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1.	Cat	Wiki
2.		 4-phenylbutyric Acid sodium salt 4-苯基丁酸鈉鹽 https://en.wikipedia.org/wiki/Sodium_phenylbutyrate
3.		such as <u>cystic fibrosis</u> . ^[1] Acyclovir 阿昔洛韋 <u>https://en.wikipedia.org/wiki/Aciclovir</u> <i>o</i> <i>y</i> <i>y</i> <i>y</i> <i>y</i> <i>y</i> <i>y</i> <i>y</i> <i>y</i>

	analogue made from guanosine. It works by decreasing the production of the virus's DNA. ^[4]
	The discovery of aciclovir was announced in 1977. ^[8] It is on the <u>World Health Organization's List</u> of <u>Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[9] It is available as a <u>generic medication</u> and is marketed under many brand names worldwide. ^[1] The wholesale cost as of 2014 to 2016 was between <u>US\$</u> 0.03 and US\$0.12 for a typical dose by mouth. ^{[10][11]} The cost of a typical course of treatment in the United States is less than US\$25. ^[6]
4.	Alfacalcidol
	https://en.wikipedia.org/wiki/Alfacalcidol
	Alfacalcidol (or 1-hydroxycholecalciferol) is an analogue of <u>vitamin D</u> used for supplementation in humans and as a poultry feed additive.
	Alfacalcidol has a weaker impact on <u>calcium metabolism^[1]</u> and <u>parathyroid</u> <u>hormone</u> levels ^[2] than <u>calcitriol</u> , however alfacalcidol has significant effects on the <u>immune</u> <u>system</u> , including <u>regulatory T cells</u> . ^[3] It is considered to be a more useful form of <u>vitamin</u> <u>D</u> supplementation, mostly due to much longer half-life and lower kidney load. ^[4] It is the most commonly prescribed vitamin D metabolite for patients with <u>end stage renal disease</u> , given that impaired renal function alters the ability to carry out the second <u>hydroxylation</u> step required for the formation of the physiologically active form of vitamin D, <u>1,25-dihydroxyvitamin D3</u> . Alfacalcidol is an active vitamin D3 metabolite, and therefore does not require the second <u>hydroxylation</u> step in the <u>kidney</u> . ^[5]
	Used as a poultry feed additive, it prevents <u>tibial dyschondroplasia</u> and increases <u>phytate</u> bioavailability. ^{[6][original research?]}
5.	Alfuzosin Hydrochloride 阿福唑嗪
	$\frac{\text{https://en.wikipedia.org/wiki/Alfuzosin}}{(N_{1}, N_{2}, N_{2}, N_{3}, N_{4}, N_{5}, N_$
	Alfuzosin (INN, provided as the <u>hydrochloride</u> salt) is a <u>pharmaceutical drug</u> of the $\underline{\alpha}_1$ <u>blocker</u> class. As an <u>antagonist</u> of the $\underline{\alpha}_1$ <u>adrenergic receptor</u> , it works by relaxing the muscles in the <u>prostate</u> and <u>bladder</u> neck, making it easier to urinate. It is thus used to treat <u>benign prostatic hyperplasia</u> (BPH).
	Alfuzosin is marketed in the <u>United States</u> by <u>Sanofi Aventis</u> under the brand name Uroxatral and elsewhere under the tradenames Xat, Xatral, Prostetrol and Alfural. Alfuzosin was approved by the <u>U.S. FDA</u> for treatment of BPH in June 2003.

6.	Allopurinol
	別嘌呤醇
	https://en.wikipedia.org/wiki/Allopurinol
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	N NH
	N H
	Allopurinol, sold under the brand name Zyloprim and generics, is a medication used primarily to treat <u>excess uric acid in the blood</u> and its complications, including chronic <u>gout</u> . ^[1] It is a <u>xanthine oxidase inhibitor</u> and is administered orally.
	It is on the <u>World Health Organization's List of Essential Medicines</u> , a list of the most important medication needed in a basic <u>health system</u> . ^[2]
7.	Alprazolam
	阿普唑侖
	https://en.wikipedia.org/wiki/Alprazolam
	Alprazolam, available under the trade name Xanax (and sometimes known as xans or zans for short) is a short-actinganxiolytic of the <u>benzodiazepine class</u> . It is commonly used for the treatment of <u>panic disorder</u> , and <u>anxiety disorders</u> , such as <u>generalized anxiety disorder</u> (GAD) or <u>social anxiety disorder</u> (SAD). ^[41]5] It was the 12th most prescribed medicine in the USA in 2010. ^[6] Alprazolam, like other benzodiazepines, binds to specific sites on the <u>GABA_A receptor</u> . It possesses <u>anxiolytic</u> , <u>sedative</u> , <u>hypnotic</u> , <u>skeletal muscle relaxant</u> , <u>anticonvulsant</u> , and <u>amnestic properties.^[7] Alprazolam is available for<u>oral administration</u> in <u>compressed</u> <u>tablet</u> (CT) and <u>extended-release capsule</u> (XR) formulations.</u>
8.	Alprostadil
	前列地爾
	https://en.wikipedia.org/wiki/Prostaglandin_E1
	HO OH
	Prostaglandin E₁ (PGE1) is a prostaglandin.
	The <u>synthetic</u> variant is known pharmaceutically as alprostadil . ^[11] It is a drug used in the continuous treatment of <u>erectile dysfunction</u> ^[2] and has <u>vasodilatory</u> properties. <u>Misoprostol</u> is another synthetic prostaglandin E_1 analog used to prevent gastric ulcers when taken on a continuous basis, to treat missed miscarriage, to induce labor, and to induce abortion.

