

EPHMRA
ANATOMICAL CLASSIFICATION
GUIDELINES 2020

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Users of this classification system should keep in mind that Pharmaceutical markets can be segmented according to numerous criteria."

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INTRODUCTION

The Anatomical Classification was initiated in 1971 by EphMRA. It has been developed jointly by Intellus/PBIRG and EphMRA. It is a subjective method of grouping certain pharmaceutical products and does not represent any particular market, as would be the case with any other classification system.

These notes are known as the Anatomical Classification Guidelines, and are intended to be used in conjunction with the classification. This **English** version of the Guidelines is the authorised, definitive version produced by EphMRA.

Since the guidelines were originally prepared, various additions and amendments have been made in order to better explain which kinds of products are included in a particular group and the rules governing the allocation of products to a particular group.

Where it is felt that the heading is self-explanatory, no guideline was prepared eg N2C Anti-migraine preparations. In other cases, the guideline is clearly stated eg N5C Tranquillisers - "includes minor tranquillisers, eg benzodiazepines, hydroxyzine, meprobamate....

One or two words used in the guidelines sometimes cause confusion, in particular the terms plain and combination. A plain product can contain one or more active ingredients of a similar type, eg a topical steroid containing one or two corticosteroids. When another active ingredient is added eg an anti-infective agent, it becomes a combination product. Only the active ingredients are taken into consideration when determining whether a product is a plain product or a combination. Non-therapeutic ingredients, eg the propellant in bronchodilator aerosols, are ignored.

Whilst every effort has been made to eliminate anomalies in the text, and to make clear the definition of types of products included in any particular class, it is inevitable that there will still be guidelines which are not clear. If you feel there are specific improvements which could be made, please make your views known to the Chairman of the Classification Committee.

There are certain codes used against a class entry in the Guidelines to indicate the status and date of change of that class.

From Jan 2008 a modification to the R status has been introduced. Upper case letter R is used for a major revision of a class – eg split of a third level to fourth levels. Lower case r is used for a minor revision eg clarification of explanation. Before Jan 2008 only upper case R has been used for a revision and so there is no distinction between minor or major revisions.

I = Introduction

R = Revision (major)

r = revision (minor)

D = Deletion

For example:

I2006	This indicates a class was introduced from the beginning of 2006.
R2006	This indicates a class was revised in content or meaning from the beginning of 2006; this could be a major or a minor change.
R2008	This indicates a class was revised in a major way from the beginning of 2008.
r2008	This indicates a class was revised in a minor way from the beginning of 2008.
D2006	This indicates a class was deleted from the beginning of 2006.

Use and Re-Use of Classification Codes

1. The actual classification code does not have any meaning except at the first level (eg A). In addition, the letter X and the number 9 are usually used for the 'Other' classes.
2. The sequence of codes does not generally imply any priority or meaning.
3. In some cases a rule is created for a particular area where the order of the classes is important; however any code can be used for any description.
4. There can be gaps between codes in a sequence eg A10H can be followed by A10K, ie there is no A10J. This may be because room is being left for classes that may come into operation later but not at the moment.
5. The letters I and O are avoided because of confusion with numbers 1 and 0.
6. If a code is deleted it is not used again for 3 years; this is to avoid confusion in describing classes by code and to ensure there is not mixed data in datasets created at the time of changeover to the new code structure. This code discontinuity can cause gaps to appear in a code sequence; there is no significance to this for the actual classification.
7. Codes should not be different to the WHO codes at the third level; in some cases this may exist for historical reasons before harmonisation work started.
8. The valid EphMRA codes are from A to V7.

A	ALIMENTARY TRACT AND METABOLISM	
A1	STOMATOLOGICALS, MOUTH PREPARATIONS, MEDICINAL DENTIFRICES ETC	
A1A	STOMATOLOGICALS Includes the pharmaceutical preparations for the anterior part of the mouth i.e. for teeth, gums etc. Products indicated both for the posterior part of the mouth and throat infections are classified in either R2A or A1A depending on the main indication. Pilocarpine used for dry mouth is classified here. Non-pharmaceutical products (especially non-medicated toothpastes and chewing gum, non-medicated gargles, non-medicinal dental products etc) are classified in V7A and all local anaesthetics for surgery and pain relief are classified in N1B. Systemic anti-infectives for the treatment of stomatological conditions are classified in J. 4th level used in France, French West Africa, FTO, and Italy.	R2007
A1A1	Toothpastes Toothpastes as pastes, powders, liquids, chewing gum excluding the ones containing fluorine (see A1A4).	
A1A2	Mouth antiseptics and anti-infectives Mouth antiseptics and anti-infectives for the anterior part of the mouth (teeth, gums, etc) such as mouthwashes, gargles, pastes, tinctures, oral gels etc. If they extend their activity to the posterior part of the mouth and throat they are classified in R2A, except if containing fluorine (see A1A4). Antifungal products in oral topical form are classified in A1B.	R1999
A1A3	Mouth anti-inflammatories and mouth analgesics for topical use Mouth anti-inflammatories and mouth analgesics for topical use for the anterior part of the mouth (teeth, gums etc) including corticoids. Otherwise classify in R2A. For products containing fluorine see A1A4.	
A1A4	Mouth preparations w/fluorine All preparations containing fluorine including toothpaste, chewing gum, liquids and powders.	
A1A5	All other stomatologicals All preparations not classifiable in the preceding 4th level groups and particularly products against pyorrhea. Pilocarpine used for dry mouth is classified here.	R2001

A1B	MOUTH ANTIFUNGALS Includes topical oral forms of products eg pastilles, gels for fungal infections of the mouth (oral cavity). Also includes other forms eg oral suspensions when these are mainly used for fungal infections of the mouth.	I1999
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A2	ANTACIDS, ANTIFLATULENTS AND ANTI-ULCERANTS	
A2A	ANTACIDS, ANTIFLATULENTS, CARMINATIVES	
A2A1	Plain antacids Includes combinations of two or more antacid substances as well as skimmed-milk powder and milk complexes with pure antacid combinations. Stomach teas are classified in A2X. Includes combinations with alginic acid. Alka Seltzer is classified in N2B when it contains an analgesic. If it contains only an antacid, it is classified here.	r2018
A2A2	Plain antiflatulents and carminatives This group includes mainly dimethicone/simethicone (dimethylpolysiloxane, DMPS) preparations. Carminatives and herbal combinations are classified in A2A7 except carminatives with a choleric or cholagogue effect which are classified in A5A. Dimethicone/simethicone preparations with enzymes are classified in A9A.	R1994
A2A3	Antacids with antispasmodics Distinguishing between antispasmodics and ulcer therapy is often difficult but products with a substance with known antispasmodic properties are included in this group.	
A2A4	Antacids with antiflatulents or carminatives Includes combinations of plain antacids with antiflatulents or carminatives.	
A2A5	Antacids with antiflatulents and/or carminatives and antispasmodics Products in this group should contain an antacid and an antispasmodic together with an antiflatulent or a carminative or both.	
A2A6	Antacids with other drugs Includes antacid combinations other than those classified in A2A3, A2A4 and A2A5. Specific anti-ulcerants are classified in A2B. Alka-Seltzer is classified in N2B or A2A1. Combinations of low dose H2 antagonists with antacids are classified here.	R2002
A2A7	Antiflatulents and/or carminatives with other drugs Includes all antiflatulents and/or carminative combinations not included in A2A4, A2A5, A9A. Combinations of antispasmodics with antiflatulents are classified in A3E.	r2011

A2B	ANTIULCERANTS Combinations of specific antiulcerants with other substances, such as anti-infectives against <i>Helicobacter pylori</i> , antispasmodics, gastroprokinetics, that are for ulcers, gastro-oesophageal reflux disease or similar conditions are classified according to the antiulcerant substance. For example, proton pump inhibitors in combination with these anti-infectives are classified in A2B2. Combinations of antiulcerants with non-steroidal anti-inflammatories where the antiulcerant is present for gastric protection are classified in M1A1.	r2020
A2B1	H2 antagonists Includes, for example, cimetidine, famotidine, nizatidine, ranitidine, roxatidine. Combinations of low dose H2 antagonists with antacids are classified with antacids in A2A6.	R2002
A2B2	Proton pump inhibitors Includes esomeprazole, lansoprazole, omeprazole, pantoprazole, rabeprazole. Combinations of proton pump inhibitors with gastroprokinetics for ulcers, gastro-oesophageal disease or similar conditions are classified here.	r2020
A2B3	Prostaglandin antiulcerants Includes misoprostol, enprostil.	
A2B4	Bismuth antiulcerants Includes combinations with antacids.	
A2B9	All other antiulcerants Includes all other products containing substances with antiulcerant action where the type of substance is not specified in classes A2B1 to A2B4. Combinations of antiulcerants with antispasmodics are classified in A2B1 to A2B9 according to the type of antiulcerant. Combinations of low dose H2 antagonists with antacids are classified with antacids in A2A6. Included are, eg carbenoxolone, gefarnate, pirenzepine, proglumide, sucralfate and sofalcone. Herbal combinations are classified in A2X. In Japan, Korea and Taiwan only, sulpiride and other psycholeptics indicated for ulcer use are also included in this group, whilst in all other countries, these compounds are classified in N5A9. Products containing rebamipide for gastric mucosal protection are classified here. Products containing rebamipide and indicated for dry eye are classified in S1K9.	r2020
A2C	Out of use	D2018

A2X	OTHER STOMACH DISORDER PRODUCTS Includes herbal preparations and also plain alginic acid. Combinations of antacids with alginic acid are in A2A1.	I2018
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A3	FUNCTIONAL GASTRO-INTESTINAL DISORDER DRUGS	R2003
A3A	PLAIN ANTISPASMODICS AND ANTICHOLINERGICS	R1993
	Includes all plain synthetic and natural antispasmodics and anticholinergics.	
A3B	Out of use; can be reused.	
A3C	ANTISPASMODIC/ATARACTIC COMBINATIONS	
	This group includes combinations with tranquillisers, meprobamate and/or barbiturates except when they are indicated for disorders of the autonomic nervous system and neurasthenia, in which case they are classified in N5B4.	
A3D	ANTISPASMODIC/ANALGESIC COMBINATIONS	R1997
	This group includes combinations with analgesics. Products also containing either tranquillisers or barbiturates and analgesics to be also classified in this group. Antispasmodics indicated exclusively for dysmenorrhoea are classified in G2X1.	
A3E	ANTISPASMODICS COMBINED WITH OTHER PRODUCTS	r2020
	Includes all other combinations not specified in A3C, A3D and A3F. Combinations of antispasmodics and antacids are classified in A2A3; combinations of antispasmodics with antiulcerants are classified in A2B1 to A2B9 according to the type of antiulcerant. Combinations of antispasmodics with antifatulents are classified here.	
A3F	GASTROPROKINETICS	r2020
	This group includes products used for dyspepsia and gastro-oesophageal reflux. Compounds included are: alizapride, bromopride, cisapride, clebopride, cinitapride, domperidone, levosulpiride, metoclopramide, trimebutine. Prucalopride is classified in A6A9.	
	Combinations of gastroprokinetics with other substances are classified here if used for dyspepsia or gastro-oesophageal reflux. Combinations of gastroprokinetics with antiulcerants for ulcers, gastro-oesophageal disease or similar conditions are classified in A2B.	

A3G	<p>GASTRO-INTESTINAL SENSORIMOTOR MODULATORS</p> <p>Products which are specifically developed to modulate the multiple symptoms of irritable bowel syndrome (IBS). Includes alosetron, tegaserod.</p> <p>Linacotide (290mcg) indicated for IBS-C (irritable bowel syndrome with constipation) is classified here; linacotide (145mcg) indicated for chronic constipation is classified in A6A9. Products containing linacotide for both chronic constipation and for IBS-C are classified here when there is no distinction by strength. Lubiprostone (8mcg) indicated for IBS-C is classified here; lubiprostone (24mcg) indicated for chronic constipation is classified in A6A9. Products containing plecanatide indicated for chronic constipation and IBS-C are classified here. Other drugs for constipation, including laxatives, are classified in A6A.</p>	r2019
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A4	ANTIEMETICS AND ANTINAUSEANTS	
A4A	ANTIEMETICS AND ANTINAUSEANTS Products indicated for vertigo and Meniere's disease are classified in N7C. Gastroprokinetics are classified in A3F.	R1996
A4A1	Serotonin antagonist antiemetics/antinauseants This class includes granisetron, ondansetron, palonosetron, tropisetron. Combinations of serotonin antagonists with NK1 antagonists are classified in A4A2.	r2016
A4A2	NK1 antagonist antiemetics/antinauseants Includes products containing eg aprepitant, fosaprepitant, netupitant, rolapitant. Combinations of NK1 antagonists with serotonin antagonists are classified here.	I2016
A4A9	Other antiemetics and antinauseants Includes eg cerium oxalate, metopimazine, scopolamine.	I1996

A5	CHOLAGOGUES AND HEPATIC PROTECTORS	
A5A	BILE THERAPY AND CHOLAGOGUES	
A5A1	Choleretics and cholekinetics Includes products, plain and in combination, indicated as choleretics and cholekinetics.	
A5A2	Bile stone therapy Includes products indicated for biliary conditions such as stone solvers eg chenodesoxycholic acid, ursodesoxycholic acid. Products containing ursodesoxycholic acid for primary biliary cholangitis are classified here.	r2018
A5A9	Other bile therapy and cholagogues Includes products containing obeticholic acid for primary biliary cholangitis.	I2018
A5B	HEPATIC PROTECTORS, LIPOTROPICS Includes hepatic protectors and combinations, but excludes liver extracts indicated for the treatment of anaemia, which are classified in B3B.	
A5C	CHOLAGOGUE/LIPOTROPIC COMBINATIONS	

A6	DRUGS FOR CONSTIPATION AND BOWEL CLEANSERS	r2014
	Includes laxatives and other products for constipation. Products that are both laxatives and bowel cleansers are classified in the appropriate laxative class. For the classification of products indicated for irritable bowel syndrome with constipation (IBS-C) see A3G.	
A6A	DRUGS FOR CONSTIPATION	r2014
A6A1	Faecal softening laxatives	r2015
	Includes products containing softening laxatives such as liquid paraffin or docusate sodium. Combinations of faecal softening laxatives with osmotic laxatives are classified here. Combinations with bulk-forming laxatives are classified in A6A3. Combinations with stimulant laxatives are classified in A6A2.	
	For castor oil products see A6A2. Glycerol suppositories are classified in A6A9.	
A6A2	Stimulant laxatives	r2013
	Includes products containing laxatives that have a stimulant effect on the intestinal membrane and peristalsis. Many of these are herbal, eg senna, or of herbal origin (anthraquinones, emodines, glycosides, etc). This group also includes phenolphthalein-derivatives, bisacodyl, and sodium picosulphate when used as a laxative. Products containing a stimulant laxative in combination with other laxative substances (except bulk-forming) are classified here.	
A6A3	Bulk-forming laxatives	r2013
	Includes products containing substances such as bran, ispaghula, methylcellulose, sterculia. Products containing a bulk-forming laxative in combination with other types of laxative are classified here.	
A6A4	Enemas	R2015
	Includes all products for constipation in enema form. Other rectal forms for constipation are classified as appropriate in the other constipation classes. Glycerol suppositories and effervescent suppositories are classified in A6A9.	
	Combination packs containing an enema and another form are classified according to the other form.	
A6A5	Out of use	D2013

A6A6	Osmotic laxatives Includes products containing osmotic laxatives. Substances include lactitol, lactulose, macrogols, magnesium citrate, magnesium hydroxide, magnesium sulphate, mannitol, sorbitol, etc. Combinations with other laxative substances are classified in A6A1, A6A2 and A6A3. Combinations with electrolytes that are present to ensure a neutral impact on electrolyte levels are classified in A6A7.	I2013
A6A7	Osmotic laxatives with electrolytes Includes products containing osmotic laxatives in combination with electrolyte substances. These specific electrolytes are present to ensure a neutral impact on electrolyte levels.	I2013
A6A9	Other drugs for constipation Includes other drugs for constipation and combinations of laxatives not classified in A6A1-A6A7. Combinations of laxatives with centrally acting anti-obesity substances are classified in A8A. Glycerol suppositories and effervescent suppositories are classified here. Prucalopride for chronic constipation is classified here. Linaclotide (145mcg) indicated for chronic constipation is classified here; linaclotide (290mcg) indicated for IBS-C (irritable bowel syndrome with constipation) is classified in A3G. Products containing linaclotide for both chronic constipation and for IBS-C are classified in A3G when there is no distinction by strength. Lubiprostone (24mcg) indicated for chronic constipation is classified here; lubiprostone (8mcg) indicated for IBS-C is classified in A3G. Products containing plecanatide and indicated for both chronic constipation and IBS-C are classified in A3G.	r2019

A6B	BOWEL CLEANSERS Includes products specifically for bowel cleansing prior to surgery or an investigative procedure.	I2013
A6B1	Osmotic bowel cleansers Includes products that contain osmotic laxatives and are for bowel cleansing prior to surgery or an investigative procedure. Combinations of an osmotic laxative with a stimulant, when used as a bowel preparation, are classified here.	I2013
A6B2	Osmotic bowel cleansers with electrolytes Includes products that contain osmotic laxatives in combination with electrolyte substances and are for bowel cleansing prior to surgery or an investigative procedure. These specific electrolytes are present to ensure a neutral impact on electrolyte levels. Bowel cleansers with electrolytes and that contain both an osmotic laxative and a stimulant laxative are classified here.	I2013
A6B9	Other bowel cleansers Includes other products for bowel cleansing prior to surgery or an investigative procedure.	I2013

A7	INTESTINAL DISORDER PRODUCTS Products for functional gastro-intestinal disorders are in A3 and products for constipation and bowel cleansing are in A6.	r2019
A7A	INTESTINAL ANTI-INFECTIVES Includes all products containing one or more intestinal anti-infectives with or without other substances that are used for diarrhoea and/or hepatic encephalopathy. Sulphonamides and special antibacterials such as polymyxin, neomycin, vancomycin or colistin in oral form, when mainly indicated as antidiarrhoeals are included in this group. Combinations with motility inhibitors, intestinal adsorbants and micro-organisms are also included. Products containing rifaximin for either diarrhoea or hepatic encephalopathy are classified here. Products containing fidaxomicin for <i>Clostridium difficile</i> intestinal infections are classified here.	r2019
A7B	INTESTINAL ADSORBENT ANTIDIARRHOEALS Includes products such as kaolin and pectin. Combinations with micro-organisms are also included.	r2011
A7C	Out of use; can be reused.	
A7D	Out of use; can be reused.	
A7E	INFLAMMATORY BOWEL DISORDER PRODUCTS Includes products for inflammatory bowel disorders. Immunosuppressant products used for inflammatory bowel disorders as well as other conditions are classified in L4, for example in L4B (anti-TNF products).	R2017
A7E1	Intestinal aminosalicylate products Includes products containing balsalazide, mesalazine, olsalazine, sulfasalazine and similar aminosalicylates for inflammatory bowel disorders. Products containing aminosalicylates and indicated for rheumatoid arthritis are classified in M1C.	I2017
A7E2	Intestinal corticosteroid products Includes products containing corticosteroids for inflammatory bowel disorders.	I2017

A7E9	Inflammatory bowel disorder products, other Includes other products for inflammatory bowel disorders. Products containing vedolizumab and indicated for inflammatory bowel disease only are classified here. Products containing disodium cromoglicate and indicated for food allergy are classified here. Darvadstrocel (allogenic stem cells) for perianal fistulae in Crohn's disease are classified here.	r2019
A7F	ANTIDIARRHOEAL MICRO-ORGANISMS Includes micro-organisms such as lactobacillus acidophilus which are indicated for the treatment of diarrhoeal disease. Excluded are combinations with other antidiarrhoeals such as anti-infectives, motility inhibitors, and intestinal adsorbents. Products containing racecadotril are classified in A7X.	r2020
A7G	ORAL ELECTROLYTE REPLACERS Oral electrolyte replacers are included in this group where diarrhoeal disease has been indicated. Intravenous preparations are included in K.	I1993
A7H	MOTILITY INHIBITORS Includes narcotic derivatives such as loperamide, diphenoxylate and paregoric. Combinations with intestinal adsorbents and micro-organisms are also included.	I1993
A7X	INTESTINAL DISORDER PRODUCTS, OTHER Includes other products for intestinal disorders, including antidiarrhoeal products. Products containing racecadotril only, or in combination with micro-organisms, are classified here.	r2020

A8	ANTIOBESITY PREPARATIONS, EXCLUDING DIETETICS	
A8A	ANTIOBESITY PREPARATIONS, EXCLUDING DIETETICS Includes all centrally- and peripherally-acting substances indicated for obesity, eg amphetamines, cannabinoid receptor antagonists (CB1), and lipase inhibitors. Combinations of these substances with laxatives or dietetics are included in A8A when the specific indication is obesity. Herbal products are also included. This class excludes dietary products (nutrients) used to aid in weight reduction (see V6A). Chitin-based products are classified in V6A when used in weight reduction. Combinations of anti-obesity drugs with antidiabetics where the aim is to treat both the diabetes and the obesity are classified in A10X1. Products containing liraglutide for weight management only are classified here. Products containing liraglutide for diabetes are classified in A10.	r2016

A9	DIGESTIVES, INCLUDING ENZYMES	r2017
A9A	DIGESTIVES, INCLUDING ENZYMES Includes only those enzymes acting on the digestive tract. Combinations of dimethicone/simethicone (dimethylpolysiloxane, DMPS) with an enzyme, with or without other active substances, and specifically indicated as digestives are included in this group. Specific cholagogues are classified in A5A. Trypsin products for enzymatic wound treatment are classified in D3A and X-chymotrypsin products for ophthalmic use are classified in S1S9. Enzymes with various fields of application are classified in V3H.	R1994

A10	DRUGS USED IN DIABETES	R1993
A10A	Out of use; can be reused from 2001.	D1998
A10B	Out of use; can be reused from 2012.	D2009
A10C	HUMAN INSULINS AND ANALOGUES	I1998
A10C1	Human insulins and analogues, fast-acting Includes human soluble insulin (neutral insulin) and insulin lispro. Includes inhaled forms of insulin.	R2007
A10C2	Human insulins and analogues, intermediate-acting Includes human isophane insulin (NPH) and human amorphous insulin zinc suspension (semi-lente).	I1998
A10C3	Human insulins and analogues, intermediate- or long-acting, combined with fast-acting Includes combinations of human isophane with human soluble insulins (biphasic isophane insulin). Includes combinations of insulin degludec with insulin aspart.	R2016
A10C4	Human insulins and analogues, intermediate-acting combined with long-acting Includes fixed combinations of human crystalline insulin suspension 70% with human amorphous insulin zinc suspension 30% (lente).	I1998
A10C5	Human insulins and analogues, long-acting Includes human crystalline insulin zinc suspension (ultra-lente) and insulin degludec.	r2013
A10C9	Other human insulins and analogues Combinations of human insulins or analogues with GLP-1 agonist antidiabetics are classified here.	r2016
A10D	ANIMAL INSULINS	I1998
A10E	INSULIN DEVICES Only those products which do not contain any active ingredients but are used to administer insulin, are classified in this group.	I1998

