





National Essential Medicines List Committee (NEMLC)

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES LIST

Reviewed Items

JUNE 2024

	SUMMARY OF CHANGES TO THE NEMLC TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES LIST (JUNE 2024)							
ATC CODE	MEDICINE	INDICATION	NEMLC OUTCOMES	REVIEW INDICATORS	DATE RATIFIED			
		G GENITO	URINARY SYSTEM AND SEX HORMONES					
G04BE	PDE5-inhibititors	Persistent pulmonary hypertension	Approved Approved in all settings where neonates with	Safety changes.				
	Sildenafil, Tadalafil, Vardenafil	in neonates (PPHN) in situations where nitric oxide is not available.	PPHN are being managed.		27 June 2024			
		J AN	ITI-INFECTIVES FOR SYSTEMIC USE					
J02AC02	Itraconazole	Disseminated histoplasmosis – maintenance therapy.	Approved	• n/a	27 June 2024 (Previously reviewed 13 March 2008)			
			N NERVOUS SYSTEM					
N02AB03	Transdermal fentanyl (fentanyl patches)	Severe stable chronic pain where oral medication (opioids) cannot be taken and there is no access to subcutaneous opioids via a syringe driver.	Approved	PriceSignals of harmEvidence of superiority	27 June 2024			

Access to medicines included on the Tertiary and Quaternary Level Essential Medicines List (EML):

• New items added to the EML will be sourced on a National Quotation (where possible) until such time a National Tender (where possible) is in place.

ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED
		A AL	IMENTARY TRACT AND METABOLISM		
A04AA01/ A04AA02	Serotonin-3 (5HT3) antagonists Ondansetron, Granisetron	Highly or moderately emetogenic chemotherapy	Approved	n/a	20 September 2007 (Indication updated 29 July 2021)
A05AA02	Ursodeoxycholic acid	Primary biliary cirrhosis.	Not Approved	The emergence of new evidence of efficacy with regard to mortality or transplantation	13 March 2008
A07EC01	Sulfasalazine	Ulcerative colitis	Approved	• n/a	16 May 2024
A07EC02	Mesalazine (rectal)	Ulcerative colitis	Approved	• n/a	16 May 2024
A07EC02	Mesalazine (oral)	Ulcerative colitis – maintenance of remission.	Approved – Special Access Special access may be granted based on recommendation by PTC for patients with sulfonamide hypersensitivity.	Price (to be evaluated as a therapeutic class with sulfasalazine)	October 2015
A10BG03	Pioglitazone	Type 2 diabetes mellitus.	Not Approved	Robust safety data	February 2012
A10AE05/ A10AE04	Long acting insulin analogues Insulin detemir, Insulin glargine	Diabetes mellitus.	Not Approved	Price decrease (similar to Neutral Protamine Hagedorn (NPH) insulin) Evidence for superior safety of analogues over NPH	30 June 2016
A11/A12	Micronutrients	Addition to Parenteral Nutrition for long-term use.	Approved Approved for use where long-term parenteral nutrition is required/anticipated. Short- term TPN should be done with off the shelf parenteral nutrition bags – no added micronutrients.	New evidence	19 March 2020
A16AA03	Glutamine	Glutamine as a component of enteral and parenteral nutrition in critically ill patients.	Not Approved	Robust safety data Evidence of mortality efficacy	30 June 2016

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A02BC01	Proton Pump Inhibitors (PPIs), IV	For hospitalised patients requiring PPI therapy and are unable to take these orally or via	Approved Only for hospitalised patients are unable to take PPIs orally or via nasogastric tube	n/a	Class defined: 30 March 2023
A02BC05 A02BC02	Omeprazole, IV Esomeprazole, IV Pantoprazole, IV	nasogastric tube			Initial recommendation: 24 June 2021
	<u> </u>	B BI	OOD AND BLOOD FORMING ORGANS		
B01AC04	Clopidogrel	Percutaneous coronary intervention (stenting).	 Approved Clopidogrel plus aspirin recommended for a minimum of: 30 days in situations where a bare metal stent is inserted. 90 days in situations where a sirolimus drug-eluting stent is inserted. 180 days when a paclitaxel drug-eluting stent is inserted. Thereafter allow aspirin indefinitely. The evidence currently available to the Committee does not provide support for use beyond 6 months although there are recommendations endorsing longer term use in high risk patients. 	n/a	20 September 2007
B01AC04	Clopidogrel	Ischaemic heart disease (non-myocardial infarction).	Approved for long-term use only in patients intolerant to aspirin, i.e. allergy or bleeding episodes.		20 September 2007
B01AC04	Clopidogrel	Stroke.	Approved, only for long-term therapy where patient has confirmed aspirin intolerance.	Decrease in clopidogrel price New safety or efficacy data for either aspirin (at doses recommended by the DoH) or clopidogrel	24 July 2014
B01AC04	Clopidogrel	Transient ischaemic attack with/without atrial fibrillation.	Not Approved	Decrease in clopidogrel price New safety or efficacy data for either aspirin or clopidogrel	24 July 2014
B02BD03	Recombinant Factor VIIa (rFVIIa)	Intractable bleeding.	Not Approved	Robust efficacy data	29 June 2017
B02BD03	Haemophilia bypassing agents (rFVIIa/aPCC)	Haemophilia with inhibitors (on demand, when presenting with a significant bleed).	Approved, Special Access One bypassing agent to be available on the EML (most affordable). An alternative		14 December 2017

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			bypassing agent can be made available as emergency stock on a special access basis as approved by the PTC for patients not responding to EML item.		
B02BX06	Emicizumab	Prophylaxis for patients with haemophilia A with Factor VIII inhibitors	Not Approved	 Price (desired reference price set). Affordability. Availability of higher quality evidence with larger effect size. 	14 March 2024
			C CARDIAC THERAPY		
C02DC01	Minoxidil	Severe hypertension not responding to other drugs.	Approved	n/a	20 September 2007
C09CA	Angiotensin receptor blockers (ARBs)	Add on therapy in cardiac failure on patients already on standard treatment including ACE-inhibitors, ß-Blockers and spironolactone.	Not Approved	New efficacy data from large RCT indicating larger benefit of adding ARBs to standard therapy Decrease in price of ARBs so as to be similarly priced to ACE-inhibitors	20 September 2007
C09CA	Angiotensin receptor blockers (ARBs)	As add on therapy in proteinuric nephropathies in patients already using an ACE-inhibitor.	Not Approved Insufficient evidence to support its use.	 New evidence indicating benefit in the form of a RCT of sufficient size with maximal doses of ACE-inhibitor used New safety concerns. Decrease in price so as to be similarly priced to ACE-inhibitors 	20 September 2007
C10AA05	Atorvastatin – high dose (80 mg/day)	Familial hypercholesterolemia	Approved For patients within the lipid clinic setting.	• n/a	31 March 2022
C10AX09	Ezetimibe	Familial hypercholesterolemia	Approved In combination with high-intensity or maximally tolerated therapy statin therapy.	• n/a	20 October 2022