9.	
	Anastrozole
	阿那曲唑
	https://en.wikipedia.org/wiki/Anastrozole
	\rightarrow
	$N \sim $
	Aromatase inhibitors (Als) are a class of <u>drugs</u> used in the treatment of <u>breast</u> <u>cancer</u> in <u>postmenopausal</u> women and <u>gynecomastia</u> in men. They may also be used <u>off-label</u> to
	reduce increase of estrogen conversion during cycle with external testosterone. They may also be used for chemoprevention in high risk women.
	<u>Aromatase</u> is the <u>enzyme</u> that synthesizes <u>estrogen</u> . As breast and ovarian cancers require estrogen to grow, AIs are taken to either block the production of estrogen or block the action of estrogen on receptors.
10.	Argatroban
	阿加曲班
	https://en.wikipedia.org/wiki/Argatroban
	Argatroban is an <u>anticoagulant</u> that is a small molecule <u>direct thrombin inhibitor</u> . ^[1] In 2000, argatroban was licensed by the <u>Food and Drug Administration</u> (FDA) for prophylaxis or treatment of <u>thrombosis</u> in patients with <u>heparin-induced thrombocytopenia</u> (HIT). In 2002, it was approved for use during <u>percutaneous coronary interventions</u> in patients who have HIT or are at risk for
	developing it. In 2012, it was approved by the MHRA in the UK for anticoagulation in patients with Heparin-Induced Thrombocytopenia Type II (HIT) who require parenteral antithrombotic therapy. ^[2]
	Argatroban is given intravenously and drug plasma concentrations reach steady state in 1–3 hours. ^[3] Argatroban is metabolized in the <u>liver</u> and has a <u>half-life</u> of about 50 minutes. It is monitored by <u>PTT</u> . Because of its hepatic metabolism, it may be used in patients with renal dysfunction. (This is in contrast to <u>lepirudin</u> , a direct thrombin inhibitor that is primarily renally cleared).
11.	Articaine Hydrochloride
	鹽酸阿尼卡因
	https://en.wikipedia.org/wiki/Articaine
	OCH3
	Articaine is a dental <u>amide-type local anesthetic</u> . It is the most widely used local anesthetic in a number of European countries ^[2] and is available in many countries around.
12.	Atenolol

	阿替洛爾
	https://en.wikipedia.org/wiki/Atenolol
	H ₂ N CH ₃
	Atenolol is a selective $\underline{\beta}_1$ receptor antagonist, a drug belonging to the group of <u>beta</u>
	blockers (sometimes written β -blockers), a class of drugs used primarily in <u>cardiovascular</u> <u>diseases</u> . Introduced in 1976, atenolol was developed as a replacement for <u>propranolol</u> in the treatment of <u>hypertension</u> . It works by slowing down the heart and reducing its workload. Unlike <u>propranolol</u> , atenolol does not readily pass through the <u>blood–brain barrier</u> , thus decreasing the incidence of <u>central nervous system</u> side effects. ^[11]
	Atenolol is one of the most widely used β -blockers in the United Kingdom and was once the first- line treatment for hypertension. ^[citation needed] However, recent studies indicate that atenolol may not reduce <u>morbidity</u> or <u>mortality</u> when used to treat hypertension, and may even increase mortality in some subgroups. ^[2] In addition, the role for β -blockers in general in hypertension was downgraded in June 2006 in the United Kingdom, and later in the United States, as they are less appropriate than newer drugs, particularly in the elderly. ^[citation needed]
13.	Atomoxetine HCI
	阿托莫西汀
	https://en.wikipedia.org/wiki/Atomoxetine
	H
	Atomoxetine (brand name: Strattera) is a drug which is approved for the treatment of <u>attention</u> <u>deficit hyperactivity disorder</u> (ADHD). ^[4] Clinical dosages inhibit both <u>norepinephrine</u> and <u>serotonin</u> <u>transporters</u> . ^[5]
14.	Azacitidine
	阿扎胞苷
	https://en.wikipedia.org/wiki/Azacitidine
	NH ₂
	Azacitidine (<u>INN</u> ; trade name Vidaza) is a chemical <u>analog</u> of <u>cytidine</u> , a <u>nucleoside</u> in <u>DNA</u> and <u>RNA</u> . Azacitidine and its deoxy derivative, <u>decitabine</u> (also known as 5- aza-2'deoxycytidine), are used in the treatment of <u>myelodysplastic syndrome</u> . Both drugs were first synthesized in <u>Czechoslovakia</u> as potential <u>chemotherapeutic agents</u> for cancer. ^[2]
15.	Balsalazide Disodium Dihydrate
	巴柳氮 二鈉二水合物
	https://en.wikipedia.org/wiki/Balsalazide