A10H	SULPHONYLUREA ANTIDIABETICS Includes plain products containing chlorpropamide, glibenclamide, glibornuride, gliclazide, glimepiride, tolbutamide, etc. For combinations of sulphonylureas with other antidiabetics, use the most appropriate specific combination class. For combinations with vitamins only, classify as plain sulphonylureas.	I2009
A10J	BIGUANIDE ANTIDIABETICS	I2009
A10J1	Biguanide antidiabetics, plain Includes plain products containing buformin, metformin, phenformin, etc.	I2009
A10J2	Biguanide and sulphonylurea antidiabetic combinations Includes combinations of biguanides with sulphonylureas.	I2009
A10J9	Biguanide antidiabetic combinations, other Includes combinations of biguanides with other antidiabetics where there is no other appropriate class. For combinations with vitamins only, classify as plain biguanides.	I2009
A10K	GLITAZONE ANTIDIABETICS	I2009
A10K1	Glitazone antidiabetics, plain Includes plain products containing pioglitazone, rosiglitazone, troglitazone, etc.	I2009
A10K2	Glitazone and sulphonylurea antidiabetic combinations Includes combinations of glitazones with sulphonylureas.	I2009
A10K3	Glitazone and biguanide antidiabetic combinations Includes combinations of glitazones with biguanides.	I2009
A10K9	Glitazone antidiabetic combinations, other Includes combinations of glitazones with other antidiabetics where there is no other appropriate class. Combinations of a glitazone with a biguanide and also a sulphonylurea are classified in A10K9. Combinations of a glitazone with a biguanide and also a DPP-IV inhibitor are classified in A10N9.	I2009
A10L	ALPHA-GLUCOSIDASE INHIBITOR ANTIDIABETICS Includes plain products containing acarbose, miglitol, voglibose, etc.	I2009

A10M	GLINIDE ANTIDIABETICS	I2009
A10M1	Glinide antidiabetics, plain Includes plain products containing repaglinide, nataglinide, mitiglinide, etc.	I2009
A10M3	Glinide and biguanide antidiabetic combinations Includes combinations of glinide antidiabetics with biguanides.	I2009
A10M9	Glinide antidiabetic combinations, other Includes combinations of glinide antidiabetics with other antidiabetics where there is no other appropriate class.	I2009
A10N	DPP-IV INHIBITOR ANTIDIABETICS	I2009
A10N1	DPP-IV inhibitor antidiabetics, plain Includes plain products containing denagliptin, saxagliptin, sitagliptin, vildagliptin, etc.	I2009
A10N3	DPP-IV inhibitor and biguanide antidiabetic combinations Includes combinations of DPP-IV inhibitors with biguanides.	I2009
A10N9	DPP-IV inhibitor antidiabetic combinations, other Includes combinations of DPP-IV inhibitors with other antidiabetics where there is no other appropriate class. Combinations of a DPP-IV with a glitazone and a biguanide are classified in A10N9. Combinations of a DPP-IV inhibitor with an SGLT2 inhibitor and a biguanide are classified in A10P9.	r2020
A10P	SGLT2 INHIBITOR ANTIDIABETICS	R2016
A10P1	SGLT2 inhibitor antidiabetics, plain Includes plain products containing SGLT2 inhibitors, eg canagliflozin, dapagliflozin, empagliflozin, etc.	I2016
A10P3	SGLT2 inhibitor and biguanide antidiabetic combinations Includes combinations of SGLT2 inhibitors with biguanides.	I2016
A10P5	SGLT2 inhibitor and DPP-IV inhibitor antidiabetic combinations Includes combinations of SGLT2 inhibitors with DPP-IV inhibitors.	I2017

A10P9	SGLT2 inhibitor antidiabetic combinations, other Includes combinations of SGLT2 inhibitors with other oral antidiabetics where there is no other appropriate class. Combinations of an SGLT2 inhibitor with a DPP-IV inhibitor and a biguanide are classified here.	r2020
A10S	GLP-1 AGONIST ANTIDIABETICS Includes glucagon-like peptide 1 receptor agonist antidiabetics, eg exenatide, liraglutide, lixisenatide. Combinations of GLP-1 agonist antidiabetics with human insulins or analogues are classified in A10C9. Products containing oral forms of GLP-1 agonists for diabetes are classified here. Products containing liraglutide for weight management only are classified in A8A.	r2020
A10X	OTHER DRUGS USED IN DIABETES	R2010
A10X1	Antidiabetic multitherapy combination products Includes combinations of antidiabetics with cardiovascular drugs where the aim is to treat both the diabetes and the cardiovascular condition. For example, rosiglitazone in combination with simvastatin. Also includes combinations of antidiabetics with anti-obesity drugs where the aim is to treat both the diabetes and the obesity. For example, metformin in combination with sibutramine.	I2010
A10X9	Other drugs used in diabetes Includes products used for the treatment of diabetes, as well as adjuvant therapy in the treatment and prevention of conditions associated with or developing from diabetes. Includes aldose reductase inhibitors (eg epalrestat, tolrestat), guar gum and glucose products specifically intended for the treatment of hypoglycaemic shock. Teas and other herbal extracts used as adjuvant therapy are classified here.	I2010

A11	VITAMINS	
	Products containing vitamins which are specifically for eye conditions are classified in S1M. Multivitamins for parenteral infusion are classified in K4D (less than 100ml).	R2005
A11A	MULTIVITAMINS WITH MINERALS	r2017
	Includes products containing more than two vitamins in combination (and not specified elsewhere) with one or more minerals, eg calcium, potassium, magnesium, iron, copper, manganese and zinc etc. Potassium and magnesium aspartate are not considered as minerals (see A12 and C6X). Excluded are all oral preparations containing procaine where procaine is one of the major components (see A13A1).	
A11A1	Prenatal	R1993
	Includes those products specifically indicated for vitamin supplementation during pregnancy or lactation (eg containing fluoride as mineral).	
A11A2	Paediatric	
	Includes products with halibut liver oil or vitamin D which are indicated only for paediatric conditions. Products with malt extracts are classified in A13A.	
A11A3	Geriatric	
	Includes vitamin preparations with hormones for geriatric patients. The term "ger" often forms part of the name of products in this group (see also A14A2).	
A11A4	Other multivitamins with minerals	
	Includes all other multivitamin products not specified in A11A1, A11A2 or A11A3. Calcium-containing products promoted for osteoporosis or calcium deficiency are classified in A12A. Vitamin C combinations, eg promoted for hypovitaminose C, are classified in A11G2. When in doubt the calcium component takes precedence over the other ingredients. Products based on lecithin or glutamic acid used as tonics are classified in A13A.	

A11B	MULTIVITAMINS WITHOUT MINERALS	R2003
	Includes all multivitamin combinations as defined under A11A but without minerals, except all oral preparations containing procaine (see A13A1). Products for general well-being are classified in A13A.	
A11B1	Prenatal	R1993
	Includes those products specifically indicated for vitamin supplementation during pregnancy or lactation.	
A11B2	Paediatric	
	Analogous to A11A2 but without minerals.	
A11B3	Geriatric	
	Analogous to A11A3 but without minerals (see also A14A2).	
A11B4	Other multivitamins without minerals	
A11C	VITAMIN A AND D, INCLUDING COMBINATIONS OF THE TWO	
A11C1	Vitamin A	
	Includes combinations of vitamin A with vitamin E, but excludes combinations of vitamin A with vitamin D (see A11C3).	
A11C2	Vitamin D	r2014
	Excludes combinations of vitamin D with vitamin A (see A11C3).	
	Products containing vitamin D or its analogues with multiple indications are classified here. Products only for secondary hyperparathyroidism are classified in H4F. Cinacalcet is classified in H4F.	
A11C3	Combinations of vitamin A with vitamin D	R2003
	Products containing halibut or cod liver oil are included in this group. Combinations of vitamin A and/or vitamin D with other vitamins are classified as multivitamins in A11A or A11B.	

A11D	VITAMIN B1 AND COMBINATIONS For vitamin B complex, see A11E.	R2003
A11D1	Out of use; can be reused from 2006.	D2003
A11D2	Out of use; can be reused from 2006.	D2003
A11D3	Vitamin B1 plain Includes products containing only vitamin B1 (thiamine) or analogues (eg cocarboxylase). Products of this type containing eg lidocaine, glucose, are also classified here.	I2003
A11D4	Vitamin B1 combinations with vitamin B6 and/or vitamin B12 Includes vitamin B1 in combination with vitamin B6, vitamin B1 in combination with vitamin B12, and vitamin B1 in combination with both vitamins B6 and vitamin B12. Products of this type containing lidocaine are also classified here.	I2003
A11D9	Other vitamin B1 combinations Includes vitamin B1 products (with or without B6 and/or B12) in combination with other vitamins or substances (excluding vitamin A, or vitamin D). Combinations of B1 and/or B6 and/or B12 with analgesics and mainly indicated for analgesia are usually classified in N2B. Combinations of B1 and/or B6 and/or B12 with anti-inflammatories are usually classified in M1A2. Combinations of B1 and/or B2 and/or B12 with corticosteroids are classified in H2B.	I2003
A11E	VITAMIN B COMPLEX Vitamin B complex contains Vitamin B1 (thiamine), B2 (riboflavine), B6 (pyridoxine) and B12 (cyanocobalamin). In addition, B5 (pantothenic acid), B7 (biotin), B3 (niacinamide) and folic acid can be included. Included are products containing liver extracts, but not those indicated for anaemia (see also B3B). Vitamin B complex with vitamin A or vitamin D is classified in A11A or A11B. For other vitamin B1 products, see A11D.	R2003
A11E1	Plain vitamin B complex Includes dried yeast.	R2004
A11E2	Vitamin B complex with vitamin C Includes vitamin B complex combinations with vitamin C only, except when they contain other drugs as well (see A11E3).	R2003

A11E3	Vitamin B complex with other drugs Includes products containing vitamin B complex and other components, with or without vitamin C.	R1998
A11F	PLAIN VITAMIN B12 This group contains plain vitamin B12 (cyanocobalamin, hydroxocobalamin) products, with or without lidocaine. Combinations with other substances are classified in either A11A, A11B, A11D, A11E, A11X9, B3B or B3X.	R2003
A11G	VITAMIN C, INCLUDING COMBINATIONS WITH MINERALS	
A11G1	Plain vitamin C (including vitamin C salts)	
A11G2	Vitamin C combinations Products of this group include vitamin C with other components, but products with calcium salts for the therapy of calcium deficiency or osteoporosis are classified in A12A. When in doubt the calcium component takes precedence over the other ingredients. Combinations of vitamin C with other vitamins are classified in A11A, A11B, A11D9, A11E2, A11E3 and A11X9. If combined with only one vitamin, and possibly other substances, A11X9 is appropriate.	R2003
A11H	Out of use; can be reused.	
A11J	Out of use; can be reused from 2005.	D2002
A11X	OTHER VITAMINS	I2002
A11X1	Nicotinamide (vitamin B3), plain Includes products containing nicotinamide (vitamin PP).	R2003
A11X2	Vitamin B6 (pyridoxine), plain Pyrithioxine products are included in N6D.	I2002
A11X3	Vitamin E, plain Combinations with vitamin A are in A11C1. Vitamin E products with wheatgerm are classified here.	I2002

A11X9	<p>All other vitamins, plain and in combination</p> <p>Includes all other vitamin products such as pantothenic acid, riboflavine (vitamin B2) and para-aminobenzoic acid (PABA). Vitamin K is classified in B2B, and vitamin P in C5C.</p> <p>Includes all vitamin B combinations without vitamin B1 when they do not contain vitamin A or vitamin D.</p> <p>Vitamin B2 with vitamin B6 is classified here.</p> <p>Vitamin B1 with vitamin B2 is classified in A11D9.</p>	R2003
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A12	MINERAL SUPPLEMENTS	
A12A	CALCIUM PRODUCTS Includes single and combination products promoted for osteoporosis or calcium deficiency, even when indicated for other diseases as well (see A11G2 and A11A4). See also M5B. Products containing both calcium and magnesium to treat deficiency of these minerals are classified here. Products containing calcium and indicated for both hyperphosphataemia and calcium deficiency are classified in V3G2.	r2016
A12B	POTASSIUM PRODUCTS Potassium diuretic combinations are classified in C3 (see note under A12C regarding potassium aspartate).	
A12C	OTHER MINERAL SUPPLEMENTS Includes magnesium and/or fluoride products used as alimentary supplements. Potassium and magnesium aspartate are usually indicated in the treatment of cardiac disease and should be classified in C6X. In certain cases, however, when these compounds are indicated as mineral supplements, they should be classified in A12. Products containing both calcium and magnesium to treat deficiency of these minerals are classified in A12A.	r2017
A12C1	Magnesium supplements	R1993
A12C2	Other mineral supplements	

A13	TONICS	R2003
A13A	TONICS	
	Products for general well-being are classified here.	
A13A1	Preparations containing procaine	
	This group includes all oral preparations containing procaine which are indicated for geriatrics.	
A13A2	All other tonics	
	Herbal tonics are included in this class. Anti-anaemics are classified in B3.	

A14	ANABOLICS, SYSTEMIC	
A14A	ANABOLIC HORMONES, SYSTEMIC	
A14A1	Plain anabolic hormones, systemic	
	This group does not include anti-cancer products (L1).	
A14A2	Anabolic hormone combinations	
	Vitamin and mineral combinations with anabolic hormones, predominant in the geriatric field, are classified in A11A3 or A11B3 (see comment in those groups).	
A14B	OTHER ANABOLIC AGENTS, SYSTEMIC	
	Includes all other anabolic agents.	

A15	APPETITE STIMULANTS	R2003
A15A	APPETITE STIMULANTS	
	Includes products of the cyproheptadine group, buclizine, and pizotifen when indicated as appetite stimulants.	

A16	OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS	
A16A	OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS Includes all alimentary tract and metabolism products not classified elsewhere. Oral preparations containing procaine are classified in A13A1. Products containing one or more oral antidiabetic substances in combination with one or more substances from a cardiovascular class where the aim is to treat both the diabetes and the cardiovascular condition are classified in A10X1. Products containing teduglutide for short bowel syndrome are classified here. Products containing elapegademase for adenosine deaminase deficiency are classified in L3A9.	r2020

B	BLOOD AND BLOOD FORMING ORGANS	
B1	ANTITHROMBOTIC AGENTS	R1994
B1A	VITAMIN K ANTAGONISTS	R2004
	Includes coumarin and indanedione derivatives.	
B1B	HEPARINS	R2004
B1B1	Unfractionated heparins	
	Includes injectable high molecular weight (unfractionated) heparin (pure and in combination with other substances) with an average molecular weight from 5000 up to 30000 Dalton. The molecules are unfractionated.	
B1B2	Fractionated heparins	R2003
	Includes injectable low molecular weight (fractionated) heparin (pure and in combination with other substances) with an average molecular weight from 2000 up to 18000 Dalton. The molecules are fractionated (fragments). Included are, eg bemiparin, enoxaparin, tedelparin and tinzaparin.	
B1B3	Heparins for flushing	
	Includes heparin products for use with catheters eg Hepflush, Heplock.	
B1B9	Other heparins	R2004
B1C	PLATELET AGGREGATION INHIBITORS	r2017
	Includes all products claiming platelet aggregation inhibition as the main indication eg ticlopidine. Also included are those products which have specific packs or presentations which are mainly indicated for platelet aggregation inhibition. These products, such as sulphinpyrazone, ditazole, dipyridamole, aspirin and non-steroidal anti-inflammatories are also prescribed for other conditions.	
B1C1	Cyclo-oxygenase inhibitor platelet aggregation inhibitors	R2010
	Includes specific presentations of eg acetylsalicylic acid (aspirin), indobufen, picotamide, sulfinpyrazone, which are mainly indicated for platelet aggregation inhibition.	
	All oral solid low-dose aspirin products (162mg and below) are classified in B1C1 worldwide.	

B1C2	ADP (adenosine diphosphate) receptor antagonist platelet aggregation inhibitors Includes clopidogrel and ticlopidine.	I2000
B1C3	GP IIb/IIIa (glycoprotein) antagonist platelet aggregation inhibitors Includes abciximab, eptifibatide and tirofiban.	I2000
B1C4	Platelet cAMP enhancing platelet aggregation inhibitors Includes prostacyclin derivatives eg beraprost, iloprost, limaprost and also phosphodiesterase (PDE) inhibitors eg anagrelide, dipyridamole when mainly indicated for platelet aggregation inhibition. Products containing epoprostenol are classified in C6B3. Products containing prostacyclin derivatives and only indicated for PAH are classified in C6B3. Products containing prostacyclin derivatives and indicated for both PAH and other conditions are classified here.	R2017
B1C5	Platelet aggregation inhibitors, combinations Includes combinations of two of more platelet aggregation inhibitors, eg a cyclo-oxygenase inhibitor with an ADP receptor antagonist, or a cyclo-oxygenase inhibitor with a PDE inhibitor. Products containing a combination of a platelet aggregation inhibitor together with another substance and for use as antithrombotics are classified here.	R2004
B1C9	Other platelet aggregation inhibitors Includes eicosapentanoic acid, nifedipine, ozagrel, vorapaxar.	r2015
B1D	FIBRINOLYTICS Includes endogenous proteins (eg urokinase), exogenous proteins (eg streptokinase) as well as ancrod, plasmin, plasminogen, tissue plasminogen activator (TPA), an anisoylated plasminogen-streptokinase activator complex (APSAC) and pro-urokinase (a precursor form of urokinase).	R2004
B1E	DIRECT THROMBIN INHIBITORS Includes argatroban, bivalirudin, desirudin, lepirudin, melagatran, ximelagatran.	I2004
B1F	DIRECT FACTOR XA INHIBITORS Includes products containing direct factor Xa inhibitors, eg apixaban, betrixaban, edoxaban, rivaroxaban.	r2019

B1X	OTHER ANTITHROMBOTIC AGENTS Includes danaparoid, dermatan sulphate, activated protein C (drotrecogin alpha, activated), fondaparinux, <i>Ligustrum lucidum</i> , pentosan polysulphate sodium, poloxalkol, protein C.	I2004
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B2	BLOOD COAGULATION SYSTEM, OTHER PRODUCTS	r2008
B2A	ANTIFIBRINOLYTICS	
B2A1	Synthetic antifibrinolytics Includes inhibitors of fibrinolytic activity such as epsilon - aminocaproic acid (EACA), para-aminomethylbenzoic acid (PAMBA) and tranexamic acid (AMCHA).	
B2A2	Proteinase	
B2A9	Other antifibrinolytics	
B2B	ANTAGONISTS (ANTIDOTES TO ANTICOAGULANTS)	
B2B1	Vitamin K Essential for the formulation of prothrombin complex factors in the liver.	
B2B2	Protamin sulphate Neutralises the effect of heparin.	
B2B9	Antidotes to anticoagulants, other Includes idarucizumab, andexanet alfa.	I2016
B2C	PROTEINASE INHIBITORS	
B2C1	Coagulation inhibitors Includes coagulation inhibitors eg antithrombin III.	
B2C2	Inhibitors of the Kallikrein-kinin-system Includes products containing eg camostat, gabexate, nafamostat. Products for hereditary angioedema are classified in B6D.	R2015
B2C3	Inhibitors of fibrinolysis Includes aprotinin.	
B2C9	Other proteinase inhibitors Products containing alpha-1-proteinase inhibitor are classified in R3X2.	r2013

B2D	BLOOD COAGULATION	
B2D1	Factor VIII, including substitutes Includes antihaemophilic globulin A, emcizumab, etc. Products containing von Willebrand factor only are classified in B2D9.	r2019
B2D2	Factors II, VII, IX and X Includes antihaemophilic globulin B and prothrombin complex.	
B2D3	Anti-inhibitor-coagulation complex Includes aPCC (activated prothrombin complex concentrate), activated FVII (FVIIa), and eptacog alfa.	R2003
B2D4	Factor XIII	
B2D5	Fibrinogen	
B2D6	Fresh frozen plasma and antihaemophilic plasma	
B2D7	Cohn-Fraction I	
B2D8	Platelet concentrates	
B2D9	Other blood fractions Includes products containing von Willebrand factor (single ingredient).	R2005
B2E	THROMBOPOIETIN AGONISTS Includes products containing thrombopoietin agonists, such as eltrombopag and romiplostim.	I2012
B2F	TISSUE SEALING PREPARATIONS Includes products imitating the physiological process of fibrin formation which are used for tissue sealing, haemostasis and support of wound healing. Products containing thrombin/collagen for the prevention of bleeding prior to implantation of ICDs/pacemakers are classified here.	r2016
B2G	SYSTEMIC HAEMOSTATICS Tissue extracts with haemostatic activity, and including snake venoms causing blood clotting, and hormone products exclusively promoted as haemostatics. Includes products containing parenteral conjugated oestrogens for control of uterine bleeding.	r2019

B3	ANTI-ANAEMIC PREPARATIONS	
B3A	HAEMATINICS, IRON AND ALL COMBINATIONS	
	Any products which contain iron, irrespective of other ingredients (for example, folic acid, vitamin B12, etc.) are classified in B3A.	
B3A1	Plain iron	
	This class also includes preparations containing ingredients for better absorption and/or reducing agents, such as ascorbic acid, as well as combinations with cobalt.	
B3A2	Iron combination products	R1993
	Includes all other iron combinations including those containing liver extract and/or folic acid.	
B3B	LIVER EXTRACTS AND COMBINATIONS WITH B12	
	Includes liver extracts, excluding all preparations not used for anaemia. Oral B12 with intrinsic factor allocated is classified in B3B.	
B3C	ERYTHROPOIETIN PRODUCTS	R1995
B3D	HIF-PH INHIBITORS	I2020
	Includes products containing HIF-PH (hypoxia-inducible factor prolyl hydroxylase) inhibitors (for example, daprodustat, enarodustat, molidustat, roxadustat, vadadustat, etc) for the treatment of anaemia in chronic kidney disease.	
B3X	OTHER ANTI-ANAEMIC PRODUCTS, INCLUDING FOLIC ACID, FOLINIC ACID	R2005
	Folinic acid products with more than one indication are classified in V3D.	

