Medicines on the Horizon 2021

ITALIAN MEDICINES AGENCY

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Introduction

The *Medicines on the Horizon* Report is intended to provide information on new medicinal products and most promising therapies, which received a positive opinion from the European Medicines Agency (EMA) in 2020 or which are expected to receive an opinion during the following years.

The Report is part of the horizon scanning activities carried out by the Italian Medicines Agency (AIFA). These activities allow to identify and assess, at an earlier stage, new medicines and new therapeutic indications of already authorised medicinal products. This will allow to expand the number of treatment options available to physicians and patients and address unmet medical needs. In some cases, these therapies could have a significant impact on the national healthcare system (NHS) and would require AIFA to define suitable strategies for ensuring patients' access to innovative and customised therapies.

In the present analysis, medicines subject to a centralised approval procedure are considered, for which pharmaceutical companies submit a request for marketing authorisation (MA) to the European Medicines Agency. Such MA will then be valid in all EU Member States and in the European Economic Area (Iceland, Liechtenstein and Norway).

EMA's Committee for Medicinal Products for Human Use (CHMP) performs the scientific assessment of the application, and issues an opinion regarding the granting of the MA.

EMA's opinion is examined and validated by the European Commission[1]. The decision is then published in the Official Journal (OJ) of the European Union. Once the MA is granted, the medicinal product can be made available to all patients in the EU.

Before the medicinal product is marketed in Italy, AIFA establishes the relevant supply regime, as well as price and reimbursement conditions, through its Technical-Scientific Committee (CTS) and Price and Reimbursement Committee (CPR). Specifically, within 60 days from the date in which the EC decision on the MA is published in the OJ, AIFA publishes a resolution in the Italian Official Journal concerning the placing of the medicinal product in question in a specific category named "Cnn class" (non-negotiated class C, that

[1] http://ec.europa.eu/health/documents/community-register/html/index_en.htm

is dedicated to medicines whose reimbursement conditions have not been evaluated yet), and defines its supply regime. This decision is published pending submission, by the pharmaceutical company, of an application for placing the product in a class for reimbursement and price negotiation purposes, which is necessary for having the medicinal product reimbursed by the NHS[2].

In order to market a medicinal product that is not reimbursed by the NHS, the MAH is required to give AIFA prior notice of its price and market launch date, in addition to complying with the conditions or restrictions regarding the safe and effective use of the medicinal product, where appropriate.

The *Medicines on the Horizon* Report consists of four sections. The first section gives information on new medicines and new therapeutic indications of already authorised medicinal products that received a positive opinion by the CHMP in 2020.
The second section provides an overview of new medicines and new therapeutic indications of already authorised medicinal products authorised during the three-year period 2018-2020.
The third section concerns new medicines under evaluation that are expected to receive a CHMP opinion during 2021.
For each period, cumulative and detailed data are reported as follows:

- medicinal products containing new active substances (orphan medicinal products, non-orphan medicinal products, advanced therapy medicinal products);
- biosimilars;
- generics;
- new therapeutic indications of already authorised medicinal products (excluding 2021).

[2] https://www.aifa.gov.it/procedura-di-autorizzazione-centralizzata
https://www.aifa.gov.it/web/guest/negoziazione-e-rimborsabilità

For each category, data are presented both in charts, based on the Anatomical Therapeutic Chemical (ATC) classification (first and second section of the report) or on the therapeutic area according to EMA information (third section of the report), and in tables, with additional information.

For new medicines and new therapeutic indications of already authorised medicinal products that received a positive EMA opinion, the following information is indicated: ATC code, trade name, active ingredient, data of EMA opinion, orphan designation (only for new medicines), approved therapeutic indication and, in case of biosimilars and generics, also the reference medicinal product.

For medicines under evaluation that are expected to receive an EMA opinion in 2021, the information indicated in the tables includes therapeutic area, active ingredient, orphan designation (if any) and disease/clinical condition.

The fourth section of the report gives an overview of medicinal products included in EMA's PRIME (Priority Medicines) scheme. The scheme focuses on medicines that may offer a major therapeutic advantage over existing treatments, or benefit patients without treatment options.

Sources

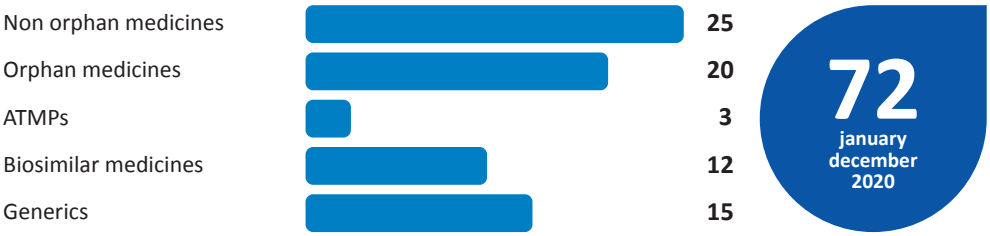
- CHMP: Agendas, minutes and highlights[3]
- Community Register[4]
- European public assessment report[5]
- Medicines under evaluation[6]
- PRIME: priority medicine[7]

[3] https://www.ema.europa.eu/en/committees/committee-medicinal-products-human-use-chmp
[4] http://ec.europa.eu/health/documents/community-register/html/alfregister.htm
[5] https://www.ema.europa.eu/en/medicines
[6] https://www.ema.europa.eu/en/medicines/medicines-under-evaluation
[7] https://www.ema.europa.eu/en/human-regulatory/research-development/prime-priority-medicines

Summary

Medicines
on the
Horizon
2021

During 2020, 72 new medicinal products were authorised at European level: 45 medicines containing new active substances (of which 20 orphan medicines for rare diseases and 25 non-orphan medicines), 12 biosimilars and 15 generics. Regarding authorised medicinal products, 50% are antineoplastic and immunomodulating agents for the treatment of certain solid tumours (e.g., lung cancer, breast cancer and ovarian cancer) and blood tumours (lymphoma, leukaemia, myeloma). A significant percentage concerns medicines for anti-infectives for systemic use (~20%) and, to a lesser extent, alimentary tract and metabolism, medicines for blood disorders. Among orphan medicines that received a positive EMA opinion, 3 are advanced therapy medicinal products (ATMPs), specifically gene therapies: Zolgensma (for the treatment of spinal muscular atrophy), Tecartus (for the treatment of mantle cell lymphoma) and Libmeldy (for the treatment of metachromatic leukodystrophy).



At the time of writing and based on the number of MA applications received by EMA, an opinion is expected for 83 new medicinal products in 2021: 57 medicines containing new active substances (of which 29 orphan medicines for rare diseases and 28 non-orphan medicines), 11 biosimilars and 15 generics. Despite the majority of medicinal products under evaluation being antineoplastic agents (~25%), the percentage of medicinal products belonging to other therapeutic categories is considerable, especially as regards immunosuppressants (~10%) and, to a lesser extent, medicines for the nervous system. Finally, out of 29 orphan medicines currently under evaluation, 6 are ATMPs: Sitoiganap (ERC-1671), Idecabtagene vicleucel, Lisocabtagene maraleucel, Eladocagene exuparvovec, Elivaldogene autotemcel, Lenadogene nolparvovec, for the treatment of glioma, multiple

myeloma, B-cell lymphoma, aromatic L-amino acid decarboxylase deficiency, ABCD1 gene mutation and cerebral adrenoleucodystrophy, vision loss, respectively.

NOTE TO THE READER

The overview of upcoming medicinal products is based on the information available at the time of writing (6 January 2021).

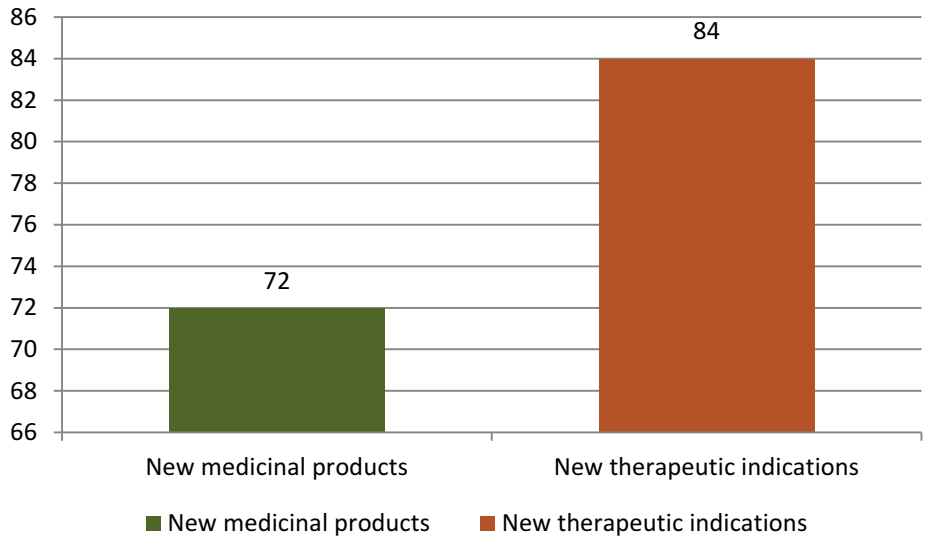
In the chapter concerning authorised medicinal products, only new medicines (i.e. medicines containing new active substances, biosimilars and generics) and new therapeutic indications of already authorised medicinal products that received a positive CHMP opinion are included in the analysis. Conversely, marketing authorisation applications that have received a negative opinion and those withdrawn by the pharmaceutical companies are excluded. Variations to already authorised therapeutic indications are marked in bold and/or strikethrough text. Information on medicinal products under evaluation are indicative and may be subject to changes during the authorisation process. Specifically, the number of medicinal products authorised at the end of 2021 may differ from the estimated number because of the following: pharmaceutical companies may withdraw their marketing authorisation application (MAA); the CHMP may give a negative opinion on the MAA; due to the timeline of the authorisation procedure or to the authorisation of new medicinal products that may be subject to assessment during 2021. Since the therapeutic indications under evaluation are confidential, the report only contains general information relating to the disease/clinical condition. Detailed therapeutic indications and the actual CHMP opinion dates will be made available in future reports, should the medicinal product receive a positive opinion in the meantime. In light of the public health emergency caused by the current pandemic, treatments and vaccines for treating and preventing coronavirus disease 2019 (COVID-19) caused by SARS-CoV-2, may be subject to a shortened authorisation process based on the rolling review of data. Consequently, the overview of upcoming medicinal products may be liable to rapid changes.

Section I

Medicinal products authorised in 2020

Except for medicinal products containing known active substances in a fixed combination, as well as products undergoing a hybrid or informed consent authorisation procedure, in 2020 EMA's CHMP issued a positive opinion for the marketing authorisation of 72 new medicinal products and 84 new therapeutic indications of previously authorised medicines (Figure 1.1).

Figure 1.1 New medicinal products and new therapeutic indications that received a positive EMA opinion in 2020.



New medicinal products

Out of 72 new medicinal products that received a positive EMA opinion in 2020, 45 (62.5%) are medicinal products containing new active substances, 12 (16.7%) are biosimilars and 15 (20.8%) are generics (Figure 1.2).

Figure 1.2 New medicinal products that received a positive EMA opinion in 2020, broken down by type.

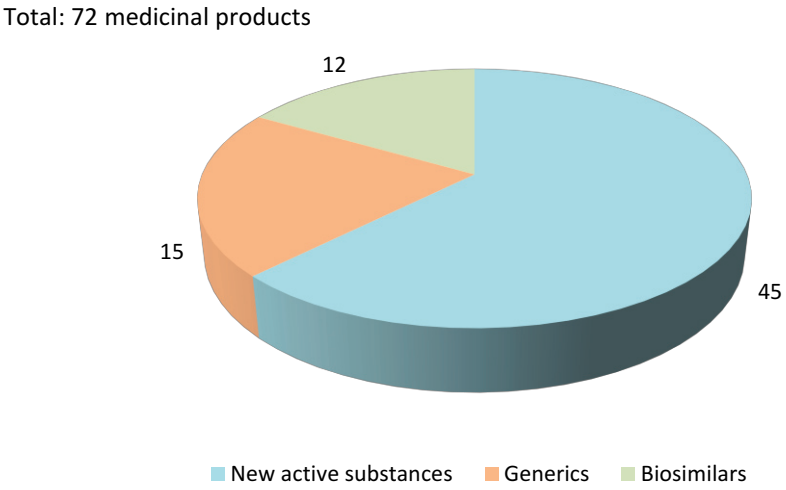
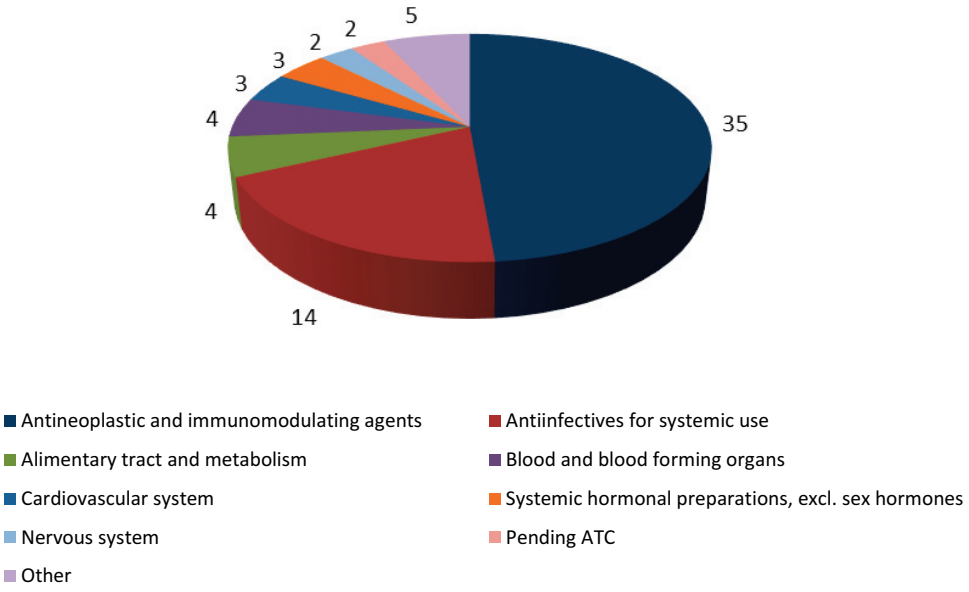


Figure 1.3 shows the classification of new medicinal products approved in 2020 based on ATC codes. Antineoplastic and immunomodulating agents (ACT code L) are the largest group, accounting for 48.6% (n=35) of the total new medicinal products authorised in 2020. They are followed, in decreasing order, by: ATC J medicines (antiinfectives for systemic use) equal to 19.4% (n=14) of the total; ATC A (alimentary tract and metabolism) and ATC B (blood and blood forming organs) medicines, equal to 5.5% of the total (n=4, for each category); ATC C (cardiovascular system) and H (systemic hormonal preparations, excl. sex hormones) medicines, equal to 4.2% of the total (n=3, for each category). New medicinal products belonging to other ATC categories or pending ATC classification are less numerous.

Figure 1.3 New medicinal products that received a positive EMA opinion in 2020, broken down by ATC.

Total: 72 medicinal products



Medicinal products containing new active substances

Out of 45 medicinal products containing new active substances that received a positive EMA opinion in 2020 (Figure 1.4), 25 (55.6%) are non-orphan medicines, whereas 20 (44.4%) are orphan medicines. The latter group includes 3 (Zolgensma, Libmeldy, Tecartus) ATMPs, accounting for 15% of orphan medicines).

Figure 1.4 Medicinal products containing new active substances that received a positive EMA opinion in 2020, broken down by type.

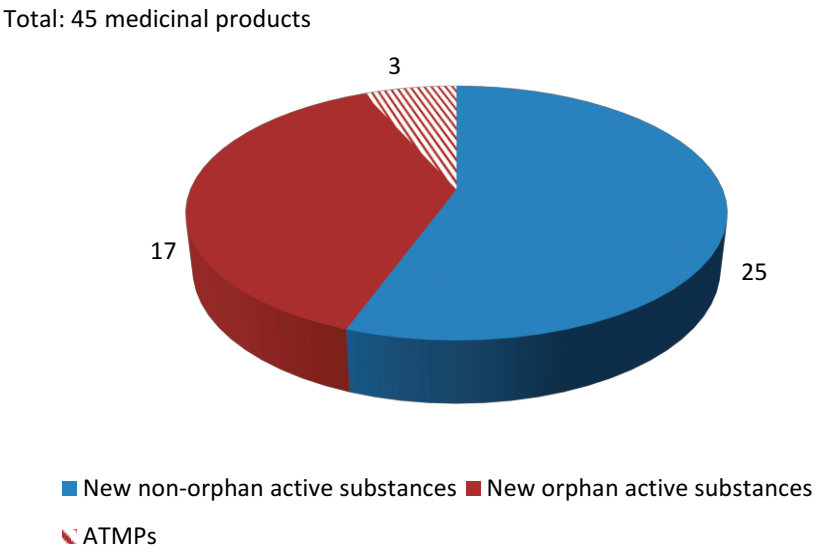


Figure 1.5 shows the ATC classification of non-orphan medicines approved in 2020. The largest number of non-orphan medicines belongs to the ATC J category (antiinfectives for systemic use), accounting for 40% (n=10) of the total non-orphan medicinal products authorised in 2020. They are followed, in decreasing order, by: ATC L (antineoplastic and immunomodulating agents) and C (cardiovascular system) medicines, equal to 32% (n=8) and 12% (n=3) of the total non-orphan medicinal products, respectively. The remaining ATC categories are represented by only one non-orphan medicine, whereas one non-orphan medicine is ATC-pending. Table 1.1 shows the complete list of non-orphan medicines.

Figure 1.5 Non-orphan medicinal products that received a positive EMA opinion in 2020, broken down by ATC.

Total: 25 medicinal products

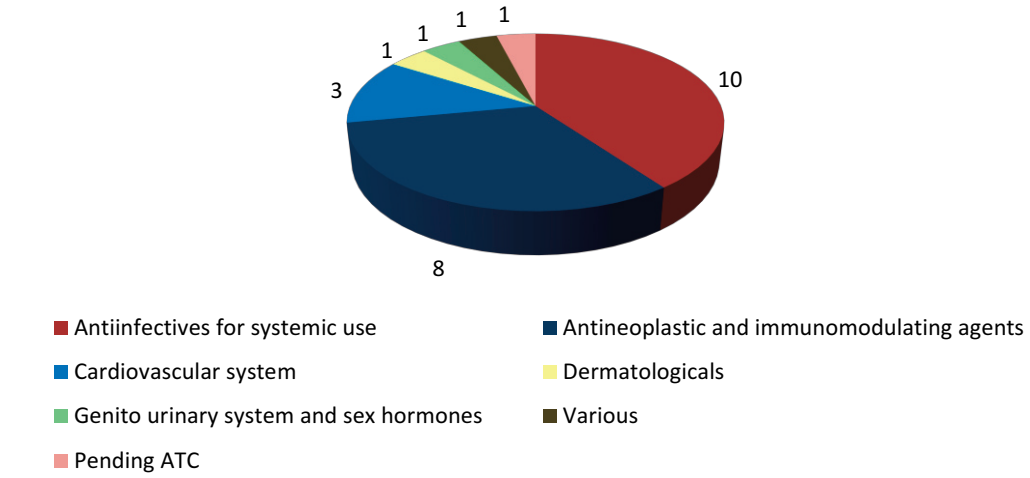


Table 1.1 List of medicinal products containing new non-orphan active substances that received a positive EMA opinion in 2020, broken down by ATC.