	Balsalazide is an anti-inflammatory drug used in the treatment of <u>inflammatory bowel disease</u> is sold under the brand names Giazo , Colazal in the US and Colazide in the UK. It is also sole in generic form in the US by several generic manufacturers.	
	It is usually administered as the disodium salt. Balsalazide releases <u>mesalazine</u> , also known a 5-aminosalicylic acid, or 5-ASA, ^[1] in the large intestine. Its advantage over that drug in the treatment of <u>ulcerative colitis</u> is believed to be the delivery of the active agent past the small intestine to the large intestine, the active site of ulcerative colitis.	IS
16.	Benazepril HCl	
	貝那普利	
	https://en.wikipedia.org/wiki/Benazepril	
	Benazepril , brand name Lotensin (<u>Novartis</u>), is an <u>ACE inhibitor</u> used primarily in treatment of <u>hypertension</u> , <u>congestive heart failure</u> , and <u>heart attacks</u> , and also in preventing the <u>renal</u> and <u>retinal</u> complications of <u>diabetes</u> .	
	ACE inhibitors relax blood vessels, and decrease <u>blood volume</u> , which lowers <u>blood</u> <u>pressure</u> and decreases oxygen demand from the <u>heart</u> . They inhibit <u>angiotensin-converting</u> <u>enzyme</u> , which is part of the <u>renin-angiotensin-aldosterone system</u> .	
	Benazepril is a prodrug which is metabolized by the <u>liver</u> into its active form <i>benazeprilat</i> via cleavage of the drug's <u>estergroup</u> .	
17.	Benzonatate	
	苯甲酸鹽	
	https://en.wikipedia.org/wiki/Benzonatate	
	- Martin Contraction of the second seco	
	Benzonatate is a non- <u>narcotic</u> oral cough suppressant, or <u>antitussive</u> , with effects that last from 6 to 8 hours. Since it is not an opioid, benzonatate is not as prone to abuse like some other cough medications such as <u>codeine</u> . Benzonatate was approved by the U.S. <u>Food and Drug</u> <u>Administration</u> (FDA) in 1958. ^[1]	m
18.	Bepotastine Besilate	
	苯磺酸贝他斯汀	
	https://en.wikipedia.org/wiki/Bepotastine	
	но	

	Bepotastine (Talion , Bepreve) is a 2nd generation <u>antihistamine</u> . ^[1] It was approved in <u>Japan</u> for use in the treatment of <u>allergic rhinitis</u> and <u>urticaria/pruritus</u> in July 2000 and January 2002, respectively. It is currently marketed in the United States under the brand-name Bepreve, by <u>ISTA Pharmaceuticals</u> .
19.	Bimatoprost
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	https://en.wikipedia.org/wiki/Bimatoprost
	HO HO HO HO HO HO
	Bimatoprost (marketed in the US, Canada and Europe by <u>Allergan</u> , under the trade name Lumigan) is a <u>prostaglandin</u> analog used topically (as <u>eye drops</u>) to control the progression of <u>glaucoma</u> and in the management of <u>ocular hypertension</u> . It reduces <u>intraocular</u> <u>pressure</u> (IOP) by increasing the outflow of <u>aqueous fluid</u> from the eyes. ^[1] In December 2008, the indication to lengthen <u>eyelashes</u> was approved by the <u>U.S. Food and Drug Administration</u> (FDA); the cosmetic formulation of bimatoprost is sold as Latisse <u>/ləˈti:s/</u> . ^[2]
20.	Bisoprolol Fumarate
	比索洛爾 富馬酸鹽
	https://en.wikipedia.org/wiki/Bisoprolol
	Bisoprolol is a drug belonging to the group of <u>beta-blockers</u> , a class of medicines used primarily in <u>cardiovascular diseases</u> . More specifically, it is a selective type β ₁ <u>adrenergic receptor</u> blocker. The U.S. <u>Food and Drug Administration</u> (FDA) approved an application by Duramed Pharmaceutical for Zebeta Oral Tablets (bisoprolol fumarate) as a new molecular entity on July 31, 1992. ^[4] It has since been approved by the FDA for manufacture by Teva, Mylan, Sandoz, Aurobino, and Unichem. ^[5] It is on the <u>World Health Organization's List of Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[6]
21.	Bivalirudin
	比伐盧定
	https://en.wikipedia.org/wiki/Bivalirudin
	Bivalirudin (Angiomax or Angiox, manufactured by The Medicines Company) is a specific and reversible direct thrombin inhibitor (DTI). ^[1]
	Chemically, it is a synthetic congener of the naturally occurring drug hirudin (found in the saliva