B4	Out of use; can be reused from 2000. The B4 class was transferred to C10.	D1997
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B5	Out of use; can be reused. Group B5 discontinued. See group K.	
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B6	ALL OTHER HAEMATOLOGICAL AGENTS	R1996
B6A	Out of use; can be reused from 1999.	D1996
B6B	HYALURONIDASE	
B6C	Out of use	D2020
B6D	HEREDITARY ANGIOEDEMA PRODUCTS Includes products containing eg C1 inhibitor/conestat alfa, ecallantide, icatibant, etc when indicated for hereditary angioedema.	I2015
B6X	OTHER HAEMATOLOGICAL AGENTS Includes haemins. Excluded are those preparations used in the treatment of veins and haemorrhoids (C5) and preparations for dermatological use (D3A).	I2020

C	CARDIOVASCULAR SYSTEM	
C1	CARDIAC THERAPY	
C1A	CARDIAC GLYCOSIDES AND COMBINATIONS	
C1A1	Plain cardiac glycosides This group includes all plain cardiac glycosides, either clearly defined chemical entities or standardised plant extracts and combinations of all the aforementioned. Non-standardised plant extracts are classified in C6X.	r2017
C1A2	Cardiac glycoside combinations Excludes combinations with beta-blocking agents (C7B2), calcium antagonists (C8B3), ACE inhibitors (C9B9) and angiotensin-II antagonists (C9D9).	r2008
C1B	ANTI-ARRHYTHMICS This group includes all products which are recommended for use in arrhythmia, disorders of cardiac rhythm and tachycardia, eg ajmaline, quinine, quinidine, procainamide, sparteine, amiodarone or similar, but only when specified as anti-arrhythmics alone. Excludes beta-blocking agents (C7) and calcium antagonists (C8). Products containing mexiletine for cardiac arrhythmias are classified here; products containing mexiletine for non-dystrophic myotonic disorders are classified in M5X.	r2020
C1C	CARDIAC STIMULANTS EXCLUDING CARDIAC GLYCOSIDES This group includes products for the indication hypotension, chiefly sympathomimetic agents eg amezinium methylsulphate used in the treatment of hypotension, but excluding sympathomimetics with predominant bronchodilatory effects used in the treatment of asthma and similar conditions (see R3).	R1994
C1C1	Cardiac stimulants excluding dopaminergic agents Includes plain caffeine. Includes adrenaline/epinephrine products used for anaphylactic shock. Adrenaline combinations with antihistamines are classified here.	R2003
C1C2	Cardiac dopaminergic agents Includes dobutamine, docarpamine, dopamine and ibopamine.	R1997

C1D	CORONARY THERAPY EXCLUDING CALCIUM ANTAGONISTS AND NITRITES <p>This group includes all other products indicated for coronary insufficiency and angina pectoris. It includes benziodarone, capobenic acid, carbocromen, cinepazet, cinepazic acid, cloridarol, dilazep, dipyridamole, efloxate, etafenone, fenalcomine, flosequinan, hexobendine, imolamine, ivabradine, medibazine, molsidomine, oxyfedrin, trimetazidine, visnadine. Combinations with nitrites are included in C1E and with beta-blockers are included in C7B.</p>	R2007
C1E	NITRITES AND NITRATES <p>This group includes all nitrites and analogous products and combinations if they are indicated for angina pectoris. Combinations of nitrites with cardiac glycosides are classified in C1A2 and combinations with beta-blockers in C7B.</p>	
C1F	POSITIVE INOTROPIC AGENTS <p>This group includes substances such as amrinone, milrinone, fenoximone, piroximone, xamoterol.</p>	R1994
C1X	ALL OTHER CARDIAC PREPARATIONS <p>This group includes substances such as alprostadil, crateagus glycosides, creatinolphosphate, phosphocreatinine, levocarnitine and ubidecarenone. Combination products are only classified in this group if they contain a substance which is not in the C group.</p> <p>Products containing tafamidis for transthyretin amyloid polyneuropathy (TAP) only are classified in N7X. Products containing tafamidis for transthyretin amyloid cardiomyopathy (TAC) only are classified here. Products containing tafamidis for both TAP and TAC are classified in N7X.</p>	r2020

C2	ANTIHYPERTENSIVES	r2014																																																																		
<p>Note: Beta-blocking agents, whether plain or in combination, are classified in group C7. Calcium antagonists with antihypertensive, and/or anti-angina action are classified in group C8. ACE inhibitors and angiotensin II antagonists are classified in group C9.</p>																																																																				
<table><tr><td><u>Alkaloids</u></td><td><u>Peripherally acting</u></td></tr><tr><td>Ajmalicine</td><td>betanidine</td></tr><tr><td>Alkavervir</td><td>bufenoide</td></tr><tr><td>Bietaserpine</td><td>bunazosin</td></tr><tr><td>Cryptenamine</td><td>cicletanine</td></tr><tr><td>Deserpidine</td><td>debrisoquine</td></tr><tr><td>Methoserpidine</td><td>diazoxide</td></tr><tr><td>Protoveratrine A</td><td>dihydralazine</td></tr><tr><td>Protoveratrine B</td><td>ecarazine</td></tr><tr><td>Rauwolfia serpentina</td><td>endralazine</td></tr><tr><td>Rauwolfia vomitoria</td><td>guabenxan</td></tr><tr><td>Rescinnamine</td><td>guanadrel</td></tr><tr><td>Reserpiline</td><td>guanethidine</td></tr><tr><td>Reserpine</td><td>guanoxan</td></tr><tr><td>Sarpagine</td><td>hexamethonium hydroxide</td></tr><tr><td>Serpentine</td><td>hydracarbazine</td></tr><tr><td>Spirgentine</td><td>hydralazine</td></tr><tr><td>Syrosingopine</td><td>indoramin</td></tr><tr><td>White veratrum</td><td>ketanserin</td></tr><tr><td></td><td>mecamylamine</td></tr><tr><td></td><td>metirosine</td></tr><tr><td></td><td>minoxidil</td></tr><tr><td><u>Centrally acting</u></td><td>nitroprusside</td></tr><tr><td>Clonidine</td><td>pargyline</td></tr><tr><td>Guanabenz</td><td>pempidine</td></tr><tr><td>Guanfacine</td><td>pentamethonium hydroxide</td></tr><tr><td>Guanoxabenz</td><td>pentolonium</td></tr><tr><td>Lofexidine</td><td>picodralazine</td></tr><tr><td>Mebutamate</td><td>prazosin</td></tr><tr><td>Methyldopa</td><td>primaperone</td></tr><tr><td>Moxonidine</td><td>todralazine</td></tr><tr><td>Tolonidine</td><td>trimethaphan</td></tr><tr><td></td><td>urapidil</td></tr></table>			<u>Alkaloids</u>	<u>Peripherally acting</u>	Ajmalicine	betanidine	Alkavervir	bufenoide	Bietaserpine	bunazosin	Cryptenamine	cicletanine	Deserpidine	debrisoquine	Methoserpidine	diazoxide	Protoveratrine A	dihydralazine	Protoveratrine B	ecarazine	Rauwolfia serpentina	endralazine	Rauwolfia vomitoria	guabenxan	Rescinnamine	guanadrel	Reserpiline	guanethidine	Reserpine	guanoxan	Sarpagine	hexamethonium hydroxide	Serpentine	hydracarbazine	Spirgentine	hydralazine	Syrosingopine	indoramin	White veratrum	ketanserin		mecamylamine		metirosine		minoxidil	<u>Centrally acting</u>	nitroprusside	Clonidine	pargyline	Guanabenz	pempidine	Guanfacine	pentamethonium hydroxide	Guanoxabenz	pentolonium	Lofexidine	picodralazine	Mebutamate	prazosin	Methyldopa	primaperone	Moxonidine	todralazine	Tolonidine	trimethaphan		urapidil
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Lofexidine	picodralazine																																																																			
Mebutamate	prazosin																																																																			
Methyldopa	primaperone																																																																			
Moxonidine	todralazine																																																																			
Tolonidine	trimethaphan																																																																			
	urapidil																																																																			
<p>Products containing terazosin, for BPH or hypertension, are classified in G4C2.</p>																																																																				

C2A	ANTIHYPERTENSIVES (OF NON-HERBAL ORIGIN) PLAIN It includes plain antihypertensives and combinations other than those with diuretics, eg combinations of two synthetic antihypertensives or combinations of one synthetic antihypertensive with reserpine.	
C2A1	Antihypertensives plain, mainly centrally acting	
C2A2	Antihypertensives plain, mainly peripherally acting Includes products containing doxazosin. Products containing indoramin alone are classified here unless the indication is migraine in which case they are classified in N2C9.	r2015
C2A3	Antihypertensives plain, others	R1996
C2B	ANTIHYPERTENSIVES (OF NON-HERBAL ORIGIN), COMBINATION WITH DIURETICS	
C2B1	Antihypertensive-diuretic combinations, mainly centrally acting	
C2B2	Antihypertensive-diuretic combinations, mainly peripherally acting	
C2B3	Antihypertensive-diuretic combinations, others	
C2C	RAUWOLFIA ALKALOIDS AND OTHER ANTIHYPERTENSIVES OF HERBAL ORIGIN	
C2D	RAUWOLFIA ALKALOIDS AND OTHER ANTIHYPERTENSIVES OF HERBAL ORIGIN IN COMBINATION WITH DIURETICS	

C3	DIURETICS	
C3A	DIURETICS	
	Combinations with potassium belong to C3A1, C3A2 or C3A3.	
C3A1	Potassium-sparing agents plain	
	This group includes all products containing amiloride, triamterene and spironolactone (canrenoic acid) plain.	
C3A2	Loop diuretics plain	r2008
	This group includes all products containing bumetanide, etacrynic acid, etozolin, furosemide, muzolimine, piretanide plain.	
C3A3	Thiazides and analogues plain	r2008
	This group includes all products containing thiazides, eg altizide, bendroflumethiazide, benzylhydrochlorothiazide, butizide, chlorothiazide, cyclopenthiazide, flumethiazide, hydrochlorothiazide, mebutizide, paraflutizide, teclothiazide, trichlormethiazide and analogues (which act similar to thiazides) eg chlortalidone, clopamide, indapamide, mefruside, tienilic acid, xipamide, tripamide, metolazone, quinethazone, clorexolone and meticrane.	
C3A4	Potassium-sparing agents with loop diuretic combinations	
C3A5	Potassium-sparing agents with thiazides and/or analogue combinations	
C3A6	Out of use; can be reused from 2014.	D2011
C3A7	Vasopressin receptor antagonist diuretics	I2011
	Includes products containing vasopressin receptor antagonists such as conivaptan, mozavaptan and tolvaptan.	
C3A9	Other diuretics	I2011
	Includes eg carboanhydrase inhibitors such as clofenamide and dichlorphenamide (when not used for the treatment of glaucoma), diuretics of vegetable origin etc, ethoxazolamide, isosorbide, mannitol, chlorazanol; mercury salts are also included in this group.	

C4	CEREBRAL AND PERIPHERAL VASOTHERAPEUTICS	
C4A	CEREBRAL AND PERIPHERAL VASOTHERAPEUTICS This group includes all products (including citicoline) which are mainly recommended for cerebral vascular diseases or peripheral circulatory disorders excluding venous diseases. Combination products are only classified in this group if they do not belong to group C1-C3, C7-C11.	R2005
C4A1	Cerebral and peripheral vasotherapeutics excluding calcium antagonists with cerebral activity Products containing phenoxybenzamine alone, and indicated either for hypertension or BPH are classified here. Products containing cinepazide alone and for vasodilation are classified here. Products containing beperminogene perplasmid for improvement of limb ischaemia are classified here.	r2020
C4A2	Calcium antagonists with cerebral activity Includes, bencyclane, cinnarizine, cyclandelate, flunarizine and nimodipine.	R1993

C5	ANTIVARICOSIS/ANTI-HAEMORRHOIDAL PREPARATIONS	r2014
C5A	TOPICAL ANTI-HAEMORRHOIDALS Topical products to treat anal fissures are classified here.	
C5A1	Topical anti-haemorrhoids with corticosteroids This group includes all products which are used mainly for the topical treatment of haemorrhoids and which contain corticosteroids.	
C5A2	Topical anti-haemorrhoids without corticosteroids This group includes all products which are used mainly for the topical treatment of haemorrhoids (excluding C5A1). Products designed to shrink haemorrhoids are also classified in this group.	
C5B	VARICOSE THERAPY, TOPICAL This group includes all products which are predominantly used for the topical treatment of varicose veins. Products designed to shrink varicose veins are also classified here.	
C5C	VARICOSE THERAPY, SYSTEMIC This group includes all products which are used for the systemic treatment of varicose veins and recommended for the treatment of diseases of the veins. Systemic anti-haemorrhoids are also classified in this group.	

C6	OTHER CARDIOVASCULAR PRODUCTS	R2017
C6A	Out of use; can be reused from 2020.	D2017
C6B	PULMONARY ARTERIAL HYPERTENSION (PAH) PRODUCTS	I2017
C6B1	Endothelin receptor antagonist PAH products Includes products for pulmonary arterial hypertension (PAH) containing endothelin receptor antagonists such as ambrisentan, bosentan, macitentan, sitaxentan, etc.	I2017
C6B2	PDE5 inhibitor PAH products Products containing PDE5 inhibitors and indicated only for pulmonary arterial hypertension (PAH) are classified here. Products containing PDE5 inhibitors and indicated for both erectile dysfunction and PAH are classified in G4E1.	I2017
C6B3	Prostacyclin agonist PAH products Products containing prostacyclin agonists (eg iloprost, selexipag, treprostinil) and indicated for pulmonary hypertension only, are classified here. Products containing epoprostenol are all classified here. Products containing prostacyclin agonists and indicated for platelet aggregation inhibition are classified in B1C4. Products containing prostacyclin agonists for PAH and other conditions are classified in B1C4.	I2017
C6B9	Pulmonary arterial hypertension (PAH) products, other Includes other products for PAH, eg those containing soluble guanylate synthase stimulators such as riociguat.	I2017
C6X	OTHER CARDIOVASCULAR PRODUCTS This group includes all other products that are mainly recommended for diseases of the cardiovascular system and that cannot be classified in groups C1-C6B or C7-11. Potassium and magnesium aspartate are usually classified here. In certain cases when these compounds are indicated as mineral supplements, they are classified in A12. Products containing icatibant for hereditary angioedema are classified in B6D.	I2017

C7	BETA-BLOCKING AGENTS	
C7A	BETA-BLOCKING AGENTS, PLAIN Includes, eg acebutolol, alprenolol, amosulalol, arotinolol, atenolol, befunolol, betaxolol, bevantolol, bisoprolol, bopindolol, bucumolol, bufetolol, bunitrolol, bupranolol, butofilolol, carazolol, carteolol, carvedilol, celiprolol, cloranolol, dilevalol, esmolol, indenolol, labetolol, levobunolol, mepindolol, metipranolol, metoprolol, nadolol, nifenalol, nipradilol, oxprenolol, penbutolol, pindolol, practolol, propranolol, sotalol, tertatolol, tilisolol, timolol, toliprolol. Also includes substances which partly block the beta-receptors (eg labetalol). Oral propranolol for infantile haemangioma is classified here.	r2014
C7B	BETA-BLOCKING AGENTS, COMBINATIONS Combinations of beta-blockers with calcium antagonists are classified in C8B2 and combinations with ACE inhibitors are classified in C9B2.	
C7B1	Combinations with antihypertensives and/or diuretics Includes beta-blockers combined with drugs in group C2 (antihypertensives) or C3 (diuretics).	r2008
C7B2	Combinations with other drugs of group C Includes beta-blockers combined with all other drugs in group C, excluding C2 (antihypertensives), C3 (diuretics), C8 (calcium antagonists) and C9 (ACE inhibitors and angiotensin II antagonists). For combinations with C10 substances, see C11.	r2008
C7B3	Combinations with all other drugs except those of group C For combinations with substances in A10 (diabetes) see A10X1.	r2010

C8	CALCIUM ANTAGONISTS Note: Calcium antagonists with cerebral activity (calcium overload blockers) are classified in group C4A2. This group C8 includes eg amlodipine, aranidipine, benidipine, bepridil, diltiazem, felodipine, fendiline, gallopamil, isradipine, lacidipine, lercanidipine, lidoflazine, manidipine, nicardipine, nifedipine, nilvadipine, nisoldipine, nitrendipine, perhexiline, prenylamine, verapamil.	R1997
C8A	CALCIUM ANTAGONISTS, PLAIN	
C8B	CALCIUM ANTAGONISTS, COMBINATIONS	
C8B1	Calcium antagonist combinations with antihypertensives (C2) and/or diuretics (C3)	
C8B2	Calcium antagonist/beta-blocker combinations In addition, the product can contain a diuretic.	r2008
C8B3	Calcium antagonist combinations with all other drugs of group C except C2, C3, C7 and C9. For combinations with C10 substances, see C11.	r2008
C8B4	Calcium antagonist combinations with all other drugs except those of group C For combinations with substances in A10 (diabetes) see A10X1.	r2010

C9	AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM	R1996
C9A	ACE INHIBITORS, PLAIN Angiotensin-Converting-Enzyme inhibitors. It includes eg alacepril, benazepril, captopril, cilazapril, delapril, enalapril, fosinopril, imidapril, lisinopril, moexipril, perindopril, quinapril, ramipril, spirapril, temocapril, trandolapril.	R1996
C9B	ACE INHIBITORS, COMBINATIONS	
C9B1	ACE inhibitor combinations with antihypertensives (C2) and/or diuretics (C3)	R1996
C9B2	ACE inhibitor/beta-blocker combinations In addition, the product can contain a diuretic.	r2008
C9B3	ACE inhibitor combinations with calcium antagonists (C8) In addition, the product can contain a diuretic.	r2008
C9B9	ACE inhibitor combinations with all other drugs For combinations with C10 substances, see C11. For combinations with substances in A10 (diabetes), see A10X1.	r2010
C9C	ANGIOTENSIN-II ANTAGONISTS, PLAIN	I1996
C9D	ANGIOTENSIN-II ANTAGONISTS, COMBINATIONS For combinations with C10 substances, see C11. Products in C9D2, C9D3 and C9D4 can also contain a diuretic substance. For example, an angiotensin-II antagonist plus an ACE inhibitor plus a diuretic is classified in C9D4.	r2010
C9D1	Angiotensin-II antagonist combinations with antihypertensives (C2) and/or diuretics Includes products containing an angiotensin-II antagonist in combination with an antihypertensive substance (C2). In addition, the product can contain a diuretic.	I2008
C9D2	Angiotensin-II antagonist combinations with beta-blockers Includes products containing an angiotensin-II antagonist in combination with a beta blocker. In addition, the product can contain a diuretic.	I2008

C9D3	Angiotensin-II antagonist combinations with calcium antagonists Includes products containing an angiotensin-II antagonist in combination with a calcium antagonist. In addition, the product can contain a diuretic.	I2008
C9D4	Angiotensin-II antagonist combinations with ACE inhibitors Includes products containing an angiotensin-II antagonist in combination with an ACE inhibitor. In addition, the product can contain a diuretic.	I2008
C9D9	Angiotensin-II antagonist combinations with other drugs Includes products containing an angiotensin-II antagonist in combination with other drugs not specified in the other C9D combination classes or in the C9D guideline. For combinations with substances in A10 (diabetes) see A10X1. Products containing angiotensin-II antagonists in combination with neprilysin inhibitors (eg sacubitril) are classified here.	r2016
C9X	OTHER AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM	I1996

C10	LIPID-REGULATING/ANTI-ATHEROMA PREPARATIONS Excludes products intended for weight reduction.	R2005
C10A	CHOLESTEROL AND TRIGLYCERIDE REGULATING PREPARATIONS Includes all products regulating cholesterol and triglycerides only. Combinations with products of group C4 should be classified here. Combinations with oral antidiabetic substances are classified in A10X1.	r2010
C10A1	Statins (HMG-CoA reductase inhibitors) Includes atorvastatin, cerivastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin, simvastatin. Combinations of statins with ezetimibe are classified in C10C.	R2006
C10A2	Fibrates Includes bezafibrate, ciprofibrate, clofibrate, clofibrate, etofibrate, fenofibrate, gemfibrozil, simvastatin.	I1997
C10A3	Ion-exchange resins Includes cholestyramine, colestipol, polidexide.	I1997
C10A4	PCSK9 inhibitors Includes proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors, eg alirocumab, evolocumab.	I2016
C10A9	All other cholesterol/triglyceride regulators Includes ezetimibe, probucol, tiadenol, pyridinolcarbamate and all other products excluding those in C10B. Combinations of ezetimibe with statins are classified in C10C. Nicotinic acid derivatives if indicated in this area are classified here, eg acipimox. Products containing volanesorsen for familial chylomicronaemia syndrome (FCS) are classified here.	r2020
C10B	ANTI-ATHEROMA PREPARATIONS OF NATURAL ORIGIN This class includes products of natural origin used for the prevention and treatment of arteriosclerosis, eg omega fatty acids, garlic preparations, lecithin.	I1997

C10C	<p data-bbox="312 170 1390 241">LIPID REGULATORS IN COMBINATION WITH OTHER LIPID REGULATORS</p> <p data-bbox="312 282 1390 427">Includes products containing two or more substances, all of which are lipid regulators. These are combinations of different types of lipid regulator in C10A. For example, products containing a statin in combination with nicotinic acid, or products containing a statin in combination with ezetimibe, are classified here.</p> <p data-bbox="312 468 1390 539">Combinations of a statin with another statin are classified in C10A1. Combinations of a fibrate with another fibrate are classified in C10A2.</p> <p data-bbox="312 580 1390 651">Combinations of lipid regulators of natural origin with other lipid regulators of natural origin are classified in C10B.</p> <p data-bbox="312 692 1390 797">Combinations of a lipid regulating substance from C10A together with a substance from C10B (anti-atheroma preparations of natural origin) are also classified in C10C.</p> <p data-bbox="312 837 1390 983">Products containing one or more oral antidiabetic substances in combination with one or more substances from a cardiovascular class (C) are classified in A10X1. For example, a combination product containing pioglitazone with simvastatin is classified in A10X1.</p>	r2010
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C11	CARDIOVASCULAR MULTITHERAPY COMBINATION PRODUCTS Products containing cardiovascular substances in combination with oral antidiabetics where the aim is to treat both the diabetes and the cardiovascular condition are classified in A10X1.	r2010
C11A	LIPID-REGULATING CARDIOVASCULAR MULTITHERAPY COMBINATION PRODUCTS Includes products which are indicated for cardiovascular lipid disorders together with at least one other cardiovascular condition, eg hypertension.	R2006
C11A1	Lipid-regulating cardiovascular multitherapy fixed combination products These products contain two or more substances together in a single dosage form, eg a single tablet, capsule etc.	I2006
C11A2	Lipid-regulating cardiovascular multitherapy combi-pack combination products These products contain two or more active substances which are in separate dosage forms eg separate tablets, capsules, etc in one 'packaged' unit.	I2006

D	DERMATOLOGICALS	
D1	ANTIFUNGALS, DERMATOLOGICAL	
D1A	ANTIFUNGALS, DERMATOLOGICAL	
D1A1	Topical dermatological antifungals Includes topical forms of preparations for fungal infections of the skin, whether in the form of plain antifungal preparations or in the form of combinations of antifungal compounds with antibacterial compounds. Excludes topical corticosteroid combinations (see D7B) and topical scalp antifungals which are in D1A3.	r2009
D1A2	Systemic dermatological antifungals Includes only griseofulvin-type products which are used for the treatment of dermatological conditions. All other systemic forms of antifungals which are used for dermatological purposes are classified in J2A.	R1999
D1A3	Topical scalp antifungals Includes shampoos, lotions, creams, gels etc containing antifungal substances eg ketoconazole.	I1998

D2	EMOLLIENTS, PROTECTIVES	
D2A	EMOLLIENTS, PROTECTIVES Includes skincare products and emollients (with or without active therapeutic agents), protectives, suntan irradiation preparations, etc. Products containing afamelanotide for erythropoietic protoporphyria (EPP) are classified here. This class also includes drying powders for hyperhydrosis and wound coverings containing emollients. Other wound coverings are classified according to any ingredients they contain eg D3A, D6A, D8A.	r2016

D3	WOUND HEALING AGENTS	
D3A	WOUND HEALING AGENTS	R2002
D3A1	Skin/dermal/epidermal/equivalents	R2006
	Includes bioengineered and living human skin equivalents, and also skin growth factors	
D3A9	All other wound healing agents	r2010
	Includes topical preparations for open wounds, ulcers, etc. Wound healing topical vitamins and topical anabolic steroids should be included in this group when they cannot be classified satisfactorily elsewhere. Combinations of enzymes with anti-infectives used for wound healing are classified here. This group also includes skin regeneratives and stimulants, topical extracts, eg of camomile, unspecified suspensions and topical preparations for prophylaxis and therapy of mastitis. Topical oestrogens when used for gynaecological purposes are classified in G2F. Topical haemostyptics including those for dental use are classified here. Antibiotic-containing collagen implants (eg sponges) are classified here.	

D4	ANTI-PRURITICS, INCLUDING TOPICAL ANTIHISTAMINES, ANAESTHETICS, ETC	
D4A	ANTI-PRURITICS, INCLUDING TOPICAL ANTIHISTAMINES, ANAESTHETICS, ETC	r2012
	Included in this group are topical preparations for the relief of itching, insect bites, etc which may contain antihistamines, anaesthetics, etc but excluding corticosteroid combinations (see D7B). Systemic anti-pruritics are classified in R6A if they contain antihistamines. Oral nalfurafine is classified here.	
	Local anaesthetics for use in surgical or medical procedures are in N1B.	