C-Cardiovascular system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Leqvio	inclisiran	15/10/2020	NO
	Therapeutic indication: Leqvio is indicated in adults with primary hypercholesterolaemia (heterozygous familial and non-familial) or mixed dyslipidaemia, as an adjunct to diet: -in combination with a statin or statin with other lipid-lowering therapies in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin, or -alone or in combination with other lipid-lowering therapies in patients who are statin-intolerant, or for whom a statin is contraindicated.		
Nilemdo	bempedoic acid	30/1/2020	NO
	Therapeutic indication: Nilemdo is indicated in adults with primary hypercholesterolaemia (heterozygous familial and non-familial) or mixed dyslipidaemia, as an adjunct to diet: - in combination with a statin or statin with other lipid-lowering therapies in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin (see sections 4.2, 4.3, and 4.4) or,		

	- alone or in combination with other lipid-lowering therapies in patients who are statin-intolerant, or for whom a statin is contraindicated.		
Nustendi	bempedoic acid/ezetimibe	30/1/2020	NO
	Therapeutic indication: Nustendi is indicated in adults with primary hypercholesterolaemia (heterozygous familial and nonfamilial) or mixed dyslipidaemia, as an adjunct to diet: -in combination with a statin in patients unable to reach LDL-C goals with the maximum tolerated dose of a statin in addition to ezetimibe, -alone in patients who are either statin-intolerant or for whom a statin is contraindicated, and are unable to reach LDL-C goals with ezetimibe alone, -in patients already being treated with the combination of bempedoic acid and ezetimibe as separate tablets with or without statin.		
D-Dermatologicals			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Staquis	crisaborole	30/1/2020	NO
	Therapeutic indication: Staquis is indicated for treatment of mild to moderate atopic dermatitis in adults and paediatric patients from 2 years of age with ≤ 40% body surface area (BSA) affected.		
G-Genito urinary system and sex hormones			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Dapivirine vaginal ring	dapivirine	23/7/2020	NO
	Therapeutic indication: Reducing the risk of HIV-1 infection via vaginal intercourse in HIV-uninfected women 18 years and older in combination with safer sex practices when oral PrEP is not/cannot be used or is not available.		
J-Antiinfectives for systemic use			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Comirnaty	COVID-19 mRNA vaccine	21/12/2020	NO
	Therapeutic indication: Comirnaty is indicated for active immunisation to prevent COVID-19 caused by SARS-CoV-2 virus, in individuals 16 years of age and older. The use of this vaccine should be in accordance with official recommendation.		
Fetcroja	cefiderocol	27/2/2020	NO
	Therapeutic indication: Fetcroja is indicated for the treatment of infections due to aerobic Gram-negative organisms in adults with limited treatment options. Consideration should be given to official guidance on the appropriate use of antibacterial agents.		
Mvabea	Ebola vaccine	28/5/2020	NO
	Therapeutic indication: Mvabea, as part of the Zabdeno, Mvabea vaccine regimen, is indicated for active immunisation for prevention of disease caused by Ebola virus (Zaire ebolavirus species) in individuals ≥1 year of age. The use of the vaccine regimen should be in accordance with official recommendations.		

Rukobia	fostemsavir	10/12/2020	NO
	Therapeutic indication: Rukobia, in combination with other antiretrovirals, is indicated for the treatment of adults with multidrug resistant HIV-1 infection for whom it is otherwise not possible to construct a suppressive anti-viral regimen.		
Supemtek	Quadrivalent influenza vaccine (rDNA)	17/9/2020	NO
	Therapeutic indication: Supemtek is indicated for active immunization for the prevention of influenza disease in adults. Supemtek should be used in accordance with official recommendations.		
Vaxchora	Cholera vaccine	30/1/2020	NO
	Therapeutic indication: Vaxchora is indicated for active immunisation against disease caused by Vibrio cholerae serogroup O1 in adults and children aged 6 years and older. This vaccine should be used in accordance with official recommendations.		
Vocabria	cabotegravir	15/10/2020	NO
	Therapeutic indication: Vocabria injection is indicated, in combination with rilpivirine injection, for the treatment of Human Immunodeficiency Virus type 1 (HIV-1) infection in adults who are virologically suppressed (HIV-1 RNA <50 copies/mL) on a stable antiretroviral regimen without present or past evidence of viral resistance to, and no prior virological failure with agents of the NNRTI and INI class.		
Xenleta	lefamulin	28/5/2020	NO
	Therapeutic indication: Xenleta is indicated for the treatment of community-acquired pneumonia (CAP) in adults when it is considered inappropriate to use antibacterial agents that are commonly recommended for the initial treatment of CAP or when these have failed. Consideration should be given to official guidance on the appropriate use of antibacterial agent.		
Xofluza	baloxavir marboxil	12/11/2020	NO
	Therapeutic indication: Treatment of influenza Xofluza is indicated for the treatment of uncomplicated influenza in patients aged 12 years and above. Post-exposure prophylaxis of influenza Xofluza is indicated for post-exposure prophylaxis of influenza in individuals aged 12 years and above.		
Zabdeno	Ebola vaccine	28/5/2020	NO
	Therapeutic indication: Zabdeno, as part of the Zabdeno, Mvabea vaccine regimen, is indicated for active immunisation for prevention of disease caused by Ebola virus (Zaire ebolavirus species) in individuals ≥1 year of age. The use of the vaccine regimen should be in accordance with official recommendations.		
L-Antineoplastic and immunomodulating agents			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Enhertu	trastuzumab deruxtecan	10/12/2020	NO
	Therapeutic indication: Enhertu as monotherapy is indicated for the treatment of adult patients with unresectable or metastatic HER2 positive		

	breast cancer who have received two or more prior anti HER2 based regimens.		
Jyseleca	filgotinib	23/7/2020	NO
	Therapeutic indication: Jyseleca is indicated for the treatment of moderate to severe active rheumatoid arthritis in adult patients who have responded inadequately to, or who are intolerant to one or more disease-modifying anti-rheumatic drugs (DMARDs). Jyseleca may be used as monotherapy or in combination with methotrexate (MTX).		
Nubeqa	darolutamide	30/1/2020	NO
	Therapeutic indication: NUBEQA is indicated for the treatment of adult men with non-metastatic castration resistant prostate cancer (nmCRPC) who are at high risk of developing metastatic disease.		
Piqray	alpelisib	28/5/2020	NO
	Therapeutic indication: Piqray is indicated in combination with fulvestrant for the treatment of postmenopausal women, and men, with hormone receptor (HR)-positive, human epidermal growth factor receptor 2 (HER2)-negative, locally advanced or metastatic breast cancer with a PIK3CA mutation after disease progression following endocrine therapy as monotherapy.		
Retsevmo	selpercatinib	10/12/2020	NO
	Therapeutic indication: Retsevmo as monotherapy is indicated for the treatment of adults with: - advanced RET fusion-positive non-small cell lung cancer (NSCLC) who require systemic therapy following prior treatment with immunotherapy and/or platinum-based chemotherapy - advanced RET fusion-positive thyroid cancer who require systemic therapy following prior treatment with sorafenib and/or lenvatinib Retsevmo as monotherapy is indicated for the treatment of adults and adolescents 12 years and older with advanced RET mutant medullary thyroid cancer (MTC) who require systemic therapy following prior treatment with cabozantinib and/or vandetanib.		
Rozlytrek	entrectinib	28/5/2020	NO
	Therapeutic indication: Rozlytrek as monotherapy is indicated for the treatment of adult and paediatric patients 12 years of age and older with solid tumours expressing a neurotrophic tyrosine receptor kinase (NTRK) gene fusion, who have a disease that is locally advanced, metastatic or where surgical resection is likely to result in severe morbidity, and who have not received a prior NTRK inhibitor, who have no satisfactory treatment options. Rozlytrek as monotherapy is indicated for the treatment of adult patients with ROS1-positive, advanced non-small cell lung cancer (NSCLC) not previously treated with ROS1 inhibitors.		
Tukysa	tucatinib	10/12/2020	NO
	Therapeutic indication: Tukysa is indicated in combination with trastuzumab and capecitabine for the treatment of adult patients with HER2-positive locally advanced or metastatic breast cancer who have received at least 2 prior anti-HER2 treatment regimens.		

Zeposia	ozanimod	26/3/2020	NO
	Therapeutic indication: Zeposia is indicated for the treatment of adult patients with relapsing remitting multiple sclerosis (RRMS) with active disease as defined by clinical or imaging features.		
V-Various			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Palforzia	Arachis hypogaea allergens	15/10/2020	NO
	Therapeutic indication: PALFORZIA is indicated for the treatment of patients aged 4 to 17 years with a confirmed diagnosis of peanut allergy. PALFORZIA may be continued in patients 18 years of age and older.		
Pending ATC			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Veklury	remdesivir	25/6/2020	NO
	Therapeutic indication: Veklury is indicated for the treatment of coronavirus disease 2019 (COVID-19) in adults and adolescents (aged 12 years and older with body weight at least 40 kg) with pneumonia requiring supplemental oxygen (low- or high-flow oxygen or other non-invasive ventilation at start of treatment).		

Figure 1.6 shows the ATC classification of orphan medicines approved in 2020. The largest number belongs to the ATC L category (antineoplastic and immunomodulating agents), representing 45% (n=9) of the total orphan medicinal products authorised in 2020. They are followed, in decreasing order, by: ATC J medicines (antiinfectives for systemic use) equal to 15% (n=3) of the total; ATC A (alimentary tract and metabolism) and ATC B (blood and blood forming organs) medicines, equal to 10% of the total (n=2, for each category) of the total orphan medicinal products. The remaining ATC categories are represented by only one orphan medicine, whereas one orphan medicine is ATC-pending. Table 1.2 shows the complete list of orphan medicines.

Figure 1.6 Orphan medicinal products that received a positive EMA opinion in 2020, broken down by ATC.

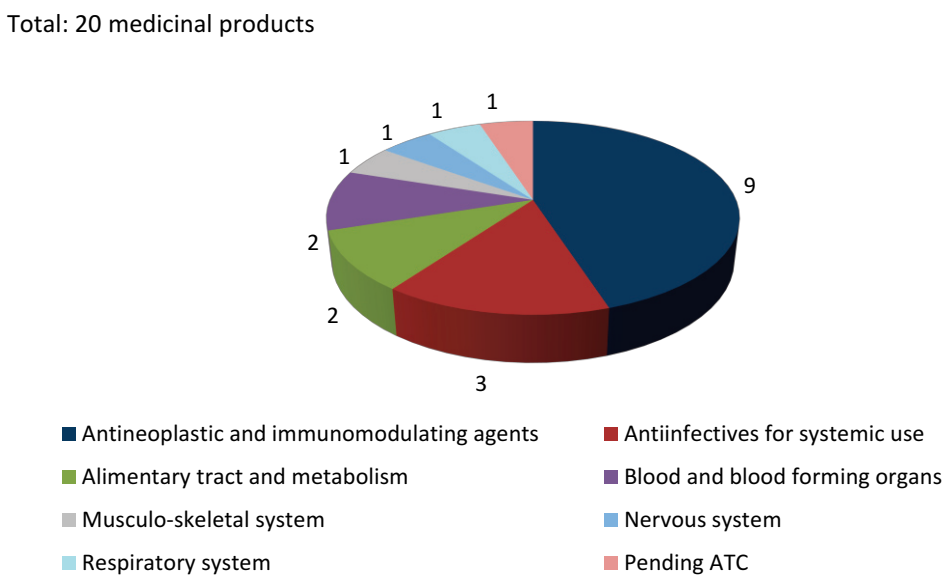


Table 1.2 List of medicinal products containing new orphan active substances that received a positive EMA opinion in 2020, broken down by ATC.

A-Alimentary tract and metabolism			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Givlaari	givosiran	30/1/2020	YES
	Therapeutic indication: Givlaari is indicated for the treatment of acute hepatic porphyria (AHP) in adults and adolescents aged 12 years and older.		
Oxlumo	lumasiran	15/10/2020	YES
	Therapeutic indication: Oxlumo is indicated for the treatment of primary hyperoxaluria type 1 (PH1) in all age groups.		
B-Blood and blood forming organs			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Adakveo	crizanlizumab	23/7/2020	YES
	Therapeutic indication: Adakveo is indicated for the prevention of recurrent vaso-occlusive crises (VOCs) in sickle cell disease patients aged 16 years and older. It can be given as an add-on therapy to hydroxyurea/hydroxycarbamide (HU/HC) or as monotherapy in patients for whom HU/HC is inappropriate or inadequate.		
Reblozyl	luspatercept	30/4/2020	YES
	Therapeutic indication: Reblozyl is indicated for the treatment of adult patients with transfusion-dependent anaemia due to very low, low and intermediate-risk myelodysplastic syndromes (MDS) with ring sideroblasts, who had an unsatisfactory response to or are ineligible for erythropoietin-based therapy. Reblozyl is indicated for the treatment of adult patients with transfusion-dependent anaemia associated with beta-thalassaemia.		
J-Antiinfectives for systemic use			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Hepcludex	bulevirtide	28/5/2020	YES
	Therapeutic indication: Hepcludex is indicated for the treatment of chronic hepatitis delta virus (HDV) infection in plasma (or serum) HDV-RNA positive adult patients with compensated liver disease.		
Obiltoxaximab SFL	obiltoxaximab	17/9/2020	YES
	Therapeutic indication: Obiltoxaximab SFL is indicated in combination with appropriate antibacterial drugs in all age groups for treatment of inhalational anthrax due to *Bacillus anthracis*. Obiltoxaximab SFL is indicated in all age groups for post-exposure prophylaxis of inhalational anthrax when alternative therapies are not appropriate or are not available.		
Pretomanid FGK	pretomanid	26/3/2020	YES
	Therapeutic indication: Pretomanid FGK is indicated in combination with bedaquiline and linezolid, in adults, for the treatment of pulmonary extensively drug resistant (XDR), or treatment-intolerant or nonresponsive multidrug-resistant (MDR) tuberculosis (TB).		

L-Antineoplastic and immunomodulating agents			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Ayvakyt	avapritinib	23/7/2020	YES
	Therapeutic indication: AYVAKYT is indicated as monotherapy for the treatment of adult patients with unresectable or metastatic gastrointestinal stromal tumours (GIST) harbouring the platelet-derived growth factor receptor alpha (PDGFRA) D842V mutation.		
Blenrep	belantamab mafodotin	23/7/2020	YES
	Therapeutic indication: BLENREP is indicated as monotherapy for the treatment of multiple myeloma in adult patients, who have received at least four prior therapies and whose disease is refractory to at least one proteasome inhibitor, one immunomodulatory agent, and an anti-CD38 monoclonal antibody, and who have demonstrated disease progression on the last therapy.		
Calquence	acalabrutinib	23/7/2020	YES
	Therapeutic indication: Calquence as monotherapy or in combination with obinutuzumab is indicated for the treatment of adult patients with previously untreated chronic lymphocytic leukaemia (CLL). Calquence as monotherapy is indicated for the treatment of adult patients with chronic lymphocytic leukaemia (CLL) who have received at least one prior therapy.		
Daurismo	glasdegib	30/4/2020	YES
	Therapeutic indication: Daurismo is indicated, in combination with low-dose cytarabine, for the treatment of newly diagnosed *de novo* or secondary acute myeloid leukaemia (AML) in adult patients who are not candidates for standard induction chemotherapy.		
Elzonris	tagraxofusp	12/11/2020	YES
	Therapeutic indication: Elzonris is indicated as monotherapy for the first-line treatment of adult patients with blastic plasmacytoid dendritic cell neoplasm (BPDCN).		
Idefirix	imlifidase	25/6/2020	YES
	Therapeutic indication: Idefirix is indicated for desensitisation treatment of highly sensitised adult kidney transplant patients with positive crossmatch against an available deceased donor. The use of Idefirix should be reserved for patients unlikely to be transplanted under the available kidney allocation system including prioritisation programmes for highly sensitised patients.		
Inrebic	fedratinib	10/12/2020	YES
	Therapeutic indication: Inrebic is indicated for the treatment of disease-related splenomegaly or symptoms in adult patients with primary myelofibrosis, post polycythaemia vera myelofibrosis or post essential thrombocythaemia myelofibrosis who are JAK inhibitor naïve or who have been treated with ruxolitinib.		
Lumoxiti	moxetumomab pasudotox	10/12/2020	YES
	Therapeutic indication: Lumoxiti as monotherapy is indicated for the treatment of adult patients with relapsed or refractory hairy cell		

	leukaemia (HCL) after receiving at least two prior systemic therapies, including treatment with a purine nucleoside analogue (PNA).		
Sarclisa	isatuximab	26/3/2020	YES
	Therapeutic indication: SARCLISA is indicated, in combination with pomalidomide and dexamethasone, for the treatment of adult patients with relapsed and refractory multiple myeloma (MM) who have received at least two prior therapies including lenalidomide and a proteasome inhibitor (PI) and have demonstrated disease progression on the last therapy.		
M-Musculo-skeletal system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Zolgensma	onasemnogene abeparvovec	26/3/2020	YES
	Therapeutic indication: Zolgensma is indicated for the treatment of: - patients with 5q spinal muscular atrophy (SMA) with a bi-allelic mutation in the SMN1 gene and a clinical diagnosis of SMA Type 1, or - patients with 5q SMA with a bi-allelic mutation in the *SMN1* gene and up to 3 copies of the *SMN2* gene.		
N-Nervous system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Libmeldy	Autologous CD34+ cell enriched population that contains hematopoietic stem and progenitor cells transduced ex vivo using a lentiviral vector encoding the human arylsulfatase A gene (ARSA)	15/10/2020	YES
	Therapeutic indication: Libmeldy is indicated for the treatment of metachromatic leukodystrophy (MLD) characterized by biallelic mutations in the arylsulfatase A (ARSA) gene leading to a reduction of the ARSA enzymatic activity: - in children with late infantile or early juvenile forms, without clinical manifestations of the disease, - in children with the early juvenile form, with early clinical manifestations of the disease, who still have the ability to walk independently and before the onset of cognitive decline.		
R-Respiratory system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Kaftrio	elexacaftor/tezacaftor/ivacaftor	25/6/2020	YES
	Therapeutic indication: Kaftrio is indicated in a combination regimen with ivacaftor 150 mg tablets for the treatment of cystic fibrosis (CF) in patients aged 12 years and older who are homozygous for the *F508del*		

	mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene or heterozygous for *F508del* in the CFTR gene with a minimal function (MF) mutation.		
Pending ATC			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Tecartus	autologous anti-CD19-transduced CD3+ cells	15/10/2020	YES
	Therapeutic indication: Tecartus is indicated for the treatment of adult patients with relapsed or refractory mantle cell lymphoma (MCL) after two or more lines of systemic therapy including a Bruton's tyrosine kinase (BTK) inhibitor.		

Figure 1.7 shows the ATC classification of ATMPs approved in 2020. The medicinal products in question belong to ATC M (musculo-skeletal system) and N (nervous system) category (n=1, for each category), whereas one medicinal product is ATC-pending. Table 1.3 shows the complete list of ATMPs.

Figure 1.7 ATMPs that received a positive EMA opinion in 2020, broken down by ATC.

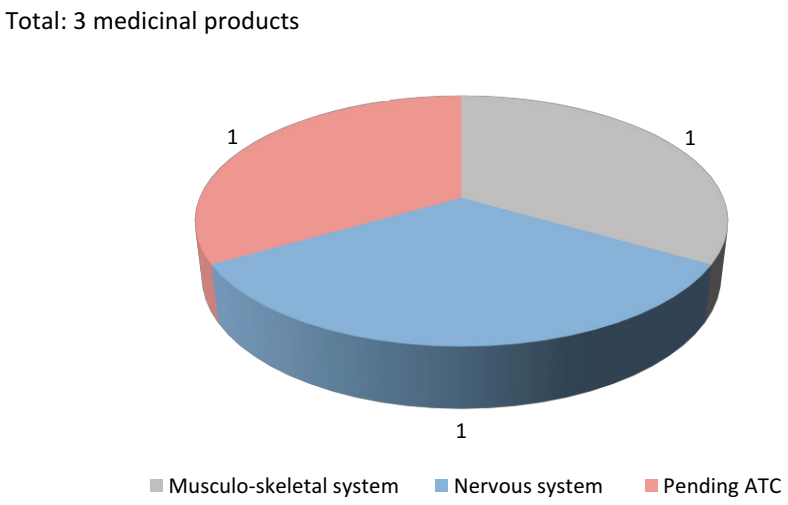


Table 1.3 List of ATMPs that received a positive EMA opinion in 2020, broken down by ATC.

M-Musculo-skeletal system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Zolgensma	onasemnogene abeparvovec	26/3/2020	YES
	Therapeutic indication: Zolgensma is indicated for the treatment of: - patients with 5q spinal muscular atrophy (SMA) with a bi-allelic mutation in the SMN1 gene and a clinical diagnosis of SMA Type 1, or - patients with 5q SMA with a bi-allelic mutation in the *SMN1* gene and up to 3 copies of the *SMN2* gene.		
N-Nervous system			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Libmeldy	Autologous CD34+ cell enriched population that contains hematopoietic stem and progenitor cells transduced ex vivo using a lentiviral vector encoding the human arylsulfatase A gene (ARSA)	15/10/2020	YES
	Therapeutic indication: Libmeldy is indicated for the treatment of metachromatic leukodystrophy (MLD) characterized by biallelic mutations in the arylsulfatase A (ARSA) gene leading to a reduction of the ARSA enzymatic activity: - in children with late infantile or early juvenile forms, without clinical manifestations of the disease, - in children with the early juvenile form, with early clinical manifestations of the disease, who still have the ability to walk independently and before the onset of cognitive decline.		
Pending ATC			
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**
Tecartus	autologous anti-CD19-transduced CD3+ cells	15/10/2020	YES
	Therapeutic indication: Tecartus is indicated for the treatment of adult patients with relapsed or refractory mantle cell lymphoma (MCL) after two or more lines of systemic therapy including a Bruton's tyrosine kinase (BTK) inhibitor.		