	of the medicinal leech Hirudo medicinalis).
	Bivalirudin is a DTI that overcomes many limitations seen with indirect thrombin inhibitors, such as <u>heparin</u> . Bivalirudin is a short, synthetic peptide that is potent, highly specific, and a reversible inhibitor of <u>thrombin</u> . ^{[1][2][3]} It inhibits both circulating and clot-bound thrombin, ^[3] while also inhibiting thrombin-mediated platelet activation and aggregation. ^[4] Bivalirudin has a quick onset of action and a short half-life. ^[1] It does not bind to plasma proteins (other than thrombin) or to red blood cells. Therefore, it has a predictable antithrombotic response. There is no risk for <u>Heparin</u> <u>Induced Thrombocytopenia</u> /Heparin Induced Thrombosis-Thrombocytopenia Syndrome (HIT/HITTS). ^[1] It does not require a binding cofactor such as antithrombin and does not activate platelets. ^{[2][5]} These characteristics make bivalirudin an ideal alternative to heparin.
22.	Bortezomib
	硼替佐米
	https://en.wikipedia.org/wiki/Bortezomib
	Bortezomib (<u>BAN</u> , <u>INN</u> and <u>USAN</u> . Originally codenamed PS-341 ; marketed as Velcade by <u>Millennium Pharmaceuticals</u> ; Neomib by <u>Getwell</u> and Bortecad by <u>Cadila</u> <u>Healthcare</u>) is the first therapeutic <u>proteasome inhibitor</u> to be tested in humans. Proteasomes are cellular complexes that break down proteins. In some cancers, the proteins that normally kill cancer cells are broken down too quickly. Bortezomib interrupts this process and lets those proteins kill the cancer cells. It is approved in the U.S. for treating relapsed <u>multiple</u> <u>myeloma</u> and <u>mantle cell lymphoma</u> . ^{[1][2]} In multiple myeloma, complete clinical responses have been obtained in patients with otherwise refractory or rapidly advancing disease.
23.	Brinzolamide
	布林唑胺
	https://en.wikipedia.org/wiki/Bortezomib
	Bortezomib (BAN, INN and USAN. Originally codenamed PS-341; marketed as Velcade by Millennium Pharmaceuticals; Neomib by Getwell and Bortecad by Cadila Healthcare) is the first therapeutic proteasome inhibitor to be tested in humans. Proteasomes are cellular complexes that break down proteins. In some cancers, the proteins that normally kill cancer cells are broken down too quickly. Bortezomib interrupts this process and lets those proteins kill the cancer cells. It is approved in the U.S. for treating relapsed <u>multiple</u> <u>myeloma</u> and <u>mantle cell lymphoma</u> . ^{[1][2]} In multiple myeloma, complete clinical responses have been obtained in patients with otherwise refractory or rapidly advancing disease.
24.	Calcipotriol
	卡泊三醇
	Calcipotriol Monohydrate

	https://en.wikipedia.org/wiki/Calcipotriol
	HO ^M OH
	Calcipotriol (INN) or calcipotriene (USAN) is a synthetic <u>derivative</u> of <u>calcitriol</u> , a form of <u>vitamin D</u> . It is used in the treatment of <u>psoriasis</u> , marketed under the trade name "Dovonex" in the United States, "Daivonex" outside of North America, and "Psorcutan" in Germany. This medication is safe for long-term application in psoriatic skin conditions.
25.	Calcitriol
	骨化三醇
	https://en.wikipedia.org/wiki/Calcitriol
	Calcitriol (<u>INN</u>), also called 1,25-dihydroxycholecalciferol or 1,25-dihydroxyvitamin D ₃ , is the hormonally active metabolite of <u>vitamin D</u> with three <u>hydroxyl groups</u> (abbreviated 1,25-(OH) ₂ D ₃ or simply 1,25(OH) ₂ D), ^[8] It was first identified by <u>Michael F. Holick</u> in work published in 1971. ^[7] Calcitriol increases the level of <u>calcium</u> (Ca ²⁺) in the <u>blood</u> by increasing the uptake of calcium from the <u>gut</u> into the blood, and possibly increasing the release of calcium into the blood from <u>bone</u> . ^[8]
26.	Calcium Acetate
	醋酸鈣
	https://en.wikipedia.org/wiki/Calcium_acetate
	$\begin{bmatrix} 0\\ \end{bmatrix}$ Ca ²⁺
	Calcium acetate is a <u>chemical compound</u> which is a <u>calcium salt</u> of <u>acetic acid</u> . It has the formula $Ca(C_2H_3O_2)_2$. Its standard name is calcium acetate, while calcium ethanoate is the systematic name. An older name is acetate of lime. The anhydrous form is very <u>hygroscopic</u> ; therefore the mono <u>hydrate</u> (Ca(CH ₃ COO) ₂ •H ₂ O) is the common form.
	 In <u>kidney disease</u>, blood levels of <u>phosphate</u> may rise (called <u>hyperphosphatemia</u>) leading to bone problems. Calcium acetate binds phosphate in the diet to lower blood phosphate levels.^[citation needed] Calcium acetate is used as a <u>food additive</u>, as a stabilizer, buffer and sequestrant, mainly
	in candy products under the number E263. It also neutralizes fluoride in water. ^[2]
27.	Capsaicin
	辣椒素
	 https://en.wikipedia.org/wiki/Capsaicin#Research_and_pharmaceutical_use