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		D ANTIPRURITICS,	INCLUDING ANTIHISTAMINES, ANAESTHETIC	CS, ETC.	
D05AC01	Dithranol	Psoriasis.	Not Approved	Availability of registered product. Evidence of efficacy.	23 June 2022
D07AD	Very potent topical corticosteroid – Group IV e.g. Clobetasol 0.05% Examples: Cream/ointment: • Clobetasol propionate 0.05%.		Approved Lowest price high potency corticosteroid to be used.	n/a	20 September 2007
D10BA01	Isotretinoin	Moderate to severe recalcitrant nodular acne	Approved	n/a	24 June 2021 (Previously reviewed 09 February 2012)
D05BB02	Acitretin	Severe localized or generalized pustular psoriasis, or severe psoriasis not responding to conventional therapy under the care of a dermatologist.	Approved	n/a	23 June 2022
D06BB10	Imiquimod 5% topical	Anogenital warts	Not Approved	New evidence	24 June 2021
			O URINARY SYSTEM AND SEX HORMONES		
G02CB3	Cabergoline	Prolactinoma, refractory/intolerant to bromocriptine.	Approved	n/a	23 June 2022
G03AC03	Levonorgestrel Intrauterine system	Abnormal Uterine Bleeding (3 rd line therapy)	Approved Third line therapy where there has been treatment failure. Prescribed and inserted by a gynaecologist.	n/a	27 September 2018
G03CA	Estrogen	Gender Dysphoria – Feminising regimen	Approved	New evidence	5 December 2019
G03BA03	Testosterone	Gender Dysphoria – Masculinising regimen	Approved	New evidence	5 December 2019
G03DA02/ G03HA01	Medroxyprogesteron e acetate OR Cyproterone acetate	Patients with hypersexual behaviour including paraphilia's	Approved • Most affordable agent should be procured. If price parity: cyproterone is preferred due to decreased frequency of dosing.	Evidence of harm Price reduction	11 April 2019

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G03HB01	Cyproterone, Ethinyl estradiol	Hirsutism.	Approved	n/a	20 September 2007			
G04BD10	Urinary antispasmodics Darifenacin	Over active bladder (OAB) with symptoms of urinary urgency, frequency and/or urge incontinence.	Not Approved	Price New safety/efficacy data	13 March 2008			
G04BE	PDE5-inhibititors	Persistent pulmonary	Approved	Safety changes.				
	Sildenafil, hypertension in neonates (PPHN) Tadalafil, in situations where nitric oxide is not available.	Approved in all settings where neonates with PPHN are being managed.		27 June 2024				
G04CB01	Finasteride	Benign prostatic hyperplasia.	Not Approved	• Price	13 March 2008			
		H SYSTEMIC HORMONA	L PREPARATIONS, EXCL. SEX HORMONES A	AND INSULINS				
H01AA01	Adrenocorticotrophic hormone (ACTH)	Infantile spasms.	Not Approved	Well controlled studies of proven efficacy of ACTH	September 2010			
H01AC01	Somatropin (Growth Hormone)	Turner's syndrome.	Not Approved	Improved cost-effectiveness.	20 September 2007			
H01AC01	Somatropin (Growth Hormone)	Prader Willi syndrome.	Not Approved	• Price	20 September 2007			
H01AC01	Somatropin (Growth Hormone)	Intrauterine growth failure.	Not Approved	• Price	20 September 2007			
H01AC01	Somatropin (Growth Hormone)	Idiopathic short stature.	Not Approved	Improved cost-effectiveness	20 September 2007			
H01AC01	Somatropin (Growth Hormone)	Chronic renal insufficiency.	Not Approved	Evidence of benefit	20 September 2007			
H01AC01	Somatropin (Growth Hormone)	Growth hormone deficiency.	Approved Approved for confirmed growth hormone deficiency for use by endocrinologists only. Rationale:	New evidence on quality of life assessment in local and specific populations	24 July 2008			

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H01BA05	Ornipressin	Bleeding associated with bronchoscopy and renal biopsy.	Not Approved	New high quality evidence of superior efficacy to adrenalin	29 October 2012				
H01CB02	Octreotide (Short-acting)	Persistent neonatal hyperinsulinism and hypoglycaemia.	Approved The condition is rare; usage is for short term; alternative agents are limited and the consequences of not having treatment available are serious.						
H01CB	Somatostatin analogs Octreotide, Lanreotide	Neuro-endocrine tumours.	Not Approved	Long term survival and quality of life data	26 March 2015				
		J A	NTI-INFECTIVES FOR SYSTEMIC USE						
J01XC01	Fusidic acid	Treatment of staphylococcal infections, mainly involving bone and joints: Methicillin-sensitive organisms, as alternative to cloxacillin or flucloxacillin. Methicillin-sensitive organisms, in combination with cloxacillin or flucloxacillin. Methicillin-resistant organisms, as an alternative to e.g. glycopeptides or oxazolidinones (linezolid), especially in cases where prolonged treatment is required.	Not Approved	New evidence of clinical comparative efficacy against alternatives, especially regarding long- term treatment of MRSA where the oral preparation may be of benefit in comparison to parenteral glycopeptides and infections with glycopeptide resistant organisms where the potential toxicity of oxazolidinones (linezolid) when used for prolonged periods of time, may be problematic	13 March 2008				
J01XX08	Linezolid	Resistant gram positive infections where vancomycin is contraindicated.	Approved – Special Access It may be available on special access basis as approved by PTC for: Only with a microbiology report confirming vancomycin resistance in a relative organism or confirmation of severe adverse	Clinically significant increase in vancomycin resistance in the public sector Significant decrease in cost of linezolid	27 November 2008				