Biosimilars

In 2020, EMA's CHMP issued a positive opinion for the marketing authorisation of 12 biosimilars.

Figure 1.8 shows the ATC classification of biosimilars approved in 2020. The largest number belongs to the ATC L category (antineoplastic and immunomodulating agents), accounting for 66.6% (n=8) of the total biosimilars authorised in 2020. ATC A (alimentary tract and metabolism) and H (systemic hormonal preparations, excl. sex hormones) categories are represented by 2 biosimilars (16.7% of the total). Table 1.4 shows the complete list of biosimilars.

Figure 1.8 Biosimilars that received a positive EMA opinion in 2020, broken down by ATC.

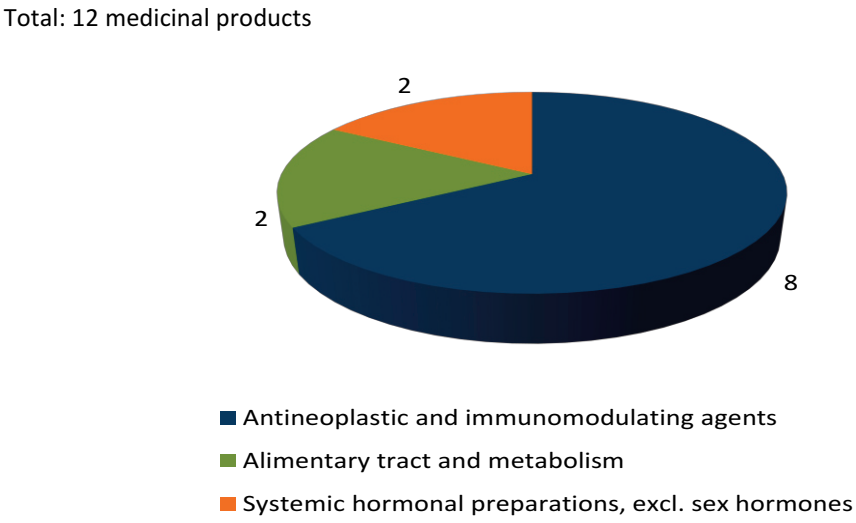


Table 1.4 List of biosimilars that received a positive EMA opinion in 2020, broken down by ATC.

A-Alimentary tract and metabolism				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Insulin aspart Sanofi	insulin aspart	30/4/2020	NO	Biosimilar of NovoRapid
	Therapeutic indication: Insulin aspart Sanofi is indicated for the treatment of diabetes mellitus in adults, adolescents and children aged 1 year and above.			
Kixelle	insulin aspart	10/12/2020	NO	Biosimilar of NovoRapid
	Therapeutic indication: Kixelle is indicated for treatment of diabetes mellitus in adults, adolescents and children aged 1 year and above.			
H – Systemic hormonal preparations, excl. sex hormones				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Livogiva	teriparatide	25/6/2020	NO	Biosimilar of Fortseo
	Therapeutic indication: Livogiva is indicated in adults. Treatment of osteoporosis in postmenopausal women and in men at increased risk of fracture. In postmenopausal women, a significant reduction in the incidence of vertebral and non-vertebral fractures but not hip fractures have been demonstrated. Treatment of osteoporosis associated with sustained systemic glucocorticoid therapy in women and men at increased risk for fracture.			
Qutavina	teriparatide	25/6/2020	NO	Duplicate of Livogiva
	Therapeutic indication: Qutavina is indicated in adults. Treatment of osteoporosis in postmenopausal women and in men at increased risk of fracture. In postmenopausal women, a significant reduction in the incidence of vertebral and non-vertebral fractures but not hip fractures have been demonstrated. Treatment of osteoporosis associated with sustained systemic glucocorticoid therapy in women and men at increased risk for fracture.			
L-Antineoplastic and immunomodulating agents				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Aybintio	bevacizumab	25/6/2020	NO	Biosimilar of Avastin
	Therapeutic indication: * - treatment of adult patients with metastatic carcinoma of the colon or rectum; - first-line treatment of adult patients with metastatic breast cancer; - first-line treatment of adult patients with non-small cell lung cancer; - first line treatment of adult patients with advanced and/or metastatic renal cell cancer; - front-line treatment of adult patients with advanced (International Federation of Gynecology and Obstetrics (FIGO) stages III B, III C and IV) epithelial ovarian, fallopian tube, or primary peritoneal cancer; - treatment of adult patients with first recurrence of platinum-sensitive epithelial ovarian, fallopian tube or primary peritoneal cancer who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents;			

	- treatment of adult patients with platinum-resistant recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who received no more than two prior chemotherapy regimens and who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents; - treatment of adult patients with persistent, recurrent, or metastatic carcinoma of the cervix. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Equidacent	bevacizumab	23/7/2020	NO	Biosimilar of Avastin
	Therapeutic indication: * - treatment of adult patients with metastatic carcinoma of the colon or rectum; - first-line treatment of adult patients with metastatic breast cancer; - first-line treatment of adult patients with non-small cell lung cancer; - first line treatment of adult patients with advanced and/or metastatic renal cell cancer; - front-line treatment of adult patients with advanced (International Federation of Gynecology and Obstetrics (FIGO) stages III B, III C and IV) epithelial ovarian, fallopian tube, or primary peritoneal cancer; - treatment of adult patients with first recurrence of platinum-sensitive epithelial ovarian, fallopian tube or primary peritoneal cancer who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents; - treatment of adult patients with platinum-resistant recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who received no more than two prior chemotherapy regimens and who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents; - treatment of adult patients with persistent, recurrent, or metastatic carcinoma of the cervix. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Nepexto	etanercept	26/3/2020	NO	Biosimilar of Enbrel
	Therapeutic indication: * rheumatoid arthritis, juvenile idiopathic arthritis, psoriatic arthritis, axial spondyloarthritis, ankylosing spondylitis, non-radiographic axial spondyloarthritis, plaque psoriasis, paediatric plaque psoriasis. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Nyvepria	pegfilgrastim	17/9/2020	NO	Biosimilar of Neulasta
	Therapeutic indication: reduction in the duration of neutropenia and the incidence of febrile neutropenia in adult patients treated with cytotoxic chemotherapy for malignancy (with the exception of chronic myeloid leukaemia and myelodysplastic syndromes).			
Onbevzi	bevacizumab	12/11/2020	NO	Biosimilar of Avastin
	Therapeutic indication: * - treatment of adult patients with metastatic carcinoma of the colon or rectum; - first-line treatment of adult patients with metastatic breast cancer; - first-line treatment of adult patients with non-small cell lung cancer; - first line treatment of adult patients with advanced and/or metastatic renal cell cancer;			

	- front-line treatment of adult patients with advanced (International Federation of Gynecology and Obstetrics (FIGO) stages III B, III C and IV) epithelial ovarian, fallopian tube, or primary peritoneal cancer; - treatment of adult patients with first recurrence of platinum-sensitive epithelial ovarian, fallopian tube or primary peritoneal cancer who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents; - treatment of adult patients with platinum-resistant recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who received no more than two prior chemotherapy regimens and who have not received prior therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents; - treatment of adult patients with persistent, recurrent, or metastatic carcinoma of the cervix. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Ruxience	rituximab	30/1/2020	NO	Biosimilar of Mabthera
	Therapeutic indication:* Non-Hodgkin's lymphoma (LNH), chronic lymphocytic leukaemia (CLL), rheumatoid arthritis, granulomatosis with polyangiitis and microscopic polyangiitis, pemphigus vulgaris. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Yuflyma	adalimumab	10/12/2020	NO	Biosimilar of Humira
	Therapeutic indication:* rheumatoid arthritis, juvenile idiopathic arthritis, psoriatic arthritis, axial spondyloarthritis, ankylosing spondylitis, non-radiographic axial spondyloarthritis, plaque psoriasis, paediatric plaque psoriasis, Crohn's disease, Paediatric Crohn's disease, ulcerative colitis, hidradenitis suppurativa, uveitis, paediatric uveitis. ** The therapeutic indication has been reported in short form. For the full indication, see the EPAR.*			
Zercepac	trastuzumab	28/5/2020	NO	Biosimilar of Herceptin
	Therapeutic indication: * breast cancer, metastatic breast cancer, early breast cancer, metastatic breast cancer. ** The therapeutic indication has been reported in short form. For the full indication, see the EPAR.*			

Generics

In 2020, the CHMP issued a positive opinion for the marketing authorisation of 15 generic medicinal products. Figure 1.9 shows the ATC classification of generics approved in 2020. The largest number belongs to the ATC L category (antineoplastic and immunomodulating agents), accounting for 66.6% (n=10) of the total generics authorised in 2020. The other ATC categories are represented by a minimum of 1 to a maximum of 2, accounting for 6.7% and 13.3% of the total generics, respectively. Table 1.5 shows the complete list of generics.

Figure 1.9 Generic medicinal products that obtained a positive EMA opinion in 2020, broken down by ATC.

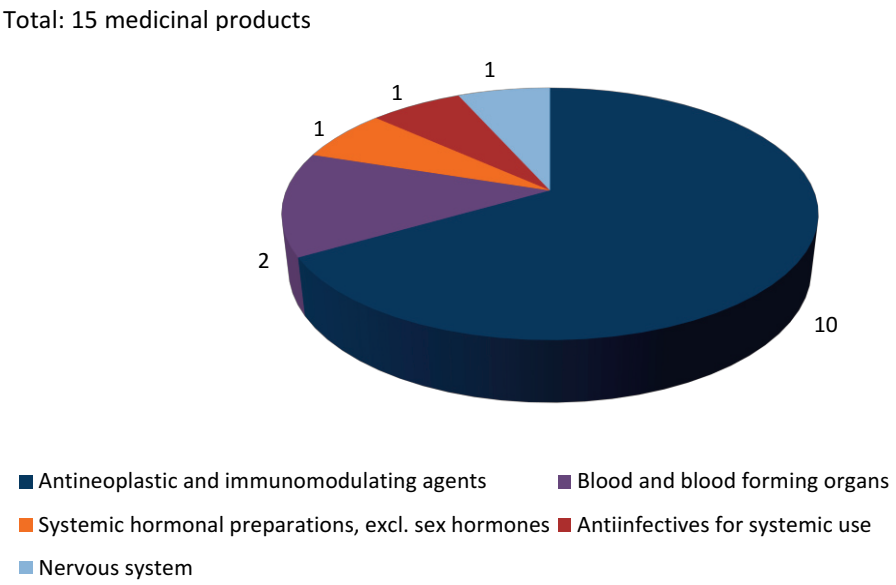


Table 1.5 List of generics that received a positive EMA opinion in 2020, broken down by ATC.

B - Blood and blood forming organs				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Apixaban Accord	apixaban	28/5/2020	NO	Generic of Eliquis
	Therapeutic indication: Prevention of venous thromboembolic events (VTE) in adult patients who have undergone elective hip or knee replacement surgery. Prevention of stroke and systemic embolism in adult patients with non-valvular atrial fibrillation (NVAF), with one or more risk factors, such as prior stroke or transient ischaemic attack (TIA); age ≥ 75 years; hypertension; diabetes mellitus; symptomatic heart failure (NYHA Class ≥ II). Treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults (see section 4.4 for haemodynamically unstable PE patients).			
Rivaroxaban Accord	rivaroxaban	17/9/2020	NO	Generic of Xarelto
	Therapeutic indication: Rivaroxaban Accord, co-administered with acetylsalicylic acid (ASA) alone or with ASA plus ticlopidine, is indicated for the prevention of atherothrombotic events in adult patients after an acute coronary syndrome (ACS) with elevated cardiac biomarkers (2.5 mg). Rivaroxaban Accord, co-administered with acetylsalicylic acid (ASA), is indicated for the prevention of atherothrombotic events in adult patients with coronary artery disease (CAD) or symptomatic peripheral artery disease (PAD) at high risk of ischaemic events (2.5 mg). Prevention of venous thromboembolism (VTE) in adult patients undergoing elective hip or knee replacement surgery (10 mg). Treatment of deep vein thrombosis (DVT) and pulmonary embolism (PE), and prevention of recurrent DVT and PE in adults. (See section 4.4 for haemodynamically unstable PE patients) (10, 15 and 20 mg). Prevention of stroke and systemic embolism in adult patients with non-valvular atrial fibrillation with one or more risk factors, such as congestive heart failure, hypertension, age ≥ 75 years, diabetes mellitus, prior stroke or transient ischaemic attack (15 and 20 mg).			
H – Systemic hormonal preparations, excl. sex hormones				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Cinacalcet Accordpharma	cinacalcet	30/1/2020	NO	Generic of Mimpara
	Therapeutic indication:* secondary hyperparathyroidism, parathyroid carcinoma and primary hyperparathyroidism in adults. * The therapeutic indication has been reported in short form. For the full indication, see the EPAR.			

J-Antiinfectives for systemic use				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Tigecycline Accord	tigecycline	27/2/2020	NO	Generic of Tygacil
	Therapeutic indication: Tigecycline Accord is indicated in adults and in children from the age of eight years for the treatment of the following infections: - Complicated skin and soft tissue infections (cSSTI), excluding diabetic foot infections - Complicated intra-abdominal infections (cIAI). Tigecycline should be used only in situations where other alternative antibiotics are not suitable.			
L-Antineoplastic and immunomodulating agents				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Arsenic Trioxide Medac	arsenic trioxide	23/7/2020	NO	Generic of Trisenox
	Therapeutic indication: Arsenic trioxide medac is indicated for induction of remission, and consolidation in adult patients with: - Newly diagnosed low-to-intermediate risk acute promyelocytic leukaemia (APL) (white blood cell count, ≤ 10 x 10^3/µl) in combination with all-trans-retinoic acid (ATRA) - Relapsed/refractory APL (previous treatment should have included a retinoid and chemotherapy) characterised by the presence of the t(15;17) translocation and/or the presence of the pro-myelocytic leukaemia/retinoic-acid-receptor-alpha (PML/RARα) gene). The response rate of other acute myelogenous leukaemia subtypes to arsenic trioxide has not been examined.			
Arsenic Trioxide Mylan	arsenic trioxide	30/1/2020	NO	Generic of Trisenox
	Therapeutic indication: Arsenic trioxide Mylan is indicated for induction of remission, and consolidation in adult patients with: - Newly diagnosed low-to-intermediate risk acute promyelocytic leukaemia (APL) (white blood cell count, ≤ 10 x 103/µl) in combination with all-*trans*-retinoic acid (ATRA) - Relapsed/refractory acute promyelocytic leukaemia (APL) (Previous treatment should have included a retinoid and chemotherapy) characterised by the presence of the t(15;17) translocation and/or the presence of the promyelocytic leukaemia/retinoic-acid-receptor-alpha (PML/RAR-alpha) gene. The response rate of other acute myelogenous leukaemia subtypes to arsenic trioxide has not been examined.			
Azacitidine Betapharm	azacitidine	30/1/2020	NO	Generic of Vidaza
	Therapeutic indication: Azacitidine betapharm is indicated for the treatment of adult patients who are not eligible for haematopoietic stem cell transplantation (HSCT) with: - intermediate-2 and high-risk myelodysplastic syndromes (MDS) according to the International Prognostic Scoring System (IPSS),			

	- chronic myelomonocytic leukaemia (CMML) with 10 % to 29 % marrow blasts without myeloproliferative disorder, - acute myeloid leukaemia (AML) with 20 % to 30 % blasts and multi-lineage dysplasia, according to World Health Organization (WHO) classification, - AML with > 30 % marrow blasts according to the WHO classification.			
Azacitidine Mylan	azacitidine	30/1/2020	NO	Generic of Vidaza
	Therapeutic indication: Azacitidine Mylan is indicated for the treatment of adult patients who are not eligible for haematopoietic stem cell transplantation (HSCT) with: - intermediate-2 and high-risk myelodysplastic syndromes (MDS) according to the International Prognostic Scoring System (IPSS), - chronic myelomonocytic leukaemia (CMML) with 10-29% marrow blasts without myeloproliferative disorder, - acute myeloid leukaemia (AML) with 20-30% blasts and multi-lineage dysplasia, according to World Health Organisation (WHO) classification, - AML with > 30% marrow blasts according to the WHO classification.			
Fingolimod Accord	fingolimod	30/4/2020	NO	Generic of Gilenya
	Therapeutic indication: Fingolimod Accord is indicated as single disease modifying therapy in highly active relapsing remitting multiple sclerosis for the following groups of adult patients and paediatric patients aged 10 years and older: - Patients with highly active disease despite a full and adequate course of treatment with at least one disease modifying therapy or - Patients with rapidly evolving severe relapsing remitting multiple sclerosis defined by 2 or more disabling relapses in one year, and with 1 or more Gadolinium enhancing lesions on brain MRI or a significant increase in T2 lesion load as compared to a previous recent MRI.			
Lenalidomide Krka	lenalidomide	10/12/2020	NO	Generic of Revlimid
	Therapeutic indication:* multiple myeloma, follicular lymphoma. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Lenalidomide Krka d.d.	lenalidomide	10/12/2020	NO	Generic of Revlimid
	Therapeutic indication:* multiple myeloma, follicular lymphoma, myelodysplastic syndromes. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			
Lenalidomide Krka d.d. Novo mesto	lenalidomide	10/12/2020	NO	Generic of Revlimid
	Therapeutic indication:* multiple myeloma, follicular lymphoma, mantle cell lymphoma myelodysplastic syndromes. * *The therapeutic indication has been reported in short form. For the full indication, see the EPAR*.			

Lenalidomide Mylan	lenalidomide	15/10/2020	NO	Generic of Revlimid
	Therapeutic indication:* multiple myeloma, follicular lymphoma. ** The therapeutic indication has been reported in short form. For the full indication, see the EPAR.*			
Sunitinib Accord	sunitinib	10/12/2020	NO	Generic of Sutent
	Therapeutic indication: * gastrointestinal stromal tumour (GIST), metastatic renal cell carcinoma (MRCC), pancreatic neuroendocrine tumours (pNET). ** The therapeutic indication has been reported in short form. For the full indication, see the EPAR.*			
N-Nervous system				
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**	**ORPHAN MEDICINE**	**ORIGINATOR**
Fampridine Accord	fampridine	23/7/2020	NO	Generic of Fampyra
	Therapeutic indication: Fampridine Accord is indicated for the improvement of walking in adult patients with multiple sclerosis with walking disability (EDSS 4-7).			

New therapeutic indications of already authorised medicinal products

Figure 1.10 New therapeutic indication of already authorised medicinal products that received a positive EMA opinion in 2020, broken down by ATC.

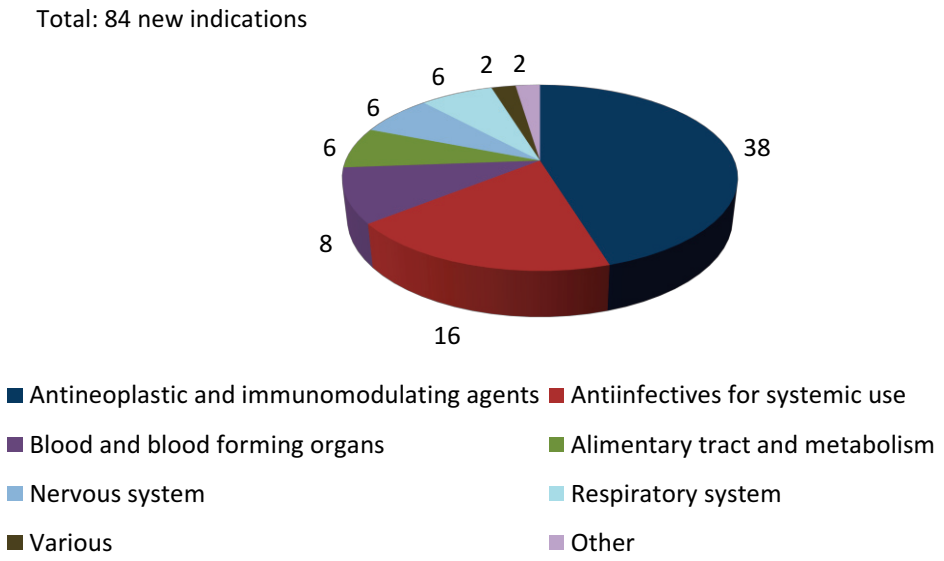


Figure 1.10 shows the ATC classification of new therapeutic indications of already authorised medicinal products approved in 2020. The largest number belongs to the ATC L category (antineoplastic and immunomodulating agents), accounting for 45.2% (n=38) of the total new indications authorised in 2020. They are followed, in decreasing order, by: ATC J (antiinfectives for systemic use) and ATC B (blood and blood forming organs) new therapeutic indications, representing 19% (n=16) and 9.5% (n=8) of the total, respectively. ATC A (alimentary tract and metabolism), N (nervous system) and R (respiratory system) categories are represented by 6 new therapeutic indications each (equal to 7.1% of the total for each single ATC category). New therapeutic indications belonging to other ATC categories are less numerous. Table 1.6 shows the complete list of new therapeutic indications.