	HO H
	Capsaicin is used as an <u>analgesic</u> in topical ointments, nasal sprays (Sinol-M), and <u>dermal</u> <u>patches</u> to relieve pain, typically in concentrations between 0.025% and 0.1%. ^[38] It may be applied in cream form for the temporary relief of minor aches and pains of <u>muscles</u> and joints associated with <u>arthritis</u> , backache, strains and <u>sprains</u> , often in compounds with other <u>rubefacients</u> . ^[39]
	It is also used to reduce the symptoms of peripheral <u>neuropathy</u> such as <u>post-herpetic neuralgia</u> caused by <u>shingles</u> . ^[38] Capsaicin <u>transdermal</u> patch (<u>Qutenza</u>) for the management of this particular therapeutic indication (pain due to post-herpetic neuralgia) was approved as a <u>therapeutic</u> by the U.S. <u>FDA</u> , ^[39] but a subsequent application for Qutenza to be used as an analgesic in <u>HIV</u> neuralgia was refused. ^[40]
	Although capsaicin creams have been used to treat <u>psoriasis</u> for reduction of itching, ^{[33][41][42]} a review of six <u>clinical trials</u> involving topical capsaicin for treatment of <u>pruritus</u> concluded there was insufficient evidence of effect. ^[43]
	There is insufficient clinical evidence to determine the role of ingested capsaicin on a variety of human disorders, including obesity, diabetes, cancer and cardiovascular diseases. ^[38]
28.	Carbarsone
	對脲苯基胂酸
	https://en.wikipedia.org/wiki/Carbarsone
	Q, OH
	H ₂ N N H
	Carbarsone is an <u>organoarsenic compound</u> used as an antiprotozoal drug for treatment of <u>amebiasis</u> and other infections. ^{[1][2][3]} It was available for amebiasis in the United States as late as 1991. Thereafter, it remained available as a <u>turkey</u> feed additive for increasing weight gain and controlling <u>blackhead disease</u> . ^{[4][5]}
	Carbarsone is one of four <u>arsenical</u> animal drugs approved by the <u>U.S. Food and Drug</u> <u>Administration</u> for use in poultry and/or swine, along with <u>nitarsone</u> , <u>arsanilic acid</u> , and <u>roxarsone</u> . ^[6] In September 2013, the FDA announced that <u>Zoetis</u> and <u>Fleming</u> <u>Laboratories</u> would voluntarily withdraw current <u>roxarsone</u> , <u>arsanilic acid</u> , and carbarsone approvals, leaving only <u>nitarsone</u> approvals in place. ^[7] In 2015 FDA withdrew the approval of using nitarsone in animal feeds. The ban will came into effect at the end of 2015. ^[8]
29.	Caspofungin Acetate
	乙酸卡泊芬淨
	https://en.wikipedia.org/wiki/Caspofungin

	Caspofungin (<u>INN</u>) ^[1] (brand name Cancidas worldwide) is a <u>lipopeptide</u> <u>antifungal</u> drug from <u>Merck & Co., Inc.</u> discovered by James Balkovec, Regina Black and Frances A. Bouffard. ^[2] It is a member of a new class of antifungals termed the <u>echinocandins</u> . It worl inhibiting the <u>enzyme(1→3)-β-D-glucan synthase</u> and thereby disturbing the integrity of t fungal <u>cell wall</u> . Caspofungin was the first inhibitor of fungal (1→3)-β-D-glucan synthesis	ks by he
	approved by the United States Food and Drug Administration. ^[3] Caspofungin is administered intravenously.	IO DE
30.	Cefaclor	
	頭孢克洛	
	https://en.wikipedia.org/wiki/Cefaclor	
	$ \begin{array}{c} \begin{array}{c} & \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	
	Cefaclor , developed by Eli Lilly under the trade name Ceclor, is a second- generation <u>cephalosporinantibiotic</u> used to treat some <u>infections</u> caused by <u>bacteria</u> such as <u>pneumonia</u> and infections of the ear, lung, skin, throat, and urinary tract. It is also avain from other manufacturers as a generic. ^[1] Cefaclor belongs to the family of antibiotics known as the <u>cephalosporins</u> (cefalosporins) cephalosporins are broad-spectrum <u>antibiotics</u> that are used for the treatment of <u>septicaemia,pneumonia, meningitis</u> , biliary tract infections, <u>peritonitis</u> , and urinary tract infections. The pharmacology of the cephalosporins is similar to that of the <u>penicillins</u> , ex- being principally renal. Cephalosporins penetrate the <u>cerebrospinal fluid</u> poorly unless the meninges are inflamed; <u>cefotaxime</u> is a more suitable cephalosporin than cefaclor for infe- of the <u>central nervous system</u> , e.g. <u>meningitis</u> . Cefaclor is active against many <u>bacteria</u> , both <u>Gram-negative</u> and <u>Gram-positive</u> organisms.	ilable . The t ccretion le ections
31.	Cephalexin	
	頭孢氨苄	
	https://en.wikipedia.org/wiki/Cefalexin	
	$ \begin{aligned} & (\mathcal{F}_{\mathcal{F}}^{H_2} + \mathcal{F}_{\mathcal{F}}^{H_2} + \mathcal{F}_{\mathcal{F}}^{H_2} \\ & \mathbf{Cefalexin}, \text{ also spelled cephalexin}, is an antibiotic that can treat a number of bacterial infections. It kills gram-positive and some gram-negative bacteria by disrupting the growt bacterial cell wall. Cefalexin is a beta-lactam antibiotic within the class of first-generation cephalosporins.[3] It works similarly to other agents within this class, including$	
	intravenous <u>cefazolin</u> , but can be taken by mouth. ^[4]	
	Cefalexin can treat certain bacterial infections, including those of the <u>middle</u> <u>ear</u> , <u>bone</u> and <u>joint</u> , <u>skin</u> , and <u>urinary tract</u> . It may also be used for certain types of <u>pneumonia</u> , <u>strep throat</u> , and to prevent <u>bacterial endocarditis</u> . Cefalexin is not effectiv against infections caused by <u>methicillin-resistantStaphylococcus aureus</u> (MRSA), <u>Enterco</u> or <u>Pseudomonas</u> . Like other antibiotics, cefalexin cannot treat <u>viral infections</u> , such as the <u>flu</u> , <u>common cold</u> or <u>acute bronchitis</u> . Cefalexin can be used in those who have mild moderate allergies to <u>penicillin</u> . However, it is not recommended in those with severe per allergies. ^[3]	o <u>coccus,</u> or
32.	Chlormezanone	