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			effect to vancomycin, (i.e. vancomycin induced neutropenia or anaphylaxis, but not the "red man syndrome"). Confirmed contra-indication to the use of vancomycin.					
J02AB02	Ketoconazole	Cushing's syndrome.	Approved	Availability of alternate medication for this indication with superior efficacy or safety profile. New safety concerns	10 July 2008			
J02AC02	Itraconazole	Disseminated histoplasmosis – maintenance therapy.	Approved	• n/a	27 June 2024 (<i>Previously reviewed 13</i> <i>March 2008</i>)			
J02AX04/J 02AX05/ J02AX06	Echinocandins (caspofungin/ micafungin/ anidulafungin)	Invasive candidiasis (resistant to fluconazole/amphotericin B and/or where renal dysfunction is present and amphotericin B cannot be used).	Approved – Special Access Echinocandins approved as a class, with the most affordable agent to be procured. The use of echinocandins should be managed through motivation/ appropriate restrictions at facilities, as part of Antimicrobial Stewardship activities. (See addendum – clinical criteria for use)	 Availability of amphotericin B Changing resistance patterns New evidence 	12 April 2018			
J02AC03	Voriconazole (VCZ)	Treatment of invasive Aspergillosis.	Not Approved	High quality randomised controlled trial with amphotericin B as the comparator	13 March 2008			
J05AB04	Ribavirin	Viral haemorrhagic fever (VHF).	Approved To be supplied on motivation from a central supply point.	n/a	27 June 2013			
J05AP55	Sofosbuvir- velpatasvir	Viral Hepatitis C	Approved	New evidence of efficacy and safety (particularly local evidence), pricing changes	20 July 2023			
J06BA02	Intravenous Immunoglobulin (IVIG)	Acute Immune thrombocytopenic Purpura (ITP)	 Approved Life-threatening bleed with platelets <50 x 109/l. Urgent surgery (any surgery urgently required within 24 hours) where rapid rise in platelets is required. Pregnant patient prior to delivery as above. 	Evidence of harm	5 July 2018			

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			Rapid rise in platelets required when a patient has platelet count of < 20 x 109/L, with additional risk factors for bleeding (such as severe hypertension, ongoing sepsis).					
J06BA02	Intravenous Immunoglobulin (IVIG)	Primary antibody immune deficiency with recurrent infections	Approved	 New data on dosing Availability of more affordable subcutaneous formulations 	11 April 2019			
J06BA02	Intravenous Immunoglobulin (IVIG)	Guillain-Barré syndrome (GBS) presenting within the first 2 weeks of onset of moderate to severe weakness.	Approved The recommended regimen is 0.4 g/kg daily for 5 days.	New evidence	5 December 2019			
J06BB16	Palivizumab	Respiratory syncytial virus (RSV) infection in high-risk premature infants.	Not Approved	Price reduction	25 April 2013			
		L ANTINEOF	PLASTIC AND IMMUNOMODULATING AGEN	rs				
L01	Platinum coordination compounds, Taxanes, Doxorubicin, Cyclophosphamide	Uterine Cancer/ Endometrial Cancer (Advanced stage and recurrent).	Not Approved	Better quality data	22 January 2015			
L01AA01	Cyclophosphamide	Adjuvant breast cancer.	Approved (Cyclophosphamide plus Doxorubicin (AC)).	n/a	27 November 2008			
L01AA01	Cyclophosphamide	Adjuvant breast cancer.	Approved (Cyclophosphamide plus methotrexate plus fluorouracil (CMF)).	n/a	27 November 2008			
L01AA01	Cyclophosphamide	Adjuvant breast cancer.	Approved (Fluorouracil plus Doxorubicin plus cyclophosphamide (FAC)).	n/a	27 November 2008			
L01AA02	Chlorambucil	Chronic lymphocytic leukemia, low grade non-Hodgkin's lymphoma	Approved	n/a	11July 2019			
L01AA03	Melphalan	Multiple myeloma (oral-remission induction combined with steroids in older) (IV –pre-autologous stem cell transplant in multiple myeloma and lymphomas).	Approved	n/a	11July 2019			

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L01AA06	Ifosfamide	Germ cell tumours, soft tissue sarcomas, salvage therapy in lymphomas pre-autologous stem cell transplant.	Approved	n/a	11July 2019
_01AB01	Busulfan	Pre allogeneic and autologous stem cell transplant conditioning	Approved	n/a	11July 2019
L01AX03	Temozolomide	Glioblastoma multiforme.	Not Approved	Prospective RCTs demonstrating a significant increase in effect size Significant price reduction	25 July 2013
L03AX03	Bacille Calmette- Guerin (BCG)	Bladder Cancer (non-muscle invasive)	Approved	None	25 February 2016
L01AX04	Dacarbazine	Hodgkin's lymphoma.	Approved	n/a	11July 2019
_01BA01	Methotrexate	Adjuvant breast cancer.	Approved (Cyclophosphamide plus methotrexate plus fluorouracil (CMF)).	n/a	27 November 2008
L01BA01	Methotrexate	Crohn's Disease	Approved	n/a	20 July 2023
_01BA04	Pemetrexed	Lung mesothelioma.	Not Approved	Price changes or access programmes	27 November 2008
L01BA04	Pemetrexed	Non-small cell lung cancer.	Not Approved	Evidence of superior efficacy vs.cisplatin/gemcitabine. Price reduction	29 September 2011
L01BB02	Mercaptopurine	Acute leukaemia.	Approved	n/a	11July 2019
_01BB02	Mercaptopurine	Crohn's Disease	Approved	n/a	20 July 2023
_01BB03	Thioguanine	Acute leukemia.	Approved	n/a	11July 2019
_01BB05	Fludarabine	Chronic lymphocytic leukaemia, non-Hodgkin's lymphomas, pre- conditioning regimen for allogeneic stem cell transplant, AML salvage therapy.	Approved	n/a	11July 2019
L01BC01	Cytarabine	Acute myeloid leukaemia (AML) and acute lymphoid leukaemia (ALL).	Approved	n/a	11July 2019