Table 1.6 List of new therapeutic indications of already authorised medicinal products that received a positive EMA opinion in 2020, broken down by ATC (changes to already authorised therapeutic indications are marked in bold and/or strikethrough text).

A-Alimentary tract and metabolism		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Edistride	dapagliflozin	15/10/2020
	Therapeutic indication: Edistride is indicated in adults for the treatment of symptomatic chronic heart failure with reduced ejection fraction.	
Forxiga	dapagliflozin	15/10/2020
	Therapeutic indication: Forxiga is indicated in adults for the treatment of symptomatic chronic heart failure with reduced ejection fraction.	
Invokana	canagliflozin	28/5/2020
	Therapeutic indication: Invokana is indicated for the treatment of adults with insufficiently controlled type 2 diabetes mellitus as an adjunct to diet and exercise: - as monotherapy when metformin is considered inappropriate due to intolerance or contraindications - in addition to other medicinal products for the treatment of diabetes. For study results with respect to combination of therapies, effects on glycaemic control, cardiovascular **and renal** events, and the populations studied, see sections 4.4, 4.5 and 5.1.	
Jorveza	budesonide	26/3/2020
	Therapeutic indication: Extension of indication to include maintenance of remission of eosinophilic esophagitis (EoE) in adults.	
Orfadin	nitisinone	17/9/2020
	Therapeutic indication: Orfadin is indicated for the treatment of adult patients with alkaptonuria (AKU).	
Suliqua	insulin glargine/lixisenatide	30/1/2020
	Therapeutic indication: Suliqua is indicated for the treatment of adults with insufficiently controlled type 2 diabetes mellitus to improve glycaemic control as an adjunct to diet and exercise in addition to metformin with or without SGLT-2 inhibitors.	
B-Blood and blood forming organs		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Doptelet	avatrombopag	10/12/2020
	Therapeutic indication: Doptelet is indicated for the treatment of primary chronic immune thrombocytopenia (ITP) in adult patients who are refractory to other treatments (e.g. corticosteroids, immunoglobulins).	
Iscover	clopidogrel	10/12/2020
	Therapeutic indication: In patients with moderate to high-risk Transient Ischemic Attack (TIA) or minor Ischemic Stroke (IS). Clopidogrel in combination with ASA is indicated in:	

	Adult patients with moderate to high-risk TIA (ABCD2 score ≥4) or minor IS (NIHSS ≤3) within 24 hours of either the TIA or IS event.	
NovoThirteen	catridecacog	23/7/2020
	Therapeutic indication: Long term prophylaxis of bleeding in patients with congenital factor XIII A-subunit deficiency. **Treatment of breakthrough bleeding episodes during regular prophylaxis.** NovoThirteen can be used for all age groups.	
Nplate	romiplostim	10/12/2020
	Therapeutic indication: Adults: Nplate is indicated for **the treatment of primary** immune **thrombocytopenia** (ITP) **in adult** patients who are refractory to other treatments (e.g. corticosteroids, immunoglobulins) (see sections 4.2 and 5.1). **Paediatrics**: **Nplate is indicated for the treatment of chronic primary immune thrombocytopenia (ITP) in paediatric patients one year of age and older who are refractory to other treatments (e.g. corticosteroids, immunoglobulins) (see sections 4.2 and 5.1).**	
Plavix	clopidogrel	10/12/2020
	Therapeutic indication: In patients with moderate to high-risk Transient Ischemic Attack (TIA) or minor Ischemic Stroke (IS) Clopidogrel in combination with ASA is indicated in: Adult patients with moderate to high-risk TIA (ABCD2 score ≥4) or minor IS (NIHSS ≤3) within 24 hours of either the TIA or IS event.	
Pradaxa	dabigatran etexilate	12/11/2020
	Therapeutic indication: Primary prevention of venous thromboembolic events (VTE) in adult patients who have undergone elective total hip replacement surgery or total knee replacement surgery. Treatment of VTE and prevention of recurrent VTE in paediatric patients from birth to less than 18 years of age.	
Ruconest	conestat alfa	26/3/2020
	Therapeutic indication: Ruconest is indicated for treatment of acute angioedema attacks in adults, adolescents, and children (aged 2 years and above) with hereditary angioedema (HAE) due to C1 esterase inhibitor deficiency.	
Xarelto	rivaroxaban	12/11/2020
	Therapeutic indication: Treatment of venous thromboembolism (VTE) and prevention of VTE recurrence in children and adolescents aged less than 18 years and weighing from 30 kg to 50 kg after at least 5 days of initial parenteral anticoagulation treatment.	
D-Dermatologicals		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Dupixent	dupilumab	15/10/2020
	Therapeutic indication: Atopic dermatitis	

	Adults and adolescents Dupixent is indicated for the treatment of moderate-to-severe atopic dermatitis in adults and adolescents 12 years and older who are candidates for systemic therapy. **Children 6 to 11 years of age** **Dupixent is indicated for the treatment of severe atopic dermatitis in children 6 to 11 years old who are candidates for systemic therapy.**	
J-Antiinfectives for systemic use		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Deltyba	delamanid	17/9/2020
	Therapeutic indication: Deltyba is indicated for use as part of an appropriate combination regimen for pulmonary multidrug resistant tuberculosis (MDR-TB) in adult**s** ~~patients~~**, adolescents and children with a body weight of at least 30 kg** when an effective treatment regimen cannot otherwise be composed for reasons of resistance or tolerability.	
Ecalta	anidulafungin	30/4/2020
	Therapeutic indication: Treatment of invasive candidiasis in adults **and paediatric** patients **aged 1 month to < 18 years.**	
Epclusa	sofosbuvir/velpatasvir	25/6/2020
	Therapeutic indication: Epclusa is indicated for the treatment of chronic hepatitis C virus (HCV) infection in ~~adults~~ **patients aged 6 years and older and weighing at least 17 kg.**	
Flucelvax Tetra	Influenza vaccine (surface antigen, inactivated, prepared in cell cultures)	17/9/2020
	Therapeutic indication: Prophylaxis of influenza in adults and children from ~~9~~ **2** years of age.	
Harvoni	sofosbuvir	30/4/2020
	Therapeutic indication: Harvoni is indicated for the treatment of chronic hepatitis C (CHC) in adult **and paediatric patients aged 3 years and above.**	
HyQvia	Human normal immunoglobulin	23/7/2020
	Therapeutic indication: Replacement therapy in adults, children and adolescents (0-18 years) in: • Primary immunodeficiency syndromes with impaired antibody production (see section 4.4). **• Secondary immunodeficiencies (SID) in patients who suffer from severe or recurrent infections, ineffective antimicrobial treatment and either proven specific antibody failure (PSAF)* or serum IgG level of <4 g/l.** ***PSAF = failure to mount at least a 2-fold rise in IgG antibody titre to pneumococcal polysaccharide and polypeptide antigen vaccines.**	
Intelence	etravirine	26/3/2020
	Therapeutic indication: INTELENCE, in combination with a boosted protease inhibitor and other antiretroviral medicinal products, is indicated for the treatment of human immunodeficiency virus type 1 (HIV 1) infection in antiretroviral treatment experienced adult patients and in antiretroviral	

	treatment experienced paediatric patients from ~~6~~ **2** years of age (see sections 4.4, 4.5 and 5.1).	
Prezista	darunavir	23/7/2020
	Therapeutic indication: PREZISTA, co-administered with cobicistat is indicated in combination with other antiretroviral medicinal products for the treatment of human immunodeficiency virus (HIV 1) infection in adult**s and adolescents (aged 12 years and older, weighing at least 40 kg)** ~~patients~~.	
Recarbrio	imipenem/cilastatin /relebactam	15/10/2020
	Therapeutic indication: Recarbrio is indicated for: **- Treatment of hospital-acquired pneumonia (HAP), including ventilator associated pneumonia (VAP), in adults (see sections 4.4 and 5.1).** **- Treatment of bacteraemia that occurs in association with, or is suspected to be associated with HAP or VAP, in adults.** - Treatment of infections due to aerobic Gram-negative organisms in adults with limited treatment options (see sections 4.2, 4.4, and 5.1).	
Rezolsta	darunavir/cobicistat	30/1/2020
	Therapeutic indication: Rezolsta is indicated, in combination with other antiretroviral medicinal products, for the treatment of human immunodeficiency virus-1 (HIV-1) infection in adults **and adolescents (aged 12 years and older, weighing at least 40 kg)**.	
Shingrix	Herpes zoster vaccine (recombinant, adjuvanted)	23/7/2020
	Therapeutic indication: Shingrix is indicated for prevention of herpes zoster (HZ) and post-herpetic neuralgia (PHN), in: - adults 50 years of age or older; **- adults 18 years of age or older at increased risk of HZ**.	
Sivextro	tedizolid phosphate	30/5/2020
	Therapeutic indication: Sivextro is indicated for the treatment of acute bacterial skin and skin structure infections (ABSSSI) in adults **and adolescents 12 years of age and older.**	
Sovaldi	ledipasvir/sofosbuvir	30/4/2020
	Therapeutic indication: Sovaldi is indicated in combination with other medicinal products for the treatment of chronic hepatitis C (CHC) in adult and **paediatric patients** ~~in adolescents~~ aged 3~~12 to <18~~ years **and above**.	
Tivicay	dolutegravir	12/11/2020
	Therapeutic indication: Tivicay is indicated in combination with other anti-retroviral medicinal products for the treatment of Human Immunodeficiency Virus (HIV) infected adults, adolescents and children of at least 4 weeks of age or older and weighing at least 3 kg.	
Zavicefta	ceftazidime/avibactam	25/6/2020
	Therapeutic indication: Treatment of patients with bacteraemia that occurs in association with, or is suspected to be associated with, any of the infections listed above.	
Zavicefta	ceftazidime/avibactam	17/9/2020
	Therapeutic indication: Zavicefta is indicated **in adults, and children aged 3 months and older** for the treatment of the following infections:	

	- Complicated intra-abdominal infection (cIAI) - Complicated urinary tract infection (cUTI), including pyelonephritis - Hospital-acquired pneumonia (HAP), including ventilator associated pneumonia (VAP) Treatment of patients with bacteraemia that occurs in association with, or is suspected to be associated with, any of the infections listed above. Zavicefta is also indicated for the treatment of infections due to aerobic Gram-negative organisms in adult**s and children aged 3 months and older** with limited treatment options.	
L-Antineoplastic and immunomodulating agents		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Adcetris	brentuximab vedotin	26/3/2020
	Therapeutic indication: Adcetris in combination with cyclophosphamide, doxorubicin and prednisone (CHP) is indicated for adult patients with previously untreated systemic anaplastic large cell lymphoma (sALCL).	
Alunbrig	brigatinib	27/2/2020
	Therapeutic indication: Alunbrig is indicated as monotherapy for the treatment of adult patients with anaplastic lymphoma kinase (ALK) positive advanced non small cell lung cancer (NSCLC) previously not treated with an ALK inhibitor. Alunbrig is indicated as monotherapy for the treatment of adult patients with ALK positive advanced NSCLC previously treated with crizotinib.	
Ameluz	5-aminolevulinic acid hydrochloride	30/1/2020
	Therapeutic indication: Treatment of actinic keratosis of mild to moderate severity (Olsen grade 1 to 2; see section 5.1) and of field cancerization in adults. Treatment of superficial and/or nodular basal cell carcinoma unsuitable for surgical treatment due to possible treatment-related morbidity and/or poor cosmetic outcome in adults.	
Bavencio	avelumab	10/12/2020
	Therapeutic indication: Bavencio is indicated as monotherapy for the first-line maintenance treatment of adult patients with locally advanced or metastatic urothelial carcinoma (UC) who are progression-free following platinum-based chemotherapy.	
Blincyto	blinatumomab	15/10/2020
	Therapeutic indication: Blincyto is indicated as monotherapy for the treatment of adults with ~~Philadelphia chromosome negative~~ CD19 positive relapsed or refractory B-precursor acute lymphoblastic leukaemia (ALL). **Patients with Philadelphia chromosome positive B-precursor ALL should have failed treatment with at least 2 tyrosine kinase inhibitors (TKIs) and have no alternative treatment options**. Blincyto is indicated as monotherapy for the treatment of adults with Philadelphia chromosome negative CD19 positive B-precursor ALL in first or second complete remission with minimal residual disease (MRD) greater than or equal to 0.1%. Blincyto is indicated as monotherapy for the treatment of paediatric patients aged 1 year or older with Philadelphia chromosome negative CD19 positive B-	

	precursor ALL which is refractory or in relapse after receiving at least two prior therapies or in relapse after receiving prior allogeneic hematopoietic stem cell transplantation.	
Braftovi	encorafenib	30/4/2020
	Therapeutic indication: Encorafenib is indicated: - in combination with binimetinib for the treatment of adult patients with unresectable or metastatic melanoma with a BRAF V600 mutation (see sections 4.4 and 5.1). **- in combination with cetuximab, for the treatment of adult patients with metastatic colorectal cancer (CRC) with a BRAF V600E mutation, who have received prior systemic therapy (see sections 4.4 and 5.1).**	
Carmustine Obvius	carmustine	30/4/2020
	Therapeutic indication: Carmustine is effective in the following malignant neoplasms as a single agent or in combination with other antineoplastic agents and/or other therapeutic measures (radiotherapy, surgery): - Brain tumours (glioblastoma, Brain-stem gliomas, medulloblastoma, astrocytoma and ependymoma), brain metastases; - Secondary therapy in non-Hodgkin's lymphoma and Hodgkin's disease; **- as conditioning treatment prior to autologous haematopoietic progenitor cell transplantation (HPCT) in malignant haematological diseases (Hodgkin's disease / Nonhodgkin's lymphoma).**	
Cosentyx	secukinumab	26/3/2020
	Therapeutic indication: Non-radiographic axial spondyloarthritis (nr-axSpA) Cosentyx is indicated for the treatment of active non-radiographic axial spondyloarthritis with objective signs of inflammation as indicated by elevated C-reactive protein (CRP) and/or magnetic resonance imaging (MRI) evidence in adults who have responded inadequately to non steroidal anti inflammatory drugs (NSAIDs).	
Cosentyx	secukinumab	25/6/2020
	Therapeutic indication: Paediatric plaque psoriasis Cosentyx is indicated for the treatment of moderate to severe plaque psoriasis in children and adolescents from the age of 6 years who are candidates for systemic therapy.	
Humira	adalimumab	15/10/2020
	Therapeutic indication: Paediatric ulcerative colitis Humira is indicated for the treatment of moderately to severely active ulcerative colitis in paediatric patients (from 6 years of age) who have had an inadequate response to conventional therapy including corticosteroids and/or 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or have medical contraindications for such therapies.	
Imbruvica	ibrutinib	23/7/2020
	Therapeutic indication: IMBRUVICA as a single agent is indicated for the treatment of adult patients with relapsed or refractory mantle cell lymphoma (MCL). IMBRUVICA as a single agent or in combination with rituximab or obinutuzumab is indicated for the treatment of adult patients with previously untreated chronic lymphocytic leukaemia (CLL) (see section 5.1).	

	IMBRUVICA as a single agent or in combination with bendamustine and rituximab (BR) is indicated for the treatment of adult patients with CLL who have received at least one prior therapy. IMBRUVICA as a single agent is indicated for the treatment of adult patients with Waldenström's macroglobulinaemia (WM) who have received at least one prior therapy, or in first line treatment for patients unsuitable for chemo-immunotherapy. IMBRUVICA in combination with rituximab is indicated for the treatment of adult patients with WM.	
Imfinzi	durvalumab	23/7/2020
	Therapeutic indication: Imfinzi in combination with etoposide and either carboplatin or cisplatin is indicated for the first-line treatment of adults with extensive-stage small cell lung cancer (ES-SCLC).	
Keytruda	pembrolizumab	10/12/2020
	Therapeutic indication: Keytruda as monotherapy is indicated for the first-line treatment of metastatic microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) colorectal cancer in adults.	
Kineret	anakinra	26/3/2020
	Therapeutic indication: Familial Mediterranean Fever (FMF) Kineret is indicated for the treatment of Familial Mediterranean Fever (FMF). Kineret should be given in combination with colchicine, if appropriate.	
Kyprolis	carfilzomib	12/11/2020
	Therapeutic indication: Kyprolis in combination with ~~either~~ **daratumumab and dexamethasone, with** lenalidomide and dexamethasone, or **with** dexamethasone alone is indicated for the treatment of adult patients with multiple myeloma who have received at least one prior therapy.	
Lynparza	olaparib	28/5/2020
	Therapeutic indication: Adenocarcinoma of the pancreas Lynparza is indicated as monotherapy for the maintenance treatment of adult patients with germline *BRCA1/2*-mutations who have metastatic adenocarcinoma of the pancreas and have not progressed after a minimum of 16 weeks of platinum treatment within a first-line chemotherapy regimen.	
Lynparza	olaparib	17/9/2020
	Therapeutic indication: Lynparza in combination with bevacizumab is indicated for the: maintenance treatment of adult patients with advanced (FIGO stages III and IV) high-grade epithelial ovarian, fallopian tube or primary peritoneal cancer who are in response (complete or partial) following completion of first-line platinum-based chemotherapy in combination with bevacizumab and whose cancer is associated with homologous recombination deficiency (HRD) positive status defined by either a *BRCA1/2* mutation and/or genomic instability.	
Lynparza	olaparib	17/9/2020
	Therapeutic indication: Prostate cancer Lynparza is indicated as monotherapy for the treatment of adult patients with metastatic castrationresistant prostate cancer and *BRCA1/2*-mutations	

	(germline and/or somatic) who have progressed following prior therapy that included a new hormonal agent.	
MabThera	rituximab	30/1/2020
	Therapeutic indication: MabThera, in combination with glucocorticoids, is indicated for the induction of remission in paediatric patients (aged ≥ 2 to < 18 years old) with severe, active GPA (Wegener's) and MPA.	
MabThera	rituximab	30/1/2020
	Therapeutic indication: MabThera in combination with chemotherapy is indicated for the treatment of paediatric patients (aged ≥ 6 months to < 18 years old) with previously untreated advanced stage CD20 positive diffuse large B-cell lymphoma (DLBCL), Burkitt lymphoma (BL)/Burkitt leukaemia (mature B-cell acute leukaemia) (BAL) or Burkitt-like lymphoma (BLL).	
Nordimet	methotrexate	10/12/2020
	Therapeutic indication: Induction of remission in moderate steroid-dependent Crohn's disease in adult patients, in combination with corticosteroids and for maintenance of remission, as monotherapy, in patients who have responded to methotrexate.	
Ofev	nintedanib	27/2/2020
	Therapeutic indication: Ofev is indicated in adults for the treatment of systemic sclerosis associated interstitial lung disease (SSc-ILD).	
Ofev	nintedanib	28/5/2020
	Therapeutic indication: Ofev is also indicated in adults for the treatment of other chronic fibrosing interstitial lung diseases (ILDs) with a progressive phenotype.	
Olumiant	baricitinib	17/9/2020
	Therapeutic indication: Atopic dermatitis Olumiant is indicated for the treatment of moderate to severe atopic dermatitis in adult patients who are candidates for systemic therapy.	
Opdivo	nivolumab	17/9/2020
	Therapeutic indication: OPDIVO in combination with ipilimumab and 2 cycles of platinum-based chemotherapy is indicated for the first-line treatment of metastatic non-small cell lung cancer in adults whose tumours have no sensitising EGFR mutation or ALK translocation.	
Opdivo	nivolumab	15/10/2020
	Therapeutic indication: Oesophageal squamous cell carcinoma (OSCC) Opdivo as monotherapy is indicated for the treatment of adult patients with unresectable advanced, recurrent or metastatic oesophageal squamous cell carcinoma after prior fluoropyrimidine- and platinum-based combination chemotherapy.	
Otezla	apremilast	27/2/2020
	Therapeutic indication: Behçet's disease Otezla is indicated for the treatment of adult patients with oral ulcers associated with Behçet disease (BD) who are candidates for systemic therapy.	