	氯苯甲酮
	https://en.wikipedia.org/wiki/Chlormezanone
	Its use was discontinued in many countries from 1996 on, due to rare but serious cases of toxic
	epidermal necrolysis.
33.	Chlorzoxazone 氯唑沙宗 https://en.wikipedia.org/wiki/Chlorzoxazone
	Chlorzoxazone (INN) is a centrally acting <u>muscle relaxant</u> used to treat muscle <u>spasm</u> and the resulting pain or discomfort. It acts on the spinal cord by depressing reflexes. It is sold under the trade names "Lorzone", Paraflex and Muscol and in combination form as Parafon Forte , a combination of chlorzoxazone and <u>acetaminophen</u> (paracetamol). Possible side effects include <u>dizziness</u> , <u>lightheadedness</u> , <u>malaise</u> , <u>nausea</u> , <u>vomiting</u> , and liver dysfunction. Used with acetaminophen it has added risk of <u>hepatoxicity</u> , ^[medical citation needed] which is why the combination is not recommended. It can also be administered for acute pain in general and for tension headache (muscle contraction headache).
	As of 2015 the cost for a typical course of medication in the United States is less than 25 USD. ^[1]
34.	Cilastatin Sodium 西司他汀鈉 https://en.wikipedia.org/wiki/Cilastatin , , , , , , , , , , , , , , , , , , ,
35.	Clofibrate

	氯貝特	
	https://en.wikipedia.org/wiki/Clofibrate	
	Clofibrate (tradename Atromid-S) is an <u>organic compound</u> . It is marketed as a <u>fibrate</u> . It is a lipid-lowering agent used for controlling the high cholesterol and <u>triacylglyceride</u> level in the blood. It increases <u>lipoprotein lipase</u> activity to promote the conversion of <u>VLDL</u> to <u>LDL</u> , and hence reduce the level of VLDL. It can increase the level of <u>HDL</u> as well.	
36.	Clonidine HCl	
	可樂定	
	https://en.wikipedia.org/wiki/Clonidine	
	Clonidine (trade names Catapres , Kapvay , Nexiclon , Clophelin , and others) is a medication used to treat <u>high blood pressure</u> , <u>attention deficit hyperactivity disorder</u> , <u>anxiety disorders</u> , withdrawal (from either <u>alcohol</u> , <u>opioids</u> , or <u>smoking</u>), <u>migraine</u> , <u>menopausal flushing</u> , <u>diarrhea</u> , and certain pain conditions. ^[4] It is classified as a centrally acting $\underline{\alpha}_2$ <u>adrenergic</u> <u>agonist</u> and <u>imidazoline receptor</u> agonist that has been in clinical use for over 40 years. ^[5]	
37.	Cloperastine HCL	
	氯帕他汀	
	https://en.wikipedia.org/wiki/Cloperastine	
	Cloperastine (INN) or cloperastin , also known as cloperastine hydrochloride (JAN) (brand names Hustazol , Nitossil , Seki) and cloperastine fendizoate (or hybenzoate), is an <u>antitussive</u> and <u>antihistamine</u> that is marketed as a <u>cough suppressant</u> in Japan, Hong Kong, and in some <u>European</u> countries. ^{[11]21]31} It was first introduced in 1972 in Japan, and then in <u>Italy</u> in 1981. ^[4] The precise <u>mechanism of action</u> of cloperastine is not fully clear, but several different <u>biological activities</u> have been identified for the drug, of which include: <u>ligand</u> of the <u>σ</u> ₁ receptor (K _i = 20 nM) (likely an <u>agonist</u>), ^[5] <u>GIRK channel blocker</u> (described as "potent"), ^{[6][2][8][9]} <u>antihistamine</u> (K _i = 3.8 nM for the <u>H₁ receptor</u>), ^{[3][5]} and <u>anticholinergic</u> . ^{[3][10]} It is thought that the latter two properties contribute to <u>side effects</u> , such as <u>sedation</u> and <u>somnolence</u> , while the former two may be involved in or responsible for the antitussive efficacy of cloperastine. ^{[5][6]}	
38.	Colesevelam Hydrochloride	
	考來維侖	
	https://en.wikipedia.org/wiki/Colesevelam	
	$ \begin{array}{c} \cdots \left\{ \begin{array}{c} \left\{ \begin{array}{c} \left\{ \begin{array}{c} \\ \\ \end{array}\right\} \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \end{array}\right\} \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \left\{ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \end{array}\right\} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	

