	
Prednisolone	

Medicines on the IAHPC list that are not in the STGs, on the EML, and included in CAMERWA database (- STG +EML +CAMERWA)	Medicines on the IAHPC list that are not in the STGs, on the EML, and not included in the CAMERWA database (- STG +EML -CAMERWA)
Amitriptyline	Bisacodyl
Carbamazepine	
Dexamethasone	
Diclofenac	
Haloperidol	
Metoclopramide	
Tramadol	
Zolpidem	

Medicines on the IAHPC list that are not in the STGs, not on the EML, and included in CAMERWA database (- STG -EML +CAMERWA)	Medicines on the IAHPC list that are not in the STGs, not on the EML, and not included in the CAMERWA database (- STG -EML -CAMERWA)
Levomepromazine	Citalopram and related drugs
Lorazepam	Diphenhydramine
Oral rehydration salts	Fentanyl
	Gabapentin
	Hyoscine butylbromide
	Magesrol acetate
	Methadone
	Midazolam
	Mineral Oil Enema
	Mirtazepine and related drugs
	Octreotide
	Oxycodone
	Senna
	Trazodone

Guide de Prise en Charge des Personnes Infectées par le VIH au Rwanda. Le Centre de Traitement et de Recherche sur le SIDA (TRAC), WHO, Lux-Development, DCD, July 2007

There is no mention of palliative care in the STGs. And the only mention of hospice is as follows:

Partout où les patients infectés par le VIH sont regroupés (services hospitaliers, hospices, groupes de soutien communautaire, prisons, etc.) il faut prendre garde à la possibilité de survenue d'une tuberculose et assurer le dépistage précoce et traitement opportun de la maladie.

SOUTH AFRICA

Generic drug name/INN	Product included in STGs?	Included in Essential Medicines List? Hospital: Adults Hospital: Pediatrics Primary Health Care
Amitriptyline	<p>Included in section on treatment of peripheral neuropathy.</p> <p><input type="checkbox"/> If peripheral neuropathy is due to mitochondrial toxicity resulting from ddl or d4T initial treatment should involve:</p> <ul style="list-style-type: none"> o Symptomatic therapy with simple analgesia o Amitriptyline o Vitamin supplementation (B6 and Co). <p>Included in pain control for herpes infection, both acute and chronic.</p> <p>Acute: Ibuprofen 400 mg po 3 times daily or Paracetamol 1 000 mg po (4–6 hourly) plus Amitriptyline 25–50-75 mg po at night.</p> <p>Chronic: Amitriptyline 25-50-75 mg po at night +/- Carbamazepine 100-400 mg po twice daily.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Bisacodyl	No	<p>No</p> <p>No</p> <p>No</p>
Carbamazepine	<p>Mentioned in relation to its drug interaction qualities.</p> <p>Included in pain control for chronic herpes zoster infection.</p> <p>Amitriptyline 25-50-75 mg po at night +/- Carbamazepine 100-400 mg po twice daily.</p> <p>Included in section on treatment of peripheral neuropathy.</p> <p>Neuropathic pain can be difficult to relieve. Consider Ibuprofen 400-800 mg po three times a day plus Amitriptyline 25-50-75 mg po at night or other tricyclic antidepressants. Alternatives: Carbamazepine 200-400 mg po twice a day.</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	No, none of the meds listed are included.	<p>Citalopram and fluoxetine only</p> <p>Citalopram and fluoxetine only</p> <p>None of the meds listed are included</p>
Codeine	<p>Included in the symptomatic treatment of diarrhea associated with HIV, and the treatment of Cryptosporidial diarrhea. It is contraindicated in the treatment of infective diarrhea.</p> <p>Loperamide, oral, 4 mg immediately, followed by 2 mg after each loose stool, up to 16 mg/ day for severe diarrhoea. or Codeine syrup/tablets 15-30mg po 3-5 times a day (as required).</p> <p>Symptomatic treatment with oral rehydration, nutritional supplements and Loperamide or Codeine. There are currently no specific treatments.</p>	<p>No</p> <p>Yes</p> <p>Yes</p>

Dexamethasone	No	Yes Yes No
Diazepam	No	Yes Yes Yes
Diclofenac	No	Yes Yes No
Diphenhydramine	No	No No No
Fentanyl (transdermal patch)	No	Yes, however the form was not indicated Yes No
Gabapentin	No	No No No
Haloperidol	No	Yes Yes Yes
Hyoscine butylbromide	No	Yes Yes Yes
Ibuprofen	Included in pain control for acute herpes infection. Ibuprofen 400 mg po 3 times daily or Paracetamol 1 000 mg po (4–6 hourly) plus Amitriptyline 25–50-75 mg po at night. Included in section on treatment of peripheral neuropathy. Neuropathic pain can be difficult to relieve. Consider Ibuprofen 400-800 mg po three times a day plus Amitriptyline 25-50-75 mg po at night or other tricyclic antidepressants. Alternatives: Carbamazepine 200-400 mg po twice a day.	Yes Yes Yes
Levomepromazine	No	No No No
Loperamide	Included in the symptomatic treatment of diarrhea associated with HIV, and the treatment of Cryptosporidial diarrhea. Loperamide, oral, 4 mg immediately, followed by 2 mg after each loose stool, up to 16 mg/ day for severe	Yes No Yes

	<p>diarrhoea. or Codeine syrup/tablets 15-30mg po 3-5 times a day (as required).</p> <p>Symptomatic treatment with oral rehydration, nutritional supplements and Loperamide or Codeine. There are currently no specific treatments.</p> <p>It is contraindicated in the treatment of infective diarrhea.</p> <p>It is identified in the treatment of Protease inhibitor associated diarrhoea Loperamide. Fibre supplements. Pancreatic supplements, as indicated.</p>	
Lorazepam	No	Yes Yes Yes
Magestrol Acetate	No	No No No
Methadone (immediate release)	No	Yes, although not clear if the product listed is immediate release No No
Metoclopramide	No	Yes No Yes
Midazolam	Mentioned in relation to its drug interaction qualities.	Yes Yes No
Mineral oil enema	No	No No No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	No, none of the meds listed are included.	Mianserin only None of the meds listed are included None of the meds listed are included
Morphine	No	Yes Yes Yes
Octreotide	No	No Yes No
Oral rehydration salts	Included in the symptomatic treatment of diarrhea associated with HIV and cryptosporidial diarrhoea. Oral rehydration should be prescribed if the diarrhoea is severe.	Yes Yes Yes

Oxycodone	No	No No No
Paracetamol (Acetaminophen)	Included in pain control for acute herpes infection. Ibuprofen 400 mg po 3 times daily or Paracetamol 1 000 mg po (4–6 hourly) plus Amitriptyline 25–50-75 mg po at night. Identified in the treatment of cryptococcal meningitis. Pain and symptom management: Reduction of intracranial pressure alleviates headache and confusion. Residual pain can be managed with paracetamol and mild opiates(WHO level 1 & 2 analgesics).	Yes Yes Yes
Prednisolone (as an alternative to Dexamethasone)	No	Yes No No
Senna	No	No No No
Tramadol	No	Yes No Yes
Trazodone	No	No No No
Zolpidem (still patented)	No	No No No

The following information resources were utilized in this analysis:

- Standard Treatment Guidelines: Clinical Guidelines for the Management of HIV & AIDS in Health Facilities, National Department of Health, South Africa 2008, Final Draft, MAY 30, 2008
- Essential Medicines List: Standard Treatment Guidelines And Essential Drugs List For South Africa, Hospital Level
 - Hospital Level, Adults, 2006 Edition. Trailing is an example of the treatments cited in the STG/EML using amitriptyline as an example.
 - Hospital Level, Pediatrics, 2006 Edition.
 - Primary Health Care, 2008 Edition.

Database of registered drugs and Central Medical Stores Price These documents are not available online and as of March 2010, a reply has not been received from in-country staff regarding their availability.

Example of treatments listed in the Standard Treatment Guidelines and Essential Drugs List for South Africa, Hospital Level, Adults 2006 Edition

Amitriptyline

Treatment of Irritable Bowel Syndrome:

Tricyclic anti-depressants may be used as adjuvant therapy.

- amitriptyline, oral, 25–75 mg daily

Titrate dose as appropriate.

Treatment of genital prolapse and urinary incontinence:

For detrusor hyperactivity/instability as demonstrated on urodynamic studies:

- amitriptyline, oral, 10 mg at night as an initial dose

Increase by 10–25 mg 1–2 times daily.

Maximum dose: 75 mg daily.

Treatment of microvascular complications:

Pain

- paracetamol, oral, 1 g every 6 hours as needed
- amitriptyline, oral, 10–25 mg at night increasing to 75 mg, if necessary

If ineffective, consider adding:

- carbamazepine, oral, 100 mg daily increasing to 200 mg twice daily if necessary

Gastroparesis

- metoclopramide, oral, 10 mg three times daily before meals

If ineffective consult a specialist.

Treatment of post-herpetic neuralgia in herpes zoster:

Post-herpetic neuralgia

Early initiation of amitriptyline or carbamazepine is recommended.

Treatment of chronic pain:

In addition to analgesia as above:

- amitriptyline, oral, 10–25 mg at night

Titrate up to 75 mg at night.