Remsima	infliximab	25/6/2020
	Therapeutic indication: Crohn's disease Remsima is indicated for: - treatment of moderately to severely active Crohn's disease, in adult patients who have not responded despite a full and adequate course of therapy with a corticosteroid and/or an immunosuppressant; or who are intolerant to or have medical contraindications for such therapies; - treatment of fistulising, active Crohn's disease, in adult patients who have not responded despite a full and adequate course of therapy with conventional treatment (including antibiotics, drainage and immunosuppressive therapy). Ulcerative colitis Remsima is indicated for treatment of moderately to severely active ulcerative colitis in adult patients who have had an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or have medical contraindications for such therapies. Ankylosing spondylitis Remsima is indicated for treatment of severe, active ankylosing spondylitis, in adult patients who have responded inadequately to conventional therapy. Psoriatic arthritis Remsima is indicated for treatment of active and progressive psoriatic arthritis in adult patients when the response to previous DMARD therapy has been inadequate. Remsima should be administered: - in combination with methotrexate - or alone in patients who show intolerance to methotrexate or for whom methotrexate is contraindicated. Infliximab has been shown to improve physical function in patients with psoriatic arthritis, and to reduce the rate of progression of peripheral joint damage as measured by X-ray in patients with polyarticular symmetrical subtypes of the disease (see section 5.1). Psoriasis Remsima is indicated for treatment of moderate to severe plaque psoriasis in adult patients who failed to respond to, or who have a contraindication to, or are intolerant to other systemic therapy including ciclosporin, methotrexate or psoralen ultra-violet A (PUVA) (see section 5.1).	
Rinvoq	upadacitinib	10/12/2020
	Therapeutic indication: Psoriatic arthritis Rinvoq is indicated for the treatment of active psoriatic arthritis in adult patients who have responded inadequately to, or who are intolerant to one or more DMARDs. Rinvoq may be used as monotherapy or in combination with methotrexate.	
Rinvoq	upadacitinib	10/12/2020
	Therapeutic indication: Ankylosing spondylitis Rinvoq is indicated for the treatment of active ankylosing spondylitis in adult patients who have responded inadequately to conventional therapy.	

Taltz	ixekizumab	30/4/2020
	Therapeutic indication: Axial spondyloarthritis Ankylosing spondylitis (radiographic axial spondyloarthritis) Taltz is indicated for the treatment of adult patients with active ankylosing spondylitis who have responded inadequately to conventional therapy. Non-radiographic axial spondyloarthritis Taltz is indicated for the treatment of adult patients with active non-radiographic axial spondyloarthritis with objective signs of inflammation as indicated by elevated C-reactive protein (CRP) and/or magnetic resonance imaging (MRI) who have responded inadequately to nonsteroidal anti-inflammatory drugs (NSAIDs).	
Taltz	ixekizumab	28/5/2020
	Therapeutic indication: Paediatric plaque psoriasis Taltz is indicated for the treatment of moderate to severe plaque psoriasis in children from the age of 6 years and with a body weight of at least 25 kg and adolescents who are candidates for systemic therapy.	
Tecentriq	atezolizumab	17/9/2020
	Therapeutic indication: Hepatocellular carcinoma Tecentriq, in combination with bevacizumab, is indicated for the treatment of adult patients with advanced or unresectable hepatocellular carcinoma (HCC) who have not received prior systemic therapy.	
Tremfya	guselkumab	15/10/2020
	Therapeutic indication: Psoriatic arthritis Tremfya, alone or in combination with methotrexate (MTX), is indicated for the treatment of active psoriatic arthritis in adult patients who have had an inadequate response or who have been intolerant to a prior disease-modifying antirheumatic drug (DMARD) therapy (see section 5.1).	
Ultomiris	ravulizumab	30/4/2020
	Therapeutic indication: Ultomiris is indicated in the treatment of adult patients with paroxysmal nocturnal haemoglobinuria (PNH): - in patients with haemolysis with clinical symptom(s) indicative of high disease activity - in patients who are clinically stable after having been treated with eculizumab for at least the past 6 months (see section 5.1). **Ultomiris is indicated in the treatment of patients with a body weight of 10 kg or above with atypical haemolytic uremic syndrome (aHUS) who are complement inhibitor treatment-naïve or have received eculizumab for at least 3 months and have evidence of response to eculizumab.**	
Venclyxto	venetoclax	30/1/2020
	Therapeutic indication: Venclyxto in combination with obinutuzumab is indicated for the treatment of adult patients with previously untreated chronic lymphocytic leukaemia (CLL) (see section 5.1). Venclyxto in combination with rituximab is indicated for the treatment of adult patients with CLL who have received at least one prior therapy. Venclyxto monotherapy is indicated for the treatment of CLL:	

	- in the presence of 17p deletion or *TP53* mutation in adult patients who are unsuitable for or have failed a B-cell receptor pathway inhibitor, or - in the absence of 17p deletion or *TP53* mutation in adult patients who have failed both chemoimmunotherapy and a B-cell receptor pathway inhibitor.	
Yervoy	ipilimumab	17/9/2020
	Therapeutic indication: YERVOY in combination with nivolumab and 2 cycles of platinum-based chemotherapy is indicated for the first-line treatment of metastatic non-small cell lung cancer in adults whose tumours have no sensitising EGFR mutation or ALK translocation.	
Zejula	niraparib	17/9/2020
	Therapeutic indication: Zejula is indicated as monotherapy for the maintenance treatment of adult patients with advanced epithelial (FIGO Stages III and IV) high-grade ovarian, fallopian tube or primary peritoneal cancer who are in response (complete or partial) following completion of first-line platinum-based chemotherapy.	
M-Musculo-skeletal system		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Crysvita	burosumab	23/7/2020
	Therapeutic indication: Crysvita is indicated for the treatment of X-linked hypophosphataemia**, in children and adolescents aged 1 to 17 years** with radiographic evidence of bone disease, **and in adults.** ~~in children 1 year of age and older and adolescents with growing skeletons.~~	
N-Nervous system		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Fycompa	perampanel	17/9/2020
	Therapeutic indication: Fycompa (perampanel) is indicated for the adjunctive treatment of **- partial-onset seizures (POS) with or without secondarily generalised seizures in patients from 4 years of age and older** **- primary generalised tonic-clonic (PGTC) seizures in patients from 7 years of age and older with idiopathic generalised epilepsy (IGE).** Fycompa is indicated for the adjunctive treatment of partial-onset seizures with or without secondarily generalised seizures in adult and adolescent patients from 12 years of age with epilepsy. ~~Fycompa is indicated for the adjunctive treatment of primary generalised tonic-clonic seizures in adult and adolescent patients from 12 years of age with idiopathic generalised epilepsy (see section 5.1).~~	
Lacosamide UCB	lacosamide	15/10/2020
	Therapeutic indication: Lacosamice UCB is indicated as adjunctive therapy: in the treatment of partial-onset seizures with or without secondary generalisation in adults, adolescents and children from 4 years of age with epilepsy; **in the treatment of primary generalised tonic-clonic seizures in adults, adolescents and children from 4 years of age with idiopathic generalised epilepsy.**	

Latuda	lurasidone	23/7/2020
	Therapeutic indication: Latuda is indicated for the treatment of schizophrenia in adults ~~aged 18 years~~ and **adolescent aged 13 years and** over.	
Spravato	esketamine	10/12/2020
	Therapeutic indication: Spravato, co-administered with oral antidepressant therapy, is indicated in adults with a moderate to severe episode of Major Depressive Disorder, as acute short-term treatment, for the rapid reduction of depressive symptoms, which according to clinical judgement constitute a psychiatric emergency. See section 5.1 for a description of the populations studied.	
Vimpat	lacosamide	15/10/2020
	Therapeutic indication: Vimpat is indicated as adjunctive therapy: in the treatment of partial-onset seizures with or without secondary generalisation in adults, adolescents and children from 4 years of age with epilepsy; **in the treatment of primary generalised tonic-clonic seizures in adults, adolescents and children from 4 years of age with idiopathic generalised epilepsy.**	
Xyrem	sodium oxybate	12/11/2020
	Therapeutic indication: Treatment of narcolepsy with cataplexy in adult patients, **adolescents and children from the age of 7 years**.	
R-Respiratory system		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Kalydeco	ivacaftor	30/4/2020
	Therapeutic indication: Kalydeco tablets are indicated: - As monotherapy for the treatment of adults, adolescents, and children aged 6 years and older and weighing 25 kg or more with cystic fibrosis (CF) who have an **R117H CFTR mutation** or one of the following gating (class III) mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene: G551D, G1244E, G1349D, G178R, G551S, S1251N, S1255P, S549N or S549R (see sections 4.4 and 5.1)). - In a combination regimen with tezacaftor 100 mg/ivacaftor 150 mg tablets for the treatment of adults and adolescents aged 12 years and older with cystic fibrosis (CF) who are homozygous for the F508del mutation or who are heterozygous for the F508del mutation and have one of the following mutations in the CFTR gene: P67L, R117C, L206W, R352Q, A455E, D579G, 711+3A→G, S945L, S977F, R1070W, D1152H, 2789+5G→A,3272-26A→G e 3849+10kbC→T. Kalydeco granules are indicated for the treatment of infants aged at least 6 months, toddlers and children weighing 5 kg to less than 25 kg with cystic fibrosis (CF) who have **an R117H CFTR mutation or** one of the following gating (class III) mutations in the CFTR gene: G551D, G1244E, G1349D, G178R, G551S, S1251N, S1255P, S549N or S549R (see sections 4.4 and 5.1).	
Kalydeco	ivacaftor	17/9/2020
	Therapeutic indication: Kalydeco granules are indicated for the treatment of infants aged at least ~~6 months~~ **4 months**, toddlers and children weighing 5 kg	

	to less than 25 kg with cystic fibrosis (CF) who have an R117H CFTR mutation or one of the following gating (class III) mutations in the CFTR gene: G551D, G1244E, G1349D, G178R, G551S, S1251N, S1255P, S549N or S549R (see sections 4.4 and 5.1).	
Kalydeco	ivacaftor	23/7/2020
	Therapeutic indication: Kalydeco tablets are indicated: - **As monotherapy** for the treatment of adults, adolescents, and children aged 6 years and older and weighing 25 kg or more with cystic fibrosis (CF) who have an R117H CFTR mutation or one of the following gating (class III) mutations in the **cystic fibrosis transmembrane conductance regulator** (CFTR) gene: G551D, G1244E, G1349D, G178R, G551S, S1251N, S1255P, S549N or S549R (see sections 4.4 and 5.1). - ~~Kalydeco tablets are also indicated~~ In a combination regimen with tezacaftor 100 mg/ivacaftor 150 mg tablets for the treatment of adults and adolescents aged 12 years and older with cystic fibrosis (CF) who are homozygous for the F508del mutation or who are heterozygous for the F508del mutation and have one of the following mutations in the CFTR gene: P67L, R117C, L206W, R352Q, A455E, D579G, 711+3A→G, S945L, S977F, R1070W, D1152H, 2789+5G→A, 3272-26A→G e 3849+10kbC→T. **- In a combination regimen with ivacaftor 75 mg /tezacaftor 50 mg /elexacaftor 100 mg tablets for the treatment of adults and adolescents aged 12 years and older with cystic fibrosis (CF) who are homozygous for the F508del mutation in the CFTR gene or heterozygous for F508del in the CFTR gene with a minimal function (MF) mutation (see section 5.1).**	
Symkevi	tezacaftor/ivacaftor	17/9/2020
	Therapeutic indication: Symkevi is indicated in a combination regimen with ivacaftor ~~150 mg~~ tablets for the treatment of patients with cystic fibrosis (CF) aged **6** ~~12~~ years and older who are homozygous for the F508del mutation or who are heterozygous for the F508del mutation and have one of the following mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene: P67L, R117C, L206W, R352Q, A455E, D579G, 711+3A→G, S945L, S977F, R1070W, D1152H, 2789+5G→A, 3272−26A→G e 3849+10kbC→T.	
Trimbow	beclometasone dipropionato/formoterol fumarate dihydrate/glycopyrronium	12/11/2020
	Therapeutic indication: Asthma Maintenance treatment of asthma, in adults not adequately controlled with a maintenance combination of a long-acting beta2-agonist and high dose of inhaled corticosteroid, and who experienced one or more asthma exacerbations in the previous year.	
Xolair	omalizumab	25/6/2020
	Therapeutic indication: Chronic rhinosinusitis with nasal polyps (CRSwNP) Xolair is indicated as an add-on therapy with intranasal corticosteroids (INC) for the treatment of adults (18 years and above) with severe CRSwNP for whom therapy with INC does not provide adequate disease control.	

V-Various		
TRADE NAME	**ACTIVE INGREDIENT**	**EMA OPINION**
Tybost	cobicistat	30/1/2020
	Therapeutic indication: Tybost is indicated as a pharmacokinetic enhancer of atazanavir 300 mg once daily or darunavir 800 mg once daily as part of antiretroviral combination therapy in human immunodeficiency virus-1 (HIV-1) infected adults **and adolescents aged 12 years and older:** • **weighing at least 35 kg co-administered with atazanavir or** • **weighing at least 40 kg co-administered with darunavir.**	
Velphoro	iron	17/9/2020
	Therapeutic indication: Velphoro is indicated for the control of serum phosphorus levels in paediatric patients 2 years of age and older with CKD stages 4-5 (defined by a glomerular filtration rate <30 mL/min/1.73 m²) or with CKD on dialysis.	

Section II

Medicinal products authorised in the three-year period 2018-2020

Medicinal products authorised in the three-year period 2018-2020

New medicinal products

During the three-year period 2018-2020, 192 new medicinal products received a positive CHMP opinion (excluding medicinal products containing known active substances, known fixed-dose combinations containing known constituents, hybrid medicinal products and medicinal products under informed consent procedure). Figure 2.1 shows the number of new medicinal products authorised in each year (69 in 2018; 51 in 2019; 72 in 2020), belonging to the following categories: orphan medicinal products, non-orphan medicinal products, biosimilars, generics, ATMPs. During the period, a stable trend in the number of authorised products was registered, with a slight decrease only in 2019. Figure 2.2 shows the annual percentage over the total authorised medicines, broken down by typology. Overall, during the period an increase in orphan medicines can be noted. Conversely, the trend for non-orphan medicines, generics, biosimilars and ATMPs was stable or changed slightly.

Figure 2.1 Medicinal products that received a positive EMA opinion in the three-year period 2018-2020, broken down by type and year.

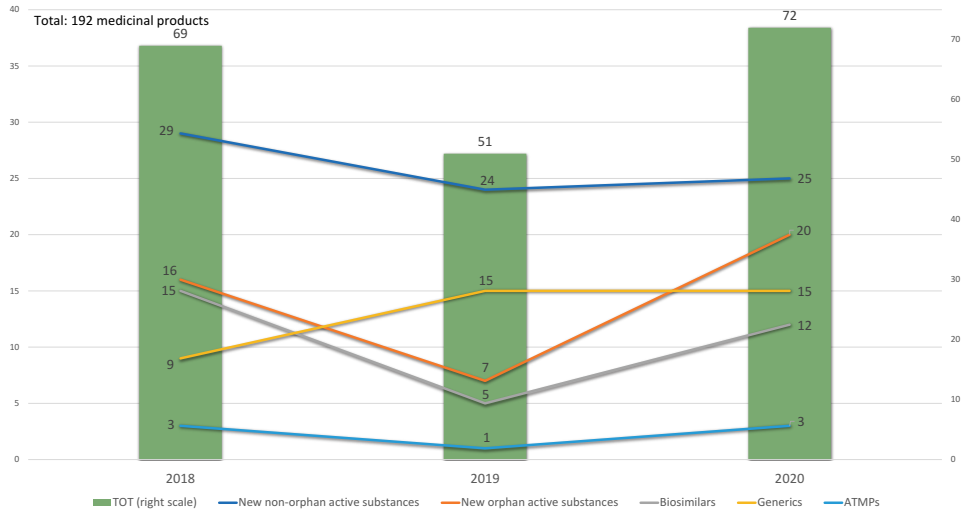


Figure 2.2 Trend in medicinal products that received a positive EMA opinion in the three-year period 2018-2020, broken down by type and year.

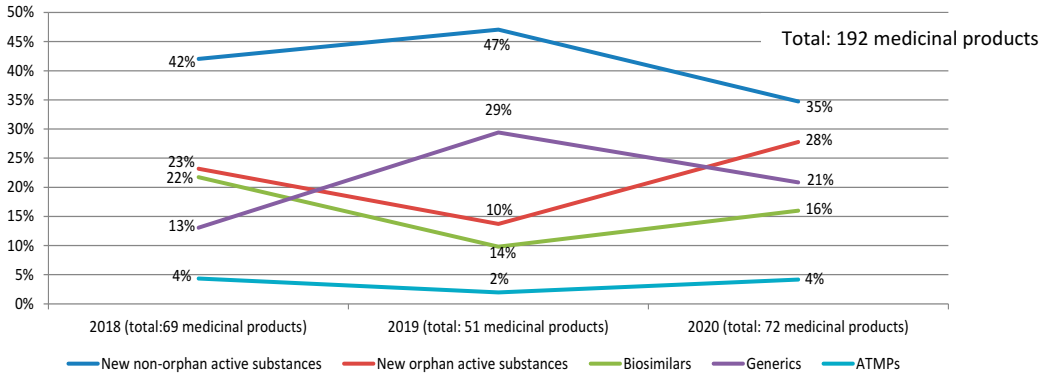
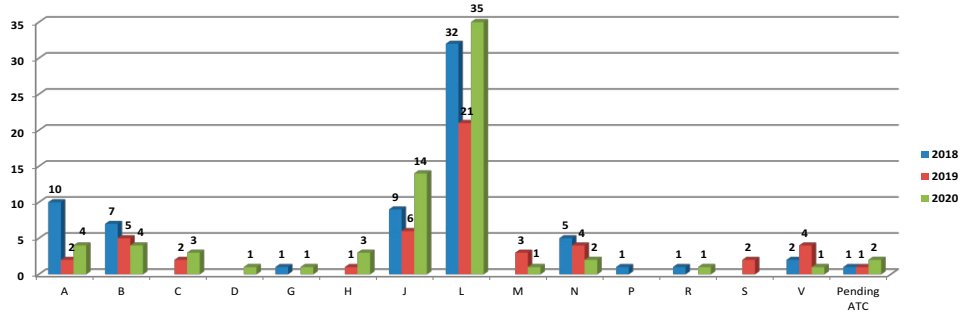


Figure 2.3 shows the ATC classification of medicinal products approved in the three-year period 2018-2020. It emerges that antineoplastic and immunomodulating agents (ATC L) are the largest group, accounting for 45.8% (n=88) of the total medicinal products authorised in the reference period. They are followed, in decreasing order, by: ATC J medicines (antiinfectives for systemic use) equal to 15.1% (n=29) of the total; ATC A (alimentary tract and metabolism) and ATC B (blood and blood forming organs) medicines, equal to 8.3% of the total each (n=16, for each category). ATC N (nervous system) medicines account for 5.7% (n=11) of the total. The remaining ATC categories are represented by a lower number of medicines authorised in the reference period, with a minimum of 1 and a maximum of 7 medicines, accounting for 0.5% and 3.6% of the total, respectively.

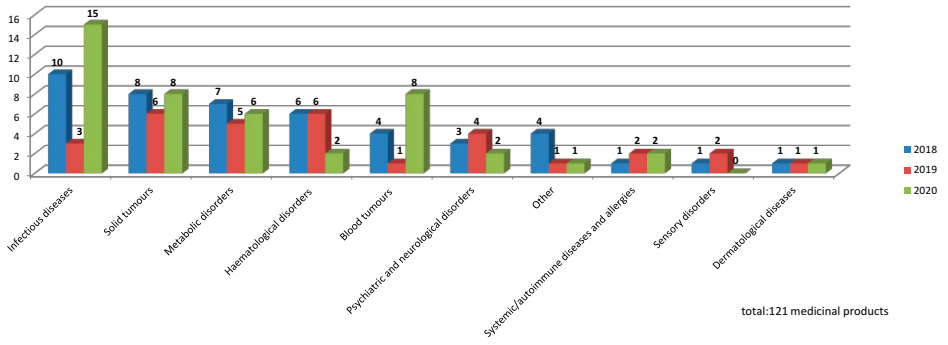
Figure 2.3 Medicinal products that received a positive EMA opinion in the three-year period 2018-2020, broken down by ATC and year.