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L01BC02	Topical 5 Fluorouracil	Actinic Keratosis.	Approved Approved as Historically Accepted Use.	n/a	19 March 2020			
_01BC06	Capecitabine	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane	Approved	n/a	8 December 2022 (<i>Previously reviewed</i> 15 September 2016)			
_01BC06	Capecitabine	Metastatic colorectal – first-line.	Approved (as part of the XELOX regimen).	 Availability of data for alternative oral fluoropyrimidines Price increases not commensurate with approved SEP increases 	27 November 2008			
L01BC06	Capecitabine	First-line therapy for advanced stomach/gastro-oesophageal junction cancer.	Approved	None	27 July 2014			
.01BC06/ .01BC05	Capecitabine plus Gemcitabine	Adjuvant chemotherapy of fully resected potentially curable pancreatic adenocarcinoma).	Approved Only for fully resected patients.	New adjuvant chemotherapy data in patients with R0 or R1 resected adenocarcinoma of the pancreas	6 December 2018			
L01BC52	Fluorouracil	Adjuvant breast cancer.	Approved (Cyclophosphamide plus methotrexate plus fluoro-uracil (CMF)).	n/a	27 November 2008			
.01BC52	Fluorouracil	Adjuvant colorectal cancer.	Approved (Fluoro-uracil plus Doxorubicin plus cyclophosphamide (FAC)).	n/a	27 November 2008			
.01CA01	Vinblastine	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Approved	n/a	15 September 2016			
_01CA02	Vincristine	General haematology and oncology	Approved	n/a	27 September 2018			
_01CA04	Vinorelbine	Adjuvant non-small cell lung cancer (NSCLC) – completely resected.	Approved To be used with cisplatin for adjuvant therapy for stage IIIA NSCLC but not stage IB or stage II.	New evidence of efficacy of adjuvant therapy in NSCLC	03 December 2009			
.01CA04	Vinorelbine (IV)	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Approved	n/a	15 September 2016			

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L01CA04	Vinorelbine (oral)	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Not Approved	Price similar to IV Evidence of clinical superiority	15 September 2016		
L01CD	Taxanes Docetaxel, Paclitaxel	Adjuvant breast cancer.	Approved Approved for patients with high grade, node positive ER negative disease.	n/a	23 August 2012		
L01CD01	Paclitaxel	Neoadjuvant/recurrent/ metastatic head and neck cancer.	Not Approved	n/a	27 July 2014		
L01CD01	Paclitaxel	First-line chemotherapy in advanced non-small cell lung cancer (NSCLC).	Approved	None	22 January 2015		
L01CD01	Paclitaxel	Metastatic cervical carcinoma.	Approved	n/a	11 July 2019		
L01CD	Taxanes	Metastatic breast cancer – first- and second-line.	Approved	Change in the price of taxanes, specifically docetaxel.	16 September 2010		
L01CD02	Docetaxel	Squamous cell carcinoma of head and neck.	Approved Approved for patients with good performance status and adequate follow-up used in combination with cisplatin plus 5-fluoro-uracil.	None	25 July 2013		
L01CD02	Docetaxel	Second-line therapy for advanced non-small cell lung cancer (NSCLC) in selected patients with good performance status (ECOG 0:1).	Approved	None	22 January 2015		
L01CD02	Docetaxel	Castrate resistant prostate cancer.	Approved Docetaxel 75mg/m2 intravenously 3 times weekly plus prednisone 10mg orally, for 6 cycles.	Reduction in cost and availability of 3rd generation ARBs e.g. enzalutamide and CYP17 inhibitors e.g. abiraterone	11July 2019		
L01CD02	Docetaxel	Patients with hormone sensitive prostate cancer (HSPC).	Approved For patients with high volume disease: defined as the presence of visceral metastases or ≥4 bone lesions with ≥1 beyond the vertebral bodies and pelvis	New evidence	30 January 2020		
L01DB01	Doxorubicin	Adjuvant breast cancer.	Approved (Doxorubicin plus cyclophosphamide (AC)).	None	27 November 2008		

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L01DB01	Doxorubicin	Adjuvant breast cancer.	Approved (Fluorouracil plus Doxorubicin plus cyclophosphamide (FAC)).	None	27 November 2008			
L01DB02	Daunorubicin	acute myeloid leukaemia (AML) and acute lymphoid leukaemia (ALL).	Approved	n/a	11July 2019			
L01DB06	Idarubicin	Acute Myeloid Leukemia.	Approved	n/a	10 December 2015			
L01DB07	Mitoxantrone	General oncology.	Approved Indications for consideration: Advanced stage carcinomas, paediatric relapsed acute lymphoblastic leukaemia (ALL), paediatric acute myeloid leukaemia (AML).	None	30 June 2016			
L01DB03	Epirubicin	Advanced stage or metastatic oesophageal junction and gastric carcinoma.	Approved	None	10 December 2015			
L01DC01	Bleomycin	Hodgkin's, Kaposi, Germ cell tumours, Pleuradhesis.	Approved	None	27 September 2018			
L01DC03	Mitomycin C	Bladder Cancer.	Not Approved	None	25 February 2016			
L01DC03	Mitomycin C	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Not Approved	None	15 September 2016			
_01FA01	Rituximab	CD20 positive diffuse large B-cell non-Hodgkin's lymphoma: first-line.	Approved for treatment in diffuse large B-cell non-Hodgkin's lymphoma (DLBCL) patients except those with International Prognostic Index (IPI) of 0.	New anti-CD20 monoclonal antibodies, more data and international consensus statements in FL patients, rituximab price changes	23 August 2012			
_01FA01	Rituximab	Rheumatoid Arthritis patient's refractory to synthetic DMARDs.	Approved For patients with refractory RA, who have failed ≥ 3 DMARDs taken for ≥ 6 months (in accordance with algorithm)	Evidence of harm	5 July 2018			
.01FA01	Rituximab	Refractory lupus nephritis.	Approved – Special Access Special Access may be granted on recommendation by the PTC. Used as per NEMLC-approved treatment algorithm.	Changes in evidence of efficacy/safety Change in cost	11 April 2019			