Treatment of rheumatoid arthritis:

Adjunct for pain control:

- amitriptyline, oral, 25 mg at night

Titrate dose according to response.

Maximum dose: 75 mg at night.

Use with caution in patients with angle closure glaucoma, prostatic hypertrophy and the elderly.

Initial dose in the elderly: 10 mg at night.

Prophylactic treatment of migraine headaches:

- amitriptyline, oral, 10–25 mg at bedtime

Titrate dose up to adequate response.

More than 75–150 mg as a single bedtime dose is seldom required.

Treatment of tension headaches:

- amitriptyline, oral, 25–75 mg at night

Treatment of neuropathic pain

- amitriptyline, oral, 25–75 mg daily

or

carbamazepine, oral, 200–1 200 mg daily in divided doses

Treatment of post-herpes zoster neuropathy:

- amitriptyline, oral, 25–75 mg daily and/or
- carbamazepine, oral 200–1 200 mg daily dose in divided doses

Treatment of ARV-induced neuropathy:

Without changing the ARV regimen, many cases respond to:

- amitriptyline, oral, 25–75 mg daily

First line treatment of major depressive disorder:

Tricyclic antidepressants, e.g.:

- amitriptyline, oral, at bedtime

Initial dose: 25 mg, increase by 25 mg/day at 3–4 day intervals.

Maximum dose: 150 mg/day.

Doses in excess of 150 mg: consult a psychiatrist.

Treatment of neuralgic pain in herpes zoster ophthalmicus:

For neuralgic pain:

- amitriptyline, oral, 25 mg at night for 3 months

Medicines on the IAHP list that are in the STGs	Medicines on the IAHP list that are not in the STGs	
Amitriptyline	Bisacodyl	Metadone
Carbamazepine	Citalopram and related drugs	Metoclopramide
Codeine	Dexamethasone	Midazolam
Ibuprofen	Diazepam	Mineral oil enema
Loperamide	Diclofenac	Mirtazapine and related drugs
Oral rehydration salts	Diphenhydramine	Morphine
Paracetamol	Fentanyl	Octreotide
	Gabapentin	Oxycodone
	Haloperidol	Prednisolone
	Hyoscine butylbromide	Senna
	Levomepromazine	Tramadol
	Lorazepam	Trazodone
	Magestrol Acetate	Zolpidem

Clinical Guidelines for the Management of HIV & AIDS in Health Facilities, National Department of Health, South Africa 2008, Final Draft, May 30, 2008

There is no reference to hospice in the STGs. Palliative care is referenced as follows:

“9. Management of Treatment Failure After the Second Line Regimen

Salvage therapy is currently not available in the public health sector. The drugs needed for salvage therapy are not yet available in South Africa. Studies have shown clinical benefit in continuing on Regimen 2 despite virologic failure. The CD4 count typically continues to increase or remain stable provided the viral load is less than 10 000. Therefore patients failing after the second line regimen should receive increased adherence support. ART should be continued until there is no further clinical benefit from treatment. If patients experience AIDS-defining (WHO stage 4) illnesses on second-line therapy, they should be referred to an HIV clinician to discuss stopping ART and starting palliative care.”

TANZANIA

Generic drug name/INN	Product Registered? Product name, strength, and form	Product included in STGs? If so, for what indications?	Included in Essential Medicines List?	Included in MSD Product Catalogue?
Amitriptyline	Yes Amitriptyline 25 mg Tablets	Yes Indicated in the treatment of major depression. Management of depression includes the use of an antidepressant (selective serotonin reuptake inhibitors such as fluoxetine are recommended in HIV and AIDS), at adequate doses and for adequate duration; combined with supportive counselling. Symptoms often decrease over three weeks of treatment. Improvements in sleep pattern should be expected in the first week, greater activity in the second week and improved mood and energy in the third week. Dose should be titrated on a weekly basis against effects starting with building from 25 mg nocte to the therapeutic dose of 50mg nocte within three days of initiating treatment for imipramine and amitriptyline and starting with a therapeutic dose of 20 mg during the morning for fluoxetine. Indicated in the treatment of peripheral neuropathy. Pain associated with neuropathy may respond to analgesics combined with antidepressants (eg amitriptyline) or anticonvulsants (eg carbamazepine) Identified as having drug interactions with specific ARVs. Indicated in the treatment of post-herpetic pain. • Post-herpetic pain: give Paracetamol/Aspirin or Diclofenac, also Amitriptylin 25-50mg nocte	Yes	Yes
Bisacodyl	Yes Bisacodyl 5 mg Tablets	No	Yes	Yes
Carbamazepine	Yes Carbamazepine 200 mg Tablets	Yes Indicated in the treatment of peripheral neuropathy. Pain associated with neuropathy may respond to analgesics combined with antidepressants (eg amitriptyline) or anticonvulsants (eg carbamazepine) Indicated in the management of AIDS-related mania. • Mood stabilizing drugs such as carbamazepine (used at doses for treatment of epilepsy) have been noted in the Tanzanian context to be useful for the control of acute symptoms (anecdotal observations). • When carbamazepine is prescribed, drug doses should be reviewed within one-two weeks of treatment as the carbamazepine induces liver enzymes.	Yes	Yes
Citalopram (or any other equivalent generic SSRI except paroxetine and fluoxetine) These would include: escitalopram, fluoxetine, or sertraline.	None of the meds listed are registered	Yes Indicated in the treatment of major depression. Management of depression includes the use of an antidepressant (selective serotonin reuptake inhibitors such as fluoxetine are recommended in HIV and AIDS), at adequate doses and for adequate duration; combined with supportive counselling. Symptoms often decrease over three weeks of treatment. Improvements in sleep pattern should be expected in the first week, greater	No	None of the meds listed are included

		activity in the second week and improved mood and energy in the third week. Dose should be titrated on a weekly basis against effects starting with building from 25 mg nocte to the therapeutic dose of 50mg nocte within three days of initiating treatment for imipramine and amitriptyline and starting with a therapeutic dose of 20 mg during the morning for fluoxetine.		
		Identified as having drug interactions with specific ARVs.		
Codeine	<p>Yes</p> <p>Sinu with Codeine: Codeine + Paracetamol + Phenylpropanolamine + Phenyltoloxamine Tablets (no strength named)</p> <p>Benylin + Codeine: Ammonium Chloride + Codeine + Diphenhydramine Syrup (no strength named)</p> <p>Broncholin + Codeine: Codeine Syrup</p> <p>(no strength named)</p> <p>Codeine Linctus: Codeine Phosphate 3mg/ml Liquid</p>	<p>Yes</p> <p>Level 2: Medium/ persistent pain</p> <p>Indicated for pain relief in home based care.</p> <ul style="list-style-type: none"> • Pain relief with appropriate medication (e.g., use of NSAID's, codeine and other opioids such as liquid morphine) <p>Indicated for pain relief in palliative care.</p> <ul style="list-style-type: none"> • The next level of treatment for pain control is with a mild opioid such as codeine given in a dose of 30mg every 4 hours. If this still does not control pain then a strong opioid such as morphine may be used initially in a dose of 5mg every 4 hours. This dose should be increased to levels that control pain. 	Yes	No
Dexamethasone	<p>Yes</p> <p>Dexamethasomen 4mg/ml Injection</p> <p>(Eye ointment and eye drops are also registered)</p>	<p>Yes</p> <p>Indicated in pain management for children. (Steroids are referenced; dexamethasone is not explicitly named.)</p> <p>The principles of pain control in children are similar to those in adults, and in particular important during terminal illness. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However if pain control cannot be achieved with such measures it is essential that children be allowed to be pain free and opioids (e.g. oral morphine) should be used to achieve this. Steroids should also be considered when inflammation is noticed.</p>	Yes	Yes
Diazepam	<p>Yes</p> <p>Diazepam 10mg injection Diazepam 5mg/ml injection Diazepam 5mg tablets Diazepam tablets (with no strength indicated)</p>	No	Yes	Yes

Diclofenac	Yes Diclofenac 50 tablets Diclofenac Sodium Injection 75mg/3ml Diclofenac Sodium Injection 25mg/ml Diclofenac 50mg tablets Diclofenac sodium 50mg tablets	Yes Indicated for pain relief in home based care. (Diclofenac not explicitly named.) • Pain relief with appropriate medication (e.g., use of NSAID's, codeine and other opioids such as liquid morphine) Indicated in the treatment of post-herpetic pain. • Post-herpetic pain: give Paracetamol/Aspirin or Diclofenac, also Amitriptylin 25-50mg nocte	Yes	Yes
Diphenhydramine	No	Yes Indicated in the management of Itching. Orally administered antihistamines, such as, diphenhydramine or hydroxyzine 25mg given at night may reduce the pruritus and allow a relatively more comfortable sleep.	No	No
Fentanyl (transdermal patch)	No	No	No	No
Gabapentin	No	No	No	No
Haloperidol	Yes Haloperidol 1.5 mg tablets	Yes Indicated in the treatment of delirium. Less sedating major tranquilizers such as Haloperidol should be used at low doses (3 - 9 mg daily, titrate dose to response making changes in drug dose after one hour of observation of effects if acutely agitated on day of initiation of parenteral treatment and at least after 3 days of observation of effects if on oral medication) to control these symptoms, while treating underlying causes of organic brain disease. The choice of Haloperidol is also because it does not lower the seizure threshold and thus does not predispose patients who are already vulnerable to developing seizures to have them.	No	Yes
Hyoscine butylbromide	Yes Hyoscine butylbromide 10 mg tablets	No	Yes	Yes
Ibuprofen	Yes Ibuprofen 200mg tablets Ibuprofen 400 tablets	Yes Level I Pain: Mild, non-persistent pain Indicated for pain relief in home based care. (Ibuprofen not explicitly named.) • Pain relief with appropriate medication (e.g., use of NSAID's, codeine and other opioids such as liquid morphine) Indicated for pain relief in palliative care. • Initially use non-opioids such as aspirin 600mg every 4 hours, increasing to 1000mg every 6 hours, or paracetamol 500mg every 4 to 6 hours, or ibuprofen 400mg every 6 hours.	Yes	Yes