Total: 192 medicinal products

If biosimilars (n=32) and generics (n=39), for a total of 71 approved medicinal products, are excluded from the analysis, 121 medicinal products containing new active substances received a positive EMA opinion during the three-year period 2018-2020. As shown in figure 2.4, medicinal products containing new active substances have therapeutic indications for treating the following: infectious diseases (n=28, 23.1%), solid tumours (n=22, 18.2%), metabolic disorders (n=18, 14.9%), haematological disorders (n=14, 11.6%), blood tumours (n=13, 10.7%). During 2020, the number of medicinal products authorised for infectious diseases (n=15) and blood tumours (n=8) increased compared with the two previous years. With regard to other conditions, a steady or slightly variable trend can be observed during the reference period.

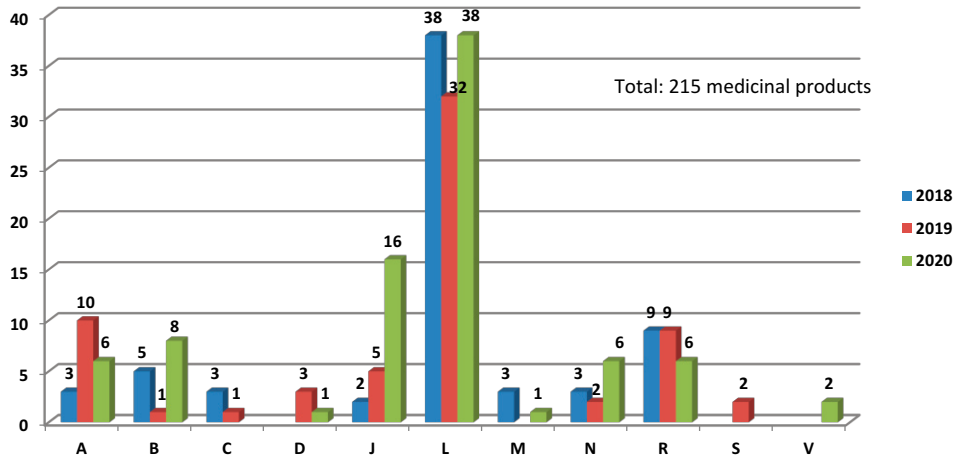
Figure 2.4 Medicinal products containing new active substances that received a positive EMA opinion in the three-year period 2018-2020, broken down by therapeutic indication and year.



New therapeutic indications of already authorised medicinal products

Between 2018 and 2020, 215 new therapeutic indications of already authorised medicinal products received a positive opinion from EMA's CHMP. Figure 2.5 shows the number of new approved therapeutic indications broken down by ATC and year. The prevailing ATC categories in the reference period are: L - antineoplastic and immunomodulating agents (n=108; 50.2%), R - respiratory system (n=24; 11.2%), J - antiinfectives for systemic use (n=23; 10.7%), A - alimentary tract and metabolism (n=19; 8.8%), B - blood and blood forming organs (n=14; 6.5%). Specifically, antineoplastic and immunomodulating agents (ATC L) were stable in the period 2018-2020, with the highest values reached in 2020 and 2018 (38 medicinal products approved in both years), and registered a slight downward trend in 2019 (32 medicinal products). Additionally, in 2020 an increase was registered in the number of new authorised therapeutic indications relating to infectious diseases, blood and blood forming organ disorders and nervous system disorders.

Figure 2.5 New therapeutic indication of already authorised medicinal products that received a positive EMA opinion in the three-year period 2018-2020, broken down by ATC and year.



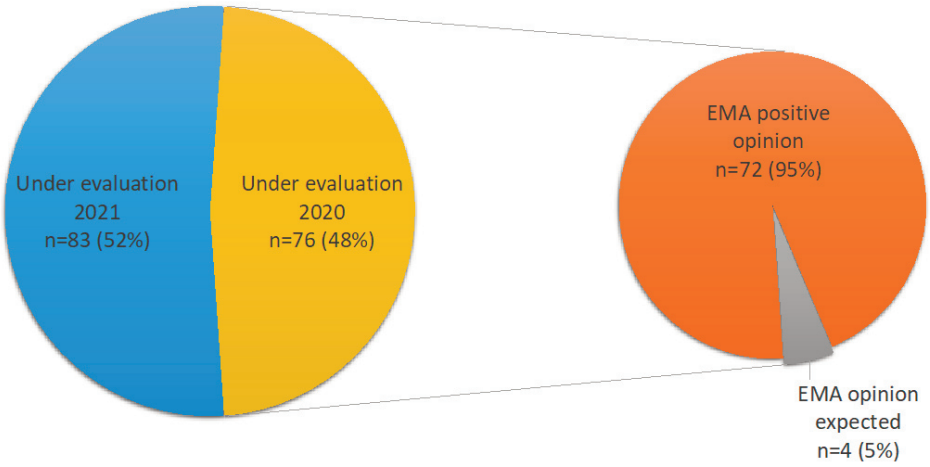
Section III

Medicinal products under evaluation in 2021

New medicinal products

New medicinal products under evaluation by the CHMP at the beginning of 2021 and with an opinion expected during the course of the year are 83. This number is subject to change during the year following submission of new marketing authorisation applications to EMA. At the end of 2020, 76 new medicinal products were being evaluated, with an opinion expected in the same year. Out of these, 72 new medicinal products (equal to 95% of the total new medicinal products under evaluation at the beginning of 2020) were subsequently authorised. The remaining 4 (equal to 5% of the total new medicinal products under evaluation at the beginning of 2020) are still opinion-pending (Figure 3.1).

Figure 3.1 New medicinal products under evaluation at the beginning of 2020 and 2021.



Out of 83 new medicinal products under evaluation with expected opinion in 2021, 57 (68.7%) are medicinal products containing new active substances, 11 (13.3%) are biosimilars and 15 (18%) are generics (Figure 3.2).

Figure 3.2 New medicinal products under evaluation with expected opinion in 2021, broken down by type.

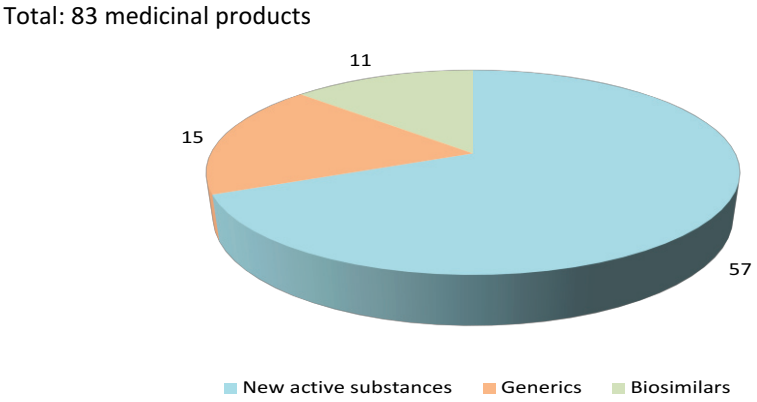
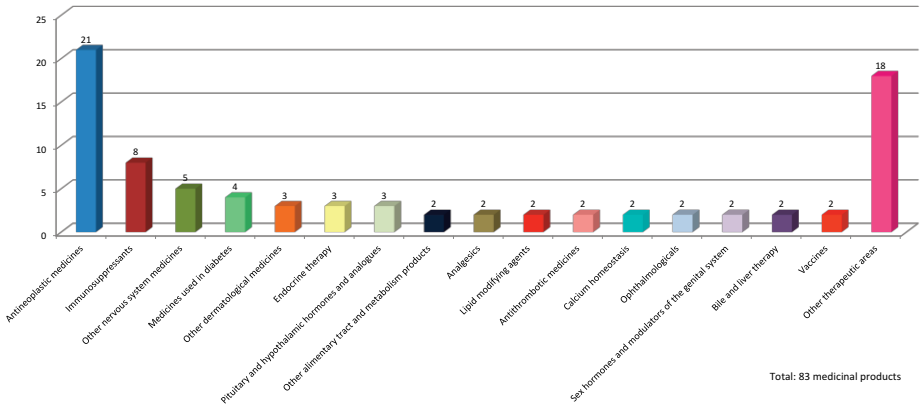


Figure 3.3 shows the number of new medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area. New antineoplastic medicines are the largest group (n=21; 25.3% of the total), followed by immunosuppressants (n=8; 9.6% of the total). The remaining therapeutic areas, represented individually in the graph, show a lower number of new medicinal products under evaluation, with a minimum of 2 and a maximum of 5 medicines, accounting for 2.4% and 6% of the total, respectively. The other therapeutic areas represented cumulatively in the graph account for 18 new medicinal products under evaluation overall (21.7% of the total).

Figure 3.3 New medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.



Medicinal products containing new active substances

Out of 57 medicinal products containing new active substances with expected EMA opinion in 2021 (Figure 3.4), 28 (49.1%) are non-orphan medicines, whereas 29 (50.9%) are orphan medicines. The latter group includes 6 ATMPs (Sitoiganap, Idecabtagene vicleucel, Lisocabtagene maraleucel, Eladocagene exuparvovec, Elivaldogene autotemcel, Lenadogene nolparvovec), accounting for 20.7% of orphan medicines.

Figure 3.4 Medicinal products containing new active substances under evaluation with expected EMA opinion in 2021, broken down by type.

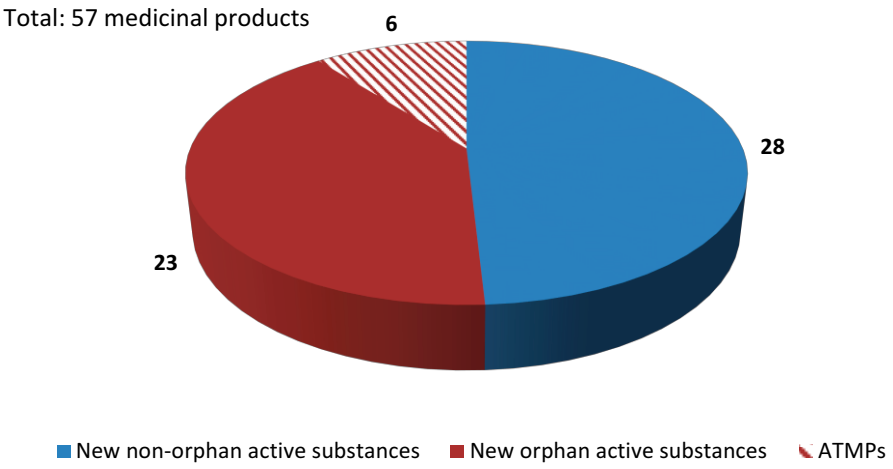
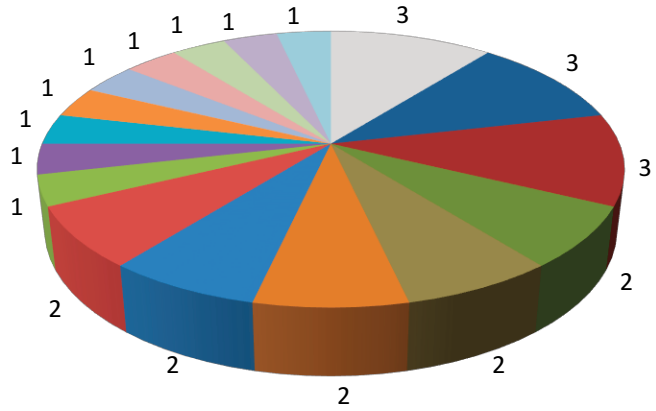


Figure 3.5 shows the classification of non-orphan medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area. The largest group of non-orphan medicinal products belong to the following categories: antineoplastic medicines, immunosuppressants, other dermatological medicines. Each single therapeutic area accounts for 10.7% (n=3 for each therapeutic area) of the total non-orphan medicinal products under evaluation. The remaining therapeutic areas are represented by 1 or 2 non-orphan medicines under evaluation, accounting for 3.6% and 7.1% of the total, respectively. Table 3.1 shows the complete list of non-orphan medicines under evaluation and with expected EMA opinion in 2021.

Figure 3.5 Non-orphan medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Total: 28 medicinal products



Other dermatological medicines
Antineoplastic medicines
Immunosuppressants
Other nervous system medicines
Analgesics
Lipid modifying agents
Sex hormones and modulators of the genital system
Vaccines
Allergens
Antianemic preparations
Antiepileptics
Antivirals for systemic use
Agents acting on the renin-angiotensin system
Anti-Parkinson drugs
Pituitary and hypothalamic hormones and analogues
Psycholeptics
Cardiac therapy
Total: 28 medicinal products

Table 3.1 List of medicinal products containing new non-orphan active substances under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Antineoplastic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Dostarlimab	NO	Cancer of endometrium
Pralsetinib	NO	Non-small cell lung cancer
Tepotinib	NO	Non-small cell lung cancer
Immunosuppressants		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Anifrolumab	NO	Lupus erythematosus
Bimekizumab	NO	Plaque psoriasis
Ponesimod	NO	Multiple sclerosis
Lipid modifying agents		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Evinacumab	NO	Familial hypercholesterolaemia
Icosapent ethyl	NO	Cardiovascular risk reduction
Agents acting on the renin-angiotensin system		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Finerenone	NO	Delaying of progression of renal disease, reduction in cardiovascular morbidity and mortality risk
Cardiac therapy		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Vericiguat	NO	Chronic heart failure
Antianemic preparations		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Roxadustat	NO	Anaemia
Pituitary and hypothalamic hormones and analogues		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Relugolix/estradiol/ norethisterone acetate Myovant	NO	Uterine fibromas
Sex hormones and modulators of the genital system		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Estetrol/drospirenone	NO	Oral contraception
Estetrol/drospirenone	NO	Oral contraception

Analgesics		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Lasmiditan	NO	Acute migraine with or without aura
Tanezumab	NO	Pain in osteoarthritis
Antiepileptics		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Cenobamate	NO	Seizures
Psycholeptics		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Remimazolam	NO	Procedural sedation
Anti-Parkinson drugs		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Istradefylline	NO	Parkinson's disease
Other nervous system medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Aducanumab	NO	Alzheimer's disease
Pitolisant	NO	Daytime sleepiness in the obstructive sleep apnoea syndrome
Antivirals for systemic use		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Tecovirimat	NO	Orthopoxvirus infection
Vaccines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
ChAdOx1-SARS-CoV-2	NO	Prevention of coronavirus disease
COVID-19 mRNA vaccine (positive EMA opinion of 6 January 2021)	NO	Prevention of coronavirus disease
Allergens		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Peanut allergens	NO	Peanut allergy
Other dermatological medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Abrocitinib	NO	Atopic dermatitis
Tirbanibulin	NO	Actinic keratosis
Tralokinumab	NO	Atopic dermatitis

Figure 3.6 shows the classification of orphan medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area. The higher number of orphan medicinal products belongs to the category of "antineoplastic medicines", accounting for 34.5% (n=10) of the total orphan medicinal products under evaluation. The remaining therapeutic areas are represented by a lower number of medicines with a minimum of 1 and a maximum of 3 orphan medicines under evaluation, accounting for 3.4% 10.3% of the total, respectively. Table 3.2 shows the complete list of orphan medicines under evaluation and with expected EMA opinion in 2021.

Figure 3.6 Orphan medicinal products under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

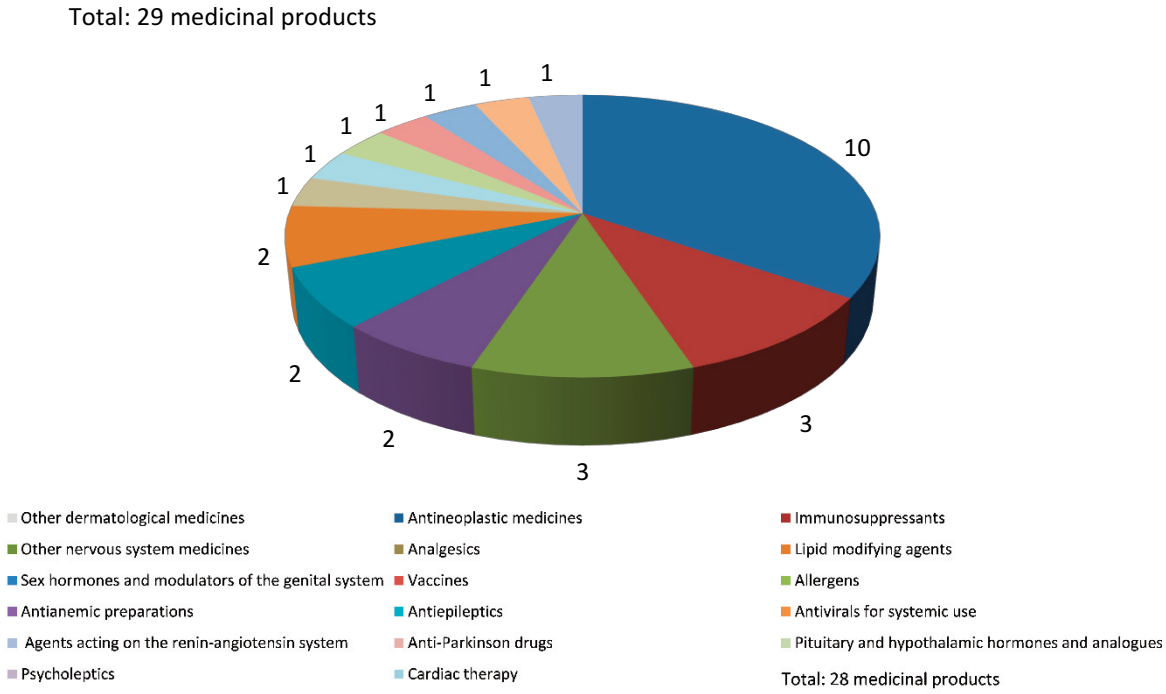


Table 3.2. List of medicinal products containing new orphan active substances under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Antineoplastic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Sitoiganap (ERC-1671)	YES	Glioma
Duvelisib	YES	Chronic lymphocytic leukaemia and lymphoma
Idecabtagene vicleucel	YES	Multiple myeloma
Lisocabtagene maraleucel	YES	B-cell lymphoma
Pemigatinib	YES	Cholangiocarcinoma
Ripretinib	YES	Gastrointestinal stromal tumour (GIST)
Selinexor	YES	Multiple myeloma
Selumetinib	YES	Neurofibromatosis
Tafasitamab	YES	B-cell lymphoma
Zanubrutinib	YES	Waldenström's macroglobulinaemia
Immunosuppressants		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Avacopan	YES	Polyangiitis
Pegcetacoplan	YES	Paroxysmal nocturnal haemoglobinuria
Satralizumab	YES	Neuromyelitis optica spectrum disorder (NMOSD)
Detoxifying agents for antineoplastic treatment		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Glucarpidase	YES	High dose methotrexate toxicity
Antiobesity preparations		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Setmelanotide	YES	Obesity
Other alimentary tract and metabolism products		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Avalglucosidase alfa	YES	Pompe's disease - deficiency of the lysosomal acid alpha-glucosidase enzyme
Lonafarnib	YES	Laminopathies and progeria
Bile and liver therapy		
Maralixibat	YES	Progressive familial intrahepatic cholestasis type 2
Odevixibat	YES	Progressive familial intrahepatic cholestasis (PFIC)

Other hematological medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Berotralstat	YES	Hereditary angioedema
Pituitary and hypothalamic hormones and analogues		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Lonapegsomatropin	YES	Growth hormone deficiency
Somapacitan	YES	Growth hormone deficiency (AGHD)
Medicines for bone diseases		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Vosoritide	YES	Achondroplasia
Other medicines for disorders of the musculo-skeletal system		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Risdiplam	YES	Spinal muscular atrophy (SMA)
Other nervous system medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Arimoclomol	YES	Niemann-Pick disease type C (NPC)
Eladocagene exuparvovec	YES	Aromatic L-amino aciddecarboxylase (AADC) deficiency
Elivaldogene autotemcel	YES	ABCD1 genetic mutation and cerebral adrenoleukodystrophy
Ophthalmologicals		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Lenadogene nolparvovec	YES	Vision loss
Antiparasitics		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Artesunate	YES	Malaria

Figure 3.7 shows the classification of ATMPs under evaluation with expected EMA opinion in 2021, broken down by therapeutic area. The higher number of medicinal products belongs to the category of "antineoplastic medicines", accounting for 50% (n=10) of the total ATMPs. The other ATMPs under evaluation belong to the following categories: "Other nervous system medicines" (n=2; 33.3% of the total) and "Ophthalmologicals" (n=1; 16.7% of the total). Table 3.3 shows the complete list of ATMPs under evaluation and with expected EMA opinion in 2021.