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			Use must be monitored and managed by PTCs through a registry. Clinical outcomes to be shared with the National registry database for biological therapy.				
_01FA01	Rituximab	CD20 positive indolent B-cell non- Hodgkin's lymphoma	Not Approved for treatment in indolent B-Cell non-Hodgkin's lymphomas	Further evidence reviewPrice reduction	24 June 2021		
L01FA01	Rituximab	B-cell indolent non-Hodgkin Lymphoma.	Not Approved Although the addition of rituximab to standard chemotherapy has shown to improve response rates and progression free survival in patients with indolent lymphomas, it is deemed to unaffordable at its current price in this indication.	Price (For reference price: refer to Rituximab review and cost effectiveness analysis documents).	23 June 2022		
L01XA01	Cisplatin	Adjuvant small cell lung cancer.	Approved	None	27 November 2008		
_01XA01	Cisplatin	Adjuvant lung cancer.	Approved	None	27 November 2008		
L01XA01	Cisplatin	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Approved To be used with gemcitabine	None	15 September 2016		
L01XA01	Cisplatin	Radio-sensitizer in cervical cancer	Approved	None	6 December 2018		
L01XA01	Cisplatin	Advanced/Metastatic: Various Cancers	Approved	n/a	11July 2019		
L01XA01	Cisplatin	Adjuvant/Neoadjuvant: various cancers.	Approved	n/a	11July 2019		
L01XA02	Carboplatin	Adjuvant lung cancer.	Approved	None	27 November 2008		
_01XA02	Etoposide	Adjuvant small cell lung cancer.	Approved	None	27 November 2008		
_01XA03	Oxaliplatin	Adjuvant colorectal.	Not Approved	Mature published data	27 November 2008		
_01XA03	Oxaliplatin	First or second-line metastatic colorectal cancer.	Approved	None	10 December 2015		
.01XC07	Bevacizumab	Sub-retinal neovascular membranes and non-resolving macular oedema.	Approved (off label indication).	None	10 December 2015		
_01XE01	Imatinib	Chronic phase of chronic myeloid leukaemia.	Approved	None	27 March 2014		

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L01XE01	Imatinib	Gastrointestinal Stromal Tumours (GIST) - adjuvant therapy.	Approved	None	25 June 2015
L01XE01	Imatinib	Gastrointestinal Stromal Tumours (GIST) - metastatic therapy.	Approved	None	25 June 2015
L01XE08	Nilotinib	Chronic Myeloid Leukaemia in patients resistant or intolerant to imatinib.	Approved	Longer term follow-up of nilotinib versus imatinib showing clinical benefits in the first line Reduction in cost or availability of nilotinib generics	22 January 2015
L01XC03	Trastuzumab	Adjuvant treatment for early stage HER-2 positive breast cancer, 6 month regimen.	Approved Regimen: administered 3 weekly for a period of 6 months.	New evidence	5 December 2019 (previously reviewed: 29 June 2017)
L01XG01	Bortezomib	Transplant eligible multiple myeloma	Approved – Special Access Data to ensure rational use to be submitted for all patients by PTCs to the National Department of Health.	New evidence Price	25 March 2021
L01XX02	Asparaginase	Acute lymphoblastic leukemia (ALL)	Approved	n/a	11July 2019
L01XX14	All-trans retinoic acid (tretinoin)	Acute promyelocytic leukaemia	Approved	None	27 September 2018
_01XX19	Irinotecan	Adjuvant colorectal.	Not Approved	Evidence to show benefit	27 November 2008
L01XX19	Irinotecan	First- or second-line metastatic colorectal cancer.	Approved	None	10 December 2015
L02AE03	Gonadotrophin- releasing hormone (GnRH) analogue Goserelin, Buserelin	Endometriosis.	Approved for use in the following situations: For endometriosis-associated infertility prior to in vitro fertilisation (IVF). For medical management in situations in which a trial of adequate analgesia or the use of combined oral contraceptives is unsuccessful.	New evidence based on Goserelin vs. Placebo Large comparative trials with COCs for both "trial of hormone therapy" and for relief of pain Comparisons with new agents such as aromatase inhibitor	13 March 2008
_02AE03	Gonadotrophin- releasing hormone (GnRH) analogue	Precocious puberty.	Approved Choice of GnRH analogue will depend on best tender price.	Change in price or registration of new agents which are cheaper or more efficacious, or both. New safety concerns	13 March 2008

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED		
L02AE03	Gonadotrophin- releasing hormone (GnRH) analogue	As bridging therapy until orchiectomy.	Approved Only Approved as bridging therapy - not long-term management.	• Price	25 February 2016		
L02AE03	Goserelin	Hormone receptor positive breast cancer in premenopausal women.	Not Approved	None	10 December 2015		
_02BA01	Tamoxifen	Adjuvant breast cancer.	Approved	None	27 November 2008		
_02BA01	Tamoxifen	Metastatic breast cancer.	Approved	None	27 November 2008		
L02BA03	Fulvestrant	Advanced Breast Cancer (ABC) Hormone Receptor Positive (HR+) [C50] – third or fourth line therapy	Not Approved This status will be reconsidered if offered/contract price is comparable or lower than that of standard chemotherapy.	Price	25 March 2021		
L02BB01/ L02BB03	Anti-androgens Flutamide, Bicalutamide	Advanced prostate cancer.	Not Approved Orchiectomy preferred.	None	29 October 2012		
L01BC05	Gemcitabine	Pancreatic cancer (unresectable or metastatic cancer).	Approved Monotherapy in patients with locally advanced unresectable or metastatic cancer and have an ECOG performance status of 0-2 and a bilirubin level lower than 1.5 x ULN.	New evidence of efficacy and safety in this patient population group	12 October 2023 (Previously reviewed 29 October 2012)		
L01BC05	Gemcitabine	First-line chemotherapy in advanced non-small cell lung cancer (NSCLC) in patients intolerant to paclitaxel.	Approved Approved in patients intolerant to paclitaxel.	n/a	22 January 2015		
_01BC05	Gemcitabine	Relapsed metastatic breast cancer (mBC) failing an anthracycline and a taxane.	Approved	n/a	15 September 2016		
_02BG	Aromatase inhibitors Anastrozole, Letrozole, Exemestane	Adjuvant breast cancer.	Approved for use in women with confirmed intolerance to tamoxifen, i.e. thrombo-embolic disease or endometrial hyperplasia (proven on ultrasound). Choice of aromatase inhibitor will depend on best tender price.	Publication of the ongoing Secondary Adjuvant Long term Study with Arimidex (SALSA) study and ATAC Long term data BIG 1-98 TEAM data late in 2008 Price parity with tamoxifen	27 November 2008		
.02BG	Aromatase inhibitors	Metastatic breast cancer.	Approved for use as second-line therapy after tamoxifen in advanced breast cancer in postmenopausal women who do not have visceral metastases.	Further developments regarding tamoxifen pharmacogenetics	September 2010		