	The bile acid sequestrants are a group of resins used to bind certain components of <u>bile</u> in the <u>gastrointestinal tract</u> . They disrupt the <u>enterohepatic circulation</u> of <u>bile acids</u> by combining with bile constituents and preventing their reabsorption from the gut. In general, they are classified as <u>hypolipidemic agents</u> , although they may be used for purposes other than lowering cholesterol. They are used in the treatment of <u>chronic diarrhea</u> due to <u>bile acid malabsorption</u> . Bile acid sequestrants are <u>polymeric</u> compounds that serve as <u>ion-exchange resins</u> . Bile acid sequestrants exchange <u>anions</u> such as <u>chloride</u> ions for bile acids. By doing so, they bind bile acids and sequester them from the enterohepatic circulation. The liver then produces more bile acids to replace those that have been lost. Because the body uses cholesterol to make bile acids, this reduces the amount of LDL cholesterol circulating in the blood. ^[11] Bile acid sequestrants are large polymeric structures, and they are not significantly absorbed from the gut into the bloodstream. Thus, bile acid sequestrants, along with any bile acids bound to the drug, are excreted via the feces after passage through the gastrointestinal tract. ^[2]	
39.	Colestipol Hydrochloride 考來替泊 https://en.wikipedia.org/wiki/Colestipol Colestipol (trade names Colestid, Cholestabyl) is a <u>bile acid sequestrant</u> used to lower blood <u>cholesterol</u> , specifically <u>low-density lipoprotein</u> (LDL). ^{[1][2]} It is also used to reduce stool volume and frequency, and in the treatment of chronic diarrhea. ^[3] Like <u>cholestyramine</u> , colestipol works in the gut by trapping <u>bile acids</u> and preventing them from being reabsorbed. This leads to decreased <u>enterohepatic recirculation</u> of bile acids, increased synthesis of new bile acids by the liver from cholesterol, decreased liver cholesterol, increased LDL receptor expression, and decreasing LDL in blood. ^[4]	
40.	Crotamiton 克羅他米通 <u>https://en.wikipedia.org/wiki/Crotamiton</u> $_{H_3C} \leftarrow _{J} \leftarrow$	
41.	Cyclophosphamide 環磷酰胺 <u>https://en.wikipedia.org/wiki/Cyclophosphamide</u>	

Cyclophosphamide (INN), also known as cytophosphane, ^[3] is a medication mainly used inchemotherapy. It is an alkylating agent of the nitrogen mustard type ^[4] (specifically, the oxazaphosphorine group ^[5]). An alkylating agent adds an alkyl group to DNA. It attaches the alkyl group to the guanine base of DNA, at the number 7 nitrogen atom of the imidazole ring. This interferes with DNA replication by forming intrastrand and interstrand DNA crosslinks. Cyclophosphamide is used to treat cancers, autoimmune disorders and AL amyloidosis. As aprodrug, it is converted by liver cytochrome P450 (CYP) enzymes to form the metabolite 4- hydroxycyclophosphamide that has chemotherapeutic activity. ^[6]
Dantrolene Sodium 丹曲林鈉
https://en.wikipedia.org/wiki/Dantrolene
Dantrolene sodium is a postsynaptic <u>muscle relaxant</u> that lessens <u>excitation-contraction</u> <u>coupling</u> in <u>muscle cells</u> . It achieves this by inhibiting <u>Ca²⁺</u> ions release from <u>sarcoplasmic</u> <u>reticulum</u> stores by antagonizing <u>ryanodine receptors</u> . ^[11] It is the primary drug used for the treatment and prevention of <u>malignant hyperthermia</u> , a rare, life-threatening disorder triggered by <u>general anesthesia</u> . It is also used in the management of <u>neuroleptic malignant syndrome</u> , muscle <u>spasticity</u> (e.g. after <u>strokes</u> , in <u>paraplegia</u> , <u>cerebral palsy</u> , or patients with <u>multiple</u> <u>sclerosis</u>), and <u>2</u> ,4-dinitrophenol poisoning. ^[2]
It is marketed by JHP Pharmaceuticals LLC as Dantrium (in North America) and by Norgine BV as Dantrium, Dantamacrin, or Dantrolen (in Europe). A hospital is recommended to keep a minimum stock of 36 dantrolene vials (720 mg) sufficient for a 70-kg person. ^[3] As of 2015 the cost for a typical course of medication in the United States is 100 to 200 USD. ^[4]
Daptomycin 達托黴素 <u>https://en.wikipedia.org/wiki/Daptomycin</u>