D5	NONSTEROIDAL PRODUCTS FOR INFLAMMATORY SKIN DISORDERS <p>Includes products for psoriasis, hyperkeratosis, ichthyosis, eczema, dermatitis, seborrhoea. Psoralens are classified here when used for inflammatory conditions. Excluded from this class are combinations with antibacterials (D6A), antifungals (D1A) and products specifically indicated in acne (D10A). Sulphur baths which contain other substances besides sulphur and are not used for dermatological purposes, are classified in M2A.</p>	r2019
D5A	TOPICAL ANTIPSORIASIS PRODUCTS <p>Includes products containing substances such as tar, coal tar, ichthammol, dithranol, psoralens, salicylic acid for the treatment of psoriasis. These products may also be for other inflammatory skin conditions. Products containing corticosteroids in combination with coal tar or salicylic acid for psoriasis are classified here. These products may also be for other inflammatory skin conditions.</p> <p>Includes products consisting of coal tar or calcipotriol, alone or in combination, when indicated for psoriasis.</p>	r2019
D5B	SYSTEMIC ANTIPSORIASIS PRODUCTS <p>Includes products for the treatment of psoriasis. These products may also be for other inflammatory skin conditions. Products containing ixekizumab, secukinumab or ustekinumab and indicated for psoriasis and also other non-skin conditions, eg arthritis, are classified in L4C. Psoriatic arthritis is defined as a skin condition. Apremilast is classified here if only for psoriatic skin conditions. Products containing apremilast for multiple conditions are classified in L4X.</p>	r2020
D5X	OTHER NONSTEROIDAL PRODUCTS FOR INFLAMMATORY SKIN DISORDERS <p>Includes nonsteroidal products for inflammatory skin disorders which are not indicated for psoriasis. Specific topical immunomodulators for dermatitis are classified here.</p> <p>Products containing ingenol mebutate or diclofenac gel that are indicated for actinic keratosis are classified here. Products containing aminolaevulinic acid for actinic keratosis, basal cell carcinoma or Bowen syndrome are classified in L1X8. Products containing topical fluorouracil for actinic keratosis are classified in L1B.</p> <p>Products containing dupilumab for atopic dermatitis only are classified here. Products containing dupilumab for both atopic dermatitis and asthma are classified in L4C.</p>	r2019

D6	TOPICAL ANTIBACTERIALS AND ANTIVIRALS	r2009
D6A	TOPICAL ANTIBACTERIALS Includes all topical antibacterials and antibacterial combinations except those classified in D1A1, D1A3, D3A, D7B1, or D10A. Topical antibacterials when in combination with wound healing agents, are classified in D3A9. Antiseptics and disinfectants are classified in D8A.	r2009
D6B	Out of use; can be reused.	
D6C	Out of use; can be reused.	
D6D	TOPICAL VIRAL INFECTION PRODUCTS For systemic treatment of viral conditions, see J5.	r2008
D6D1	Topical antivirals Includes topical forms of antivirals eg acyclovir, idoxuridine and podophyllotoxin.	I1998
D6D9	Other topical products used in viral infections Includes products, eg those containing carbenoxolone, used for the symptomatic treatment of viral infections such as herpes simplex. Other products not containing podophyllotoxin used to treat external condylomata acuminata (genital warts) are classified here, eg fluorouracil injectable gel. Products containing topical imiquimod for actinic keratosis, genital warts and basal cell carcinoma are classified here.	r2016

D7	TOPICAL CORTICOSTEROIDS	
D7A	PLAIN TOPICAL CORTICOSTEROIDS Includes all dermatological products containing one or more corticosteroids and no other active ingredient. Topical anabolic steroids are classified in D3A.	
D7B	TOPICAL CORTICOSTEROID COMBINATIONS Includes all dermatological products containing corticosteroids in combination with one or more active ingredients, except those classified in D5A or D10A. It should be noted that, in the classification, the term antibacterial includes antibiotics, sulphonamides and antiseptics. Also the basic criterion which determines the classification for products of this nature is the type of anti-infective product (antibacterial, antifungal or combination of the two) which is in combination with the corticosteroid. If the product in combination with the corticosteroid is not an anti-infective the product should be classified in D7B4.	r2019
D7B1	Combinations of corticosteroids with antibacterials If, in addition to corticosteroid and antibacterial or bacteriostatic (including antiseptic) agents (eg hexachlorophene) the product also contains non-anti-infective ingredients such as an antihistamine, local anaesthetic, oestrogen, urea, etc then it should still be classified in D7B1.	r2019
D7B2	Combinations of corticosteroids with antifungals If, in addition to corticosteroids and antifungal agents, the product also contains non-anti-infective ingredients such as an antihistamine, local anaesthetic, urea, etc then it should still be classified in D7B2.	
D7B3	Combinations of corticosteroids with antibacterials and antifungals It should be noted that if a product contains not only corticosteroid + antibacterial + antifungal but also additional ingredients such as urea, an antihistamine, etc it should still be classified in D7B3.	
D7B4	Other corticosteroid combinations Includes combinations of corticosteroids with all other types of products including, for example, antihistamines, local anaesthetics, etc. Combinations of corticosteroids with coal tar or salicylic acid and for psoriasis are classified in D5A; these products may also be for other inflammatory skin conditions as well as psoriasis.	r2019

D8	ANTISEPTICS AND DISINFECTANTS	
D8A	ANTISEPTICS AND DISINFECTANTS This group includes all dermatological antiseptic preparations for human use not classified in any of the following: D3A - Wound healing agents D6A - Topical antibacterials D6D - Topical viral infection products D7B – Combinations of corticosteroids with antibacterials D10A - Anti-acne preparations P3 – Ectoparasiticides This class also includes soaps and shampoos with antiseptic and/or disinfectant properties. Antiseptics for non-human use are classified in V5A Products used for both human and non-human use are classified here. In the German hospital market only, the D8A class is split to the fourth level.	r2009
D8A1	Antiseptics and disinfectants, excluding hand products	I2000
D8A2	Hand antiseptics and disinfectants	I2000

D9	Out of use; can be reused. Discontinued in 1991, and products classified according to their indication.	
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D10	ANTI-ACNE PREPARATIONS	
D10A	TOPICAL ANTI-ACNE PREPARATIONS Includes all topical dermatological preparations indicated for the treatment of acne or rosacea which may contain corticosteroids, antibacterials, etc. Also includes soaps and shampoos which are specifically indicated for the treatment of acne.	r2009
D10B	ORAL ANTI-ACNE PREPARATIONS Includes special hormonal preparations indicated exclusively for the treatment of acne, and also antibacterials and other products indicated for the exclusive treatment of acne. Products that are indicated for both oral contraception and acne are classified in G3A.	r2017

D11	OTHER DERMATOLOGICAL PREPARATIONS	
D11A	OTHER DERMATOLOGICAL PREPARATIONS Includes medicated shampoos, medicated soaps, scalp lotions (other than in D5A, D1A3, D7B, D8A, D10A). Products for pigmentation disorders, systemic products for the treatment of dermatological conditions, anti-corn agents (plasters, tinctures, including products with salicylic acid especially formulated for warts, corns and calluses etc), and hair-restorers are classified in this group. Products containing finasteride 1mg and for alopecia are classified here. Products containing finasteride 5mg and for BPH are classified in G4C3. Products containing extracts of chamomile are classified in D3A. Psoralens, when used for inflammatory conditions, are classified in D5. Products containing sirolimus gel for tuberous sclerosis are classified here.	r2019

G	GENITO-URINARY SYSTEM AND SEX HORMONES	
G1	GYNAECOLOGICAL ANTI-INFECTIVES The need for a systematic approach to classifying combination products (ie those containing two or more different gynaecological anti-infectives) has led to the adoption of a hierarchical system with a G1A (trichomonacide) ingredient taking precedence over a G1B (antifungal), G1B over G1C, etc.	
G1A	TRICHOMONACIDES Includes metronidazole, nifuratel, nimorazole, ornidazole, secnidazole, tinidazole. Products for both trichomoniasis and amoebiasis are classified here.	r2020
G1A1	Systemic trichomonacides Includes all oral solid, suspension and oral liquid forms of metronidazole and other trichomonacides.	R2004
G1A2	Topical trichomonacides Includes vaginal tablets and vaginal suppositories of metronidazole and other trichomonacides. Rectal suppositories to be classified in J8.	
G1A3	Combined forms of trichomonacides Includes those packs of metronidazole and other trichomonacides which contain both systemic and topical forms for the treatment of gynaecological conditions eg Flagyl Compak.	
G1B	GYNAECOLOGICAL ANTIFUNGALS Includes antifungal products indicated only for gynaecological conditions. These can be specific gynaecological forms, eg ovules, or systemic forms. Excluded are antifungals for dermatological use which are classified in D1A or J2A and antifungals for systemic infections which are classified in J2A. If a product is indicated for both systemic and gynaecological infections, then it is classified in J2A.	R1999
G1C	GYNAECOLOGICAL ANTIBACTERIALS Includes those products indicated for gynaecological conditions. Excluded are antibacterials for dermatological use which are classified in D6A, and general systemic antibacterials which are classified in J1 and J3.	r2009

G1D	GYNAECOLOGICAL ANTISEPTICS Includes those products indicated for gynaecological conditions. Excluded are antiseptics for dermatological use which are classified in D8A and antiseptics for non-human use, which are classified in V5A.	r2009
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G2	OTHER GYNAECOLOGICALS	
G2A	UTEROTONIC PRODUCTS Includes products used to induce labour (including delivery of placenta) and/or to reduce postpartum haemorrhage. Includes oxytocics and prostaglandins E1 and E2, and products used for cervical dilatation.	r2019
G2B	TOPICAL CONTRACEPTIVES	
G2C	Out of use; can be reused from 2000.	D1997
G2D	PROLACTIN INHIBITORS This group includes products used as prolactin inhibitors and containing bromocriptine, cabergoline, pergolide, quinagolide, terguride etc. Bromocriptine in lower doses (1 mg, 2.5 mg) for sexual disorders is classified here; higher doses for parkinsonism are in N4A. In Japan, bromocriptine is classified in N4A.	R1999
G2E	LABOUR INHIBITORS This group includes products acting as labour inhibitors eg ritodrine.	I1997
G2F	TOPICAL SEX HORMONES This group includes all topical hormones and/or steroids indicated for gynaecological conditions. Transdermal patches and vaginal formulations containing oestrogens and intended for a systemic effect are classified in G3C.	r2019
G2X	OTHER GYNAECOLOGICAL PRODUCTS	I1997
G2X1	Gynaecological antispasmodics This group includes oral analgesics and antispasmodics indicated exclusively for dysmenorrhoea.	I1997
G2X9	Other gynaecologicals Specific products included in this class are non-hormonal anti-inflammatories (eg benzydamine) which are indicated specifically to treat gynaecological conditions. Includes lubricants for intimate vaginal use only. Includes products (lactogogues) for the promotion of milk production. Products containing paroxetine (7.5mg daily) and indicated for menopausal vasomotor symptoms are classified here. Products containing bremelanotide or flibanserin and indicated for hypoactive sexual desire disorder (HSDD) in women are classified here.	r2020

G3	SEX HORMONES AND PRODUCTS WITH SIMILAR DESIRED EFFECTS, SYSTEMIC ACTION ONLY	
	Sex hormones used as cytostatics must be classified in L2.	
G3A	HORMONAL CONTRACEPTIVES, SYSTEMIC	r2017
	Contraceptive transdermal patches are classified in G3A9.	
	Products that are indicated for both oral contraception and acne are classified in G3A.	
G3A1	Monophasic preparations with < 50 mcg oestrogen	I1994
G3A2	Monophasic preparations with > = 50 mcg oestrogen	I1994
G3A3	Biphasic preparations	I1994
G3A4	Triphasic preparations	r2011
	Quadriphasic products are included in G3A4.	
G3A5	Progestogen-only preparations, oral	I1994
	Includes packs indicated for hormonal contraception only.	
G3A6	Emergency contraceptives, systemic	I2015
	Includes products containing eg levonorgestrel, mifepristone (10-25mg), ulipristal, when indicated for post-coital emergency contraception only.	
	Products containing mifepristone and indicated as abortifacients alone, or with other indications, are classified in G3X. Products containing ulipristal and indicated for uterine fibroids are classified in G3X.	
G3A9	Other hormonal contraceptives, systemic	r2015
	Includes injectable products (eg Depo Provera when used as a contraceptive), implants (eg Norplant), vaginal rings containing hormones, and IUDs containing hormones. Contraceptive transdermal patches are classified here.	
	Products for emergency contraception only are classified in G3A6. Products containing mifepristone are classified in G3A6 if indicated for emergency contraception and in G3X if indicated as abortifacients alone or with other indications.	
	Quadriphasic products are included in G3A4.	
G3B	ANDROGENS, EXCLUDING G3E, G3F	R1997

G3C	OESTROGENS, EXCLUDING G3A, G3E, G3F Oestrogens in combination with non-hormonal substances are classified here. Products containing a SERM in combination with an oestrogen and indicated for the short-term treatment of menopausal symptoms together with the prevention of osteoporosis are classified here. Includes transdermal patches and vaginal formulations containing oestrogens and intended for a systemic effect. Products containing parenteral conjugated oestrogens for uterine bleeding are classified in B2G.	r2019
G3D	PROGESTOGENS, EXCLUDING G3A, G3F	R1997
G3E	ANDROGEN WITH FEMALE HORMONE COMBINATIONS	
G3F	OESTROGEN WITH PROGESTOGEN COMBINATIONS, EXCLUDING G3A	
G3G	GONADOTROPHINS, INCLUDING OTHER OVULATION STIMULANTS	
G3H	Out of use; can be reused from 2009.	D2006
G3J	SERMS (SELECTIVE OESTROGEN RECEPTOR MODULATORS) Included in this class are products that contain selective oestrogen receptor modulators, eg lasofoxifene, raloxifene. When primarily indicated for cancer, SERMs are classified in L2. Products containing a SERM in combination with an oestrogen and indicated for the short-term treatment of menopausal symptoms together with the prevention of osteoporosis are classified in G3C.	r2015
G3X	OTHER SEX HORMONES AND SIMILAR PRODUCTS Includes mammary extracts and other hormonal preparations for sexual disorders eg placenta extracts. Cyproterone acetate (tab 10mg) is classified here; higher doses (50 mg) and injectable forms are in L2B2 when used as cytostatics. Includes products containing tibolone. Products containing mifepristone are classified here if indicated as abortifacients alone, or with other indications, or in G3A6 if indicated for emergency contraception. Products containing ulipristal are classified here if indicated for uterine fibroids, or in G3A6 if indicated for emergency contraception.	r2015

G4	UROLOGICALS	
G4A	URINARY ANTI-INFECTIVES AND ANTISEPTICS	
G4A1	Urinary antibacterials <p>This group includes those products containing an antibacterial where the only indication is for urinary tract infections. Sulphonamides are generally classified in J3 and other antibacterials in J1. All trimethoprim formulations are classified in J1E. Combinations with halogenated or non-halogenated quinolones are classified in G4A2.</p>	r2009
G4A2	Urinary non-halogenated quinolones <p>Includes products containing non-halogenated quinolones which are only indicated for urinary tract infections. Systemic products containing halogenated quinolones (plain) are classified in J1G. Combinations of halogenated or non-halogenated quinolones with other substances (including antibacterials) and indicated for urinary tract infections are classified in G4A2.</p>	R2009
G4A3	Out of use; can be reused from 2010.	D2007
G4A9	Other urinary antiseptics <p>Includes such products as nitrofurantoin and methenamine. Irrigating solutions are classified in Group K.</p>	I2007
G4B	Out of use; can be reused from 2010.	D2007
G4C	BPH (BENIGN PROSTATIC HYPERTROPHY) PRODUCTS	R2007
G4C1	Out of use	D2012
G4C2	BPH alpha-adrenergic antagonists, plain <p>Includes products containing alpha-adrenergic antagonists, such as alfuzosin, tamsulosin. Products containing terazosin, for BPH or hypertension, are classified here. Products containing doxazosin are classified in C2A2. Products containing indoramin, for BPH or hypertension, are classified in C2A2, or in N2C9 if indicated for migraine.</p>	r2015
G4C3	BPH 5-alpha testosterone reductase inhibitors (5-ARI), plain <p>Includes products containing 5-alpha testosterone reductase inhibitors (5-ARI), such as dutasteride and finasteride.</p> <p>Products containing finasteride 5mg and for BPH are classified here. Products containing finasteride 1mg and for alopecia are classified in D11A.</p>	r2018

G4C4	BPH alpha-antagonists and 5-ARIs, combinations Includes products containing an alpha-adrenergic antagonist and a 5-alpha testosterone reductase inhibitor. If one or more additional substances are included, then the product is classified in G4C7.	I2012
G4C7	BPH 5-ARIs and/or alpha-antagonists in combination with other substances Includes products containing eg tamsulosin with tolterodine, tamsulosin with a substance of natural origin, or tamsulosin with corticosteroids.	r2020
G4C8	Out of use	D2012
G4C9	BPH products, other Includes products of herbal or animal origin, as well as homeopathic products, for BPH. Products containing mepartricine, <i>Serenoa repens</i> , or <i>Pygeum africanum</i> are classified in G4C9 if indicated for BPH. This class also includes herbal products for improving prostatic health.	I2012
G4D	URINARY INCONTINENCE PRODUCTS	I2007
G4D4	Urinary incontinence products This group includes preparations for urinary incontinence eg those containing duloxetine, flavoxate, oxybutynin, tolterodine. Products of natural origin and homeopathic products are classified in G4D8.	I2007
G4D8	Urinary incontinence products of natural origin Includes products of herbal or animal origin, as well as homeopathic products, for urinary incontinence. Also includes collagen injections for incontinence.	I2007

G4E	ERECTILE DYSFUNCTION PRODUCTS Includes products for the treatment of male impotence.	r2015
G4E1	Erectile dysfunction products, PDE5 inhibitors Includes products containing PDE5 inhibitors, eg avanafil, mirodenafil, sildenafil, tadalafil, udenafil, vardenafil, etc, when indicated for the treatment of erectile dysfunction. Products containing sildenafil (oral 20mg) or tadalafil and indicated for pulmonary arterial hypertension (PAH) only are classified in C6B2. Products containing tadalafil and indicated for both erectile dysfunction and PAH are classified here. Products indicated for erectile dysfunction that contain a PDE5 inhibitor in combination with other substances are classified here. Products containing a PDE5 inhibitor in combination with other substances, and indicated for erectile dysfunction as well as other conditions, are classified here.	r2017
G4E9	Erectile dysfunction products, others Includes products containing eg alprostadil, apomorphine, etc when indicated for the treatment of erectile dysfunction. In addition, includes products that contain substances of natural origin for erectile dysfunction. Products that do not contain a PDE5 inhibitor and are indicated for erectile dysfunction, together with other urological conditions, are classified here.	I2015
G4X	ALL OTHER UROLOGICAL PRODUCTS Includes products containing local anaesthetics used specifically for premature ejaculation. Products for erectile dysfunction are classified in G4E. Products for both erectile dysfunction and other urological conditions are also classified in G4E. Products for improving general sexual performance (not specifically erectile dysfunction) are classified here.	r2015

H	SYSTEMIC HORMONAL PREPARATIONS (EXCLUDING SEX HORMONES)	
H1	PITUITARY AND HYPOTHALAMIC HORMONES	R1995
H1A	ACTH ACTH and synthetic analogues.	
H1B	Out of use; can be reused.	
H1C	HYPOTHALAMIC HORMONES	R2003
H1C1	Gonadotrophin-releasing hormones Includes eg buserelin, deslorelin, gonadorelin, goserelin, nafarelin, leuprorelin, triptorelin, when not used as cytostatics. When these substances are used as cytostatics, they are classified in L2A3. Products containing gonadotrophin-releasing hormone analogues for cancer and also for other conditions, are classified in L2A3.	r2020
H1C2	Antigrowth hormones Products for acromegaly are classified here. Lanreotide, octreotide and somatostatin are classified here. Somatostatin, when used as a haemostyptic, is classified in B2G. Growth hormone antagonists, such as pegvisomant, are classified here.	r2020
H1C3	Antigonadotrophin-releasing hormones Cetrorelix and ganirelix are classified here.	I2003

H2	SYSTEMIC CORTICOSTEROIDS	
H2A	SYSTEMIC CORTICOSTEROIDS, PLAIN	
	Includes all systemic products containing one or more corticosteroid(s) and no other active ingredient, with or without lignocaine.	
H2A1	Injectable corticosteroids, plain	R1993
H2A2	Oral corticosteroids, plain	R1993
H2A3	Other systemic corticosteroids, plain	r2017
	Includes suppositories. Corticosteroids to treat inflammatory intestinal disorders are classified in A7E2.	
H2B	SYSTEMIC CORTICOSTEROID COMBINATIONS	r2020
	Systemic products containing one or more corticosteroid(s) and one or more other active ingredient(s) (eg antihistamine). Also includes extracts containing natural corticosteroids, but excluding products classified in the following groups:	
	A7E2 – Intestinal anti-inflammatory agents	
	H4X – Liver extracts with small doses of corticosteroids (mainly in Italy).	
	G3X - Gland extracts (mammary, placenta, etc) and corticoid extracts mainly indicated for sexual disorders.	
	G4C7 – Corticosteroids with alpha-adrenergic antagonists.	
	M1B - Corticosteroids with anti-inflammatory agents, analgesics, muscle relaxants, etc.	
	R1B – Systemic nasal preparations	
	R3D, R3F, R3L3 - Anti-asthmatic inhalants acting topically on the bronchioles.	

H3	THYROID THERAPY	
H3A	THYROID PREPARATIONS Includes all natural thyroid extracts and synthetic analogues for the treatment of hypothyroidism.	
H3B	ANTI-THYROID PREPARATIONS Products for treatment of hyperthyroidism and similar disorders.	
H3C	IODINE THERAPY Includes all systemic iodine preparations with multiple indications. This group does not include dermatologicals or drug combinations with specific indications (eg rheumatism).	