		Indicated in pain management for children. (NSAIDS referenced; Ibuprofen not named explicitly.) The principles of pain control in children are similar to those in adults, and in particular important during terminal illness. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However if pain control cannot be achieved with such measures it is essential that children be allowed to be pain free and opioids (e.g. oral morphine) should be used to achieve this. Steroids should also be considered when inflammation is noticed.		
Levomepromazine	No	No	No	No
Loperamide	Yes Loperamide 2mg tablets	Yes Indicated in the treatment of persistent diarrhea. • In persistent diarrhoea among adults with no obvious treatable causes give anti diarrhoeal drugs such as Loperamide	Yes	Yes
Lorazepam	Yes Lorazepam 1mg tablets	No	No	No
Magestrol Acetate	No	No	No	No
Methadone (immediate release)	No	No	No	No
Metoclopramide	No	Yes Vomiting	Yes	No
Midazolam	No	No	No	No
Mineral oil enema	No	No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	None of the meds listed are registered	No	No	None of the meds listed are included
Morphine	No	Yes Level 3: Severe/highly persistent pain Indicated for pain relief in home based care. • Pain relief with appropriate medication (.e.g., use of NSAID's, codeine and other opioids such as liquid morphine) Indicated for pain relief in palliative care. • The next level of treatment for pain control is with a mild opioid such as codeine given in a dose of 30mg every 4 hours. If this still does not control pain then a strong opioid such as morphine	Yes	Yes

		<p>may be used initially in a dose of 5mg every 4 hours. This dose should be increased to levels that control pain.</p> <p>Indicated in pain management for children.</p> <p>The principles of pain control in children are similar to those in adults, and in particular important during terminal illness. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However if pain control cannot be achieved with such measures it is essential that children be allowed to be pain free and opioids (e.g. oral morphine) should be used to achieve this. Steroids should also be considered when inflammation is noticed.</p>		
<i>Octreotide</i>	No	No	No	No
<i>Oral rehydration salts</i>	No	<p>Yes</p> <p>Indicated in the treatment of diarrhea.</p> <ul style="list-style-type: none"> • Rehydration, Oral Rehydration Therapy (ORS) 	Yes	No
<i>Oxycodone</i>	No	No	No	No
<i>Paracetamol (Acetaminophen)</i>	<p>Yes, 15 products registered</p> <p>Paracetamol 2.4%v/v elixir</p> <p>Paracetamol 500 mg tablets</p> <p>Paracetamol 100 mg tablets</p> <p>Paracetamol 125 mg suppositories</p>	<p>Yes</p> <p>Level I Pain: Mild, non-persistent pain</p> <p>Indicated for pain relief in home based care. (Paracetamol not explicitly named.)</p> <ul style="list-style-type: none"> • Pain relief with appropriate medication (.e.g., use of NSAID's, codeine and other opioids such as liquid morphine) <p>Indicated for pain relief in palliative care.</p> <ul style="list-style-type: none"> • Initially use non-opioids such as aspirin 600mg every 4 hours, increasing to 1000mg every 6 hours, or paracetamol 500mg every 4 to 6 hours, or ibuprofen 400mg every 6 hours. <p>Indicated in the treatment of post-herpetic pain.</p> <ul style="list-style-type: none"> • Post-herpetic pain: give Paracetamol/Aspirin or Diclofenac, also Amitriptylin 25-50mg nocte <p>Indicated in pain management for children.</p> <p>The principles of pain control in children are similar to those in adults, and in particular important during terminal illness. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However if pain control cannot be achieved with such measures it is essential that children be allowed to be pain free and opioids (e.g. oral morphine) should be used to achieve this. Steroids should also be considered when inflammation is noticed.</p> <p>Indicated in the treatment of fever associated with bacterial pneumonias in children in an outpatient setting.</p> <ul style="list-style-type: none"> • Give paracetamol for fever <p>Indicated in the treatment of fever and pain for bacterial pneumonia in children</p>	Yes	Yes

		<ul style="list-style-type: none"> Remember to give paracetamol for fever and pain <p>Indicated in the treatment of pain in children with pneumocystic pneumonia.</p> <ul style="list-style-type: none"> Paracetamol for pain 		
Prednisolone (as an alternative to Dexamethasone)	Yes Prednidolone 5mg tablets	<p>Yes</p> <p>Indicated in pain management for children. (Steroids are referenced; prednisolone is not explicitly named.)</p> <p>The principles of pain control in children are similar to those in adults, and in particular important during terminal illness. Initially it is advisable to use non-opioids such as paracetamol or non-steroidal anti-inflammatory agents. However if pain control cannot be achieved with such measures it is essential that children be allowed to be pain free and opioids (e.g. oral morphine) should be used to achieve this. Steroids should also be considered when inflammation is noticed.</p> <p>Indicated as an adjunct treatment for TB in children.</p> <ul style="list-style-type: none"> Steroids (eg. Prednisolone 4mg/kg daily for six weeks) are recommended in Tuberculous Meningitis, endobronchial TB, miliary TB, massive pleural effusion and TB pericarditis <p>Indicated in the treatment of severe hypersensitivity reaction to nevirapine.</p> <p>If a severe drug-reaction type rash occurs, patients will discontinue NVP treatment, begin high dose prednisolone, antihistamines, analgesics, and be admitted to the hospital for IV fluids and careful monitoring, LFTs can be grade III (>5 times the upper limit of normal) or higher. NVP will be stopped immediately and not re-introduced.</p>	Yes	Yes
Senna	No	No	No	No
Tramadol	Yes Tramadol 50mg capsules	No	Yes	Yes
Trazodone	No	No	No	No
Zolpidem (still patented)	No	No	No	No

The following information resources were utilized in this analysis:

- The Tanzania Food and Drug Authority's searchable database of registered drugs (<http://www.tfda.or.tz/search.php>)
- The National Guidelines for the Clinical Management of HIV and AIDS developed by the National AIDS Control Programme (NACP) (Second edition, April 2005)
- The 2005 edition of the Tanzania National Essential Medicines List (NEMLIT)
- The Medical Stores Department's (MSD) the Price Catalog for 2008/2009 provided as an Excel spread sheet (http://www.msd.or.tz/pages/price_catalogue.html)

The Tanzania National Formulary was not available on line or in any other electronic format. The document was referenced on the website of the Tanzania Food and Drugs Authority (<http://www.tfda.or.tz> accessed 28 January 2010) as being available in hard copy in a number of select locations: "**NOTE:** A hard copy of TNF is available at TFDA Headquarters office located along Mandela Road, External-Mabibo or can be obtained from TFDA Zonal offices located Mwanza, Mbeya and Arusha."

Medicines on the IAHPC list that are in the STGs, not on the EML, and not registered (+STG -EML - Reg)	Medicines on the IAHPC list that are in the STGs, on the EML, and are registered (+ STG - EML + Reg)
Fluoxetine only	Haloperidol
Diphenhydramine	Tramadol

Medicines on the IAHPC list that are in the STGs, on the EML, and are registered (+STG +EML + Reg)	Medicines on the IAHPC list that are in the STGs, on the EML, and not registered (+STG +EML - Reg)
Amitriptyline	Metoclopramide
Carbazepine	Morphine
Codeine	Oral rehydration salts
Dexamethasone	
Diclofenac	
Ibuprofen	
Loperamide	
Paracetamol	
Prednisolone	

Medicines on the IAHPC list that are not in the STGs not on the EML, and not registered (-STG - EML -Reg)	Medicines on the IAHPC list that are not in the STGs, not on the EML, and are registered (-STG - EML + Reg)
Fentanyl	Lorazepam
Gabapentin	
Levomepromazine	
Magestrolacetate	
Methadone	
Midazolam	
Mineral Oil Enema	
Mirtazapine (and also mianserin, setipiline, duloxetine, and venlafaxine)	
Octreotide	
Oxycodone	
Senna	
Trazodone	
Zolpidem	

Medicines on the IAHPC list that are not in the STGs, but that are on the EML, and are registered (-STG +EML + Reg)
Bisacodyl
Diazepam
Hyoscine butylbromide

United Republic of Tanzania Ministry of Health, National Guidelines for the Clinical Management of HIV and AIDS, National AIDS Control Programme (NACP), Second Edition, April 2005⁷

8.5.1 Symptom management

Pain

Determine the site of the pain and grade the severity of the pain. Pain control in adults should be achieved as follows:

- Initially use non-opioids such as aspirin 600mg every 4 hours, increasing to 1000mg every 6 hours, or paracetamol 500mg every 4 to 6 hours, or ibuprofen 400mg every 6 hours.
- The next level of treatment for pain control is with a mild opioid such as codeine given in a dose of 30mg every 4 hours. If this still does not control pain then a strong opioid such as morphine may be used initially in a dose of 5mg every 4 hours. This dose should be increased to levels that control pain.
- Chronic pain should be treated by month and on a regular basis. It is advisable to start with mild analgesia and progress in a step-wise to more potent analgesics and opioids if necessary. The pain control “ladder” is shown in Figure 3.