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED		
			Choice of aromatase inhibitor will depend on best tender price.				
L03AA02	Filgrastim	Febrile neutropaenia.	 Approved under the following conditions: Patients must have had 3 days of appropriate antimicrobial therapy without resolution of infection. Filgrastim can be used up to a maximum of 5 days with a daily review of white cell count (WCC). Failure to respond must prompt further investigation of neutropenia. 	None	27 November 2008		
L03AA02	Filgrastim	ARV-induced neutropenia.	Not Approved This does not preclude the use of filgrastim in the management of febrile neutropenia (see above) in HIV infected patients.	RCTs, with improved clinically relevant outcomes, especially mortality	27 November 2008		
L03AA02	Filgrastim	Prophylactic use in children with high-risk acute lymphoblastic leukaemia (HR-ALL).	Not Approved	The emergence of evidence that routine use of GCSF improves outcomes in HRALL. A significant reduction in the price of GCS	3 December 2009		
L03AA02	Filgrastim	Peripheral blood stem cell harvesting in autologous stem cell harvesting in haematological malignancies.	Approved	n/a	24 July 2014		
L03AA02	Filgrastim	Chemotherapy-induced febrile neutropenia.	Approved for secondary prophylaxis in curable cancers requiring full dosing on-schedule, i.e. Hodgkins and germ cell tumours.	n/a	9 February 2012		
L03AA02	Filgrastim	Chemotherapy-induced febrile neutropenia.	Not Approved for primary prophylaxis as no overall survival benefit and limited mortality benefit has been shown.	n/a	9 February 2012		
_04AA04	Antithymocyte immunoglobulin (ATG)	Induction therapy in high risk renal transplantation recipients.	Approved	None	29 June 2017		
_04AA10	Sirolimus	Renal transplant.	Approved for use only patients with biopsy- confirmed calcineurin inhibitor toxicity because of deteriorating kidney function (i.e. in patients at ongoing risk of acute rejection	Reduction in cost or new efficacy data	16 September 2010		

ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED
ATO CODE	WEDICINE	INDICATION	with no overt proteinuria and preserved GFR > 40mL/min) where mycophenolate mofetil is contra-indicated.	KEVIEW INDICATORS	DATE NATIFIED
L04AA06	Mycophenolate mofetil (MMF)	Lupus Nephritis.	Approved for both the induction and maintenance phases of treatment of lupus nephritis.	None	18 September 2014
L04AA06	Mycophenolate mofetil (MMF)	Prevention of acute rejection post- renal transplantation.	Approved for prevention of acute rejection post- renal transplantation.	Reduction in cost or new efficacy data	16 September 2010
L04AA13	Leflunomide	As add-on therapy in Rheumatoid Arthritis.	Approved – Special Access Special access be permitted on recommendation by PTC for intolerance to standard therapy.	New efficacy data or reduction in cost	31 March 2016
L04AA13	Leflunomide	Rheumatoid Arthritis where patients are intolerant or have contraindications to methotrexate and sulphasalazine.	Approved Only for use in patients with intolerance to standard DMARD therapy (methotrexate or sulphasalazine)	New evidence Safety concerns Price change	12 April 2018
L04AA04	Antithymocyte immunoglobulin (ATG)	Aplastic Anaemia.	Approved (in combination with ciclosporin and corticosteroids)	None	10 December 2015
L04AA31	Teriflunomide	Relapsing remitting multiple sclerosis.	Approved Provided offered price is comparable or lower than beta interferon	New evidence of clear benefit of efficacy of newer classes Price changes	19 March 2020
L04AB	Tumour necrosis factor alpha inhibitors • Adalimumab • Infliximab	Fistulising Crohn's Disease	Approved For patients who are refractory to conventional therapy. (Both agents are to be made available however Committee recommends adalimumab as the preferred first agent. Therapeutic dose monitoring should be conducted, and agents switched if appropriate – refer to appendix: TDM of adalimumab and infliximab for Crohn's disease).	• n/a	14 March 2024
L04AB	Tumour necrosis factor alpha inhibitors • Adalimumab • Infliximab	Luminal Crohn's Disease	Approved For patients who are refractory to conventional therapy. (Both agents are to be made available however adalimumab recommended as the preferred first agent. Therapeutic dose	• n/a	16 May 2024

	TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED			
			monitoring should be conducted, and agents switched if appropriate – refer to appendix: TDM of adalimumab and infliximab for Crohn's disease).					
L04AB02	Infliximab	Rheumatoid Arthritis.	Not Approved	 Demonstration in randomized trials of reduction in clinically significant endpoints, e.g. hospitalizations, joint replacements, etc. Evidence of sustained, clinically relevant improvement upon withdrawal of infliximab A significant reduction in the price of the medicine 	13 March 2008			
L04AB04	TNF inhibitor: Adalimumab	Juvenile Idiopathic Arthritis (with or without uveitis)	Approved Approved for use in patients who are refractory to conventional disease modifying anti-rheumatic drugs (DMARDs)	Change in price of adalimumab comparable to other TNF-inhibitors	20 July 2023			
L03AB07/ L03AB08	Interferon beta	Relapsing remitting multiple sclerosis	Approved	New evidence of clear benefit of efficacy of newer classes Price	30 January 2020			
L04AC02	Basiliximab	Induction therapy in low risk patient's renal transplantation recipients.	Approved	None	29 June 2017			
L04AD01	Ciclosporin	Organ transplantation.	Approved	n/a	20 September 2007			
L04AD02	Tacrolimus	 Primary therapy in high immunological risk renal allograft recipients. Renal allograft recipients on ciclosporin who experience steroid resistant acute allograft rejection. 	Approved	None	29 June 2017			
L04AD02	Tacrolimus extended-release formulation	Primary therapy in high immunological risk renal allograft recipients.	Not Approved	Price reduction	20 July 2023			

	TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED			
		Renal allograft recipients on ciclosporin who experience steroid resistant acute allograft rejection.						
L04AX01	Azathioprine	Crohn's Disease	Approved	• n/a	20 July 2023			
L04AX01	Azathioprine	Ulcerative colitis	Approved	• n/a	16 May 2024			
L04AX02	Thalidomide	Multiple myeloma.	Not Approved	 Price changes in comparison to lenalidomide Changes in evidence of safety compared to lenalidomide. 	8 December 2022 (Previously reviewed June 2019)			
L04AX04	Lenalidomide	Newly diagnosed multiple myeloma	Approved	Price changes in comparison to thalidomide	8 December 2022			
			M MUSCULOSKELETAL SYSTEM					
M03BX01	Baclofen	Spasticity.	Not Approved	New evidence of clinically relevant efficacy	25 June 2015			
M03AX01	Botulinum toxin	Focal dystonias.	Approved for use in carefully selected patients. Only to be administered by suitably experienced practitioners.	New evidence with clinical relevant/well defined endpoints and well described dosage regimens	30 June 2016			
M03AX01	Botulinum toxin	Spastic cerebral palsy.	Not Approved	New evidence with clinical relevant/well defined endpoints and well described dosage regimens	Re-review: 30 June 2016			
M05BA08	Zoledronate	Multiple myeloma associated bone disease	Approved	New evidence of efficacy or safety	12 October 2023 (Previously reviewed 25 July 2013)			
M05BA	Bisphosphonates Zoledronate Ibandronate	Hypercalcaemia of malignancy.	Approved	New evidence of efficacy or safety	12 October 2023 (Previously reviewed September 2007: pamidronate approved but agent subsequently discontinued)			
M05BA	Bisphosphonates, IV	Secondary prevention of osteoporosis associate fractures	Approved	n/a	14 March 2024			

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS								
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED			
	Zoledronate, IV Ibandronate, IV		For patients unable to tolerate oral bisphosphonates, or in patients where oral bisphosphonates are contraindicated.					
M05BA04	Alendronate	Osteogenesis imperfect.	Not Approved	Evidence of efficacy and safety	25 July 2013			
M05BA04	Alendronate	Paget's.	Not Approved	New high quality adequately powered trials providing evidence addressing clinically important parameters New safety concerns	September 2007			
			N NERVOUS SYSTEM	<u> </u>				
N02AB03	Transdermal fentanyl (fentanyl patches)	Severe stable chronic pain where oral medication (opioids) cannot be taken and there is no access to subcutaneous opioids via a syringe driver.	Approved	Price Signals of harm Evidence of superiority	27 June 2024			
N03AG04	Vigabatrin	Refractory partial epilepsy.	Not Approved	Good quality evidence to support the efficacy and safety in infantile spasms.	3 December 2009			
N03AG04	Vigabatrin	Infantile spasms.	Not Approved	Good quality evidence to support the efficacy and safety in infantile spasms.	3 December 2009			
N03AX11	Topiramate	Initial therapy (epilepsy).	Not Approved	 New evidence, re: clinical efficacy of topiramate vs. alternatives as add-on therapy for resistant epilepsy New evidence, re: efficacy in comparison with alternatives as initial therapy for epilepsy, where the current evidence supports using the alternative agents 	3 December 2009			
N03AX11	Topiramate	Add-on therapy for resistant epilepsy.	Approved	Evidence that the product is accounting for disproportionate amount of anti-epileptic spend	26 March 2015			

	TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED			
N03AX14	Levetiracetam	Add-on therapy for resistant epilepsy.	Not Approved	Price Data in HIV patients	25 June 2015			
N03AX12/	α2δ calcium channel ligands	Patients with peripheral neuropathy refractory or intolerant to standard of care	Approve – Special Access Special access may be granted on	New evidence in the refractory setting	30 January 2020			
N03AX16	Gabapentin, Pregabalin	(e.g. amitriptyline; or carbamazepine)	recommendation by PTC in the refractory or intolerant setting.	Alternative indications	oo dandary 2020			
N04BC04/ N04BC05	Dopamine agonist	Parkinson's disease.	Approved for use as add-on therapy to	Decrease in relative cost				
G02CB01	Ropinarole, Pramipexole, Bromocriptine		levodopa. The choice of dopamine agonists and selegiline will depend on the lowest tender price.	New safety data	27 November 2008			
N05AH03	Olanzapine, IM	Emergency management of psychotic conditions.	Not Approved	New evidence of superior efficacy to suitable alternatives in patients with severe adverse reactions to FGAs	03 December 2009			
N05AH04	Quetiapine	Third-line schizophrenia.	Not Approved Aripiprazole approved for this indication.	• n/a	16 May 2024 Review evaluation. (First reviewed: 15 September 2016)			
N05AX08	Risperidone long acting injection	Schizophrenia.	Not Approved	Price similar to current standard of care	31 March 2016			
N05AL05	Amisulpride	Fourth-line schizophrenia	Approved for use as an appropriate alternative to existing agents in patients with schizophrenia failing third-line schizophrenia therapy options.	• Price	16 May 2024 Place in therapy updated (First reviewed: 03 December 2009 – for psychosis: with negative symptoms failing first- and second-generation antipsychotics)			
N05AX12	Aripiprazole	Third-line schizophrenia	Approved for use as an appropriate alternative to existing agents in patients with schizophrenia failing first- and second-line schizophrenia therapy options, and where clozapine not an option due to metabolic effects (weight gain, type II diabetes mellitus), as a step before amisulpride.	• Price	16 May 2024			

	TER	RTIARY AND QUATERNAR	Y LEVEL ESSENTIAL MEDICINES	RECOMMENDATIONS	
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED
N05AX12	Aripiprazole	Schizophrenia in children.	 Approved for use as a third-line agent in children with psychotic disorders who are intolerant to typical and atypical antipsychotic agents with: Obesity, defined as BMI ≥ 30 or age appropriate measures, or Excessive weight gain, if associated with metabolic syndrome in adherent patients on other atypical antipsychotics, not responsive to other interventions (e.g. dietary management and/or physical exercise). Aripiprazole be initiated, in these cases, in consultation with or, where available, by a subspecialist (i.e. child and adolescent psychiatrist) 	New evidence of efficacy in children and adolescents	29 November 2013
N05BA12	Alprazolam	"As required" adjunctive medication in the treatment of panic disorder.	Approved for panic disorder only. To be prescribed by a psychiatrist.	Any efficacy, safety or cost data	September 2010
N05CF01/ N05CF02	Benzodiazepine related drugs Zopiclone, Zolpidem	Short-term use for insomnia associated with a primary psychiatric condition.	Not Approved	If the price of z-drugs were reduced to within an acceptable distance of the price of oxazepam, consideration would be given to including these on the EML	03 December 2009
N05CM18	Dexmedetomidine	Sedation of patients in intensive care requiring mechanical ventilation	Not Approved	Price reduction new evidence of safety or efficacy	20 July 2023
N06AX11	Mirtazapine	Major Depressive Disorder (MDD) for the specific population groups: Cardiac patients with MDD Oncology patients with MDD who do not tolerate SSRIs/SNRIs MDD patients who cannot tolerate or have failed on SSRIs/SNRIs/TCAs Treatment resistant MDD	Not Approved	Robust evidence of efficacy in specific groups	8 December 2022

	TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS							
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED			
N06AX12	Buproprion	Major depressive disorder.	Approved for use as a third-line treatment of major depressive disorder and anxiety associated with depression. To be prescribed by a psychiatrist only. The cheapest of bupropion or venlafaxine to be used.	• n/a	27 January 2011			
N06AX16	Venlafaxine	Major depressive disorder.	Approved for use as a third-line treatment of major depressive disorder and anxiety associated with depression. To be prescribed by a psychiatrist only. The cheapest of bupropion or venlafaxine to be used.	New evidence of harm, or a revision in the price of bupropion to make it more economically favourable	27 January 2011			
N06DX01	Memantine	Alzheimer's Disease.	Not Approved	Evidence of true clinical benefit in terms of quality if life for patients and care-givers	10 July 2008			
			R RESPIRATORY SYSTEM					
R03BB04/ R03BB06	Long acting muscarinic antagonists (LAMA) Tiotropium Glycopyrronium	Chronic Obstructive Pulmonary Disease (COPD).	Not Approved	Price	14ecember 2017			
R03DC03	Montelukast	Chronic management of severe uncontrolled asthma.	 Approved for use in: In adults (>12 years) with difficult to control asthma despite receiving high dose inhaled steroids and long-acting β₂ agonist, a trial of low dose sustained release theophylline should be tried before use of montelukast. If there is no response to low dose theophylline, a 2-week trial of montelukast may be used. In children between 6 and 12 years of age with severe uncontrolled asthma despite being on high dose corticosteroids and long acting β₂ agonist, a 2-week trial of montelukast could be considered. 	Properly randomized efficacy and safety comparative studies of LTRA, low dose sustained release theophyllines and long acting beta2 agonist at all ages	13 March 2008			

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS									
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED				
			 In children less than 6 years with severe uncontrolled asthma on high dose inhaled corticosteroids, a 2-week trial of montelukast could be considered. If no benefit can be demonstrated after this period, montelukast should be discontinued. 						
	S SENSORY ORGANS								
S01LA04	Ranibizumab	Sub-retinal neovascular membranes and non-resolving macular odema.	Not Approved Bevacizumab to be agent for this indication	None	10 December 2015				
V VARIOUS									
V03AC03	Deferasirox (film-coated and dispersible tablets considered equivalent)	Treatment of transfusional iron overload	Approved Added as an oral alternative to deferoxamine.	n/a	30 November 2023 Film- coated tablet update (Previously reviewed 15 September 2016)				
V03AF03	Calcium folinate, intravenous	Adjuvant colorectal cancer.	Approved	n/a	27 November 2008				
V03AF03	Calcium folinate, oral	Reduction of the toxicity and counteraction of folic acid antagonists such as methotrexate; used in cytotoxic chemotherapy	Approved	n/a	30 March 2023				
V03AE	Lanthanum carbonate, Sevelamer	Hyperphosphataemia in patients with chronic renal failure.	Approved – Special Access Special Access may be granted on recommendation by the PTC.	Evidence that the use of non-calcium-based phosphate binders significantly reduces all-cause or cardiovascular mortality and/or cardiovascular comorbidities in patients with ESRD Reduction in cost of sevelamer through price reduction or the introduction of generic equivalents	25 June 2015				

TERTIARY AND QUATERNARY LEVEL ESSENTIAL MEDICINES RECOMMENDATIONS									
ATC CODE	MEDICINE	INDICATION	NEMLC RECOMMENDATION	REVIEW INDICATORS	DATE RATIFIED				
V03AF01	Mesna	Haemorrhagic cystitis post high dose cyclophosphamide/ifosfamide	Approved	n/a	11July 2019				

Abbreviations:

ACTH: Adrenocorticotropic hormone **ARB:** Angiotensin II receptor blocker

AR: Antiretroviral

ATAC: Arimidex, tamoxifen, alone or in combination **ATC:** Anatomical Therapeutic Chemical Classification

BCG: Bacille Calmette-Guerin

BIG 1-98: Breast International Group 1-98 **COCs:** Combined oral contraceptives

COPD: Chronic Obstructive Pulmonary Disease **DLBCL:** Diffuse large B-cell non-Hodgkins lymphoma **DMARD:** Disease-modifying antirheumatic drugs

DoH: Department of Health

ECOG: Eastern Cooperative Oncology Group

EML: Essential Medicine List ESRD: End-stage renal disease FGAs: First generation antipsychotics

FL: Follicular lymphoma

GCSF: Granulocyte colony stimulating factor

GFR: Glomerular filtration rate

GnRH: Gonadotrophin-releasing hormones **HIV:** Human Immunodeficiency Virus

HR-ALL: High-risk Acute Lymphoblastic Leukaemia

IPI: International Prognostic Index

ITP: Immune Thrombocytopenic Purpura

IVF: In-vitro Fertilisation

IVIG: Intravenous Immunoglobulin LTRA: Leukotriene receptor antagonists

mBC: Metastatic breast cancer

MRSA: Methicillin-resistant Staphylococcus aureus

NPH: Neutral Protamine Hagedorn

PDE5-inhibitors: Phosphodiesterase-5 (PDE5) inhibitors

PPI: Proton Pump Inhibitor

PPHN: Persistent pulmonary hypertension in neonates **PTC:** Pharmaceutical and Therapeutics Committee

RA: Rheumatoid arthritis

RCT: Randomised controlled trials **RSV**: Respiratory syncytial virus

SEP: Single exit price

TDM: Therapeutic Drug Monitoring

TEAM: Tamoxifen Exemestane Adjuvant Multinational

TNF: Tumour necrosis factor ULN: Upper limit normal VCZ: Voriconazole

VTD: Bortezomib/thalidomide/corticosteroids

VHF: Viral haemorrhagic fever

WCC: White cell count

NOTE: General review indicators include, new evidence on efficacy, effectiveness or safety and significant price changes.

NEMLC ratified Summary and Review documents can be requested as required from: SAEDP@health.gov.za OR Jane.Riddin@health.gov.za