H4	OTHER HORMONES	
H4A	CALCITONINS This group includes all calcitonin products (pork, salmon, eel and synthetic).	
H4B	GLUCAGON	
H4C	GROWTH HORMONES Includes products for growth conditions and also for AIDS wasting conditions.	R2002
H4D	ANTIDIURETIC HORMONES This group includes argipressin, desmopressin, lypressin, ornipressin, vasopressin.	
H4E	PARATHYROID HORMONES AND ANALOGUES Includes parathyroid hormone analogues, teriparatide.	I2008
H4F	ANTIPARATHYROID PRODUCTS Includes products containing eg cinacalcet, doxercalciferol, falecalcitriol, maxacalcitol, paricalcitol, when they are indicated for secondary hyperparathyroidism. Products containing vitamin D or its analogues with multiple indications are classified in A11C2.	r2014
H4V	Out of use; can be reused from 2011.	D2008
H4X	OTHER HORMONES AND PREPARATIONS WITH SIMILAR ACTIONS Products containing melatonin only and indicated for sleep rhythm disturbances are classified here. Prolonged-release melatonin indicated for primary insomnia is classified in N5B1. Products for insomnia that contain a sedative/hypnotic plus melatonin are classified in N5B in the appropriate subclass (N5B2, N5B4 or N5B5).	r2009

J	GENERAL ANTI-INFECTIVES SYSTEMIC Systemic anti-infectives for the treatment of stomatological conditions are classified in J.	R2006
J1	SYSTEMIC ANTIBACTERIALS The need for a systematic approach to classifying combination products (ie those containing two or more different antibacterials) has led to the adoption of a hierarchical system with a J1A (tetracycline) ingredient taking precedence over a J1B (chloramphenicol), J1B over J1C, etc, with the exception of combinations of products in J1K-P, J1X with other antibacterials, in which case the products in J1K-P, J1X should take precedence. Within J1K-P, J1X the same hierarchical system is used, ie a J1K ingredient takes precedence over J1L, J1L over J1M, etc. Antibacterials indicated only for bacterial intestinal infections are classified in A7A.	r2017
J1A	TETRACYCLINES AND COMBINATIONS Includes all systemic preparations with a tetracycline, plain or in combination with other anti-infectives, except in combination with a product in J1K-P, J1X or a sulphonamide (J3A).	R1997
J1B	CHLORAMPHENICOL AND COMBINATIONS Includes all systemic preparations with chloramphenicol, plain or in combination with other anti-infectives, except in combination with tetracyclines (J1A), products in J1K-P, J1X and sulphonamides (J3A).	R1997
J1C	BROAD SPECTRUM PENICILLINS Includes all systemic penicillin derivatives which are used as broad spectrum antibacterials, plain or in combination with other anti-infectives except in combination with tetracyclines (J1A), chloramphenicols (J1B), products in J1K-P, J1X and sulphonamides (J3A). Combinations with fosfomycin should, however, be included in this class. Thus J1C includes amoxycillin, ampicillin, esters and derivatives of ampicillin such as azlocillin, epicillin, hetacillin, metampicillin, pivampicillin, talampicillin, bacampicillin and ciclacillin. Azidocillin should be classified in J1H and carbenicillin and similar in J1L.	r2009
J1C1	Oral broad spectrum penicillins Also included are suppository presentations.	
J1C2	Injectable broad spectrum penicillins	

J1D	CEPHALOSPORINS Includes all systemic cephalosporins, plain or in combination with other anti-infectives, except in combination with tetracyclines (J1A), chloramphenicols (J1B), broad spectrum penicillins (J1C), products in J1K-P, J1X and sulphonamides (J3A). Combinations with phosphonomycin should, however, be included in this class.	R1997
J1D1	Oral cephalosporins Also included are suppository presentations.	
J1D2	Injectable cephalosporins	
J1E	TRIMETHOPRIM AND SIMILAR FORMULATIONS Includes all systemic trimethoprim formulations, eg Bactrim/Septin, except in combination with tetracyclines (J1A), chloramphenicols (J1B), broad spectrum penicillins (J1C), cephalosporins (J1D) and products in J1K-P, J1X.	R1997
J1F	MACROLIDES AND SIMILAR TYPES Includes all systemic macrolides, including erythromycin, spiramycin, oleandomycin, triacetyloleandomycin, kitasamycin, lincomycin and clindamycin, plain or in combination with other anti-infectives, except in combination with tetracyclines (J1A), chloramphenicols (J1B), broad spectrum penicillins (J1C), cephalosporins (J1D), trimethoprim combinations (J1E), products in J1K-P, J1X and sulphonamides (J3A). Also includes streptogramins.	R2003
J1G	FLUOROQUINOLONES This group includes norfloxacin and similar quinolone antibacterials such as fleroxacin, gatifloxacin, grepafloxacin, ofloxacin, pefloxacin and sparfloxacin. Rosoxacin is also included. Excluded are combinations with tetracyclines (J1A), chloramphenicols (J1B), broad spectrum penicillins (J1C), cephalosporins (J1D), trimethoprim formulations (J1E), macrolides (J1F), aminoglycosides (J1K), carbenicillin and similar (J1L), rifampicin/rifamycin (J1M), other beta-lactam antibacterials (J1P), and the miscellaneous antibacterials of J1X. Includes all systemic products containing halogenated quinolones even if only indicated for urinary tract infections. Combinations of halogenated quinolones with other substances and indicated for urinary tract infections are classified in G4A2.	R2009
J1G1	Oral fluoroquinolones Also included are suppository presentations.	r2018
J1G2	Injectable fluoroquinolones	I1997

J1G9	Other fluoroquinolones Includes inhaled forms of levofloxacin. Suppository forms of fluoroquinolones are classified in J1G1.	I2018
J1H	MEDIUM AND NARROW SPECTRUM PENICILLINS	
J1H1	Plain medium and narrow spectrum penicillins Includes all penicillins (natural and semi-synthetic) except broad spectrum penicillins in J1C, carbenicillin, carindacillin and similar in J1L, or combinations in J1A-J1F, J1K-P, J1X and J3A. Azidocillin is included in this group.	R1997
J1H2	Penicillin/streptomycin combinations	
J1J	Out of use; can be reused.	
J1K	AMINOGLYCOSIDES Includes all systemic aminoglycosides, plain or in combination with other anti-infectives, except in combination with sulphonamides (J3A). Includes bone cements containing aminoglycosides.	R2006
J1L	CARBENICILLIN AND SIMILAR TYPES Includes carbenicillin, carindacillin and similar types, plain or in combination with other anti-infectives, except in combination with aminoglycosides (J1K) and sulphonamides (J3A).	R2007
J1M	RIFAMPICIN/RIFAMYCIN Includes all rifampicins/rifamycins except where used primarily as tuberculostatics (J4A) and except when combined with products in J1K, J1L and J3A.	
J1N	Out of use; can be re-used from 1997	D1994
J1P	OTHER BETA-LACTAM ANTIBACTERIALS, EXCLUDING PENICILLINS, CEPHALOSPORINS	I1997
J1P1	Monobactams Includes aztreonam.	I1997
J1P2	Penems and carbapenems Includes imipenem and combinations of imipenem with cilastatin. Also includes ertapenem, meropenem.	r2008

J1P3	Carbacephems Includes loracarbef.	I1997
J1P9	All other beta-lactam antibacterials	I1997
J1X	OTHER ANTIBACTERIALS Includes all other systemic antibacterials which do not fit into J1A-J1P or J3A. Combinations with products in J1K, J1L, J1M, J1P, and J3A are classified in these groups respectively.	R2006
J1X1	Glycopeptide antibacterials Includes teicoplanin, vancomycin. Products containing vancomycin (oral forms) for intestinal infections are classified in A7A.	r2017
J1X2	Polymyxins Includes colistin, polymyxin. These substances, if mainly indicated as antidiarrhoeals, are classified in A7A.	I1994
J1X9	All other antibacterials Includes all systemic antibacterials which do not fit into J1A-J1X2, eg daptomycin, fosfomycin, fusidic acid, linezolid, novobiocin, plain sulbactam, pristinamycin, spectinomycin, and tigecycline. Formulations of fosfomycin with broad spectrum penicillins are in J1C and formulations with cephalosporins are in J1D.	r2020

J2	SYSTEMIC AGENTS FOR FUNGAL INFECTIONS	
J2A	SYSTEMIC AGENTS FOR FUNGAL INFECTIONS Includes all systemic forms of antifungal products which are used for systemic and/or dermatological conditions. However griseofulvin-type products are classified in D1A2. All gynaecological forms, eg vaginal tablets, of antifungal products are in G1B. Oral systemic forms of products, eg oral tablets, which are exclusively indicated for gynaecological use are in G1B. If a product in its oral systemic form is indicated for both gynaecological and systemic fungal infections then it is classified in J2A. Topical oral forms of products, eg oral gels, which are exclusively indicated for fungal infections of the mouth are in A1B.	R2007

J3	SYSTEMIC SULPHONAMIDES	
J3A	SYSTEMIC SULPHONAMIDES This group includes plain sulphonamides and sulphonamide/antibacterial combinations but excludes trimethoprim/sulphonamides which are classified in J1E. Sulphonamides indicated primarily as antidiarrhoeals are classified in A7A and those indicated for the treatment of urinary tract infections only are classified in G4A1. In combination products, including other antibacterials, the importance, weight or amount of sulphonamide is unimportant as products containing, say tetracycline, chloramphenicol, oleandomycin and a sulphonamide would be classified in J3A as would a penicillin and three sulphonamides.	r2009

J4	ANTIMYCOBACTERIALS	R1993
J4A	ANTITUBERCULAR PRODUCTS <p>Includes all specific tubercular preparations as well as streptomycin and dihydrostreptomycin. Other antibacterials such as viomycin and cycloserine which are indicated specifically for tuberculosis are included as well as rifampicin and rifamycin where they are used mostly as tuberculostatics. Where rifampicin and rifamycin are indicated for several conditions, then they are classified in J1M.</p> <p>The definition of ‘single ingredient’ means that only one specific antitubercular drug is present in the product. For example, if a product contains an antitubercular substance and also pyridoxine, this is a single ingredient product and will be classified in J4A1.</p> <p>Kits include various different tablets or forms with different ingredients. Fixed dose products contain the ingredients in one dosage form.</p>	r2009
J4A1	Antituberculars, single ingredient	I2000
J4A2	Antituberculars, kits, four or more ingredients	I2000
J4A3	Antituberculars, kits, three ingredients	I2000
J4A4	Antituberculars, kits, two ingredients	I2000
J4A5	Antituberculars, fixed dose, four or more ingredients	I2000
J4A6	Antituberculars, fixed dose, three ingredients	I2000
J4A7	Antituberculars, fixed dose, two ingredients	I2000
J4A9	Antituberculars, others	I2000
J4B	DRUGS FOR THE TREATMENT OF LEPROSY <p>Includes preparations used for the treatment of leprosy (eg aldesulphone, clofazimine, dapsone). Products containing thalidomide for cancer are classified in L1X2 and for erythema nodosum leprosum (ENL) in L4X. Products for both cancer and ENL are classified in L1X2.</p>	r2019

J5	ANTIVIRALS FOR SYSTEMIC USE	R2018
J5A	Out of use; can be reused from 2001.	D1998
J5B	ANTIVIRALS, OTHER Includes systemic antivirals for herpes, influenza, viral respiratory conditions, etc. Excludes topical skin antivirals (D6D), topical ophthalmic antivirals (S1D), HIV antivirals (J5C), and hepatitis antivirals (J5D).	R2018
J5B1	Out of use	D2018
J5B3	Herpes antivirals Products used against herpes virus infections, including specific systemic forms of products for cytomegalovirus infections (including CMV retinitis), are classified here. Products in topical ophthalmic forms for CMV retinitis are classified in S1D.	I2008
J5B4	Influenza antivirals Includes products indicated specifically for influenza.	I2008
J5B5	Respiratory antivirals excluding influenza products Includes products indicated specifically for respiratory syncytial virus (RSV) infections. Also includes inhalation forms of ribavirin where no indication has been specified.	I2008
J5B9	Antivirals, others Includes products containing lysozyme for viral infections.	I2008

J5C	HIV ANTIVIRALS Includes antiviral products specifically used to treat HIV (human immunodeficiency virus). Combinations of different classes of HIV antivirals are classified in J5C9. Combinations of HIV antivirals from a single class are classified in that relevant specific class, eg a product containing only two nucleoside reverse transcriptase inhibitors is classified in J5C1. Pentamidine isethionate which is used to treat <i>Pneumocystis carinii</i> in AIDS is classified in P1G.	r2018
J5C1	Nucleoside and nucleotide reverse transcriptase inhibitors Includes abacavir, didanosine, emtricitabine, lamivudine, stavudine, tenofovir disoproxil, zalcitabine, zidovudine. Single-ingredient products containing tenofovir disoproxil and indicated for either HIV and/or hepatitis are classified here. Products containing single-ingredient lamivudine or tenofovir alafenamide and for hepatitis B only are classified in J5D2.	r2018
J5C2	Protease inhibitors Includes amprenavir, atazanavir, darunavir, fosamprenavir, indinavir, lopinavir, nelfinavir, ritonavir, saquinavir, tipranavir.	r2011
J5C3	Non-nucleoside reverse transcriptase inhibitors Includes delavirdine, efavirenz, etravirine, nevirapine.	r2011
J5C4	HIV antivirals, entry inhibitors Includes products containing entry inhibitors such as enfuvirtide, maraviroc.	I2011
J5C5	HIV antivirals, integrase inhibitors Includes products containing integrase inhibitors eg dolutegravir, elvitegravir, raltegravir.	I2015
J5C9	HIV antivirals, other Includes combinations of different classes of HIV antivirals. Combinations of HIV antivirals from a single class are classified in that relevant specific class, eg a product containing only nucleoside reverse transcriptase inhibitors is classified in J5C1. Products containing cobicistat as a single ingredient are classified here. Products containing cobicistat in combination with HIV antivirals are classified in the appropriate class for the antivirals.	r2018

J5D	HEPATITIS ANTIVIRALS	I2018
J5D1	Hepatitis antivirals, interferon and ribavirin Products for hepatitis only containing interferons and/or ribavirin. The products can be for hepatitis B and/or hepatitis C. Products containing interferons and/or ribavirin in combination with a substance from J5D2 are classified in J5D2. Products containing interferons and/or ribavirin in combination with a substance from J5D3 are classified in J5D3. Products containing interferons (with or without ribavirin) that are for multiple indications are classified in L3B.	I2018
J5D2	Hepatitis B antivirals Includes products containing adefovir dipivoxil, clevudine, entecavir, telbivudine, etc. Products containing lamivudine or tenofovir alafenamide for hepatitis B are classified here; products containing lamivudine or tenofovir alafenamide for HIV are classified in J5C1 or J5C9. Combinations of these substances with interferons and/or ribavirin are classified here. Products containing interferons and/or ribavirin for hepatitis B are classified in J5D1. Products containing tenofovir disoproxil only, and indicated for hepatitis, HIV, or for both conditions, are classified in J5C1.	I2018
J5D3	Hepatitis C antivirals Includes products containing asunaprevir, beclabuvir, boceprevir, daclatasvir, dasabuvir, elbasvir, glecaprevir, grazoprevir, ledipasvir, narlaprevir, ombitasvir, paritaprevir, pibrentasvir, simeprevir, sofosbuvir, telaprevir, vaniprevir, velpatasvir, voxilaprevir, etc. Combinations of these substances with each other are also classified here. Combinations of these substances with ritonavir are classified here. Combinations of these substances with interferons and/or ribavirin are classified here. Products containing interferons and/or ribavirin for hepatitis C are classified in J5D1.	I2018
J5D9	Hepatitis antivirals, other Includes other products for viral hepatitis.	I2018

J6	SERA AND GAMMA-GLOBULIN	
J6A	ANTITOXIC SERA	
	Includes heterologous sera derived from animals such as the horse and the sheep.	
J6A1	Snake-bite sera	
J6A2	Botulism sera	
J6A3	Gas gangrene sera	
J6A4	Tetanus sera	
J6A5	Diphtheria sera	
J6A6	Rabies sera	
J6A9	Other antitoxic sera	
J6B	Out of use; can be reused from 1998.	D1995
J6B1	Out of use; can be reused from 1998.	D1995
J6B9	Out of use; can be reused from 1998.	D1995
J6C	POLYVALENT IMMUNO-GLOBULINS - INTRAVENOUS	
	The action of these homologous substances is mainly based on the IgG fraction.	
J6D	HOMOLOGOUS IMMUNOLOGICALLY ACTIVE GLOBULINS – INTRAVENOUS	
	The action of these homologous substances is not (or not solely) based on the action of the IgG fraction.	
J6D1	Humoral globulins	
	Substances principally associated with the humoral immune response.	
J6D2	Cellular globulins	
	Substances principally associated with the cellular immune response.	

J6E	POLYVALENT IMMUNO-GLOBULINS - INTRAMUSCULAR The action of these homologous substances is based on a wide spectrum of antibodies mainly belonging to the IgG fraction. Includes subcutaneous as well as intramuscular forms.	R2006
J6F	POLYVALENT IMMUNOGLOBULINS - COMBINATION MODULATION - MAINLY INTRAMUSCULAR These homologous immunoglobulins include: - those whose action is not exclusively based on the IgG fraction. - those which exist in combination with other substances. - those which cause a modulation of the immune response.	
J6G	SPECIFIC IMMUNOGLOBULINS - ANTIBACTERIAL These homologous substances (given intramuscularly or intravenously) have a certain antibody titre against a certain specified antigen.	
J6G1	Tetanus immunoglobulin	
J6G2	Pertussis immunoglobulin	
J6G9	Other antibacterial immunoglobulins This group includes diphtheria, streptococci, staphylococci and pseudomonas immunoglobulins.	
J6H	SPECIFIC IMMUNOGLOBULINS - ANTIVIRAL These homologous substances (given intramuscularly or intravenously) have a certain antibody titre against a certain specified antigen.	
J6H1	Mumps immunoglobulin	
J6H2	Measles immunoglobulin	
J6H3	Rubella immunoglobulin	
J6H4	Hepatitis immunoglobulin	
J6H5	Rabies immunoglobulin	
J6H9	Other antiviral immunoglobulins This group includes varicella-zoster, tick-borne meningo-encephalitis, poliomyelitis, cytomegaly and herpes immunoglobulins.	

J6J	<p data-bbox="312 170 932 203">OTHER SPECIFIC IMMUNOGLOBULINS</p> <p data-bbox="312 248 1385 353">These homologous substances (given intramuscularly or intravenously) have a certain antibody titre against a certain specified antigen which is not of bacterial or viral origin.</p> <p data-bbox="312 394 1214 427">Products containing anti-D (Rho) immunoglobulin are classified here.</p>	r2014
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J7	VACCINES	
J7A	Out of use	D2014
J7B	COMBINATIONS OF VACCINES	r2018
	Included are combinations of vaccines for protection against more than one virus and/or bacteria and/or protozoa.	
J7B1	Combinations with a tetanus component	
J7B2	Combinations with measles and/or mumps	R2007
	MMR vaccine is classified here.	
J7B3	All other combinations	
J7C	Out of use	D2014
J7D	BACTERIAL VACCINES	r2018
	Includes separate classes for vaccines against only one bacterial group. For vaccines against a combination of bacteria or viruses, see J7B.	
J7D1	Pneumococcal vaccines	I2014
J7D2	Meningococcal vaccines	I2014
J7D3	Haemophilus B vaccines	I2014
J7D4	Typhoid vaccines	I2014
	Includes vaccines against typhoid and paratyphoid. Vaccines against typhus are classified in J7D9.	
J7D5	Tetanus vaccines	I2014
J7D6	Tuberculosis vaccines	r2020
	Products containing BCG vaccine for cancer are classified in L1X9; those for general immunostimulation are classified in L3A9.	
J7D7	Cholera vaccines	I2014
J7D9	All other bacterial vaccines	I2014
	Includes all other vaccines against one bacterial group, eg diphtheria, pertussis, typhus.	

J7E	VIRAL VACCINES Includes separate classes for vaccines against only one viral group. For vaccines against a combination of bacteria or viruses, see J7B.	r2018
J7E1	Influenza vaccines	I2014
J7E2	Varicella vaccines	I2014
J7E3	HPV (human papillomavirus) vaccines	I2014
J7E4	Hepatitis vaccines	I2014
J7E5	Rotavirus vaccines	I2014
J7E9	All other viral vaccines Includes all other vaccines against one viral group, eg Japanese encephalitis, measles, mumps, polio, rubella, rabies, tick-borne encephalitis, yellow fever.	I2014
J7F	PROTOZOAL VACCINES Includes separate classes for vaccines against only one protozoal group. For vaccines against a combination of a protozoal group and/or other organisms, see J7B.	I2018
J7F1	Malaria vaccines	I2018
J7F9	All other protozoal vaccines	I2018
J7X	ALL OTHER VACCINE-LIKE PRODUCTS Includes products containing infectious agents and/or their derivatives, eg lysates and extracts of bacteria, that are not strictly considered vaccines.	r2018

J8	OTHER ANTI-INFECTIVES	R1993
J8A	Out of use; can be reused.	
J8B	ANAEROBICIDES Includes infusions, ampoules and rectal suppositories of metronidazole and other anaerobicides. Topical forms can be classified here. Oral forms of these compounds to be classified in G1A1 and vaginal tablets/suppositories in G1A2. Products for both trichomoniasis and amoebiasis are classified in G1A1.	R2006
J8X	ALL OTHER ANTI-INFECTIVES Includes other anti-infectives not classified in J1-J7. Anaerobicides such as metronidazole to be classified in J8B.	I1993

K	HOSPITAL SOLUTIONS This class includes all intravenous solutions, injection solutions/infusion additives, irrigating solutions, dialysis solutions and perfusion solutions.	
K1	INTRAVENOUS SOLUTIONS This group includes all intravenous solutions, infusion bottles ≥ 100 ml.	
K1A	ELECTROLYTE SOLUTIONS (≥ 100 ml) Electrolyte solutions in all concentrations up to and including 10% carbohydrates ($\leq 10\%$). Includes also arginine, malic acid and darrow (potassium substitution therapy). Exceptions: <ol style="list-style-type: none"> 1. Sodium chloride solutions and aqua/aqua bidest are classified in K1B. 2. Combinations with fat emulsions are classified in K1D2. 3. Combinations with amino-acids are classified in K1E. 4. Combinations with osmotic solutions are classified in K1F. 	R2004
K1A1	1/1 – Electrolyte solutions $\text{Na}^+ > 120$ mmol/l	
K1A2	2/3 – Electrolyte solutions $\text{Na}^+ 91\text{-}120$ mmol/l	
K1A3	1/2 – Electrolyte solutions $\text{Na}^+ 61\text{-}90$ mmol/l	
K1A4	1/3 – Electrolyte solutions $\text{Na}^+ \leq 60$ mmol/l	
K1A5	Adapting electrolyte solutions (including sodium) Includes sodium bicarbonate and forced diuresis (FD) solutions.	
K1A6	Paediatric electrolyte solutions Includes all paediatric solutions but excludes paediatric combinations with amino-acids which are classified in K1E5.	

K1A7	Ringer's and Ringer's lactate solutions Modified Ringer's and Ringer's lactate solution is classified in K1A9.	r2011
K1A9	Other electrolyte solutions Includes Coma Diabeticum (CD) solutions. Includes Hartmann's solution. Modified Ringer's and Ringer's lactate solution is classified here.	r2011
K1B	STANDARD SOLUTIONS Includes sodium chloride solutions in all concentrations, both plain and combined with carbohydrates (up to and including 10% carbohydrates ($\leq 10\%$)), carbohydrate solutions ($\leq 10\%$) and water for use with injectables (aqua/aqua bidest ≥ 100 ml). All carbohydrate solutions with more than 10% are classified in K1C.	R2006
K1B1	Sodium chloride solutions Includes pure sodium chloride solutions in all concentrations.	R2006
K1B2	Sodium chloride solutions with carbohydrates Includes sodium chloride solutions in all concentrations combined with carbohydrates ($\leq 10\%$). Solutions with carbohydrate $>10\%$ or carbohydrate combinations with electrolytes other than sodium chloride are classified in K1A (carbohydrates $\leq 10\%$) and K1C3 (carbohydrates $>10\%$).	
K1B3	Carbohydrate solutions ($\leq 10\%$) The types of products contained in this sub-group are sugar solutions ($\leq 10\%$) such as glucose (dextrose, grape sugar) and fructose (laevulose, fruit sugar). Also includes polyalcohols such as xylitol and sorbitol. The products classified in this group are solutions with one carbohydrate ($\leq 10\%$) and carbohydrate combination solutions ($\leq 10\%$). Carbohydrate solutions ($>10\%$) are classified in K1C1.	
K1B4	Aqua/Aqua bidest Infusion bottles ≥ 100 ml.	
K1C	CALORIC SOLUTIONS ($>10\%$) Includes carbohydrate solutions ($>10\%$) and carbohydrate combination solutions ($>10\%$).	