Level 1: Mild /non - persistent pain.

Use non – opioids (e.g., aspirin, ibuprofen, paracetamol)

Level 2: Medium/ persistent pain

Use opioids for mild to moderate pain (e.g., codeine)

Level 3: Severe/highly persistent pain

Use opioids for moderate to severe pain (e.g., morphine)

PLUS non – opioids

Breathlessness

Patients with AIDS often develop severe breathlessness terminally. This may be the result of a severe nonresponding lung infection or cancer such as Kaposi’s sarcoma or lymphoma affecting the lungs and pleura. In such patients alleviate dyspnoea by propping up the patient and then refer for further management.

Vomiting

Vomiting may lead to poor fluid intake and hence dehydration and therefore it is necessary to correct dehydration. Patient should be encouraged to take small amounts of fluids frequently. Vomiting may be relieved by administering prochlorperazine 5mg orally three times a day or metoclopramide 10mg orally three times a day.

Oral care

Good oral care should always be practiced. This includes regularly brushing the teeth with a soft toothbrush and gargling with mouth wash solutions or weak salt solutions after food. In persons with mouth sores oral care helps. If the sores are painful patients will not be able to eat or swallow and should be given soft foods and liquid diets. If a specific cause for the ulcers is found these should be treated as described.

Itching

To relieve itching, bath oils or other emollients such as emulsifying ointment may be useful. If a rash is present then antifungal creams will help if the rash is due to a fungal infection or topical steroids will relieve inflamed areas of the skin if a bacterial or viral infection is not present. Orally administered antihistamines, such as, diphenhydramine or hydroxyzine 25mg given at night may reduce the pruritus and allow a relatively more comfortable sleep.

Comfort

Prevent the development of bedsores by changing the position of the patient every 4 hours and arrange for the patient to lie on an extra soft material. Avoid pressure on any one part of the body for prolonged periods of time. Protect areas

⁷ http://www.aidstar-one.com/national_guidelines_clinical_management_hiv_and_ai (accessed January 2010)

that have become inflamed because of pressure by avoiding any pressure at all on the area and by applying soothing lotions. Change soiled bed sheets immediately. Massage pressure points such as the heels, elbows, ankles, back and hips frequently. Cover all open sores with a gauze bandage after applying an antiseptic cream.

Observations regarding Tanzania’s STGs as they relate to the IAHPC List of Essential Medicines for Palliative Care (“the IAHPC list”)

- Some specific medicines are cited in the STGs for palliative care (e.g., ibuprofen). When a specific medication is noted, specific dosage recommendations are provided (e.g., metoclopramide). When a general class of medications or preparations is cited without a particular product name, only general guidance on dosage and administration is provided (e.g., antiseptic cream).
- Of the 33 medicines included on the IAHPC list, six are mentioned in Tanzania’s STGs:
 - Codeine
 - Diphenhydramine
 - Ibuprofen
 - Metoclopramide
 - Morphine
 - Paracetamol
- Of those six products included in the STGs, five appear on the Tanzania EML:
 - Codeine
 - Ibuprofen
 - Metoclopramide
 - Morphine
 - Paracetamol
- Neither diphenhydramine nor the other oral antihistamine mentioned in the STGs, hydroxyzine, is included in the EML. In addition, diphenhydramine is not registered in Tanzania.
- Of the five products included in the STGs and on the EML, three have products registered:
 - Codeine
 - Ibuprofen
 - Paracetamol
- The remaining two medicines do not have products registered:
 - Metoclopramide
 - Morphine

Observations regarding the Tanzania Palliative Care STGs

Specific drugs listed with dosage recommendations:

- “...aspirin 600mg every 4 hours, increasing to 1000mg every 6 hours, or paracetamol 500mg every 4 to 6 hours, or ibuprofen 400mg every 6 hours.”
- “...codeine given in a dose of 30mg every 4 hours. If this still does not control pain then a strong opioid such as morphine may be used initially in a dose of 5mg every 4 hours. This dose should be increased to levels that control pain.”
- “...prochlorperazine 5mg orally three times a day or metoclopramide 10mg orally three times a day.”
- “...diphenhydramine or hydroxyzine 25mg given at night

General categories of medicines listed with general administration guidelines:

- “...gargling with mouth wash solutions or weak salt solutions after food.”
- “...bath oils or other emollients such as emulsifying ointment...”
- “...antifungal creams will help if the rash is due to a fungal infection or topical steroids will relieve inflamed areas of the skin if a bacterial or viral infection is not present.”
- “...by applying soothing lotions. Change soiled bed sheets immediately. Massage pressure points such as the heels, elbows, ankles, back and hips frequently. Cover all open sores with a gauze bandage after applying an antiseptic cream.”

Information on controlled drugs in Tanzania⁸**Guidelines for Dealings in Controlled Drugs**

The Government through the Ministry of Health, Tanzania Food and Drugs Authority has been trying to put in place a system for control of narcotic drugs, psychotropic substances and precursor chemicals (controlled drugs) following recommendations by the International Narcotics Control Board (INCB). The Government has followed these recommendations and is taking practical steps to prevent diversion of controlled drugs from licit to illicit trade.

The guideline for dealings in Controlled Drugs was made under section 78 of the Tanzania Food, Drugs and Cosmetics Act, 2003. The guideline describes requirements for the procurement of controlled drugs, procedures for importation of controlled drugs, dispensing of controlled drugs, documentation of controlled drugs and requirements for the destruction and loss of controlled drugs. The guideline also outlines the special provisions concerning carriage of controlled drugs in kits of ships, aircraft or other forms of transport.

The guideline is intended to guide dealers of controlled drugs on requirements for importation, exportation, distribution and dispensing. It is also intended to provide guidance on proper record keeping which will assist in establishing demands of the institution that will enable the authority to establish national needs. The guideline will guide users on preparation of reports such as annual/quarterly consumption reports as required by the law, and enable the authority to monitor the use and handling of controlled drugs for medical and scientific purposes. The guideline will monitor use of controlled drugs to legitimate medical and scientific purposes and to ensure that they are available for the management of pain. The guideline is also intended to promote rational use of controlled drugs, and foster accessibility of controlled drugs.

⁸ <http://www.tfda.or.tz/guidecontrolleddrugs.htm> (accessed January 2010)

UGANDA

Generic drug name/INN	Product registered? Proprietary name, Generic name, strength and form. <i>(Some products registered by multiple manufacturers)</i>	Product included in STGs?	Included in Essential Medicines List?	Included in Central Medical Stores Product Catalogue?
Amitriptyline	Yes AMITRIPTYLINE TABLETS AMITRIPTYLINE 25MG TABLET	No	Yes	Yes
Bisacodyl	Yes BISACODYL TABLETS 5MG BISACODYL 5MG TABLET F/C BISACODYL TABLETS BP BISACODYL 5MG TABLET (ENTERIC COATED)	No	Yes	Yes
Carbamazepine	No	No	Yes	Yes
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	Yes FLUOXETINE FLUOXETINE HCL 20MG CAPSULE (HARD GELATIN)	No	No (None of the meds listed are included)	No (none of the meds listed are included)
Codeine	Yes PIRITEX WITH CODEINE SYRUP	No	Yes	Yes
Dexamethasone	Yes DEXAMETHASONE INJECTION DEXAMETHASONE SODIUM PHOSPHATE 4MG/MLINJECTION DEXAMETHASONE TABLETS DEXAMETHASONE 0.5MG TABLET	No	Yes	Yes

	<p>DEXAMETHASONE INJECTION DEXAMETHASONE 4MG/ML INJECTION</p> <p>DEXAMETHASONE IM/IV DEXAMETHASONE SODIUM PHOSPHATE 8MG/2ML SOLUTION FOR INJECTION</p>			
Diazepam	<p>Yes</p> <p>DIAZEPAM DIAZEPAM 10mg/2ml INJECTION</p> <p>DIAZEPAM DIAZEPAM 5MG/ML INJECTION</p> <p>DIAZEPAM INJECTION DIAZEPAM 5MG/MLSOLUTION FOR INJECTION</p> <p>DIAZEPAM INJECTION DIAZEPAM 5MG/ML SOLUTION FOR INJECTION</p>	No	Yes	Yes
Diclofenac	<p>Yes</p> <p>DICLOFENAC GEL DICLOFENAC1%W/W CREAM</p> <p>DICLOFENAC SODIUM DICLOFENAC SODIUM 75MG/3ML INJECTION</p> <p>DICLOFENAC SODIUM INJECTION DICLOFENAC SODIUM 25MG/ML PARENTERAL</p> <p>DICLOFENAC SODIUM TABLETS DICLOFENAC SODIUM 50MG TABLET (FILM COATED)</p>	No	Yes	Yes