Figure 3.7 ATMPs under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

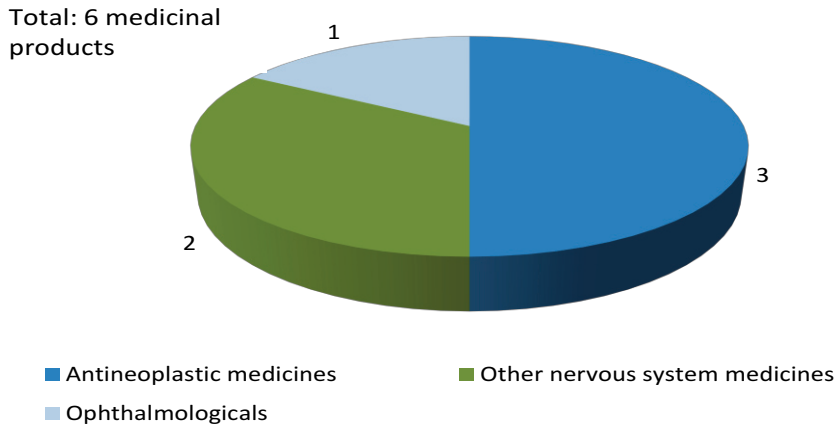


Table 3.3 List of ATMPs under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Antineoplastic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Sitoiganap (ERC-1671)	YES	Glioma
Idecabtagene vicleucel	YES	Multiple myeloma
Lisocabtagene maraleucel	YES	B-cell lymphoma
Other nervous system medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Eladocagene exuparvovec	YES	Aromatic L-amino aciddecarboxylase (AADC) deficiency
Elivaldogene autotemcel	YES	ABCD1 genetic mutation and cerebral adrenoleukodystrophy
Ophthalmologicals		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**DISEASE/CLINICAL CONDITION**
Lenadogene nolparvovec	YES	Vision loss

Analysis of therapeutic indications

Figure 3.8 shows the therapeutic indications of medicinal products containing new active substances under evaluation by the CHMP and with an opinion expected in 2021. These are 61 therapeutic indications (for a total of 57 medicines) belonging to 8 main therapeutic areas: neurologic, neurometabolic and sensory disorders (n=13; 21.3%), blood tumours (n=8; 13.1%), autoimmune diseases and allergies (n=7; 11.5%), solid tumours (n=6; 9.8%), cardiovascular disorders and metabolic syndromes (n=5; 8.2%), bone and growth disorders (n=5; 8,2%), infectious diseases (n=4; 6.6%), gynaecological conditions (n=3; 4.9%). "Other" includes medicinal products of less represented therapeutic areas (n=10; 16.4%). Overall, haematology and antineoplastic medicines (n=14; 23%) register the largest number of new upcoming therapeutic options, especially as regards lymphomas (n=3; 4.9%). They are followed by neurologic, neurometabolic and sensory disorders with 13 therapeutic indications under evaluation (21%). Conditions for which at least 2 therapeutic indications may exist in 2021 include: lung cancer, leukaemia, multiple myeloma, atopic dermatitis, growth hormone deficiency, cardiovascular risk reduction, intrahepatic cholestasis, oral contraception, prevention of Coronavirus disease (one of the two options received a positive EMA opinion on 6 January 2021).

Figure 3.8 Therapeutic indications under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

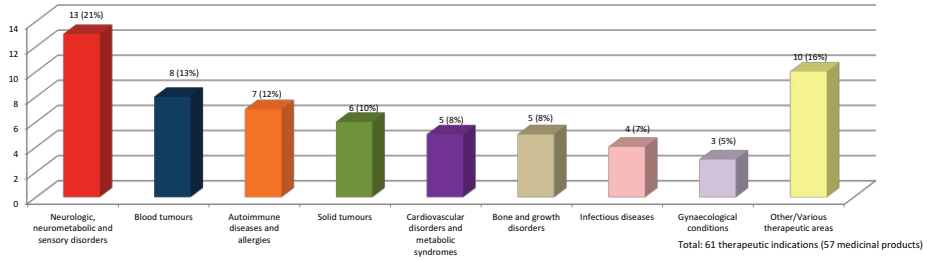


Table 3.4 List of therapeutic indications of medicinal products containing new active substances under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Neurologic, neurometabolic and sensory disorders	
INDICATION	**NUMBER**
Multiple sclerosis	1
Neurofibromatosis	1
Spinal Muscular Atrophy (SMA)	1
Seizures	1
Alzheimer's disease	1
Parkinson's disease	1
Daytime sleepiness in the obstructive sleep apnoea syndrome	1
Pompe's disease	1
ABCD1 genetic mutation and cerebral adrenoleukodystrophy	1
Aromatic L-amino aciddecarboxylase (AADC) deficiency	1
Neuromyelitis Optica Spectrum Disorder (NMOSD)	1
Vision loss	1
Migraine	1
Blood tumours	
INDICATION	**NUMBER**
Lymphoma	3
Multiple myeloma	2
Leukaemia	2
Waldenström's Macroglobulinaemia	1
Solid tumours	
INDICATION	**NUMBER**
Lung cancer	2
Cancer of endometrium	1
Cholangiocarcinoma	1
Glioma	1
Gastrointestinal Stromal Tumour (GIST)	1
Autoimmune diseases and allergies	
INDICATION	**NUMBER**
Atopic dermatitis	2
Peanut allergy	1

Paroxysmal nocturnal haemoglobinuria	1
Lupus erythematosus	1
Plaque psoriasis	1
Polyangiitis	1
Cardiovascular disorders and metabolic syndromes	
INDICATION	**NUMBER**
Cardiovascular risk reduction	2
Obesity	1
Chronic heart failure	1
Familial hypercholesterolaemia	1
Bone and growth disorders	
INDICATION	**NUMBER**
Growth hormone deficiency	2
Pain in osteoarthritis	1
Knee cartilage injury	1
Achondroplasia	1
Infectious diseases	
ACTIVE INGREDIENT	**DISEASE/CLINICAL CONDITION**
Prevention of coronavirus disease	2
Treatment of orthopoxvirus infection	1
Malaria	1
Gynaecological conditions	
ACTIVE INGREDIENT	**DISEASE/CLINICAL CONDITION**
Oral contraception	2
Uterine fibromas	1
Other	
INDICATION	**NUMBER**
Intrahepatic cholestasis	2
Anaemia	1
Procedural sedation	1
Hutchinson-Gilford progeria	1
Progeroid laminopathies	1
High dose methotrexate toxicity	1
Hereditary angioedema	1
Actinic keratosis	1
Niemann-Pick disease	1

Biosimilars

In 2021, a CHMP opinion is expected for 11 biosimilars.

Figure 3.9 shows the classification of biosimilars under evaluation in 2021 based on therapeutic indication. The largest group is represented by “antineoplastic medicines”. This therapeutic area accounts for 45.4% (n=5) of the total biosimilars under evaluation in 2021. The remaining therapeutic areas are represented by a lower number of medicines with a minimum of 1 and a maximum of 2 biosimilars, equal to 9.1% and 18.2% of the total, respectively. Table 3.5 shows the complete list of biosimilars under evaluation with expected EMA opinion in 2021.

Figure 3.9 Biosimilars under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

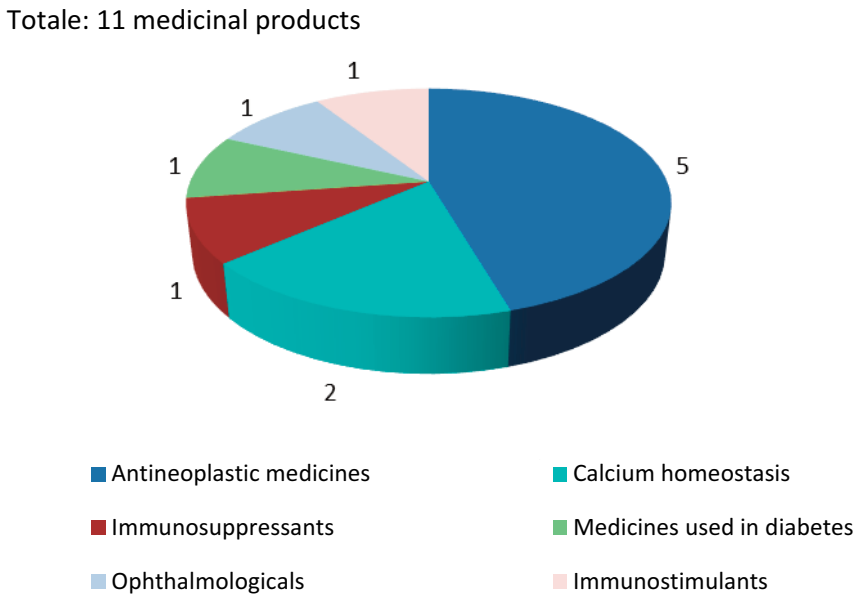


Table 3.5 List of biosimilars under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Antineoplastic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Bevacizumab	NO	4
Trastuzumab	NO	1
Immunosuppressants		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Adalimumab	NO	1
Immunostimulants		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Pegfilgrastim	NO	1
Medicines used in diabetes		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Insulin human	NO	1
Calcium homeostasis		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Teriparatide	NO	2
Ophthalmologicals		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Ranibizumab	NO	1

Generics

In 2021, a CHMP opinion is expected for 15 generics.

Figure 3.10 shows the classification of generics under evaluation in 2021 based on therapeutic indication. The largest group of generics is found across the following therapeutic areas: “antineoplastic medicines”, “endocrine therapy”, “medicines used in diabetes” (n=3, equal to 20% of the total for each therapeutic area). The remaining therapeutic areas are represented by a lower number of medicines with a minimum of 1 and a maximum of 2 generics, equal to 6.7% and 13.2% of the total, respectively. Table 3.6 shows the complete list of generics under evaluation with expected EMA opinion in 2021.

Figure 3.10 Generics under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

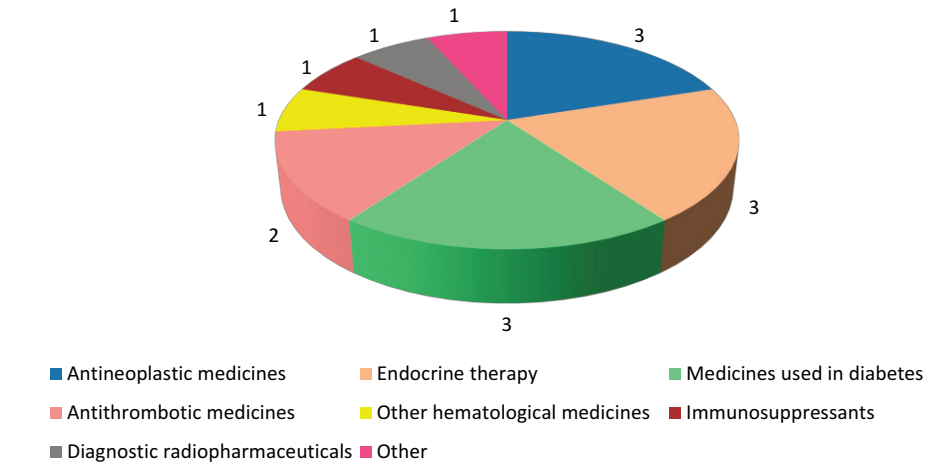


Table 3.6 List of generics under evaluation with expected EMA opinion in 2021, broken down by therapeutic area.

Antineoplastic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Dasatinib	NO	2
Thiotepa	NO	1
Endocrine therapy		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Abiraterone	NO	3
Immunosuppressants		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Fingolimod	NO	1
Antithrombotic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Dabigatran etexilate	NO	1
Rivaroxaban	NO	1
Other hematological medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Icatibant	NO	1
Medicines used in diabetes		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Metformin/sitagliptin	NO	1
Sitagliptin	NO	2
Diagnostic radiopharmaceuticals		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Ioflupane (123I)	NO	1
Other therapeutic medicines		
ACTIVE INGREDIENT	**ORPHAN MEDICINE**	**NUMBER OF UPCOMIJNG MEDICINES**
Sugammadex	NO	1

Section IV

PRIME medicines

PRIME medicines offer a major therapeutic advantage over existing treatments, or benefit patients without treatment options. Thanks to the PRIME scheme, EMA offers pharmaceutical companies early support in the developments of such products, in order to facilitate and streamline their authorisation.

The data are included in tables and information on each individual medicinal product is provided (e.g. therapeutic area, active ingredient, type of active ingredient, therapeutic indication, date of granting PRIME eligibility).

As reported in figure 4.1, among 84 medicines eligible to the PRIME scheme, the majority concerns ATMPs (n= 39; 46.4%), whereas chemical and biological medicines account for 25% (n=21) and 23.8% (n=20) of the total, respectively. A small percentage of PRIME medicines are immunological medicines (n=4; 4.8% of the total).

Figure 4.1 PRIME medicines, broken down by type.

Totale: 84 medicinal products

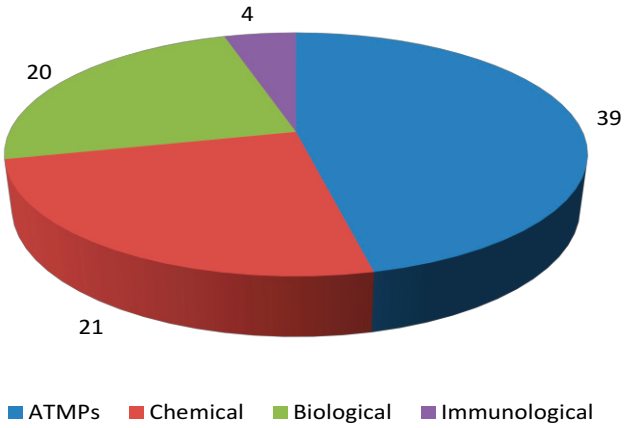


Figure 4.2 shows PRIME medicines, broken down by therapeutic area. Oncology is the most represented area, with a total of 23 medicines (27.4%), and is followed by haematology-haemostaseology (15 medicines, 17.8%); endocrinology-gynaecology-fertility-metabolism (9 medicines, 10.7%); neurology, infectious diseases and vaccines (6 medicines each; 7.1%); immunology-rheumatology-transplantation (4 medicines, 4.8%); gastroenterology-hepatology and ophthalmology (3 medicines each; 3.6%); dermatology, cardiovascular diseases and psychiatry (2 medicines each; 2.4%); musculoskeletal disorders, pneumology-allergology, and uro-nephrology (1 medicine each; 1.2%).

Figure 4.2 PRIME medicines, broken down by therapeutic area.

Total: 84 medicinal products

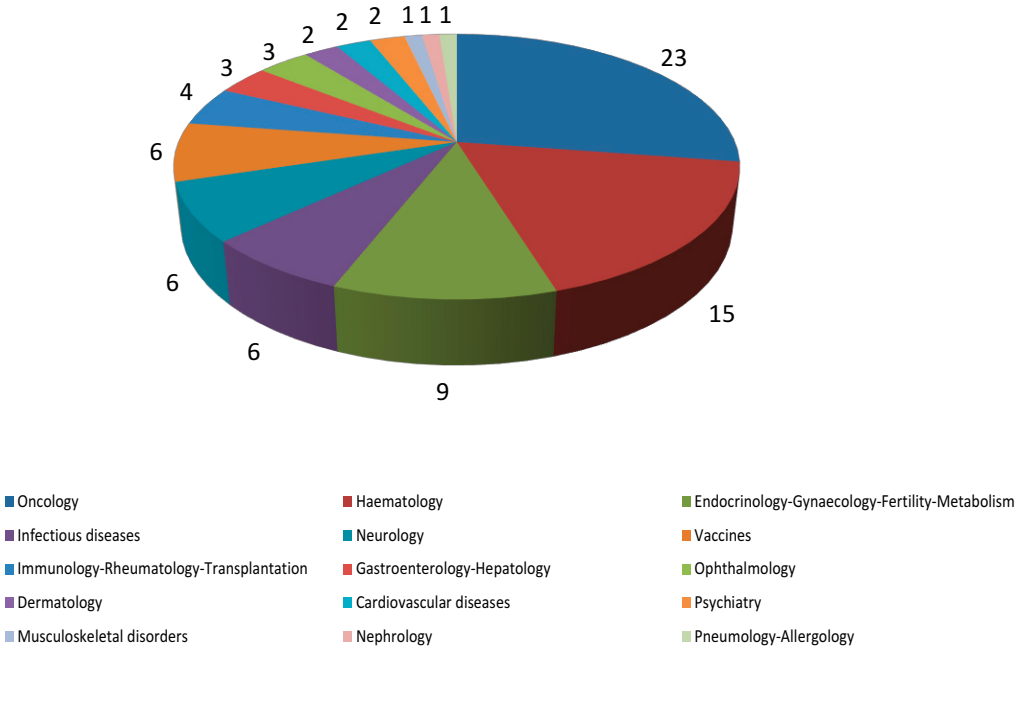


Figure 4.3 shows PRIME medicines, broken down by regulatory status (EMA positive opinion, under evaluation, delay/exclusion/negative EMA opinion, not yet under evaluation for MA purposes). 13 (15.5%) PRIME medicinal products received a positive CHMP opinion: Givosiran (Givlaari), Lentiglobin (Zynteglo), Imlifidase (Idefirix), Bulevirtide (Hepcludex), Onasemnogene abeparvovec (Zolgensma), KTE-C19 (Yescarta), CTL019 (Kymriah), KTE-X19 (Tecartus), Entrectinib (Rozlytrec), Belantamab mafodotin (Blenrep), Polatuzumab Vedotin (Polivy), Lumasiran (Oxlumo), Ebola Zaire vaccine (Ervebo).

Medicines currently under evaluation are 6 (7.1%): Setmelanotide, Odevixibat (A4250), Lenti-D-CAD, Risdiplam (RO70344067), JCAR-017, Idecabtagene vicleucel (BB2121). 8 (9.5%) medicinal products were withdrawn upon request of the pharmaceutical company, were excluded from the PRIME scheme, or received a negative EMA opinion: Emapalumab, Valoctocogene roxaparvovec (BMN 270), NLA 101, Avacopan (CCX168), Aducanumab, JCAR015, Vocimagene amiretrorepvec, Rapastinel. The remaining 57 medicinal products in the PRIME scheme are not yet being evaluated by the CHMP for the purposes of granting the MA. Table 4.1 shows the complete list of PRIME medicines.

Figure 4.3 PRIME medicines, broken down by regulatory status.