K1C1	<p>Solutions with one carbohydrate (>10%)</p> <p>The types of products contained in this sub-group are sugar solutions (>10%) such as glucose (dextrose, grape sugar) and fructose (laevulose, fruit sugar). Also included are polyalcohols such as xylitol and sorbitol.</p> <p>Carbohydrate solutions (<=10%) are classified in K1B3.</p>	
K1C2	<p>Carbohydrate combination solutions (>10%)</p> <p>Includes only combinations of two or more carbohydrates eg fructose, glucose, xylitol (FGX) and invert sugar solutions (>10%).</p> <p>Carbohydrate combination solutions (<=10%) are classified in K1B3.</p>	
K1C3	<p>Carbohydrate electrolyte combination solutions (>10%)</p> <p>The group includes single or combined carbohydrates (>10%) eg glucose, fructose, sorbitol and xylitol with electrolytes.</p> <p>The group excludes carbohydrate solutions (single or combined) with electrolytes (carbohydrates <=10%) which are classified in K1A.</p>	
K1D	FAT EMULSIONS, INCLUDING TOTAL PARENTERAL NUTRITION PRODUCTS	R1997
K1D1	<p>Fat emulsions, plain</p> <p>This group includes plain fat emulsions for parenteral applications eg fractions of soybean oil and safflower oil, or mixtures of different oils.</p>	I1997
K1D2	<p>Fat emulsions, combinations</p> <p>This group includes fat emulsions with other substances such as amino acids, glucose, electrolytes. In particular, products for total parenteral nutrition are classified in this class. Multicomponent solutions for total parenteral nutrition with no fat emulsion content, are classified in K1E.</p>	R2006
K1E	<p>AMINO ACID SOLUTIONS</p> <p>This group contains all amino-acid solutions including combinations, except those including fats.</p>	R2006
K1E1	<p>Amino acid standard solutions</p> <p>Includes solutions containing at least all eight essential amino-acids, and may additionally contain non-essential amino-acids, electrolytes, etc.</p>	R2006

K1E2	Multi-litre concept solutions Includes multicomponent solutions for total parenteral nutrition containing amino-acids and carbohydrates. Electrolytes may also be included. Multicomponent solutions for total parenteral nutrition which additionally contain fat are classified in K1D2. Includes products which have a volume of 2 litres or more.	R2005
K1E3	Nephro solutions	
K1E4	Hepatic solutions	
K1E5	Paediatric amino-acid solutions	
K1E9	Other amino acid solutions Includes amino-acid solutions not classified in K1E or K1D2.	R2005
K1F	SOLUTIONS FOR OSMOTIC THERAPY	
K1F1	Osmotic therapy Includes glycerin solutions, mannitol and mannitol combinations with carbohydrates in all concentrations and sorbitol ($\geq 40\%$).	
K1F2	Osmotic/oncology therapy Includes solutions (eg dextran) with sorbitol (20%).	
K1G	SPECIAL INFUSION SOLUTIONS	R2004
K1G1	Solutions for liver therapy	
K1G9	Other infusion solutions	

K2	PLASMA EXPANDERS Plasma expanders are colloid substances used as plasma substitutes with qualities which are to a high degree commensurate with those of human plasma. Includes dextrans, starches and gelatin solutions.	
K2A	DEXTRANS Dextrans are high-polymeric glucose compounds which are always a mixture of all molecular weights. Dextrans with a molecular weight under 50.000 are subject to renal elimination whilst dextrans with a molecular weight over 50.000 are subject to enzymatic degradation.	
K2A1	Low dextrans Dextrans $\leq 50,000$ Daltons. The main indication is disturbed micro-circulation. Excludes monovalent dextrans, see K4D.	R2005
K2A2	High dextrans Dextrans $> 50,000$ Daltons. The main indication is volume substitution.	R2005
K2B	STARCHES Includes Haes solutions.	
K2C	GELATIN SOLUTIONS Includes modified gelatin.	

K3	WHOLE BLOOD AND PLASMA SUBSTITUTE SOLUTIONS	
K3A	WHOLE BLOOD AND PLASMA FRACTIONS <p>This group includes whole blood (eg citrate-whole blood, citrate-fresh-blood etc) as well as fluid blood constituents (fresh fluid plasma, dehydrated plasma) and corpuscular blood constituents (eg erythrocytes etc), provided they are not allocated to other systems.</p> <ul style="list-style-type: none"> - The albumin fraction is classified in groups K3B and K3C. - The blood constituents acting in the immunological system are classified in group J6. - The blood constituents acting in the coagulation system are classified in group B2. 	
K3B	PROTEIN SOLUTIONS <p>This group includes all plasma protein solutions and albumin solutions with an albumin concentration $\geq 80\%$. Subdivision as to total protein concentration is effected on the 4th level.</p>	
K3B1	Protein solutions $<5,0\%$	
K3B2	Protein solutions $5,0\%$	
K3B3	Protein solutions $>5,0\%$	
K3C	PRESERVED HUMAN SERUM <p>This group includes all plasma protein solutions (albumin concentration $<80\%$) containing gammaglobulins but no coagulation factors.</p>	

K4	INJECTION SOLUTIONS/INFUSION ADDITIVES (<100ML) Includes injection solutions and infusion additives <100ml.	
K4A	ELECTROLYTE SOLUTIONS (<100ml) Includes electrolyte solutions in all concentrations up to and including ≤10% carbohydrates (1/1, 2/3, 1/2 and 1/3; adapting and paediatric electrolyte solutions), Ringer's and Ringer's lactate solutions.	
K4A1	Electrolyte solutions (≤20ml)	R1993
K4A2	Electrolyte solutions (>20ml and <100ml)	R1993
K4B	STANDARD SOLUTIONS (<100ml) Includes sodium chloride solutions in all concentrations, sodium chloride solutions with carbohydrates (≤10%) and carbohydrate solutions (≤10%). Also included are polyalcohols such as xylitol and sorbitol.	
K4B1	Standard solutions (≤20ml)	R1993
K4B2	Standard solutions (>20ml and <100ml)	R1993
K4C	CALORIC SOLUTIONS (<100ml) Includes solutions with one carbohydrate (>10%), carbohydrate combination solutions (>10%) and carbohydrate electrolyte combination solutions (>10%). Also includes polyalcohols such as xylitol and sorbitol.	
K4D	OTHER INJECTION SOLUTIONS/INFUSION ADDITIVES (<100ml) Includes aqua/aqua bidest, arginine, arginine/malic acid solutions, monovalent dextrans and buffer solutions. Multivitamin products used for parenteral infusion are classified here.	R2005

K5	IRRIGATING SOLUTIONS Irrigating solutions are not to be given intravenously or to be injected. This group includes all solutions which are specified as irrigating solutions.	
K5A	IRRIGATING SOLUTIONS	R2004
K5A1	Water	
K5A2	Saline	
K5A3	Citrates	
K5A4	Glycine	
K5A9	Other irrigating solutions	R1993

K6	DIALYSIS SOLUTIONS This group includes all solutions for haemodialysis, peritoneal dialysis and haemofiltration (systemic lavage).	
K6A	HAEMODIALYSIS SOLUTIONS	
K6B	PERITONEAL DIALYSIS SOLUTIONS	
K6C	HAEMOFILTRATION	

K7	PERFUSION SOLUTIONS Perfusion solutions are not to be given intravenously or to be injected. This group includes all solutions which are used for the storage of donor organs and gravity perfusion. Also included are anticoagulant solutions for blood samples. Also products used to arrest the heart are classified here.	R2006
K7A	PERFUSION SOLUTIONS	

L	ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS	R1994
L1	ANTINEOPLASTICS Includes all preparations mainly indicated for the treatment of cancers and all packs specifically produced for use in anticancer therapy eg special anticancer packs of antibiotics.	R2003
L1A	ALKYLATING AGENTS Includes nitrogen mustard analogues (eg chlorambucil, chlormethine, cyclophosphamide, ifosfamide, melphalan, prednimustine, trofosfamide), ethylene imines (eg altretamine (hexamethylmelamine), carboquone, thiotepa, triaziquone), nitrosoureas (eg bendamustine, carmustine, fotemustine, lomustine, semustine, streptozocin), alkyl sulfonates (eg busulfan, mannosulfan, mitolactol, treosulfan), triazenes and analogues. Dacarbazine is classified in this group.	R2003
L1B	ANTIMETABOLITES Includes folic acid analogues (eg methotrexate), pyrimidine analogues (eg capecitabine, carmofur, cytarabine, fluorouracil, tegafur) and purine analogues (eg fludarabine, mercaptopurine, tioguanine). Methotrexate can also be classified in M1C for rheumatic conditions or in D for dermatological conditions. Products containing topical fluorouracil for actinic keratosis are classified here.	r2016
L1C	PLANT-BASED ANTINEOPLASTICS Includes products that contain plant-derived alkaloids, terpenes, lignans etc, or their derivatives/analogues. Combination products containing substances from two fourth level classes of L1C are classified in the higher level class, eg a combination of a camptothecin with a podophyllotoxin is classified in L1C3.	R2016
L1C1	Vinca alkaloid antineoplastics Includes products containing alkaloids (or their derivatives/analogues) that are derived from <i>Cantharanthus roseus</i> (Madagascan periwinkle), eg vinblastine, vincristine, vindesine, vinflunine, vinorelbine, etc.	I2016
L1C2	Taxane antineoplastics Includes products containing diterpenes (or their derivatives/analogues) that are derived from species of <i>Taxus</i> (yew), eg cabazitaxel, docetaxel, paclitaxel, etc.	I2016

L1C3	Camptothecin antineoplastics Includes products containing alkaloids (or their derivatives/analogues) derived from <i>Camptotheca acuminata</i> (happy tree), eg hydroxycamptothecin, irinotecan, topotecan, etc.	I2016
L1C4	Podophyllotoxin antineoplastics Includes products containing lignans (or their derivatives/analogues) derived from <i>Podophyllum</i> (May apple) species, eg etoposide, mitopodozide, teniposide, etc.	I2106
L1C9	Plant-based antineoplastics, other Includes antineoplastic products containing other plant chemicals (or their derivatives/analogues), eg colchicine derivatives such as demecolcine. Products for cancer containing omacetaxine mepisuccinate are classified here. Products for cancer containing <i>Brucea javanica</i> are classified here. Antineoplastic products that contain dried plant material or unrefined plant extracts are classified in L1X9. Antineoplastic products that are derived from natural sources other than plants, eg from bacteria or fungi, are classified elsewhere.	I2016
L1D	ANTINEOPLASTIC ANTIBIOTICS Includes eg aclarubicin, bleomycin, dactinomycin, daunorubicin, doxorubicin, epirubicin, idarubicin, mitomycin, mithramycin, mitoxantrone, plicamycin, zorubicin. Products containing mitoxantrone and indicated for both cancer and multiple sclerosis are classified here. Products containing gemtuzumab ozogamicin and inotuzumab ozogamicin are classified in L1G9.	r2019
L1F	PLATINUM ANTINEOPLASTICS Includes products containing eg carboplatin, cisplatin, oxaliplatin.	I2014

L1G	MONOCLONAL ANTIBODY ANTINEOPLASTICS Antineoplastic monoclonal antibodies against protein kinases are classified here and not in L1H.	R2019
L1G1	Monoclonal antibody antineoplastics, CD20 Includes products containing obinutuzumab, ofatumumab, rituximab, rituximab with hyaluronidase, etc.	I2019
L1G2	Monoclonal antibody antineoplastics, VEGF/VEGFR Includes products containing bevacizumab, ramucirumab, etc.	I2019
L1G3	Monoclonal antibody antineoplastics, HER-2 Includes products containing margetuximab, pertuzumab, trastuzumab, trastuzumab emtansine, etc.	I2019
L1G4	Monoclonal antibody antineoplastics, EGFR Includes products containing cetuximab, necitumumab, nimotuzumab, panitumumab, etc.	I2019
L1G5	Monoclonal antibody antineoplastics, PD-1/PD-L1 Includes products containing atezolizumab, avelumab, cemiplimab, durvalumab, nivolumab, pembrolizumab, tislelizumab, etc.	I2019

L1G9	<p>Monoclonal antibody antineoplastics, other</p> <p>Includes antibodies with other targets including other CD targets, CTLA-4 (ipilimumab), etc.</p> <p>Includes antibody drug conjugates (ADCs) if not classified with the target class (brentuximab vedotin, gemtuzumab ozogamicin, inotuzumab ozogamicin).</p> <p>Includes radio-labelled antibodies (ibritumomab tiuxetan, tositumomab iodine-131).</p> <p>Includes alemtuzumab, blinatumomab, brentuximab vedotin, catumaxomab, daratumumab, dinutuximab, elotuzumab, gemtuzumab ozogamicin, ibritumomab tiuxetan, inotuzumab ozogamicin, ipilimumab, mogamulizumab, olaratumab, racotumomab, rovalpituzumab tesirine, siltuximab, tositumomab, tositumomab iodine-131, etc.</p> <p>Products containing alemtuzumab and indicated for cancer only are classified here. Products containing alemtuzumab and indicated for multiple sclerosis are classified in N7A.</p>	I2019
L1H	<p>PROTEIN KINASE INHIBITOR ANTINEOPLASTICS</p> <p>Antineoplastic monoclonal antibodies against protein kinases are classified in L1G.</p>	R2019
L1H1	<p>Protein kinase inhibitor antineoplastics, BCR-ABL</p> <p>Includes products containing bosutinib, dasatinib, imatinib, nilotinib, ponatinib, radotinib, etc.</p>	I2019
L1H2	<p>Protein kinase inhibitor antineoplastics, EGFR</p> <p>Includes products containing afatinib, dacomitinib, erlotinib, gefitinib, icotinib, olmutinib, osimertinib, varlitinib, etc.</p>	I2019
L1H3	<p>Protein kinase inhibitor antineoplastics, ALK</p> <p>Includes products containing alectinib, brigatinib, ceritinib, crizotinib, lorlatinib, etc.</p>	I2019
L1H4	<p>Protein kinase inhibitor antineoplastics, BRAF/MEK</p> <p>Includes products containing binimetinib, cobimetinib, dabrafenib, encorafenib, selumetinib, trametinib, vemurafenib, etc.</p>	I2019

L1H5	Protein kinase inhibitor antineoplastics, CDK 4/6 Includes products containing abemaciclib, palbociclib, ribociclib, etc. Products containing both ribociclib and letrozole are classified here.	I2019
L1H9	Protein kinase inhibitor antineoplastics, other Includes all other protein kinase inhibitor antineoplastics, for example those inhibiting HER-2, JAK 1-2, BTK, Pi3K, etc. Includes acalabrutinib, apatinib, axitinib, cabozantinib, erdafitinib, everolimus, ibrutinib, idelalisib, lapatinib, lenvatinib, midostaurin, neratinib, nintedanib, pazopanib, regorafenib, ruxolitinib, sorafenib, sunitinib, temsirolimus, tivozanib, vandetanib, etc.	r2020
L1J	PROTEASOME INHIBITOR ANTINEOPLASTICS Includes products containing proteasome inhibitors for neoplasms, eg bortezomib, carfilzomib, ixazomib, etc.	I2018
L1X	ALL OTHER ANTINEOPLASTICS	R2018
L1X1	Alternative preparations for cancer therapy Includes products derived from Viscum (mistletoe).	r2018
L1X2	Lidomide antineoplastics Includes products containing lenalidomide, pomalidomide or thalidomide for multiple myeloma and other cancers. Products containing thalidomide for both cancer and erythema nodosum leprosum (ENL) are classified here. Products containing thalidomide for ENL only are classified in L4X.	I2019
L1X3	HDAC inhibitor antineoplastics Includes products containing HDAC inhibitors for neoplasms, eg belinostat, entinostat, panobinostat, romidepsin, tucidinostat, vorinostat, etc.	I2018
L1X4	PARP inhibitor antineoplastics Includes products containing niraparib, olaparib, rucaparib, talazoparib, veliparib, etc.	I2019

L1X5	CAR T-cell therapy antineoplastics Includes products containing axicabtagene ciloleucel, tisagenlecleucel, etc.	I2019
L1X8	Photosensitisers for cancer therapy Includes products containing photosensitisers for use in cancer therapy, eg aminolaevulinic acid, methyl aminolaevulinate, methoxsalen, porfimer, talaporfin, temoporfin, etc. Products containing aminolaevulinic acid for actinic keratosis, basal cell carcinoma or Bowen syndrome are classified here. Products containing aminolaevulinic acid for use in diagnostic procedures are classified in T1X. Products containing methoxsalen for other skin conditions such as psoriasis or vitiligo are classified in the appropriate D classes. Products containing vertoporfin for macular degeneration are classified in S1P.	r2019
L1X9	All other antineoplastics Includes amsacrine, enzymes, estramustine, gallium nitrate, methylhydralazine, mitotane, procarbazine, substituted urea, tasonermin, vosaroxin. Also includes celecoxib for familial adenomatous polyposis (FAP). Products containing aflibercept for cancer are classified here. Products containing aflibercept for macular degeneration are classified in S1P. Includes products containing hedgehog pathway inhibitors, eg glasdegib, sonidegib, vismodegib, etc. Products containing BCG vaccine for cancer are classified here; those for general immunostimulation are classified in L3A9. Products containing BCG vaccine for active immunisation against tuberculosis are classified in J7D6.	r2020

L2	CYTOSTATIC HORMONE THERAPY Includes all types of hormones used primarily in the treatment of cancers, eg adrenocorticoids, progestogens, oestrogens, anti-oestrogens and androgens.	I1994
L2A	CYTOSTATIC HORMONES	I1994
L2A1	Cytostatic oestrogens	I1994
L2A2	Cytostatic progestogens	I1994
L2A3	Cytostatic gonadotrophin-releasing hormone analogues Buserelin, deslorelin, goserelin, nafarelin, leuprorelin and triptorelin are classified here. When these substances are not used as cytostatics they are classified in H1C. Products containing gonadotrophin-releasing hormone analogues for cancer and also for other conditions are classified here.	r2020
L2A9	Other cytostatic hormones Includes substances such as drostanolone, testolactone.	I1994
L2B	CYTOSTATIC HORMONE ANTAGONISTS	I1994
L2B1	Cytostatic anti-oestrogens Includes substances such as tamoxifen, mepitiostane, epitiostanol, toremifene.	R1997
L2B2	Cytostatic anti-androgens Includes substances such as flutamide, nilutamide. Cyproterone acetate (50 mg; injectable forms) is classified here.	I1994
L2B3	Cytostatic aromatase inhibitors Includes aminoglutethamide, anastrozole, exemestane, formestane, letrozole. Products containing both ribociclib and letrozole are classified in L1H5.	r2019
L2B9	Other cytostatic hormone antagonists Includes fulvestrant.	R2003

L3	IMMUNOSTIMULATING AGENTS	I1994
L3A	IMMUNOSTIMULATING AGENTS EXCLUDING INTERFERONS	R2004
L3A1	Colony-stimulating factors Includes ancestim, empegfilgrastim, filgrastim, lenograstim, molgramostim, pegfilgrastim, sargramostim.	r2018
L3A9	All other immunostimulating agents excluding interferons Includes cridanimod, glatiramer acetate, interleukin-2, picibanil. <i>Corynebacterium parvum</i> and levamisole are classified here when used as immunostimulants. Products containing BCG vaccine for cancer are classified in L1X9; those for general immunostimulation are classified here. Products containing BCG vaccine for active immunisation against tuberculosis are classified in J7D6. Products containing elapegademase for adenosine deaminase deficiency are classified here.	r2020
L3B	INTERFERONS Products containing interferons (with or without ribavirin) for multiple indications are classified in L3B. Products containing interferons (with or without ribavirin) for hepatitis only are classified in J5D1.	r2018
L3B1	Interferons, alpha	I1994
L3B2	Interferons, beta Products containing beta interferons and indicated for multiple sclerosis only are classified in N7A. Products containing beta interferons and indicated for both multiple sclerosis and other conditions are classified here.	R2017
L3B3	Interferons, gamma	I1994
L3B9	Interferons, non-specified	I1994

L4	IMMUNOSUPPRESSANTS	R2010
L4A	Out of use; can be reused from 2013.	D2010
L4B	ANTI-TNF PRODUCTS Products containing anti-TNF substances are classified here, eg adalimumab, afelimomab, certolizumab pegol, etanercept, golimumab, infliximab. These products can be indicated for multiple conditions, eg rheumatoid arthritis, Crohn's disease, psoriasis. Products containing apremilast for psoriatic conditions only are classified in D5B. Products containing apremilast for multiple conditions are classified in L4X.	r2020
L4C	INTERLEUKIN INHIBITORS Includes products containing interleukin inhibitors, eg basiliximab, canakinumab, daclizumab, rilonacept. Includes interleukin inhibitors indicated for the treatment of rejection in organ transplants and for auto-inflammatory diseases such as CAPS (cryopyrin-associated periodic syndromes). Products containing tocilizumab or anakinra and indicated for arthritic conditions are classified in M1C. Products containing tocilizumab and indicated for both arthritic conditions and also giant cell arteritis are classified in M1C. Products containing ixekizumab, secukinumab or ustekinumab and indicated for skin conditions such as psoriasis and also other non-skin conditions, eg rheumatoid arthritis, are classified here. Psoriatic arthritis is defined as a skin condition. Products containing daclizumab and indicated for use in kidney transplantation are classified here. Products containing daclizumab and indicated for multiple sclerosis and other conditions are classified in N7A. Products containing mepolizumab for asthma only or for asthma and EGPA (eosinophilic granulomatosis with polyangiitis) are classified in R3M. Products containing dupilumab for atopic dermatitis are classified in D5X. Products containing dupilumab for both atopic dermatitis and asthma are classified here.	r2020

L4X	<p data-bbox="312 170 829 208">OTHER IMMUNOSUPPRESSANTS</p> <p data-bbox="312 248 1391 320">Immunosuppressants used in the treatment of rejection in organ transplants are classified here, or in L4C if they contain interleukin inhibitors.</p> <p data-bbox="312 360 1391 539">Includes eg antilymphocyte and antithymocyte immunoglobulins, azathioprine, cyclosporin, muromonab-cd3, mycophenolate mofetil, tacrolimus – unless classified elsewhere because of a specific indication or formulation. For example, ophthalmic cyclosporin for dry eye is classified in S1K9 and dermatological tacrolimus is classified in D5X.</p> <p data-bbox="312 580 1391 683">Products for multiple sclerosis are classified in N7A. Products containing natalizumab and indicated for multiple sclerosis and other conditions are classified in N7A.</p> <p data-bbox="312 723 1391 831">Products containing apremilast for psoriatic skin conditions only, are classified in D5B. Psoriatic arthritis is defined as a skin condition. Products containing apremilast for multiple conditions are classified here.</p> <p data-bbox="312 871 1391 1050">Products containing lenalidomide, pomalidomide or thalidomide for multiple myeloma and other cancers are classified in L1X2. Products containing thalidomide for both cancer and erythema nodosum leprosum (ENL) are classified in L1X2. Products containing thalidomide for erythema nodosum leprosum only are classified here.</p> <p data-bbox="312 1090 1391 1162">Products containing tofacitinib for multiple conditions are classified here. Products containing tofacitinib for rheumatoid arthritis only are classified in M1C.</p> <p data-bbox="312 1202 1391 1274">Products containing leflunomide for multiple conditions are classified here. Products containing leflunomide for rheumatoid arthritis only are classified in M1C.</p> <p data-bbox="312 1314 807 1352">Corticosteroids are not classified here.</p>	r2020
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M	MUSCULO-SKELETAL SYSTEM	
M1	ANTI-INFLAMMATORY AND ANTI-RHEUMATIC PRODUCTS	
M1A	ANTI-RHEUMATICS, NON-STEROIDAL	r2009
	Includes all non-hormonal anti-inflammatory products for systemic treatment of musculoskeletal inflammation. Products for analgesia only are classified in N2B.	
M1A1	Anti-rheumatics, non-steroidal plain	r2020
	Includes products containing an additional non-therapeutic ingredient or an ingredient to minimise the side-effects of the main active substance. Examples include alkalizing agents, local anaesthetics or cytoprotectants. For example, combinations of non-steroidals with antiulcerants, where the antiulcerant is for gastric protection, are classified here.	
M1A2	Anti-rheumatics, non-steroidal combination	R2007
	Combination products containing colchicine, or minerals, vitamins, rutin should be classified here. Combinations of anti-inflammatory substances with analgesics for musculoskeletal conditions are classified here. Includes coxib combinations.	
M1A3	Coxibs, plain	R2007
	Includes products that are highly specific to the COX-2 enzyme. At therapeutic doses, they specifically inhibit cyclo-oxygenase-2 (COX-2) but do not inhibit the cyclo-oxygenase-1 (COX-1) isoenzyme. Products in this class include celecoxib, etoricoxib, parecoxib, rofecoxib and valdecoxib.	
M1B	ANTI-RHEUMATIC CORTICOSTEROID COMBINATIONS	
	Includes all systemic steroid combinations specifically or primarily indicated in rheumatic disorders. Examples include corticosteroids with one or more of the following ingredients: non-hormonal anti-inflammatory agents Analgesics Vitamins muscle relaxants.	