	DICLOFENAC SODIUM INJECTION DICLOFENAC SODIUM 75MG/3ML SOLUTION FOR INJECTION DICLOFENAC SODIUM INJECTABLE SOLUTION DICLOFENAC SODIUM 25MG/ML SOLUTION FOR INJECTION			
<i>Diphenhydramine</i>	Yes AXCEL DIPHENHYDRAMINE PAEDIATRIC SYRUP DIPHENAHYDRAMINE HCL/AMMONIUM CHLORIDE 7MG, 67.5MG/5ML SYRUP AXCEL DIPHENHYDRAMINE ESPECTORANT DIPHENAHYDRAMINE HCL/AMMONIUM CHLORIDE 12.5MG, 130 MG/5ML SYRUP	No	No	No
<i>Fentanyl (transdermal patch)</i>	No	No	No (injection only)	No
<i>Gabapentin</i>	No	No	No	No
<i>Haloperidol</i>	Yes HALOPERIDOL HALOPERIDOL 10MG TABLET HALOPERIDOL INJECTION BP HALOPERIDOL 5MG/ML SOLUTION FOR INJECTION	No	Yes	Yes
<i>Hyoscine butylbromide</i>	No	No	Yes	Yes
<i>Ibuprofen</i>	Yes IBUPROFEN DENK 400 IBUPROFEN 400MG TABLET	No	Yes	Yes
<i>Levomepromazine</i>	No	No	No	No
<i>Loperamide</i>	Yes LOPERAMIDE HYDROCHLORIDE	No	Yes	Yes

	LOPERAMIDE HYDROCHLORIDE 2 MG CAPSULE			
Lorazepam	No	No	Yes	No
Magestrol Acetate	No	No	No	No
Methadone (immediate release)	No	No	No	No
Metoclopramide	Yes METOCLOPRAMIDE METOCLOPRAMIDE 10MG TABLET METOCLOPRAMIDE METOCLOPRAMIDE 5MG/MLINJECTION METOCLOPRAMIDE HYDROCHLORIDE INJECTION METOCLOPRAMIDE HYDROCHLORIDE 5MG/ML INJECTION	No	Yes	Yes
Midazolam	No	No	Yes	No
Mineral oil enema	No	No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	No (None of the meds listed are included)	No	No (None of the meds listed are included)	No (None of the meds listed are included)
Morphine	Yes MORPHINE INJECTION MORPHINE SULPHATE 15MG/1MLINJECTION MORPHINE INJECTION MORPHINE SULPHATE 10MG/1MLINJECTION	No	Yes	Yes
Octreotide	No	No	No	No
Oral rehydration salts	Yes ORS POWDER FOR ORAL SOLUTION	No	Yes	Yes
Oxycodone	No	No	No	No

Paracetamol (Acetaminophen)	Yes PARACETAMOL SUSPENSION PARACETAMOL 120MG/5ML SUSPENSION FOR ORAL USE PARACETAMOL SYRUP PARACETAMOL 120MG/5ML SYRUP PARACETAMOL TABLET BP PARACETAMOL 500MG TABLET PARACETAMOL TABLETS 500MG PARACETAMOL 500MG TABLET PARACETAMOL PARACETAMOL 500MG TABLET (UNCOATED)	No	Yes	Yes
Prednisolone (as an alternative to Dexamethasone)	Yes PREDNISOLONE TABLETS PREDNISOLONE 5MG TABLET	No	Yes	Yes
Senna	No	No	Yes	No
Tramadol	Yes TRAMADOL HYDROCHLORIDE TRAMADOL HYDROCHLORIDE 50MG/ML SOLUTION FOR INJECTION	No	No	Yes
Trazodone	No	No	No	No
Zolpidem (still patented)	No	No	No	No

The following information resources were utilized in this analysis:

- National Drug Authority Registered Drugs, List of registered human drugs. Last updated on 2010-03-02 12:44:13 online database: http://www.nda.or.ug/hmn_list.php.
- Standard Treatment Guidelines: National Antiretroviral Treatment and Care Guidelines for Adults and Children. 2nd Edition July 2008. Ministry of Health. (Neither hospice nor palliative care are cited in the guidelines, and none of the IAHPHC medicines were identified in the ART guidelines. However, palliative care may be included in other guidelines. Note the following reference to other guidelines in the ARV guidelines:

“These guidelines are specifically addressing antiretroviral therapy. However, ART should always be seen as one component of general HIV care. The other components, like Home based care, PMTCT, have been described in details in the appropriate guidelines that are published by the AIDS Control Program of the Ministry of Health. Health workers are strongly advised use them hand in hand with these ART guidelines.”
- Essential Medicines List: Essential Drugs List for Uganda EDLU 2001 <http://collections.infocollections.org/whocountry/en/d/jh4324e/8.html>. Newer version of the EDLU was not available online.
- Central Medical Stores Price Catalog: National Medical Stores (NMS) Catalogue and Price Indicator January 2007.

Medicines on the IAHPC list that are in the STGs	Medicines on the IAHPC list that are in the STGs, and that are on the EML
None of the medicines are included in the STGs.	None of the medicines are included in the STGs.
Medicines on the IAHPC list that are in the STGs, on the EML, and are registered	Medicines on the IAHPC list that are in the STGs, on the EML, and not registered
None of the medicines are included in the STGs.	None of the medicines are included in the STGs.
Medicines on the IAHPC list that are not in the STGs nor on the EML, and not registered (-Reg -STG -EML)	Medicines on the IAHPC list that are not in the STGs, nor on the EML, and are registered (+ Reg -STG -EML)
Fentanyl patch	Citalopram (and related drugs)
Gabapentin	Diphenhydramine
Levomepromazine	Tramadol (also in NMS catalog)
Magestrol acetate	
Methadone	
MIneral oil enema	
Mirtazapine (and related drugs)	
Octreotide	
Oxycodone	
Trazodone	
Zolpidem	
Medicines on the IAHPC list that are not in the STGs, but are on the EML (-REG -STG +EML)	Medicines on the IAHPC list that are not in the STGs, but that are on the EML, and are registered (+ Reg -STG +EML)
	<i>All drugs listed here area also included in the NMS catalog</i>
Carbamazepine (also in NMS catalog)	Amitriptyline
Hyoscine butylbromide (also in NMS catalog)	Bisacodyl
Lorazepam	Codeine
Midazolam	Dexamethasone
Senna	Diazepam
	Diclofenac
	Haloperidol
	Ibuprofen
	Loperamide
	Metoclopramide
	Morphine
	Oral rehydration salts
	Paracetamol
	Prednisolone

Minimum Drugs Required for Pain and Symptom Control in Uganda: Generic Drug Proprietary Dose Form⁹

Generic Drug	Proprietary	Dose	Form
Amitriptyline	Lentizol	10, 25, 50 mg	tabs
Phenytoin	Epanutin	100mg	tabs/liq
Acetylsalicylic acid	Aspirin	300mg	tabs
Diclofenac	Volterol	25, 50 ,75 ,100mg	tabs
		75mg/3mls	inj
Codeine		30mg	inj
Morphine		5mg&50mg/5mls	liq
Chlorpromazine	Largactil	10, 25mg	inj&tab
Thioridazine	Melleril	25, 50mg	inj/tab
Haloperidol	Serenace	5mg	tab
Dexamethasone	Decadron	0.5, 2mg	tab
		8mg/ml	inj
Diazepam	Valium	2.5, 10mg	inj/tab
Frusemide	Lasix	20, 40mg	inj/tab
Spirolactone	Aldactone	50, 100mg	tab
Ketoconazole	Nizoral	200mgs	tab
Nystatin		100& 500,000iu	tab/susp
Magnesium trisicate			liq
Metoclopramide	Placil	10mg	inj&tab
Metronidazole	Flagyl	200mg	tab
Amoxycillin		250mg	cap
Bisocodyl	Dulcolax	5mg	tab
Hyoscine Butylbromide	Buscopan	10mg	inj&tab
Chlorpheniramine	Piriton	4mg	tab

⁹ The source and date of the list is not known.