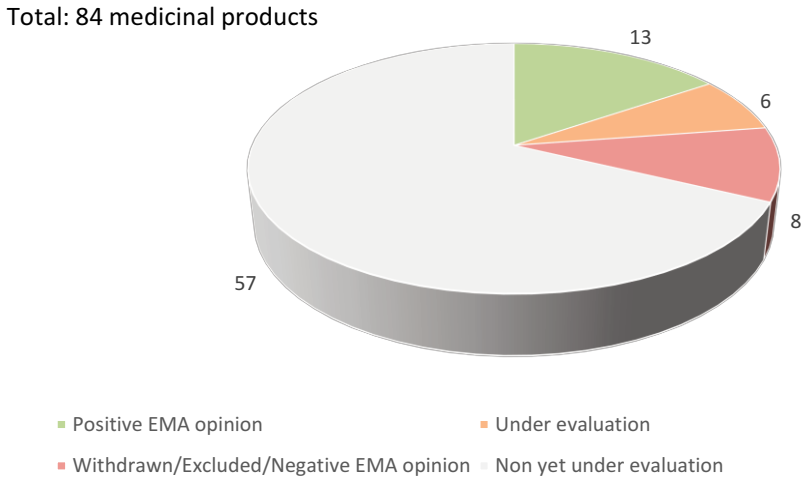


Table 4.1 List of PRIME medicines (Source: EMA[8])

Dermatology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
EDI200	Biological	12/10/2017
	Therapeutic indication: treatment of X-linked hypohidrotic ectodermal dysplasia.	
KB103	Advanced therapy	28/03/2019
	Therapeutic indication: Treatment of Dystrophic Epidermolysis Bullosa.	
Musculoskeletal disorders		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Setrusumab (BPS-804)	Biological	09/11/2017
	Therapeutic indication: Treatment of osteogenesis imperfecta types I, III and IV.	
Endocrinology-Gynaecology-Fertility-Metabolism		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
AT132	Advanced therapy	31/05/2018
	Therapeutic indication: Treatment of X-linked Myotubular Myopathy.	
Deoxycytidine (dC) Deoxythymidine (dT)	Chemical	28/06/2018
	Therapeutic indication: Treatment of Thymidine Kinase 2 Deficiency.	
Givosiran	Chemical	23/02/2017
	Therapeutic indication: Prevention of acute attacks of hepatic porphyria.	
Iptacopan (LNP023/C3G)	Chemical	17/09/2020
	Therapeutic indication: Treatment of C3 glomerulopathy (complement-driven renal disease)	
Iptacopan (LNP023/C3G) Olipudase alfa	Chemical	17/09/2020
	Therapeutic indication: Treatment of C3 glomerulopathy (complement-driven renal disease)	
Olipudase alfa OTL-203	Biological	18/05/2017
	Therapeutic indication: Treatment of non-neurological manifestations of acid sphingomyelinase deficiency.	
OTL-203 Setmelanotide	Advanced therapy	17/09/2020
	Therapeutic indication: Treatment of Mucopolysaccharidosis type I (MPS-1)	

[8] https://www.ema.europa.eu/en/human-regulatory/research-development/prime-priority-medicines

Setmelanotide	Chemical	28/06/2018
	Therapeutic indication: Treatment of obesity and the control of hunger associated with deficiency disorders of the MC4R receptor pathway.	
Rebisufligene etisparvovec (ABO-102)	Advanced therapy	12/12/2019
	Therapeutic indication: Treatment of Mucopolysaccharidosis Type IIIA, MPS IIIA (Sanfilippo A Syndrome)	
Teplizumab	Biological	17/10/2019
	Therapeutic indication: Treatment to delay or prevent clinical Type 1 diabetes in "at-risk" individuals.	
Gastroenterology-Hepatology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Odevixibat (A4250)	Chemical	13/10/2016
	Therapeutic indication: Treatment of Progressive Familial Intrahepatic Cholestasis.	
Efruxifermin	Biological	15/10/2020
	Therapeutic indication: Non-alcoholic steatohepatitis.	
Seladelpar (MBX-8025)	Chemical	13/10/2016
	Therapeutic indication: Treatment of Primary Biliary Cholangitis.	
Haematology-haemostaseology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Emapalumab	Biological	26/05/2016
	Therapeutic indication: Treatment of primary haemophagocytic lymphohistiocytosis (HLH).	
LentiGlobin	Advanced therapy	15/09/2016
	Therapeutic indication: Treatment of transfusion-dependent beta-thalassaemia (also referred to as beta-thalassaemia major).	
ATA129	Advanced therapy	13/10/2016
	Therapeutic indication: Treatment of patients with Epstein-Barr Virus-associated Post Transplant Lymphoproliferative Disorder in the allogeneic hematopoietic cell transplant setting who have failed on rituximab.	
Valoctocogene roxaparvovec (BMN 270)	Advanced therapy	26/01/2017
	Therapeutic indication: Treatment of haemophilia A.	
Fidanacogene elaparvovec (PF-06838435/ SPK-9001)	Advanced therapy	23/02/2017
	Therapeutic indication: Treatment of haemophilia B.	
Etranacogene dezaparvovec (AMT-060)	Advanced therapy	21/04/2017
	Therapeutic indication: Treatment of severe haemophilia B.	

RP-L102	Advanced therapy	12/12/2019
	Therapeutic indication: Treatment of Fanconi anaemia Type A	
Voxelotor (GBT440)	Chemical	22/06/2017
	Therapeutic indication: Treatment of Sickle Cell Disease.	
OTL-300	Advanced therapy	20/09/2018
	Therapeutic indication: Treatment of transfusion-dependent β-thalassemia.	
FLT180a	Advanced therapy	28/02/2019
	Therapeutic indication: Treatment of haemophilia B.	
BAY2599023	Advanced therapy	17/10/2019
	Therapeutic indication: Treatment of haemophilia A.	
Danicopan	Chemical	14/11/2019
	Therapeutic indication: Treatment of paroxysmal nocturnal hemoglobinuria not adequately responding to a C5 inhibitor.	
Bomedemstat (IMG-7289)	Chemical	23/07/2020
	Therapeutic indication: Treatment of myelofibrosis.	
CTX001	Advanced therapy	17/09/2020
	Therapeutic indication: Treatment of Sickle Cell Disease.	
LentiGlobin BB305 lentiviral vector encoding the human BA-T87Q-globin gene	Advanced therapy	17/09/2020
	Therapeutic indication: Treatment of Sickle Cell Disease.	
Immunology-Rheumatology-Transplantation		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
NLA101	Advanced therapy	31/05/2018
	Therapeutic indication: Treatment in Haematopoietic Stem Cell Transplantation (HSCT).	
Avacopan (CCX168)	Chemical	26/05/2016
	Therapeutic indication: Treatment of patients with active ANCA-associated vasculitis (including granulomatosis with polyangiitis and microscopic polyangiitis).	
Imlifidase (HMED-Ides)	Biological	18/05/2017
	Therapeutic indication: Desensitisation treatment of highly sensitised adult kidney transplant patients with positive crossmatch against an available deceased donor.	
PF-06823859	Biological	15/10/2020
	Therapeutic indication: Treatment of Dermatomyositis.	

Cardiovascular Diseases		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
PB2452	Biological	30/01/2020
	Therapeutic indication: Reversal of antiplatelet effects of ticagrelor in patients with uncontrolled major or life-threatening bleeding or requiring urgent surgery or invasive procedure.	
Sotatercept	Biological	30/04/2020
	Therapeutic indication: Treatment of pulmonary arterial hypertension (PAH)	
Infectious Diseases		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Bulevirtide	Chemical	18/05/2017
	Therapeutic indication: Treatment of chronic hepatitis D infection.	
Nangibotide (LR12)	Chemical	09/11/2017
	Therapeutic indication: Treatment of septic shock.	
Lonafarnib	Chemical	13/12/2018
	Therapeutic indication: Treatment of hepatitis D virus infection.	
Nirsevimab (MEDI8897)	Biological	31/01/2019
	Therapeutic indication: Prevention of lower respiratory tract infection caused by respiratory syncytial virus.	
PXVX0317	Biological	19/09/2019
	Therapeutic indication: Active immunisation to prevent disease caused by chikungunya virus infection in individuals aged 12 years and older.	
ALVR-105	Advanced therapy	30/01/2020
	Therapeutic indication: Treatment of serious infections with BK virus, cytomegalovirus, human herpes virus-6, Epstein Barr virus, and/or adenovirus in allogeneic HSCT recipients.	
Neurology		
Aducanumab	Biological	26/05/2016
	Therapeutic indication: Treatment of Alzheimer's disease.	
Onasemnogene abeparvovec (Zolgensma)	Advanced therapy	26/01/2017
	Therapeutic indication: Treatment of paediatric patients diagnosed with spinal muscular atrophy Type 1.	
Lenti-D CALD	Advanced therapy	26/07/2018
	Therapeutic indication: Treatment of cerebral adrenoleukodystrophy (CALD).	
Tominersen (RO7234292)	Chemical	26/07/2018
	Therapeutic indication: Treatment of Huntington's Disease (HTT).	

Risdiplam (RO7034067)	Chemical	13/12/2018
	Therapeutic indication: Treatment of 5q spinal muscular atrophy.	
AT-GTX-501	Advanced therapy	17/09/2020
	Therapeutic indication: Slowing disease progression in paediatric patients with variant late infantile neuronal ceroid lipofuscinosis 6 (vLINCL6).	
Oncology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Axicabtagene ciloleucel (KTE-C19)	Advanced therapy	26/05/2016
	Therapeutic indication: Treatment of adult patients with diffuse large B-cell lymphoma (DLBCL) who have not responded to their prior therapy, or have had disease progression after autologous stem cell transplant (ASCT).	
Tisagenlecleuce (CTL019)	Advanced therapy	23/06/2016
	Therapeutic indication: Treatment of paediatric patients with relapsed or refractory B cell acute lymphoblastic leukaemia.	
DNX-2401	Advanced therapy	21/07/2016
	Therapeutic indication: Treatment of recurrent glioblastoma in patients for which a gross total resection is not possible or advisable, or for those who refuse further surgery.	
NY-ESO-1c259T	Advanced therapy	21/07/2016
	Therapeutic indication: Treatment of HLA-A*0201, HLA-A*0205, or HLA-A*0206 allele positive patients with inoperable or metastatic synovial sarcoma who have received prior chemotherapy and whose tumour expresses the NY-ESO-1 tumour antigen.	
JCAR015	Advanced therapy	15/09/2016
	Therapeutic indication: Treatment of relapsed/refractory adult B-cell Acute Lymphoblastic Leukaemia (ALL).	
JCAR017	Advanced therapy	15/12/2016
	Therapeutic indication: Treatment of relapsed/refractory diffuse large B-cell lymphoma (DLBCL).	
JNJ-68284528	Advanced therapy	28/03/2019
	Therapeutic indication: Treatment of adult patients with relapsed or refractory multiple myeloma, whose prior regimens included a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody and who had disease progression on the last regimen.	
Idecabtagene vicleucel (BB2121)	Advanced therapy	09/11/2017
	Therapeutic indication: Treatment of relapsed and refractory multiple myeloma patients whose prior therapy included a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody.	

KTE-X19 (Tecartus)	Advanced therapy	31/05/2018
	Therapeutic indication: Treatment of adult patients with relapsed or refractory mantle cell lymphoma.	
Asunercept	Biological	18/05/2017
	Therapeutic indication: Treatment of glioblastoma.	
Entrectinib (RXDX-101)	Chemical	12/10/2017
	Therapeutic indication: Treatment of NTRK fusion-positive, locally advanced or metastatic solid tumours in adult and paediatric patients who have either progressed following prior therapies or who have no acceptable standard therapy.	
Belantamab mafodotin	Biological	12/10/2017
	Therapeutic indication: Treatment of multiple myeloma. Treatment of relapsed and refractory multiple myeloma patients whose prior therapy included a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody.	
Polatuzumab vedotin	Biological	22/06/2017
	Therapeutic indication: Treatment of relapsed and refractory patients with diffuse large B cell lymphoma.	
Vocimagene amiretrorepvec	Advanced therapy	20/07/2017
	Therapeutic indication: Treatment of high grade glioma.	
Allogeneic EBV-specific Cytotoxic T Lymphocytes	Advanced therapy	29/05/2019
	Therapeutic indication: Treatment of rituximab refractory Post-Transplant Lymphoproliferative Disorder (PTLD).	
MB-CART2019.1	Advanced therapy	17/10/2019
	Therapeutic indication: Treatment of patients with relapsed and refractory diffuse large B-cell lymphoma (DLBCL) after frontline therapy and who are ineligible for autologous stem cell transplantation.	
JCAR125	Advanced therapy	14/11/2019
	Therapeutic indication: Treatment of relapsed / refractory multiple myeloma whose prior therapies included autologous stem cell transplant if they were eligible, a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 antibody.	
Fully human anti-BCMA autologous CAR T Cell (CT053)	Advanced therapy	19/09/2019
	Therapeutic indication: Treatment of patients with relapsed and/or refractory multiple myeloma (MM) whose prior regimens included a proteasome inhibitor, an immunomodulatory agent and an anti-CD38 monoclonal antibody.	
ADP-A2M4	Advanced therapy	23/07/2020
	Therapeutic indication: Treatment of HLA-A*02 positive patients with inoperable or metastatic synovial sarcoma who have received prior chemotherapy and whose tumour expresses the MAGE-A4 tumour antigen.	

CD30.CAR-T	Advanced therapy	17/09/2020
	Therapeutic indication: Treatment of classical Hodgkin lymphoma.	
Magrolimab	Biological	15/10/2020
	Therapeutic indication: Myelodysplastic Syndromes.	
ECT-001-CB	Advanced therapy	15/10/2020
	Therapeutic indication: Urgent allogeneic haematopoietic stem cell transplantations.	
Lacutamab	Biological	12/11/2020
	Therapeutic indication: Treatment of patients with Sézary Syndrome who have received at least two prior systemic therapies.	
Ophthalmology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
AAV - CNGB3	Advanced therapy	22/02/2018
	Therapeutic indication: Treatment of achromatopsia associated with defects in CNGB3.	
Sepofarsen (QR-110)	Chemical	25/07/2019
	Therapeutic indication: Treatment of Leber's congenital amaurosis.	
Adenovirus associated viral vector serotype 5 containing the human RPGR gene	Advanced therapy	27/02/2020
	Therapeutic indication: Treatment of X linked retinitis pigmentosa.	
Pneumology-allergology		
Brensocatib	Chemical	12/11/2020
	Therapeutic indication: Treatment of non-cystic fibrosis bronchiectasis.	
Psychiatry		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Brexanolone (SAGE-547)	Chemical	10/11/2016
	Therapeutic indication: Treatment of Postpartum depression.	
Rapastinel	Chemical	18/05/2017
	Therapeutic indication: Adjunctive treatment of major depressive disorder.	
Uro-nephrology		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Lumasiran	Chemical	22/03/2018
	Therapeutic indication: Treatment of Primary Hyperoxaluria Type 1.	

Vaccines		
ACTIVE INGREDIENT	**TYPE**	**DATE OF GRANTING PRIME ELIGIBILITY**
Mycobacterium tuberculosis (MTBVAC)	Immunological	28/06/2018
	Therapeutic indication: Active immunization against tuberculosis disease in newborns (primary endpoint), adolescents and adults (secondary endopoint).	
MV-CHIK vaccine	Biological	31/05/2018
	Therapeutic indication: Prevention of Chikungunya fever.	
TAK-426	Immunological	28/03/2019
	Therapeutic indication: Active immunization for the prevention of disease caused by Zika virus.	
Ervebo	Immunological	23/06/2016
	Therapeutic indication: Vaccination against Ebola (Zaire strain).	
VLA1553	Immunological	15/10/2020
	Therapeutic indication: Prophylaxis against Chikungunya disease.	
VAC18193	Biological	12/11/2020
	Therapeutic indication: Active immunization for the prevention of lower respiratory tract disease (LRTD) caused by RSV in adults.	

Key: ☐ medicinal products that have received a positive EMA opinion; ☐ medicinal products under evaluation; ☐ medicinal products that were withdrawn upon request by the pharmaceutical company, that were excluded from the PRIME scheme, or that received a negative EMA opinion; ☐ medicinal products not yet under evaluation for the purposes of granting the MA.

Appendix

Medicines
on the
Horizon
2021

ATC	THERAPEUTIC AREA
A	Alimentary tract and metabolism
B	Blood and blood forming organs
C	Cardiovascular system
D	Dermatologicals
G	Genito urinary system and sex hormones
H	Systemic hormonal preparations, excl. sex hormones and insulins
J	Antiinfectives for systemic use
L	Antineoplastic and immunomodulating agents
M	Musculo-skeletal system
N	Nervous system
P	Antiparasitic products, insecticides and repellents
R	Respiratory system
S	Sensory organs
V	Various

BIOSIMILAR
A biosimilar is a biological medicine highly similar to another biological medicine already approved in the EU (called 'reference medicine') in terms of quality, efficacy and safety. Biosimilars are developed once the patent of the reference medicine expires. Despite having the same biological substance, the biosimilar and the reference medicine may present minor differences due to natural variability, their complex nature and their manufacturing process. Once the patent of the reference medicines expires and its market exclusivity elapses, the biosimilar may be placed on the market.

GENERIC
This is a medicinal product that contains the same active ingredient at the same concentration as a branded product no longer covered by a patent (called “reference medicinal product” or “originator”). Additionally, generics have the same pharmaceutical forms and the same therapeutic indications as the reference medicine. Therefore, from a therapeutic point of view, they are equivalent to their originator and can be used as a substitute for it. In order to assess the similarity between generic and reference medicine, studies on the medicine bioavailability are carried out. Bioavailability indicates the rate at which and to what extent the active substance is distributed (and therefore becomes available) in the body. If the bioavailability of the generic has the same values as the originator, both medicines can be considered bioequivalent.

ATC
The Anatomical Therapeutic Chemical classification system is an international system used for the systematic classification of medicinal products. It is an alphanumerical system that divides medicines according to 5 hierarchical levels. The ATC system is managed by the World Health Organisation. The first level indicates the anatomical main group and is characterised by 14 letters (A, B, C, D, G, H, J, L, M, N, P, R, S, V). Letter V identifies different types of active ingredients that do not belong to the other categories, such as allergens, antidotes, diagnostic agents, contrast media and radiopharmaceuticals.

THERAPEUTIC AREA
Grouping of medicinal products indicated for specialised areas.

EMA OPINION
This is the opinion issued by the Committee for Medicinal Products for Human Use (CHMP) of the European Medicines Agency (EMA) with regard to the marketing authorisation of a medicinal product or of a new therapeutic indication of an already authorised medicinal product.

CENTRALISED PROCEDURE
The centralised procedure is the procedure for granting a marketing authorisation that takes place at EMA. It is mandatory for medicines derived from biotechnology processes, advanced-therapy medicines, orphan medicines, medicines for the treatment of acquired immune deficiency syndrome, cancer, neurodegenerative diseases, diabetes, auto-immune and other immune dysfunctions, and viral diseases. The centralised procedure is optional for medicines other than the above, that are a significant therapeutic, scientific or technical innovation or whose authorisation would be in the interest of public or animal health at EU level.

PRIME
The **PRIority MEdicines scheme (PRIME)** is a scheme launched by the European Medicines Agency to enhance support for the development of medicines that target an unmet medical need. PRIME builds on the existing regulatory framework and tools already available such as scientific advice and accelerated assessment.

ORPHAN MEDICINE
In the European Union, applications for orphan designation are examined by the EMA’s Committee for Orphan Medicinal Products (COMP). To qualify for orphan designation, a medicine must meet the following criteria:
1) it must be intended for the treatment, prevention or diagnosis of a disease that is life-threatening or chronically debilitating;
2) the prevalence of the condition in the EU must not be more than 5 in 10,000 individuals;
3) no satisfactory method of diagnosis, prevention or treatment of the condition concerned can be authorised, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.

ADVANCED THERAPY MEDICINAL PRODUCTS (ATMPs)

Advanced Therapy Medicinal Products (ATMPs) are biological medicines in that their active substance is of biological nature. A biological substance is produced or derived from a biological source and needs to undergo physical, chemical and biological tests in order to be characterised and for its qualities to be established. In addition, its manufacturing process and quality checks need to be known. ATMPs can be classified into four main types:

- **Gene therapy medicines:** these contain genes that lead to a therapeutic, prophylactic or diagnostic effect. They work by inserting 'recombinant' genes into the body, usually to treat a variety of diseases, including genetic disorders, cancer or long-term diseases. A recombinant gene is a stretch of DNA that is created in the laboratory, bringing together DNA from different sources;
- **Somatic-cell therapy medicines:** these contain cells or tissues that have been manipulated to change their biological characteristics or cells or tissues not intended to be used for the same essential functions in the body. They can be used to cure, diagnose or prevent diseases;
- **Tissue-engineered medicines:** these contain cells or tissues that have been modified so they can be used to repair, regenerate or replace human tissue;
- **Combined ATMPs:** these contain one or more medical devices as an integral part of the medicine. An example of this is cells embedded in a biodegradable matrix or scaffold.

CLASSIFICATION FOR SUPPLY PURPOSES

Supply indicates how the medicinal product is dispensed to the public (through pharmacies, supermarkets or hospitals, with or without prescription). Medicinal products are classified into one or more of the following categories:

a) medicinal products subject to medical prescription;
b) medicinal products subject to medical prescription that needs to be renewed from time to time;
c) medicinal products subject to special medical prescription or carbon-copied medical prescriptions;
d) medicinal products subject to restricted medical prescription, including:
   - medicines that can be sold to the public but are subject to a medicinal prescription by hospitals or specialist physicians;
   - medicines that can be used only in a hospital setting or similar setting;
e) medicinal products not subject to medical prescription, including:
   - self-medication (over-the-counter - OTC, and medicinal products that do not require prescription).

CLASSIFICATION FOR REIMBURSEMENT PURPOSES

For reimbursement purposes, all medicinal products are classified into the following categories:
CLASS A/H: medicinal products entirely reimbursed by the National Health System;
CLASS C: medicinal products not reimbursed by the National Health Service. The price is freely set by the pharmaceutical company and may be increased only in odd years.
Medicinal products not subject to medical prescription (class C-bis) may be purchased in pharmacies, parapharmacies, supermarkets.

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