M1C	<p data-bbox="312 170 906 203">SPECIFIC ANTI-RHEUMATIC AGENTS</p> <p data-bbox="312 248 1391 427">This class includes abatacept, anakinra, tocilizumab, gold preparations, bucillamine, penicillamine and quinolines (eg oxycinchophen). Includes products containing mesalazine, olsalazine, and sulphasalazine if specifically indicated for rheumatic conditions. Products containing aminosalicylates and used for intestinal inflammatory conditions, are classified in A7E1.</p> <p data-bbox="312 472 1391 539">Azathioprine is in L4X. Products containing methotrexate for rheumatic conditions are classified here; otherwise methotrexate is classified in LIB or in D.</p> <p data-bbox="312 584 1126 618">Products containing anti-TNF substances are classified in L4B.</p> <p data-bbox="312 663 1391 763">Products containing tofacitinib, and indicated for rheumatoid arthritis only, are classified here. Products containing tofacitinib for multiple conditions are classified in L4X.</p> <p data-bbox="312 808 1391 909">Products containing leflunomide, and indicated for rheumatoid arthritis only, are classified here. Products containing leflunomide for multiple conditions are classified in L4X.</p> <p data-bbox="312 954 1391 1099">Products containing interleukin inhibitors and only indicated for arthritic conditions are classified here, eg anakinra. Products containing tocilizumab and indicated for both arthritis and giant cell arteritis are classified here. Other interleukin inhibitors indicated for multiple conditions including arthritis are classified in L4C.</p> <p data-bbox="312 1133 927 1167">Psoriatic arthritis is defined as a skin condition.</p>	r2020
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M2	TOPICAL ANTI-RHEUMATICS	
M2A	TOPICAL ANTI-RHEUMATICS AND ANALGESICS Includes rubefacients for topical treatment of muscular disorders (excluding products for the treatment of dermatological conditions, antivaricose products, etc). Products in this group may also contain suprarenal cortex (small amount of corticosteroid). Topical formulations of products in M1A and M5X are classified here, for example topical products containing chondroitin and glucosamine.	r2009

M3	MUSCLE RELAXANTS All products containing muscle relaxants, irrespective of formulation, are classified here. Combinations of muscle relaxants with other substances are classified here (except systemic corticosteroids, see M1B).	R2006
M3A	MUSCLE RELAXANTS, PERIPHERALLY ACTING Includes eg alcuronium, atracurium, botulinum toxin, dantrolene (directly-acting), dimethyltubocurarine, doxacurium, gallamine, hexafluronium, pancuronium, pipecuronium bromide, suxamethonium, tubocurarine, vecuronium.	R1994
M3B	MUSCLE RELAXANTS, CENTRALLY ACTING Includes eg afloqualone, baclofen, carisoprodol, chlormezanone, chlorphenazine, chlorzoxazone, cyclobenzaprine, eperisone, febarbamate, mephenesin, mephenoxalone, methocarbamol, orphenadrine citrate, phenprobamate, phenylramidol, pridinol mesylate, styramate, thiocolchicoside, tizanidine, tolperisone.	R2006

M4	ANTI-GOUT PREPARATIONS	
M4A	ANTI-GOUT PREPARATIONS Includes anti-gout preparations containing probenecid, colchicine, etc for the treatment of hyperuricaemia. Combinations of colchicine with antirheumatic non-steroidals are classified in M1A2.	

M5	OTHER DRUGS FOR DISORDERS OF THE MUSCULO-SKELETAL SYSTEM	
M5A	Out of use; can be reused from 1996.	D1993
M5B	BONE CALCIUM REGULATORS	R2002
	Calcitonin products are classified in H4A. Products containing calcium only are classified in A12A and fluoride products are classified in A12C2.	
M5B1	Out of use; can be reused from 2010.	D2007
M5B2	Out of use; can be reused from 2010.	D2007
M5B3	Bisphosphonates for osteoporosis and related disorders	I2007
	Includes products indicated and used mainly for osteoporosis and Paget's disease, eg those containing alendronic acid, etidronic acid, ibandronic acid, risedronic acid, zoledronic acid, when indicated for these conditions. Combinations of bisphosphonates with calcium, calcitriol or colecalciferol are also classified here.	
M5B4	Bisphosphonates for tumour-related calcium disorders	I2007
	Includes products indicated and used mainly for tumour-related calcium disorders (eg hypercalcaemia of malignancy) eg those containing clodronic acid, etidronic acid, ibandronic acid, pamidronic acid, zoledronic acid when indicated for these conditions.	
M5B9	Other bone calcium regulators	I2002
	Includes other specific products which are used for osteoporosis (eg ipriflavone).	

M5X	ALL OTHER MUSCULOSKELETAL PRODUCTS <p>Includes all other products for disorders of the musculoskeletal system not classified elsewhere. Includes musculoskeletal products containing substances such as cartilage extract, chondroitin, etc. Products containing chondroitin and glucosamine alone or in combination with other substances are classified here. Combinations of glucosamine with nonsteroidal anti-inflammatories are classified in M1A2. Topical glucosamine and chondroitin products are classified in M2A.</p> <p>Includes hydroquinine indicated for restless leg syndrome.</p> <p>Includes herbal products used for musculoskeletal pain.</p> <p>Products containing burosumab for X-linked hypophosphataemia are classified here.</p> <p>Products containing mexiletine for non-dystrophic myotonic disorders are classified here; products containing mexiletine for cardiac arrhythmias are classified in C1B .</p>	r2020
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M6	Out of use; can be reused from 2009.	D2006
M6A	Out of use; can be reused from 2009.	D2006

N	NERVOUS SYSTEM	R2007
N1	ANAESTHETICS	
N1A	ANAESTHETICS, GENERAL	
N1A1	Inhalation general anaesthetics Gas cylinders for hospital use are classified here.	r2010
N1A2	Injectable general anaesthetics Also includes injectable sedatives, eg midazolam, given for the induction and maintenance of anaesthesia, for the sedation of ventilator - dependent patients (intubation) and as sedative/premedication for surgical procedures. Products containing esketamine for general anaesthesia are classified here; products containing esketamine for depression are classified in N6A9.	r2020
N1B	ANAESTHETICS, LOCAL Includes local injectable and topical anaesthetics intended for surgery, surgical and medical procedures, and associated pain relief. Included are eg articaine, bupivacaine, chloroprocaine, dibucaine, etidocaine, lidocaine, mepivacaine, mesocaine, prilocaine, procaine, ropivacaine, tetracaine. Only single active ingredient products or combinations of different local anaesthetics are classified under N1B. Specific single-ingredient ophthalmological local anaesthetics are classified in S1H. Combinations of local anaesthetics with vasoconstrictors eg adrenaline, are classified here. Products containing either local anaesthetics only or other substances in combination with local anaesthetics and intended for indications other than surgery or associated pain relief are classified under eg A1A, D4A, R2A or S1H according to the indication. Products containing local anaesthetics used specifically for premature ejaculation are classified in G4X.	R2007
N1B1	Anaesthetics local, medical injectables Injectable local anaesthetic products intended for local, regional or central nerve block except for products intended for nerve block in dental practice which should be classified in N1B2.	I1998
N1B2	Anaesthetics local, dental injectables Injectable local anaesthetic products intended for local, regional or central nerve block in dental practice. These products usually contain higher concentrations of vasoconstrictor or are presented in cartridges which are applicable to a dental injection system.	I1998

N1B3	Anaesthetics local, topical Topical or surface local anaesthetic products intended for anaesthesia of skin and mucous membranes.	I1998
N1B9	Anaesthetics local, others Local anaesthetic products not classified elsewhere, eg cooling sprays and solutions used in medical procedures, topical products containing benzocaine, etc.	R1999

N2	ANALGESICS Only includes general purpose analgesics with multiple indications and uses. Thus products specifically used for rheumatic disorders are classified in group M, analgesic cold preparations are classified in R5, products specifically for dysmenorrhoea are classified in G2X.	R2003
N2A	NARCOTICS Includes all analgesics classified as narcotics in accordance with the legal definition of narcotic analgesics in each country.	R1993
N2B	NON-NARCOTICS AND ANTI-PYRETICS Includes systemic products for non-specific analgesia except those classified in N2A (narcotics), N2C (specific anti-migraine preparations), R5A (analgesic/antihistamine cold preparations) and G2X1 (specific dysmenorrhoea preparations). Topical products for analgesia are classified in M2A. Products containing acetylsalicylic acid only are classified in N2B, not M1A. Products containing low-dose oral solid acetylsalicylic acid (162mg and below) are classified in B1C1 (platelet aggregation inhibition). Products containing non-steroidal anti-inflammatories and for both musculoskeletal conditions and analgesia are classified in M1A. Alka-Seltzer, when it contains an analgesic, is classified in N2B. Otherwise, it is classified in A2A1. Products containing muscle relaxants in combination with analgesics are classified in M3. 4th level used in Austria, Finland, Hungary, Germany, South Africa, Sweden and Switzerland only.	r2017
N2B1	Prescription-bound non-narcotics and anti-pyretics	
N2B2	Non-prescription-bound non-narcotics and anti-pyretics	
N2C	ANTI-MIGRAINE PREPARATIONS	
N2C1	Antimigraine triptans These are selective 5HT ₁ receptor agonists eg almotriptan, eletriptan, frovatriptan, naratriptan, rizatriptan, sumatriptan, zolmitriptan.	I2001

N2C2	Antimigraine CGRP antagonists Includes products containing CGRP (calcitonin gene-related peptide) antagonists, for example, atogepant, eptinezumab, erenumab, fremanezumab, galcanezumab, rimegepant, ubrogepant, etc.	I2020
N2C9	All other anti-migraine preparations Includes products containing indoramin alone if indicated for migraine.	r2015

N3	ANTI-EPILEPTICS	
N3A	ANTI-EPILEPTICS Also includes products for non-epileptic convulsions, eg in pregnancy. Products containing clonazepam are classified here. Products containing gabapentin or pregabalin for either epilepsy or neuropathic pain are classified here.	r2011

N4	ANTI-PARKINSON DRUGS	
N4A	ANTI-PARKINSON DRUGS Bromocriptine preparations containing from 5 mg to 10mg (tablets) are classified here. Products containing lower doses of bromocriptine for endocrinological disorders/lactation suppression are in G2D. In Japan, all bromocriptine products are classified here. Products containing ropinirole or similar substances for restless leg syndrome are classified here.	r2011

N5	PSYCHOLEPTICS	
N5A	ANTIPSYCHOTICS	R2005
	Combinations with psychoanaleptics eg antidepressants are classified in N6C.	
N5A1	Atypical antipsychotics	R2005
	Includes products containing substances such as amisulpride, aripiprazole, clozapine, olanzapine, quetiapine, remoxipride, risperidone, sertindole, ziprasidone, zotepine.	
N5A9	Conventional antipsychotics	R2005
	Includes eg phenothiazines, thioxanthenes, butyrophenones. Also includes sulpiride, in all countries except Japan, Korea and Taiwan where it is classified in A2B9 (all other anti-ulcerants).	
N5B	HYPNOTICS/SEDATIVES	r2008
	Products for sleep rhythm disturbances containing melatonin only are classified in H4X. Products for insomnia that contain a hypnotic/sedative plus melatonin are classified in N5B in the appropriate subclass (N5B2, N5B4 or N5B5).	
N5B1	Non-barbiturates, plain	r2009
	Includes benzodiazepines indicated exclusively for the treatment of insomnia, eg nitrazepam, flurazepam. Prolonged-release melatonin is classified here when indicated for primary insomnia. Products containing melatonin only and indicated for sleep rhythm disturbances are classified in H4X.	
N5B2	Non-barbiturates, combinations	
N5B3	Barbiturates, plain	
N5B4	Barbiturates, combinations	
N5B5	Herbal hypnotics/sedatives	r2009
	Includes products containing one or more herbal substances. Products classified here can also contain other non-sedative substances. Prolonged-release melatonin indicated for primary insomnia is classified in N5B1. Melatonin (any form/strength) in combination with a hypnotic/sedative is classified in the appropriate N5B subclass. Other products in N5B containing both herbal and non-herbal substances are classified according to the non-herbal substance.	

N5C	<p data-bbox="312 170 603 208">TRANQUILLISERS</p> <p data-bbox="312 241 1391 392">Includes minor tranquillisers, eg benzodiazepines, hydroxyzine, meprobamate, but excludes benzodiazepines indicated exclusively for the treatment of insomnia, eg nitrazepam, flurazepam (N5B1). Combinations with psychoanaleptics are classified in N6C. Products containing clonazepam are classified in N3A.</p>	R2004
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N6	PSYCHOANALEPTICS EXCLUDING ANTI-OBESITY PREPARATIONS	
N6A	ANTI-DEPRESSANTS AND MOOD STABILISERS	R2003
	Includes substances used in the treatment of depression and mood stabilisation. Combinations with ataractics are classified in N6C.	
N6A1	Out of use; can be reused from 2009.	D2006
N6A2	Antidepressants, herbal	R2006
	Includes products containing herbal substances only, eg St. John's Wort. Products containing both a synthetic and a herbal substance are classified in N6A4, N6A5 or N6A9.	
N6A3	Mood stabilisers	R2006
	These products affect the manic phases of bipolar disorders, eg products containing lithium. Includes products containing valproate semisodium when indicated exclusively for mood stabilisation.	
N6A4	SSRI antidepressants	r2014
	Selective serotonin re-uptake inhibitor antidepressants. Includes eg citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, sertraline.	
	Products containing paroxetine (7.5mg daily) and indicated for menopausal vasomotor symptoms are classified in G2X9.	
N6A5	SNRI antidepressants	I2006
	Serotonin-noradrenaline re-uptake inhibitor antidepressants. Includes eg duloxetine when used in depression, milnacipran, venlafaxine.	
N6A9	Antidepressants, all others	r2020
	Includes eg amitriptyline, clomipramine, imipramine, mirtazapine, vortioxetine. Products containing esketamine for depression are classified here; products containing esketamine for general anaesthesia are classified in N1A2.	
N6B	PSYCHOSTIMULANTS	R2004
	Includes drugs which increase the psychic and physical performance and which have a fatigue depressing, stimulating effect, eg fentyllines, fencamfamine, methylphenidate, amphetamines (excluding their use in obesity, see A8A). Atomoxetine is classified in N7X.	

N6C	PSYCHOLEPTIC-PSYCHOANALEPTIC COMBINATIONS Includes combinations of tranquillisers and/or antipsychotics with antidepressants.	r2010
N6D	NOOTROPICS A class of psychoactive drugs which are claimed to have a selective action on integrative functions of the CNS. Their action is alleged to be particularly associated with intellectual function, learning and memory. Includes preparations containing substances such as piracetam, pyritinol, pyrisuccideanol maleate, meclofenoxate, cyprodenate and their combinations with other substances, excluding those products with a vasodilatory action (see C4A). Combinations with cardiac glycosides are classified in C1A2.	
N6E	NEUROTONICS AND OTHER MISCELLANEOUS PRODUCTS Includes products not classified above such as single or combination products containing bisibutiamin, deanol and derivatives, GABA, GABOB, N-acetyl asparaginic acid, glutaminic acid and salts, kavain, phospholipid, succinodinitrate.	

N7	OTHER CNS DRUGS	R1996
N7A	MULTIPLE SCLEROSIS PRODUCTS Products containing alemtuzumab, dimethyl fumarate, fingolimod, glatiramer acetate, laquinimod, teriflunomide, etc, and indicated for multiple sclerosis only, are classified here. Products containing natalizumab and indicated for multiple sclerosis and other conditions are classified here. Products containing alemtuzumab and indicated for cancer only, are classified in L1G9. Products containing daclizumab and indicated for multiple sclerosis and also other conditions are classified here. Products containing daclizumab for use in kidney transplantation only are classified in L4C. Products containing beta interferons and indicated for multiple sclerosis only are classified here. Products containing beta interferons and indicated for both multiple sclerosis and other conditions are classified in L3B2. Products containing mitoxantrone and indicated for both cancer and multiple sclerosis are classified in L1D. Products containing fampridine for improvement in walking in multiple sclerosis are classified in N7X. Products containing other substances, eg corticosteroids, immunosuppressants such as azathioprine, that have multiple uses, are classified elsewhere.	r2019
N7B	ANTISMOKING PRODUCTS Includes products used to stop smoking.	
N7C	ANTIVERTIGO PRODUCTS Includes betahistine, cinnarizine and flunarizine when indicated for vertigo and Meniere's disease.	I1996
N7D	ANTI-ALZHEIMER PRODUCTS	I1998
N7D1	Anti-Alzheimer products, cholinesterase inhibitors Includes eg donepezil, galantamine, rivastigmine and tacrine.	R2003
N7D9	All other anti-Alzheimer products Includes all other products specifically used for Alzheimer's disease.	I1998

N7E	DRUGS USED IN ALCOHOL DEPENDENCE Includes acamprosate, calcium carbimide, disulfiram. Naltrexone when used in alcohol dependence is classified here.	R2002
N7F	DRUGS USED IN OPIOID DEPENDENCE Includes naltrexone, except when used in alcohol dependence (use N7E).	R2002
N7X	ALL OTHER CNS DRUGS Includes parasympathetic agents. Benzodiazepine antagonists such as flumazenil are classified here. Atomoxetine is included in the class. Products containing gabapentin or pregabalin are classified in N3A if indicated for both neuropathic pain and epilepsy. Products containing pilocarpine and indicated for both dry mouth and dry eye are classified here. Products indicated for multiple sclerosis are classified in N7A. Products containing fampridine for improvement in walking in multiple sclerosis are classified here. Products indicated for amyotrophic lateral sclerosis (ALS) are classified here. Products containing tafamidis for transthyretin amyloid polyneuropathy (TAP) only are classified here. Products containing tafamidis for transthyretin amyloid cardiomyopathy (TAC) only are classified in C1X. Products containing tafamidis for both TAP and TAC are classified here.	r2020

P	PARASITOLOGY	
P1	ANTIPROTOZOALS AND ANTHELMINTICS	R2003
P1A	AMOEBICIDES	R2006
	Includes products whose major indication is amoebiasis. Trichomonacides, eg metronidazole, will be classified in G1A or J8B, except when they are used primarily as amoebicides. Products indicated for both trichomoniasis and amoebiasis are classified in G1A1.	
P1B	ANTHELMINTICS, EXCLUDING SCHISTOSOMICIDES	
	In an anthelmintic combination product the anthelmintic component takes precedence over other components.	
P1C	SCHISTOSOMICIDES	
	Products used to treat bilharziasis.	
P1D	ANTI-MALARIALS	r2018
	If a product contains an antimalarial ingredient and also a second ingredient which is not a specific antimalarial, then this is considered a single-ingredient antimalarial.	
	Vaccines against malaria are classified in J7F1.	
P1D1	Anti-malarials, single ingredient	I2000
P1D2	Anti-malarials, multi-ingredient	I2000
P1E	Out of use; can be reused from 2006.	D2003
P1F	Out of use; can be reused	
P1G	OTHER ANTI-PARASITIC AGENTS	R1998
	Includes products for the treatment of leishmaniasis and toxoplasmosis. Pentamidine (used to treat Pneumocystis carinii) is classified here.	

P3	ECTOPARASITICIDES, INCLUDING SCABICIDES, INSECTICIDES AND REPELLENTS	I2003
P3A	ECTOPARASITICIDES, INCLUDING SCABICIDES Includes scabicides and products for the eradication of lice and fleas.	I2003
P3B	INSECTICIDES AND REPELLENTS Includes pyrethrines.	I2003

R	RESPIRATORY SYSTEM	
R1	NASAL PREPARATIONS	
R1A	TOPICAL NASAL PREPARATIONS	R1993
R1A1	Nasal corticosteroids without anti-infectives Includes all products containing corticosteroids (plain or in combination with other compounds) but excludes all those containing an anti-infective. Products indicated for both asthma and rhinitis are classified in R3D1.	R2007
R1A2	Out of use; can be reused from 1997.	D1994
R1A3	Nasal corticosteroids with anti-infectives Includes all products containing both a corticosteroid and an anti-infective.	R1994
R1A4	Nasal anti-infectives without corticosteroids Includes all products containing anti-infectives (plain or in combination with other compounds) but excludes all those containing a corticosteroid.	R1994
R1A5	Out of use; can be reused from 1997.	R2007
R1A6	Nasal antiallergic agents Includes all nasal preparations containing an antihistamine or antiallergic compound (plain or in combination) eg azelastine, cromoglicic acid, ketotifen, levocabastine. Products containing both a nasal form and an ophthalmic form in the same pack are classified here.	R2003
R1A7	Nasal decongestants Includes all products containing decongestants. Decongestants in combination with anti-allergics will be classified in R1A6. Includes specific nasal formulations.	R2005
R1A9	Other topical nasal preparations Nasal products containing anticholinergics, antivirals, antifungals and antiseptics are classified here. Also included are topical nasal saline solutions. Includes specific nasal formulations.	R2005

R1B	SYSTEMIC NASAL PREPARATIONS Includes all preparations indicated primarily for rhinitis, allergic rhinitis, sinusitis, catarrh, nasal congestion and other similar conditions. This group includes preparations containing decongestants with or without antihistamines, but excludes those containing analgesics, antitussives and vitamins together with those which are primarily indicated for colds and influenza which are classified in R5A.	R1994
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R2	THROAT PREPARATIONS	
R2A	THROAT PREPARATIONS All preparations formulated for infections of the throat, nose/throat and mouth/throat, such as tablets, lozenges, pastilles, drops, sprays, gargles and suppository forms (eg with bismuth, povidone-iodine). Lozenges with broncholytic or cough-relieving effects are classified in R5F unless they contain anti-infectives (R5B), expectorants (R5C) or antitussives (R5D).	r2017

R3	ANTI-ASTHMA AND COPD PRODUCTS <p>This group includes all preparations indicated for bronchial asthma and chronic obstructive pulmonary disease (COPD). It consists of preparations with bronchodilatory, broncho-spasmolytic or anti-asthmatic activity.</p> <p>Bronchodilators combined with expectorants or mucolytics are generally classified in R5C.</p> <p>The need to classify combination products has led to the adoption of a hierarchical system with R3A ingredients taking precedence over R3B etc. Due to the importance of specific combinations, there are some exceptions included in R3C, R3E, R3F, and R3L.</p>	r2016
R3A	B2-AGONISTS <p>This class includes the following substances - bambuterol, bitolterol, carbuterol, clenbuterol, fenoterol, formoterol, isoetarine, isoprenaline, orciprenaline, pirbuterol, procaterol, reproterol, rimiterol, salbutamol, salmeterol, terbutaline, tulobuterol.</p> <p>Excluded are combinations of B2-agonists with non-steroidal respiratory anti-inflammatories (R3E) and combinations of B2-agonists with corticoids (R3F) and combinations of B2-agonists with anticholinergics (with or without corticosteroids) (R3L).</p>	r2016
R3A1	Out of use; can be reused in 2005.	D2002
R3A2	B2-agonists, systemic	r2016
R3A3	Long-acting B2-agonists, inhalant <p>Includes formoterol and salmeterol. Includes liquids and capsules to be used as inhalants.</p>	r2016
R3A4	Short-acting B2-agonists, inhalant <p>Includes liquids and capsules to be used as inhalants.</p>	r2016
R3B	XANTHINES <p>This group includes substances such as theophylline, aminophylline, diprophylline etc.</p>	
R3B1	Xanthines, inhalant	
R3B2	Xanthines, systemic	R1993

R3C	NON-STEROIDAL RESPIRATORY ANTI-INFLAMMATORIES	r2016
	This group contains respiratory antihistamines and non-steroidal respiratory anti-inflammatory products. It includes azelastine, cromoglycic acid, ketotifen, levocabastine, and tranilast. In Japan only, terfenadine is included in this group. In other countries it is classified in R6A. Excluded are combinations of these compounds with B2-agonists (R3E).	
R3C1	Non-steroidal respiratory anti-inflammatories, inhalant	
R3C2	Non-steroidal respiratory anti-inflammatories, systemic	
R3D	CORTICOIDS	r2019
	Excluded are combinations of corticoids with B2-agonists (R3F) and LAMA/LABA combinations (R3L3).	
R3D1	Corticoids, inhalant	R2007
	Includes plain inhalant corticosteroids only. Also includes products indicated for both rhinitis and asthma.	
R3D2	Corticoids, systemic	r2019
	This subgroup includes combinations only, with the exception of those classified in R3F and R3L3.	
	Plain systemic corticosteroids are classified in H2A.	
R3E	B2-AGONIST AND R3C COMBINATIONS	r2016
R3E1	B2-agonist and R3C combinations, inhalant	r2016
R3E2	B2-agonist and R3C combinations, systemic	r2016
R3F	B2-AGONIST AND CORTICOID COMBINATIONS	r2019
	Combinations of LAMA/LABAs with corticosteroids are classified in R3L3.	
R3F1	B2-agonist and corticoid combinations, inhalant	r2016
R3F2	B2-agonist and corticoid combinations, systemic	r2016
R3G	Out of use	D2016
R3G1	Out of use	D2002