ZAMBIA

Generic drug name/INN	Product included in STGs?	Included in Essential Medicines List?	Included in Central Medical Stores Product Catalogue?
Amitriptyline	No	No	No
Bisacodyl	No	No	No
Carbamazepine	No	Yes	Yes: Antiepileptic 200mg Tablets
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	No	No	No
Codeine	No	No	No
Dexamethasone	No	Yes	Yes: Corticosteroid 4mg/ml Dexamethasone sodium phosphate Injection 5mg/ml Dexamethasone sodium phosphate Injection
Diazepam	No	Yes	Yes: Anxiolytic/ Antipsychotic 5mg/ml Injection 5mg Tablets
Diclofenac	No	Yes	Yes: NSAID 50mg Diclofenac sodium Tablet
Diphenhydramine	No	No	No
Fentanyl (transdermal patch)	No	No	No
Gabapentin	No	No	No
Haloperidol	No	Yes	Yes: Anxiolytic/ Antipsychotic 5mg/ml Injection 5mg Tablet
Hyoscine butylbromide	No	No	No
Ibuprofen	No	Yes	Yes: NSAID 200mg Tablet
Levomepromazine	No	No	No
Loperamide	No	Yes	Yes: Antidiarrhoeal 2mg Tablet
Lorazepam	No	Yes	Yes: Anxiolytic/ Antipsychotic 1mg Tablet
Magestrol Acetate	No	No	No
Methadone (immediate release)	No	No	No
Metoclopramide	No	Yes	Yes: Antinausea 5mg/ml Metoclopramide HCl Injection
Midazolam	No	No	No

Mineral oil enema	No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setipiline. SNRIs: Duloxetine, venlafaxine.	No	No	No
Morphine	No	Yes	Yes: Opioid analgesic 5g Morphine sulphate BP, plastic bottle 10mg/ml Morphine sulphate injection 5mg/ml Morphine sulphate injection
Octreotide	No	No	No
Oral rehydration salts	No	Yes	Yes: Electrolyte and water replacement, oral administration Sachet to MAK's ORS WHO formula Sachet (Resonal)ORS WHO formula
Oxycodone	No	No	No
Paracetamol (Acetaminophen)	No	Yes	Yes: Non-Opioid analgesic 120mg/5ml Syrup 100mg Tablet 500mg Tablet
Prednisolone (as an alternative to Dexamethasone)	No	Yes	Yes: Corticosteroid 5mg Tablets
Senna	No	No	No
Tramadol	No	No	No
Trazodone	No	No	No
Zolpidem (still patented)	No	No	No

The following information resources were utilized in this analysis:

- MSL Catalog Draft Supplies List (created Thursday, October 23, 2008 8:24:45 AM).
- Essential Medicines List (As part of the central medical stores price list. MSL memo Oct 2009 from Dirk van Wyk, Managing Director, indicates that the catalogue includes the EML).
- Standard treatment guidelines:
 - Antiretroviral Therapy for Chronic HIV Infection in Adults and Adolescents: New ART Protocols, May 2007, Zambia Ministry of Health. (These STGs are very focused on ART treatment and therefore do not include the use of these medications in palliative care.)
 - Zambian Guidelines for Antiretroviral Therapy of HIV Infection in Infants and Children: Towards Universal Access. Recommendations for a public health approach, 2007. Government of the Republic of Zambia, Ministry of Health.

Note: There is no database of registered drugs available for Zambia. The analysis is based on the products listed in the MSL catalogue, which are all included in the EML. Evidently, the pharmaceutical regulatory authority has been updating their registered drugs database for over a year, however, they are not releasing draft versions.

Medicines on the IAHP list that are not in the STGs nor on the EML, and not in the MSL catalog (-Catalog -STG -EML)	Medicines on the IAHP list that are not in the STGs, but that are on the EML, and are in the MSL catalog (+ Catalog -STG +EML)
Amitriptyline	Carbamazepine
Bisacodyl	Dexamethasone
Citalopram (and related drugs)	Diazepam
Codeine	Diclofenac
Diphenhydramine	Haloperidol
Fentanyl (transdermal patch)	Ibuprofen
Gabapentin	Loperamide
Hyoscine butylbromide	Lorazepam
Levomepromazine	Metoclopramide
Magestrol Acetate	Morphine
Methadone	Oral rehydration salts
Midazolam	Paracetamol
Mineral oil enema	Prednisolone
Mirtazapine (and related drugs)	
Octreotide	
Oxycodone	
Senna	
Tramadol	
Trazodone	
Zolpidem (still patented)	

Zambian Guidelines for Antiretroviral Therapy of HIV Infection in Infants and Children: Towards Universal Access, Recommendations for a public health approach, Government of the Republic of Zambia, Ministry of Health, 2007

“Considerations for Stopping ART and Palliative Care At some stage the option to stop ART may need to be considered, although prevention of opportunistic infections, symptom relief and pain management need to continue. Symptoms and pain are a major cause of discomfort and poor quality of life during the course of HIV infection in infants and children. Many of these symptoms can be prevented, treated or controlled with basic medications and therapies. Non-pharmacological methods are an important adjuvant to symptom management. Efforts to identify the cause of symptoms and pain should be pursued as much as possible, without adversely affecting the quality of the child's life and within the limits of available resources. Symptoms and related pain should be anticipated and prevented to the extent possible.

The care of the terminally ill child is a major challenge in Zambia because there is a paucity of experience and replicable models of planned terminal care, both institutional and community-based. At the end of life there are typically more symptoms that must be addressed, and there are polypharmacy guidelines to control multiple syndromes and treatment for multiple conditions. Terminal care preparation for children and their families is a long-term process and requires continuity in care providers and services. Critical factors in effective long-term planning include early and active communication and involvement with parents/guardians/ caregivers and their ongoing support, community-level support structures, a functional health infrastructure, knowledgeable human resources, and access to essential drugs and supplies. Terminally ill children are often placed in acute care facilities which may not be best for the child's needs, and homebased care is usually preferred. Families must be involved in decisions about the best place for care and the preferred place of death if the child has end-stage HIV disease.”

Antiretroviral Therapy for Chronic Hiv Infection in Adults and Adolescents: New ART Protocols, Zambia Ministry of Health, May 2007

“Grade 4 (severe life-threatening):

Extreme limitation in activity, significant assistance required, significant medical intervention/therapy required, hospitalization or hospice care”

Observations regarding the Zambia’s Palliative Care STGs

- The adult and adolescent guidelines do not include information on hospice and palliative care. The only mention of hospice in the guidelines is in a section describing WHO toxicity estimates.
- The guidelines for infants and children include information on “Considerations for Stopping ART and Palliative Care” in a section on “Strategies in the Event of Failure of Second-line Regimens.” However, the material does not include guidance on clinical management at the end of life; no medications or preparations are mentioned.

From MSL memo from Dirk van Wyk, Managing Director, Oct 2009

Orders for Narcotics

Orders for Class A medicines (narcotics) should be sent to the Pharmaceutical Regulatory Authority (PRA) for authorisation.

MSL is now delivering DDAs (Dangerous Drugs) through their delivery trucks as per our delivery schedule. In order to facilitate this, you are expected to inform MSL whenever your order has been sent to PRA. MSL will be responsible for the collection of the orders from PRA every Tuesday of the week. Facilities are therefore, advised not to travel for the collection of orders provided they have been sent in time.

ZIMBABWE

Generic drug name/INN	Product Registered? Brand name, generic name, formulation, and strength	Product included in STGs?	Included in Essential Medicines List?	Included in Central Medical Stores Product Catalogue?			
Amitriptyline	Yes	No	Yes	Yes			
	TRYPTAL				AMITRIPTYLINE HYDROCHLORIDE	TABLETS, COATED	25MG
	TRIDEP-25				AMITRIPTYLLINE	TABLETS, COATED	25MG
Bisacodyl	Yes	No	Yes	Yes			
	ORALAX TABLET				BISACODYL	TABLETS, COATED	5MG
Carbamazepine	Yes	No	Yes	Yes			
	EPICARB				CARBAMAZEPINE	TABLETS	200MG
	TEGRETOL				CARBAMAZEPINE	TABLETS	200MG
	TEGRETOL CR				CARBAMAZEPINE	TABLETS, COATED	200MG
	TEGRETOL 2%				CARBAMAZEPINE	SYRUPS	100MG/5ML
	CARBAMAZEPINE BP				CARBAMAZEPINE	TABLETS	200MG
	TORBAREC				CARBAMAZEPINE	TABLETS	200MG
CARBAMAZEPINE	CARBAMAZEPINE	TABLETS	200MG				
Citalopram (or any other equivalent generic SSRI except paroxetine and fluvoxamine) These would include: escitalopram, fluoxetine, or sertraline.	Yes (Citalopram and fluoxetine only)	None of the medicines in this category included	Only fluoxetine is included and it is in the specialist drug list only.	Fluoxetine only			
	FELIZ-40				CITALOPRAM HYDROBROMIDE	TABLETS	40MG
	OXEDEP				FLUOXETINE	CAPSULES	20MG
	PROZAC				FLUOXETINE HYDROCHLORIDE	TABLETS	20MG
	DAWNEX				FLUOXETINE HYDROCHLORIDE	CAPSULES	20MG
Codeine	Yes	No	Yes	Yes			
	ASPIRIN AND CODEINE TABLET				TABLETS		
	SINUTAB WITH CODEINE				TABLETS		
	CODEINE PHOSPHATE				CODEINE PHOSPHATE	TABLETS	30MG
	LENNON CODEINE PHOSPHATE				CODEINE PHOSPHATE	TABLETS	30MG
	GIGAPYN				PARACETAMOL & CODEINE (CO-CODAMOL)	TABLETS	
	CODAMOL				PARACETAMOL & CODEINE PHOSPHATE	TABLETS	
NOVADOL CO	PARACETAMOL AND CODEINE	TABLETS					

	ADCO-DOL	PARACETAMOL+CAFFEINE+DOXYL AMINE SUCC.+CODEINE PHOS	TABLETS	450/45/5/10MG			
	COMPOUND ANALGESIC	PARACETAMOL,CAFFEINE,MEPROBAMATE,CODEINE	TABLETS				
	GOLDGESIC	PARACETAMOL,CODEINE & PROMETHAZINE	SYRUPS				
	GOLDGESIC	PARACETAMOL,CODEINE,CAFF & MEPROBAMATE	TABLETS				
Dexamethasone	Yes				No	Yes	Yes
	DEXONE	DEXAMETHASONE	TABLETS	0.5MG			
	MAXIDEX	DEXAMETHASONE .1%	DROPS, EYE	.1%			
	PYRIMON	DEXAMETHASONE AND CHLORAPHENICOL	DROPS, EYE				
	NEODEXONE	DEXAMETHASONE AND NEOMYCIN	OINTMENTS, EYE				
	MAXITROL OINTMENT	DEXAMETHASONE NEOMYCIN SULPHATE POLYMYXIN B SULPH	OINTMENTS, EYE				
	DEXONE	DEXAMETHASONE SODIUM PHOSPHATE	INJECTIONS	5MG/ML			
	MAXITROL	DEXAMETHASONE,NEOMYCIN SULP.,POLYMYXIN B	DROPS, EYE				
Diazepam	Yes				No	Yes	Yes
	DIZAM TABLET	DIAZEPAM	TABLETS	5MG	Reference is only made to avoid giving Diazepam concurrently with Efavirenz since it increases the blood levels of diazepam.		
	DIZAM TABLETS	DIAZEPAM	TABLETS	2MG			
	NOTENSE TABLETS	DIAZEPAM	TABLETS	10MG			
	NOTENSE TABLETS	DIAZEPAM	TABLETS	5MG			
	NOTENSE TABLETS	DIAZEPAM	TABLETS	2MG			
	DIZAM INJECTION	DIAZEPAM	INJECTIONS	10MG/2ML			
	Q-MED DIAZEPAM	DIAZEPAM	AMPOULES	10MG/2ML			
Diclofenac	Yes				No	Yes	Yes
	VOLTAREN EMULGEL	DICLOFENAC	CREAMS	1%			
	VIVIAN-25	DICLOFENAC	TABLETS, COATED	25MG			
	CATAFLAM	DICLOFENAC POTASSIUM	TABLETS, COATED	50MG			
	VOLTAREN EC TABLETS	DICLOFENAC SODIUM	TABLETS, COATED	25MG			
	VOLTAREN	DICLOFENAC SODIUM	AMPOULES	75MG/3ML			
	VOLTAREN	DICLOFENAC SODIUM	TABLETS, COATED	100MG			
	PANAMOR-75	DICLOFENAC SODIUM	INJECTIONS	75MG			
	PANAMOR 25	DICLOFENAC SODIUM	TABLETS, COATED	25MG			
	PANAMOR AT-50	DICLOFENAC SODIUM	TABLETS, COATED	50MG			
	DICLOMAX-50	DICLOFENAC SODIUM	TABLETS, COATED	50MG			

	TORRENT DICLOFENAC	DICLOFENAC SODIUM	TABLETS, COATED	25MG			
	DICLOMAX INJECTION	DICLOFENAC SODIUM	INJECTIONS	25MG/ML			
	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLETS, COATED	25MG			
	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLETS, COATED	50MG/TABLET			
	DICLOFENAC	DICLOFENAC SODIUM	TABLETS	50MG/TABLET			
	REMETHAN 25 EC	DICLOPHENAC SODIUM	TABLETS, COATED	25MG			
	VOLTAREN SUPPOSITORIES	DICLOPHENAL SODIUM	SUPPOSITORIES	50MG			
Diphen-hydramine	Yes				No	No	No
	BETAMINE	DIPHENHYDRAMINE HCL AND AMMONIUM CHLORIDE		SYRUPS			
	BENYLIN FOUR FLU	DIPHENHYDRAMINE,PARACETAMOL,PSEUDOEPHEDRINE		LIQUIDS			
Fentanyl (transdermal patch)	No, only injectable forms are available:				No	No	No
	FENTANYL-FRESENIUS	FENTANYL CITRATE		INJECTIONS		Only injectable fentanyl is available, and it is only included on the specialist list.	Only injectable fentanyl is available.
	Q-MED FENTANYL INJECTION 100MCG/2ML	FENTANYL INJECTION 100MCG/2ML					
Gabapentin	No				No	No	No
Haloperidol	Yes				No	Yes	Yes
	HALOPERIDOL	HALOPERIDOL	TABLETS	2MG			
Hyoscine butylbromide	Yes				No	Yes	Yes
	HYOSCINE BUTYLBROMIDE	HYOSCINE BUTYLBROMIDE	INJECTIONS	20MG/ML			
	HYOSPASMOL	HYOSCINE BUTYLBROMIDE	TABLETS, COATED	10MG			
	HYOSPASMOL	HYOSCINE BUTYLBROMIDE	INJECTIONS	20MG/ML			
	HYOSCINE BUTYLBROMIDE	HYOSCINE BUTYLBROMIDE	TABLETS, COATED	10MG			
Ibuprofen	Yes				No	Yes	Yes
	BRUFEN TABLET	IBUPROFEN	TABLETS, COATED	400MG			
	BRUFEN TABLET	IBUPROFEN	TABLETS, COATED	200MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	400MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	200MG			
	DOLEX	IBUPROFEN	CAPSULES	400MG			
	DOLEX	IBUPROFEN	CAPSULES	200MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	200MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	400MG/TABLET			
	IPIROFEN	IBUPROFEN	TABLETS, COATED	400MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	200MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	400MG			

	IBUPROFEN	IBUPROFEN	SUSPENSIONS, ORAL	100MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	200MG			
	IBUPROFEN	IBUPROFEN	TABLETS, COATED	400MG			
Levome-promazine	No				No	No	No
Loperamide	Yes				Yes Loperamide is cited as treatment for the side effect of diarrhea that accompanies treatment with Lopinavir/Ritonavir.	Yes Loperamide is mentioned in treatment for diarrhea in the terminally ill. But it is not listed in the index and dosage information is not provided.	Yes
	LOPERAMIDE	LOPERAMIDE	TABLETS	2MG			
	LOCKIT	LOPERAMIDE	CAPSULES	2MG			
Lorazepam	No				No	No	No
Magestrol Acetate	No				No	No	No
Methadone (immediate release)	No				No	No	No
Metoclopramide	Yes				No	Yes	Yes
	CLOPAMON	METOCLOPRAMIDE	SYRUPS	5MG/5ML			
	CLOPAMON	METOCLOPRAMIDE	INJECTIONS	10MG/2ML			
	CLOPAMON	METOCLOPRAMIDE HYDROCHLORIDE	TABLETS	10MG			
Midazolam	Yes				No	Yes	No
	DORMICUM	MIDAZOLAM	INJECTIONS	5MG/5ML			
	DORMICUM 15MG TABLETS	MIDAZOLAM 15MG TABLETS	TABLETS, COATED	15MG			
Mineral oil enema	No				No	No	No
Mirtazapine (or any other generic dual action NaSSA or SNRI). NaSSAs: Mianserin, Setiptiline. SNRIs: Duloxetine, venlafaxine.	Yes, venlafaxine only No mirtazapine, mianserin, setiptiline, or duloxetine				No	No	No
	EFEXOR XR 150	VENLAFAXIME	CAPSULES	150MG/CAPULE			
	EFEXOR	VENLAFAXINE HYDROCHLORIDE	CAPSULES	75MG/CAPSULE			
Morphine	Yes				No	Yes	Yes
	KAOLIN AND MORPHINE MIXTURE	KAOLIN AND MORPHINE MIXTURE	SUSPENSIONS				
	GEES LINCTUS (OPIATE SQUILL LINCTUS)	MORPHINE AND SQUILL OXYMEL	SYRUPS				
	Q-MED MORPHINE	MORPHINE INJECTION	INJECTIONS	15MG/1ML			

	Q-MED MORPHINE	MORPHINE INJECTION	INJECTIONS	10MG PER ML			
	MORPHINE SULPHATE TABLETS	MORPHINE SULPHATE	TABLETS	10MG			
	MORPHINE SULPHATE-FRESENIUS	MORPHINE SULPHATE	INJECTIONS	15MG/ML			
	MORPHINE SULPHATE INJECTION	MORPHINE SULPHATE INJECTION	INJECTIONS	15MG/ML			
Octreotide	No				No	No	No
Oral rehydration salts	Yes				No	Yes	Yes
	ORAL REHYDRATION SALTS		POWDERS SOLUBLE			Included as Oral Rehydration Solution.	
	WINHYDRAN	ORAL REHYDRATION SALTS-CITRATE	POWDERS				
Oxycodone	No				No	No	No
Paracetamol (Acetaminophen)	Yes				No	Yes	Yes
	BENYLIN FOUR FLU	DIPHENHYDRAMINE,PARACETAMOL, PSEUDOEPHEDRINE	LIQUIDS				
	NOVADOL-RAPID	PARACETAMOL	TABLETS	500MG			
	PANADO	PARACETAMOL	TABLETS	500MG			
	ANTALGIC TABLET	PARACETAMOL	TABLETS	500MG			
	PARACETAMOL TABLETS	PARACETAMOL	TABLETS	500MG			
	PANADO	PARACETAMOL	SYRUPS	120MG/5ML			
	ANTALGIC	PARACETAMOL	SYRUPS	120MG/5ML			
	PARACETAMOL	PARACETAMOL	SYRUPS	120MG/5ML			
	PARAPAED PAEDIATRIC SUSPENSION	PARACETAMOL	SUSPENSIONS	120MG/5ML			
	NOVADOL CHILDREN'S SIZE	PARACETAMOL	TABLETS	125MG			
	ANTALGIC PAEDITRIC	PARACETAMOL	TABLETS	125MG			
	VARIPAN	PARACETAMOL	TABLETS	500MG			
	VARIPAN	PARACETAMOL	SYRUPS	120MG/5ML			
	PARACET	PARACETAMOL	TABLETS	500MG			
	ANTALGIC	PARACETAMOL	TABLETS	500MG			
	NOVADOL	PARACETAMOL	SYRUPS	120MG/5ML			
	NOVADOL	PARACETAMOL	TABLETS	500MG			
	NOVADOL ASP	PARACETAMOL	ELIXIRS	120MG/5ML			
	VARIPAN PAEDIATRIC	PARACETAMOL	TABLETS	125MG			
	STRIMOL	PARACETAMOL	TABLETS	500MG/ TABLET			