R3G2	Out of use	D2016
R3G3	Out of use	D2016
R3G4	Out of use	D2016
R3H	PDE4 INHIBITORS FOR ASTHMA/COPD Includes cilomilast, roflumilast.	I2005
R3H1	PDE4 inhibitors for asthma/COPD, inhalant	I2005
R3H2	PDE4 inhibitors for asthma/COPD, systemic	I2005
R3I	DEVICES FOR ASTHMATIC CONDITIONS This excludes nebulising machines/nebulators which are classified in V7A.	R2001
R3J	ANTILEUKOTRIENE ANTI-ASTHMATICS Includes montelukast, pranlukast, zafirlukast, and 5-lipoxygenase inhibitors such as zileuton when indicated for asthma.	R2004
R3J1	Antileukotriene anti-asthmatics, inhalant	R1998
R3J2	Antileukotriene anti-asthmatics, systemic	R1998
R3K	ANTICHOLINERGICS, PLAIN	I2016
R3K1	Short-acting anticholinergics, plain, inhalant Includes products containing eg, ipratropium bromide, oxitropium bromide, etc	I2016
R3K2	Long-acting anticholinergics, plain, inhalant Includes products containing eg aclidinium bromide, flutropium bromide, glycopyrronium bromide, tiotropium bromide, umeclidinium bromide, etc.	I2016
R3K3	Anticholinergics, plain, systemic Includes products containing anticholinergics (short- or long-acting) for systemic use.	I2016

R3L	ANTICHOLINERGICS IN COMBINATION WITH B2-AGONISTS	I2016
R3L1	Short-acting anticholinergic combinations with short-acting B2-agonists, inhalant Includes products containing eg ipratropium bromide with fenoterol, ipratropium bromide with salbutamol, etc	I2016
R3L2	Long-acting anticholinergic combinations with long-acting B2-agonists, inhalant Includes products containing eg aclidinium bromide with formoterol, glycopyrronium bromide with indacaterol, tiotropium bromide with formoterol, tiotropium bromide with olodaterol, umeclidinium bromide with vilanterol, etc. These are known as LAMA/LABA combinations.	r2019
R3L3	Long-acting anticholinergic combinations with both long-acting B2-agonists and with corticosteroids, inhalant Includes products containing a triple combination of a long-acting anticholinergic, a long-acting B2-agonist and a corticosteroid. Includes glycopyrronium bromide plus formoterol plus beclomethasone or budesonide, tiotropium bromide plus formoterol plus ciclesonide, umeclidinium bromide plus vilanterol plus fluticasone, etc.	I2019
R3L8	Anticholinergic combinations with B2-agonists, systemic Includes products containing anticholinergics (short- or long-acting) in combination with B2-agonists (short- or long-acting) for systemic use.	I2016
R3L9	Anticholinergic combinations with B2-agonists, inhalant, other Includes products containing anticholinergics in combination with B2-agonists that cannot be classified in the other R3L classes.	I2016
R3M	INTERLEUKIN INHIBITOR ANTI-ASTHMATICS Includes products containing interleukin inhibitors for asthma, eg benralizumab, mepolizumab, reslizumab, etc. Products containing mepolizumab for asthma only and for asthma and EGPA (eosinophilic granulomatosis with polyangiitis) are classified here.	r2019

R3X	ALL OTHER ANTI-ASTHMA AND COPD PRODUCTS	R2000
R3X1	All other anti-asthma and COPD products, inhalant This subgroup includes anti-asthmatic cigarettes.	R2003
R3X2	All other anti-asthma and COPD products, systemic Includes products containing alpha-1-proteinase inhibitor (alpha-1-antitrypsin).	r2018

R4	CHEST RUBS AND OTHER INHALANTS	
R4A	CHEST RUBS AND OTHER INHALANTS Includes chest rubs and other inhalants (such as nasal decongestants and baths excluding specific nasal formulations) which are not classified under R1A, R2A, R3A or R5C; also includes medical sprays for disinfecting the air in sick rooms as a prophylactic against colds, etc.	R2005

R5	COUGH AND COLD PREPARATIONS	
R5A	COLD PREPARATIONS WITHOUT ANTI-INFECTIVES This group consists of all products indicated for colds, influenza, etc. It therefore includes combination products such as those containing antihistamines with decongestants, analgesics, antipyretics, vitamins, etc and since symptoms of colds and influenza may include a cough, an antitussive, and possibly an expectorant may also be included (see also R5D2 and R5C).	R1994
R5B	COUGH/COLD PREPARATIONS WITH ANTI-INFECTIVES Includes combinations with anti-infectives (including antivirals) indicated specifically for coughs, colds, influenza and other respiratory conditions. Combinations of antiseptics with expectorants are classified in R5C and with antitussives are classified in R5D2.	r2016
R5C	EXPECTORANTS 'Expectorants' mean substances with secretolytic or secretomotoric activity, so that mucolytics are classified in this group. The group includes all cough preparations with an expectorant as the main ingredient (eg guaiacol, saponin, ammonium chloride). These may also include antihistamines and bronchodilators but excluded are combinations of expectorants with antitussives (R5D2), with analgesics and antipyretics (R5A), and with anti-infectives (R5B). Lozenges indicated for cough and containing expectorants are classified here.	r2009
R5D	ANTITUSSIVES	
R5D1	Plain antitussives Includes all plain antitussives.	
R5D2	Antitussives in combinations Includes combinations with expectorants, antihistamines, ephedrine, herbal tinctures, etc. Excluded are combinations with analgesics and antipyretics (R5A) and combinations with anti-infectives (R5B).	R1994
R5E	Out of use; can be reused.	

R5F	OTHER COUGH AND COLD PREPARATIONS <p>This group includes:</p> <ul style="list-style-type: none"> - combinations without a clearly expectorating or antitussive effect; - lozenges indicated for cough unless they contain anti-infectives, R5B or antitussives, R5D, or expectorants, R5C); - expectorant teas. 	r2009
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R6	SYSTEMIC ANTIHISTAMINES	
R6A	SYSTEMIC ANTIHISTAMINES Includes all systemic antihistamines, plain and in combination, not classified elsewhere. Antihistamines in combination with decongestants are classified in R1B. Terfenadine in Japan is classified in R3C; in all other countries it is classified here.	R2003

R7	OTHER RESPIRATORY SYSTEM PRODUCTS	
R7A	RESPIRATORY STIMULANTS Includes centrally acting respiratory stimulants such as lobeline, ethamivan, crotetiamide, croptopamide, nikethamide and doxapram (plain only). Also includes products specifically indicated for primary apnoea in premature newborn babies.	R2006
R7B	Out of use; can be reused from 1999.	D1996
R7C	LUNG SURFACTANTS Includes substances such as colfoscaril palmitate used in neonatal respiratory distress syndrome.	I1996
R7X	ALL OTHER RESPIRATORY SYSTEM PRODUCTS Products containing pirfenidone and indicated for the treatment of idiopathic pulmonary fibrosis are classified here.	r2014

S	SENSORY ORGANS	
S1	OPHTHALMOLOGICALS	
S1A	OPHTHALMOLOGICAL ANTI-INFECTIVES Includes plain anti-infectives (antibacterials eg sulphonamides, and antifungals) and all anti-infective combinations with the exception of corticosteroid/anti-infective combinations (S1C). Also excluded are antiseptics (S1G6) and antivirals (S1D).	r2009
S1B	OPHTHALMOLOGICAL CORTICOSTEROIDS Includes plain corticosteroids and all corticosteroid combinations, with the exception of corticosteroid/anti-infective combinations (S1C).	
S1C	OPHTHALMOLOGICAL ANTI-INFLAMMATORY/ANTI-INFECTIVE COMBINATIONS	R2001
S1C1	Ophthalmological corticosteroid and anti-infective combinations	I2001
S1C2	Ophthalmological NSAIDS and anti-infective combinations	I2001
S1C9	Other ophthalmological anti-inflammatory and anti-infective combinations	I2001
S1D	OPHTHALMOLOGICAL ANTIVIRAL AGENTS Includes aciclovir, iododesoxycytidine, idoxuridine, 5-ethyl-2' deoxyuridine, trifluridine, tromantadine, vidarabine. Systemic forms of products for cytomegalovirus retinitis are classified in J5B3.	r2008
S1E	MIOTICS AND ANTIGLAUCOMA PREPARATIONS	
S1E1	Miotics and antiglaucoma preparations, systemic Includes carboanhydrase inhibitors (acetazolamide, diclofenamide and methazolamide), only when they are specifically promoted and used for the treatment of glaucoma (see also C3A9).	r2011
S1E2	Miotics and antiglaucoma preparations, topical Includes parasympathomimetics (acelidine, acetylcholine, clonidine, pilocarpine); anticholinesterases or cholinesterase inhibitors (carbachol, demecarium bromide, distigmine, ecothiopate iodide, isofluorophate (DFP), neostigmine, paraoxon, physostigmine); sympathicolitics (guanethidine); beta-blockers (bupranolol, timolol); sympathomimetics (adrenaline/epinephrine); prostaglandin analogues; carbo-anhydrase inhibitors.	R2007

S1F	MYDRIATICS AND CYCLOPLEGICS	
	Includes parasympatholytics (atropine, cyclopentolate, homatropine, scopolamine, tropicamide) and sympathomimetics (phenylephrine, tyramine) in concentration of 2% or more.	
S1G	OCULAR ANTI-ALLERGICS, DECONGESTANTS, ANTISEPTICS	r2017
	Combination products containing substances from more than one subgroup of S1G are classified according to the hierarchical principle. For example, a product containing an antihistamine together with a sympathomimetic, is classified in S1G1, rather than S1G5.	
	Combination products containing substances from one or more of the subgroups of S1G, together with eye vitamins or similar substances, are classified in the appropriate S1G subclass.	
	Ophthalmic non-steroidal anti-inflammatories are classified in S1R. Products containing non-steroidal anti-inflammatories in combination with anti-allergics and/or antihistamines are classified in the appropriate S1G subclass.	
S1G1	Ocular anti-allergics, antihistamines	R2005
	Includes antazoline, chlorphenamine, emedastine, epinastine, levocabastine.	
S1G2	Ocular anti-allergics, mast cell stabilisers	I2004
	Includes acitazanolast, cromoglicic acid, ibudilast, nedocromil, lodoxamide, pemirolast, tranilast.	
S1G3	Ocular anti-allergics, multiple action	r2014
	Includes antihistamines which also have a mast cell stabilisation action, eg alcaftadine, azelastine, ketotifen, olopatadine.	
S1G5	Ocular decongestants, sympathomimetics	I2004
	Includes naphazoline, phenylephrine, tetryzoline.	
S1G6	Ocular antiseptics	I2004
	Includes benzalkonium chloride, bibrocathol, boric acid, chlorbutanol, chlorhexidine, edetic acid, ethacridine, mercury salts, povidone, salicylic acid, sodium propionate.	
S1G9	Other similar ocular products	I2004
	Includes salts of bismuth, silver and zinc.	

S1H	OPHTHALMOLOGICAL LOCAL ANAESTHETICS Includes cocaine, oxybuprocaine, proxymetacaine and tetracaine.	
S1J	Out of use; can be reused from 2009.	D2006
S1K	DRY EYE PRODUCTS	R2016
S1K1	Artificial tears and ocular lubricants Includes products containing substances that are used to replace the moisturising action of natural tears.	I2016
S1K9	Dry eye products, other Includes products containing eg, ciclosporin, diquafosol, rebamipide, when indicated for dry eye. These substances can act in various ways to improve the availability of tears, eg to increase tear production, or to manage inflammation arising from dry eye. Products containing rebamipide for gastric mucosal protection are classified in A2B9.	I2016
S1L	PREPARATIONS FOR USE WITH CONTACT LENSES Includes products for cleaning, disinfecting and deproteinising contact lenses.	R2001
S1M	EYE TONICS AND EYE VITAMINS Preparations which claim to improve asthenopia and weakness of accommodation or which are for 'tired eyes'. Vitamin products specifically for eye conditions are classified here. Combination products containing substances from one or more of the subgroups of S1G, together with eye vitamins or similar substances, are classified in the appropriate S1G subclass. Ocular forms of products containing only vitamin A are classified here.	r2011
S1N	PREPARATIONS TO PREVENT CATARACT AND ANTICATARACTOGENICS Preparations which claim to prevent cataracts or improve vision in early cataract formation.	R2003
S1N1	Preparations to prevent cataract and anticataractogenics, systemic	R1993
S1N2	Preparations to prevent cataract and anticataractogenics, topical	R1993

S1P	OCULAR ANTINEOVASCULARISATION PRODUCTS Includes products indicated specifically for the treatment of wet age-related macular degeneration (AMD) and other ocular conditions where neovascularisation is believed to play a role. Includes aflibercept, anecortave, pegaptanib, ranibizumab, rolaparfin, and verteporfin. Vitamins promoted to prevent AMD are classified in S1M. Products containing aflibercept for cancer are classified in L1X9.	r2018
S1Q	Out of use; can be reused.	
S1R	OPHTHALMIC NON-STEROIDAL ANTI-INFLAMMATORIES Includes non-steroidal anti-inflammatory products for specific ophthalmological conditions. For example, bendazac, diclofenac, flurbiprofen, indomethacin, oxyphenbutazone, piroxicam, pranoprofen, suprofen. Products containing non-steroidal anti-inflammatories in combination with anti-allergics and/or antihistamines are classified in the appropriate S1G subclass.	r2017
S1S	OPHTHALMOLOGICAL SURGICAL AIDS This group comprises drugs used during ophthalmological surgery.	R2003
S1S1	Viscoelastic substances Hyaluronic acid injection or other substances used during surgical procedures on the eye is classified in this group. Hyaluronic acid injection for intra-articular administration (eg 2.5 mg/ampoule) used in the treatment of arthritis is classified in M5X.	I1998
S1S9	Other surgical aids Preparations containing eg enzymes (chymotrypsin, zonolytics) for use in eye surgery; surgical irrigation solutions, eye washes for surgical use only, are classified in this group.	I1998
S1T	OPHTHALMOLOGICAL DIAGNOSTIC AGENTS All diagnostics as far as they do not fit into other classes, diagnostic dyes eg rose bengal, fluorescein.	I1998

S1X	OTHER OPHTHALMOLOGICALS Includes preparations which improve regeneration (iodine); preparations which improve retinal blood flow (heparin, tolazoline); preparations which improve adaptation and all other ophthalmological preparations not mentioned in S1A-S1T. Products used for diabetic retinopathy are classified here.	r2016
S1X1	Other ophthalmologicals, systemic	I1993
S1X2	Other ophthalmologicals, topical Products containing topical sirolimus for chronic non-infectious uveitis are classified here.	r2016

S2	OTOLOGICALS	
S2A	OTIC ANTI-INFECTIVES Includes all ear preparations containing an anti-infective but no steroid. This, therefore, includes both plain anti-infective products, eg penicillin ointment, and those where the anti-infective is one of several ingredients.	
S2B	OTIC CORTICOSTEROIDS Includes all ear preparations containing a steroid but no anti-infective. This, therefore, includes plain steroid products and those where a steroid is one of several ingredients.	
S2C	OTIC CORTICOSTEROID/ANTI-INFECTIVE COMBINATIONS Includes all ear preparations containing both a steroid and an anti-infective, whether alone or with other ingredients.	
S2D	OTHER OTOLOGICALS	R2003
S2D1	Earwax removal products Includes earwax removal products which do not contain either an antibacterial or a steroid.	r2009
S2D9	All other otologicals Products containing acetic acid only, and for otological use, are classified in S2D9.	r2008

S3	OPHTHALMOLOGICAL/OTOLOGICAL COMBINATIONS	
S3A	EYE/EAR ANTI-INFECTIVES All eye/ear preparations containing an anti-infective but no steroid. This, therefore, includes both plain anti-infective products eg penicillin ointment, and those where the anti-infective is one of several ingredients. NB. Antiseptics are not classified as anti-infectives; they belong in S3D.	
S3B	EYE/EAR CORTICOSTEROIDS Includes all eye/ear preparations containing a steroid but no anti-infective. This, therefore, includes plain steroid products and those where a steroid is one of several ingredients.	
S3C	EYE/EAR CORTICOSTEROID/ANTI-INFECTIVE COMBINATIONS Includes all eye/ear preparations containing both a steroid and an anti-infective, whether alone or with other ingredients.	
S3D	OTHER EYE/EAR COMBINATIONS Includes all other products not classified in S3A, S3B or S3C.	

T	DIAGNOSTIC AGENTS	I1994
T1	DIAGNOSTIC IMAGING	I1994
T1A	LOW OSMOLAR ANGIO-UROGRAPHY	I1994
T1B	IONIC ANGIO-UROGRAPHY	I1994
T1C	GASTROENTEROGRAPHY	I1994
T1D	CHOLECYSTOGRAPHY AND CHOLANGIOGRAPHY	I1994
T1E	MRI AGENTS Magnetic resonance imaging agents.	I1994
T1F	ULTRASOUND AGENTS	I1994
T1G	RADIODIAGNOSTIC AGENTS Includes radiopharmaceutical products used in diagnosis. Radiopharmaceuticals used as therapeutic agents are classified in V3C.	I2003
T1X	OTHER IMAGING AGENTS Products containing aminolaevulinic acid for cancer therapy are classified in L1X8.	r2018

T2	DIAGNOSTIC TESTS	I1994
T2A	Out of use; can be reused from 2005.	D2002
T2B	Out of use; can be reused from 2005.	D2002
T2C	PREGNANCY AND OVULATION TESTS	I2002
T2D	DIABETES TESTS	I2002
T2D1	Diabetes tests, urine Includes ketone tests.	r2014
T2D2	Diabetes tests, blood Includes ketone tests.	r2014
T2D9	Diabetes tests, other Includes glucose tolerance tests.	I2002
T2X	ALL OTHER DIAGNOSTIC TESTS	I1994
T2X1	All other diagnostic tests, urine	I2002
T2X2	All other diagnostic tests, blood	I2002
T2X9	All other diagnostic tests Includes in vivo and in vitro tests.	I2002

T3	DIAGNOSTIC EQUIPMENT AND ACCESSORIES	I2001
T3A	DIAGNOSTIC EQUIPMENT AND ACCESSORIES Includes equipment and instruments used in diagnostic procedures. Also includes accessories needed for the correct use of diagnostic equipment, eg calibration solutions. Diagnostic strips and kits are classified in T2. However, kits including meters are classified here. Lancets are classified in V7A.	R2004

V	VARIOUS	
V1	ALLERGENS	
V1A	ALLERGENS Includes desensitizing vaccines, histamine injections, etc. Allergens, purely for diagnosis, are classified in T2X9.	R2003

V2	Out of use; can be reused from 1997. Immunomodulators transferred to L3 and L4.	D1994
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V3	ALL OTHER THERAPEUTIC PRODUCTS	
V3A	Out of use; can be reused from 2009.	D2006
V3B	KANPO AND CHINESE MEDICINES	
V3B1	Kanpo medicines	R2003
V3B2	Chinese medicines	R2003
V3C	RADIOPHARMACEUTICALS This group includes medical products which are registered on the Japanese pharmacopoeia and radioactive medicament standard and also includes combination products with radioactive nucleus prescribed by standard provisions. This group excludes products used as diagnostics (see T1). Strontium-89 and similar substances used to treat pain of bone metastases are classified here.	R2003
V3D	DETOXIFYING AGENTS FOR ANTINEOPLASTIC TREATMENT Includes amifostine, calcium folinate, calcium levofolate, dexrazoxane, and mesna when indicated for adjuvant therapy in antineoplastic treatment. Products containing calcium folinate and which have multiple indications are classified here.	R2005
V3E	ANTIDOTES Includes products containing eg dimercaprol, edetates, methionine, protamine, pralidoxime. Zinc acetate for Wilson's disease is classified here.	R2007
V3F	IRON-CHELATING AGENTS Includes products containing eg deferiprone, deferoxamine.	I2006
V3G	HYPERKALAEMIA/HYPERPHOSPHATAEMIA PRODUCTS	R2016
V3G1	Hyperkalaemia products Includes products used specifically for hyperkalaemia, eg those containing calcium polystyrene sulfonate, sodium polystyrene sulfonate, patiromer calcium etc.	I2016

V3G2	Hyperphosphataemia products Includes products used specifically for hyperphosphataemia, eg those containing bixalomer, calcium acetate, calcium acetate in combination with magnesium carbonate, calcium carbonate, colestilan, ferric citrate, lanthanum carbonate, sevelamer, sucroferric oxyhydroxide, etc. Products containing calcium and indicated in both hyperphosphataemia and calcium deficiency are classified in V3G2.	I 2016
V3H	ANTI-INFLAMMATORY ENZYMES This group includes all enzyme preparations which are indicated to treat inflammatory conditions. Includes enzyme preparations for respiratory conditions. Excluded are enzyme preparations used in digestive conditions which are classified in A9A. Also excluded are specific cholagogues - classified in A5A, enzymatic topical wound treatments - classified in D3A, enzymes for ophthalmic use - classified in S1S9.	R2007
V3X	ALL OTHER THERAPEUTIC PRODUCTS Includes products with multiple anatomical effects, not readily classifiable in any single group. Large packs of chemicals (bulk packs) which are intended for preparation of formulations in the pharmacy/laboratory are classified here. Kelp products are classified here. Includes medical oxygen cylinders. 4 th level used only in Germany and Hungary.	r2019
V3X1	Umstimmungsmittel preparations of herbal origin Products which are said to intensify the body's defence against infection.	I2006
V3X4	Cure-all preparations These products have a broad spectrum of indications for internal and external use. Includes products containing a mixture of homeopathic together with allopathic or herbal ingredients. These products can have several indications.	I2006
V3X5	Homeopathic preparations (1) Includes single homeopathic dilutions named after the homeopathic ingredient (eg belladonna D3) and complex series. These products can have several indications or the indication is not specified.	I2006

V3X6	Homeopathic preparations (2) Includes homeopathic specialities with a brand name and containing only homeopathic ingredients. These products can have several indications or the indication is not specified.	I2006
V3X7	Dried and cut plants for tea preparations These are packed for sale and have more than one indication, or they are standard registrations.	I2006
V3X9	Other therapeutic preparations	I2006

V4	Out of use; can be reused from 1997. Was incorporated in the T class.	D1994
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V5	ANTISEPTICS FOR NON-HUMAN USE	R1999
V5A	ANTISEPTICS FOR NON-HUMAN USE Includes antiseptic preparations for non-human use only, eg instrument sterilization. Products used for both human and non-human use are classified in D8A.	R1999

V6	DIETETIC AGENTS	R2005
V6A	SLIMMING PREPARATIONS Includes dietary products (nutrients) used to aid weight reduction. For substances used to treat obesity, see A8. Chitosan (chitin) is classified here when used for weight reduction.	
V6B	PROTEIN SUPPLEMENTS Includes products indicated exclusively for protein deficiency but excluding IV products (see K).	
V6C	INFANT FORMULAS	
V6D	OTHER NUTRIENTS Includes sodium salt substitutes.	

V7	ALL OTHER NON-THERAPEUTIC PRODUCTS	
V7A	ALL OTHER NON-THERAPEUTIC PRODUCTS Includes artificial sweetening agents.	