	PARACETAMOL	PARACETAMOL	TABLETS	500MG/ TABLET			
	PANADO CHILDREN'S CHEWABLE	PARACETAMOL	TABLETS	120MG			
	PARACET	PARACETAMOL	SYRUPS	120MG/5ML			
	VARIPAN	PARACETAMOL	SYRUPS	120MG/5ML			
	PANADO PAED.SYRUP ALCOHOL & SUGAR FREE	PARACETAMOL	SYRUPS	120MG/5ML			
	APIMOL-500	PARACETAMOL	TABLETS	500MG			
	FEBRIDOL-500	PARACETAMOL	SUPPOSITORIES	500MG			
	FEBRIDOL-125	PARACETAMOL	SUPPOSITORIES	125MG			
	PARACETAMOL	PARACETAMOL	TABLETS	500MG			
	GIGAPYN	PARACETAMOL & CODEINE (CO- CODAMOL)	TABLETS				
	CODAMOL	PARACETAMOL & CODEINE PHOSPHATE	TABLETS				
	NOVADOL CO	PARACETAMOL AND CODEINE	TABLETS				
	BESEMAX	PARACETAMOL AND OPHENADRINE CITRATE	TABLETS				
	SINUTAB ND	PARACETAMOL PHENYLPROPANOLAMINE HCL	TABLETS				
	BETAMOL SYRUP	PARACETAMOL SYRUP	SYRUPS	120MG PER 5ML			
	ADCO-DOL	PARACETAMOL+CAFFEINE+DOXYLA MINE SUCC.+CODEINE PHOS	TABLETS	450/45/5/ 10MG			
	COMPOUND ANALGESIC	PARACETAMOL,CAFFEINE,MEPROBAM ATE,CODEINE	TABLETS				
	GOLDGESIC	PARACETAMOL,CODEINE & PROMETHAZINE	SYRUPS				
	GOLDGESIC	PARACETAMOL,CODEINE,CAFF & MEPROBAMATE	TABLETS				
<i>Prednisolone (as an alternative to Dexamethasone)</i>	Yes				No	Yes	Yes
	DEPO - MEDROL	METHYLPREDNISOLONE ACETATE	INJECTIONS	40MG/ML			
	DEPO MEDROL	METHYLPREDNISOLONE ACETATE	INJECTIONS	80MG/ML			
	PREDNISOLONE	PREDNISOLONE	TABLETS	5MG			
	PREDNISOLONE	PREDNISOLONE	TABLETS	5MG/TABLET			
	PRED FORTE	PREDNISOLONE ACETATE	SUSPENSIONS, EYE	10MG/ML			

Senna	No	No	Yes Senna is only mentioned briefly in a section about diarrhea; it is not included in the indexed drug list.	No
Tramadol	Yes	No	No	No
	TRAMAL TRAMADOL HYDROCHLORIDE CAPSULES 50MG/CAPSULE			
	TRAMADOL TRMADOL HYDROCHLORIDE AMPOULES 50MG/ML			
Trazodone	No	No	No	No
Zolpidem (still patented)	No	No	No	No

The following information resources were utilized in this analysis:

- Registered drugs excel spreadsheet from MCAZ.
- Draft ART Guidelines (2009) with comments: Guidelines for Antiretroviral Therapy in Zimbabwe, National Drug and Therapeutics Policy Advisory Committee (NDTPAC) & AIDS and TB Unit, Ministry of Health and Child Welfare, Zimbabwe. July 2009.
- Essential Drugs List and STGs for Zimbabwe: EDLIZ 2006 5th edition.
- NatPharm Catalogue (does not feature prices any more).

Medicines on the IAHPC list that are in the STGs, on the EML, and are registered (+ Reg +STG +EML)	Medicines on the IAHPC list that are not in the STGs, but are on the EML (-Reg -STG +EML)
Loperamide (also in NatPharm catalog)	Senna

Medicines on the IAHPC list that are not in the STGs nor on the EML, and not registered (-Reg -STG -EML)	Medicines on the IAHPC list that are not in the STGs, nor on the EML, and are registered (+ Reg -STG -EML)
Fentanyl	Diphenhydramine
Gabapentin	Venlafaxine
Levomepromazine	Tramadol
Lorazepam	
Magestrol Acetate	
Methadone	
Mineral oil enema	
Octreotide	
Oxycodone	
Trazodone	
Zolpidem	

Medicines on the IAHPC list that are not in the STGs, but that are on the EML, and are registered (+ Reg -STG +EML)	
<i>All of the medicines listed below are also included in the NatPharm catalog except Midazolam</i>	
Amitriptyline	Haloperidol
Bisacodyl	Hyoscine butylbromide
Carbamazepine	Ibuprofen
Citalopram and Fluoxetine	Metoclopramide
Codeine	Midazolam
Dexamethasone	Morphine
Diazepam	Oral rehydration salts
Diclofenac	Paracetamol
	Prednisolone

EDLIZ 2006 5th Edition

Zimbabwe's essential medicines list is a comprehensive reference document that includes extensive information on what drugs to use for a wide range of conditions, including in the care of terminally ill patients and those requiring pain control. EDLIZ includes a chapter on "Pain and Care of the Terminally Ill."

Draft ART Guidelines with Comments: Guidelines for Antiretroviral Therapy in Zimbabwe, National Drug and Therapeutics Policy Advisory Committee (NDTPAC) & AIDS and TB Unit, Ministry of Health and Child Welfare, Zimbabwe, July 2009

Hospice and palliative care are nominally mentioned, but no specific guidance on how to effectively care for a terminal patient or meet a patient's palliative care needs, is explicitly described.

3.3 Reasons for Deferring ART

*Patients may be deferred from starting therapy if:

- They have an inter-current opportunistic infection e.g. TB, cryptococcal meningitis.
- Patient needs further psychosocial counseling e.g. alcohol problems.
- Patient needs further information on HIV and AIDS.
- First trimester pregnancy. Whilst it may be desirable to initiate ART after the first trimester to minimise the potential for teratogenicity, the benefit of early therapy clearly outweighs any potential foetal risks and therapy should be initiated if the mother needs it for her own sake.
- Patient is terminally ill and unable to swallow oral medication. Palliative care is then offered to such a patient.

Appendix III (Grades of Adverse Events)

GRADE 1 (MILD)	Transient or mild discomfort; no limitation in activity; no medical intervention/therapy required.
GRADE 2 (MODERATE)	Mild to moderate limitation in activity-some assistance may be needed; no or minimal medical intervention/therapy required.
GRADE 3 (SEVERE)	Marked limitation in activity, some assistance usually required; medical intervention/therapy required, hospitalizations possible.
GRADE 4 (LIFE-THREATENING)	Extreme limitation in activity, significant assistance required; significant medical intervention/therapy required, hospitalization or hospice care probable.

APPENDIX A

Scope of Work for Short Term Technical Assistance

Requested by: AIDSTAR-One
Country: DC-based
Background statement setting context for the STTA <p>The International Association for Hospice & Palliative Care has developed a list of essential palliative care drugs to address HIV related pain and symptoms. The IAPHC list was developed by international palliative care experts and may not fully reflect what is often not available in low resource settings.</p>
Brief purpose statement <p>AIDSTAR-One has been requested by the PEPFAR Care and Support Technical Working Group (TWG) to develop a brief summary report on palliative care drugs registered for use within PEPFAR focus countries.</p>
Specific tasks to be performed <ol style="list-style-type: none">1. Collect the following information on registered drugs from PEPFAR supported countries with JSI presence:<ol style="list-style-type: none">a. Generic drug nameb. Proprietary namec. INNd. Dose and formulatione. Strength (adults and pediatric)f. Indications2. Create a brief report (mostly tables) providing the above mentioned information for each country.
Deliverables or products to be developed <ol style="list-style-type: none">1. A brief report (mostly tables) providing the above mentioned information for each country, ideally by the end of February.
Required qualifications of the Technical Advisor(s) Fluent speaking and writing English. Knowledgeable of palliative care drugs and essential medicines lists.
Dates and duration of the STTA 15 days LOE, from early January through early March
Funding source for the STTA AIDSTAR-One

For more information, please visit aidstar-one.com.

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