	Daptomycin has a distinct mechanism of action, disrupting multiple aspects of bacterial cell membrane function. It inserts into the cell membrane in a phosphatidylglycerol-dependent fashion, where it then aggregates. The aggregation of daptomycin alters the curvature of the membrane, which creates holes that leak ions. This causes rapid depolarization, resulting in a loss of membrane potential leading to inhibition of protein, DNA, and RNA synthesis, which results in bacterial cell death. ^[4]
44.	Decitabine
	地西他濱
	https://en.wikipedia.org/wiki/Decitabine
	HO HO
	Clinical uses[edit]
	Decitabine is indicated for the treatment of myelodysplastic syndromes (MDS) including previously treated and untreated, de novo and secondary MDS of all French-American-British subtypes (<u>refractory anemia, refractory anemia with ringed sideroblasts, refractory anemia with excess blasts</u> , <u>refractory anemia with excess blasts</u> in transformation, and <u>chronic</u> <u>myelomonocytic leukemia</u>) and Intermediate-1, Intermediate-2, and High-Risk International Prognostic Scoring System groups. In patients with renal insufficiency, Batty and colleagues reported the first case series on the feasibility of therapy with hypomethylating agents in patients with renal insufficiency. ^[5]
	It also has EU approval for <u>acute myeloid leukemia</u> (AML). ^[2]
45.	Desmopressin Acetate
	去氨加壓素
	$\frac{\text{https://en.wikipedia.org/wiki/Desmopressin}}{\begin{pmatrix} \downarrow & \downarrow & \downarrow \\ H & \downarrow \\ H & \downarrow & \downarrow \\ H & \downarrow \\ H$
	Desmopressin (trade names: DDAVP , others) is a <u>synthetic</u> replacement for <u>vasopressin</u> , the <u>hormone</u> that reduces <u>urine</u> production. It may be taken nasally, intravenously, or as an oral or sublingual tablet. <u>Physicians</u> prescribe desmopressin most frequently for treatment of <u>diabetes</u> insipidus, bedwetting, or <u>nocturia</u> , thrombocytopathy It is on the <u>WHO Model List of Essential Medicines</u> , the most important medications needed in a
	basic <u>health system</u> . ^[1]
46.	Diclofenac Diethylamine

	Diclofenac Epolamine
	Diclofenac Potassium
	Diclofenac Sodium
	雙氯芬酸
	https://en.wikipedia.org/wiki/Diclofenac
	CI
	The primary mechanism responsible for its <u>anti-inflammatory</u> , <u>antipyretic</u> , and <u>analgesic</u> action is thought to be inhibition of <u>prostaglandin</u> synthesis by inhibition of <u>cyclooxygenase</u> (COX). It also appears to exhibit bacteriostatic activity by inhibiting bacterial DNA synthesis. ^[27]
	Diclofenac (sold under a number of <u>trade names</u>) ^[1] is a <u>nonsteroidal anti-inflammatory</u> <u>drug</u> (NSAID) taken or applied to reduce <u>inflammation</u> and as an <u>analgesic</u> reducing pain in certain conditions. It is supplied as or contained in medications under a variety of trade names.
	The name "diclofenac" derives from its chemical name: 2-(2,6- dichlo ranilino) phen ylacetic ac id. Diclofenac was first synthesized by Alfred Sallmann and Rudolf Pfister and introduced as Voltaren by Ciba-Geigy (now <u>Novartis</u>) in 1973. ^[3]
	In the United Kingdom, United States, India, and Brazil diclofenac may be supplied as either the <u>sodium</u> or <u>potassium</u> <u>salt</u> ; in China, it is most often supplied as the sodium salt, while in some other countries it is only available as the potassium salt. It is available as a generic drug in a number of formulations, including diclofenac <u>diethylamine</u> , which is applied topically.
47.	Dimemorfan Phosphate
	二甲啡烷 磷酸鹽
	https://en.wikipedia.org/wiki/Dimemorfan
	CH ₃
	H ₃ C-N
	Dimemorfan (INN) (or dimemorphan) (brand names Astomin , Dastosirr , Tusben), or dimemorfan phosphate (JAN), also known as 3,17-dimethylmorphinan , is an <u>antitussive</u> (cough suppressant) of the <u>morphinan</u> family that is widely used in <u>Japan</u> and is also marketed in <u>Spain</u> and <u>Italy</u> . ^{[11]2[3][4]} It was developed by <u>Yamanouchi</u> <u>Pharmaceutical</u> (now <u>Astellas Pharma</u>) and introduced in Japan in 1975. ^[3] Dimemorfan is an <u>analogue</u> of <u>dextromethorphan</u> (DXM) and its <u>active metabolite</u> <u>dextrorphan</u> (DXO), and similarly to them, acts as a potent <u>agonist</u> of the σ_1 <u>receptor</u> (K _i = 151 nM). ^{[5][6]} However, unlike DXM and DXO, it does not act significantly as an <u>NMDA receptor antagonist</u> , and for this reason, lacks <u>dissociative</u> effects, thereby having reduced <u>side effects</u> and <u>abuse potential</u> in comparison. ^{[7][8]} Similarly to DXM and DXO, dimemorfan has only relatively low <u>affinity</u> for the σ_2 <u>receptor</u> (K _i = 4421 nM). ^[6]
48.	Dinoprostone β-Cyclodextin
	地諾前列酮 β-環糊精

	Dreste alon dia 52
	Prostaglandin E2
	前列腺素 E2
	https://en.wikipedia.org/wiki/Prostaglandin_E2
	OF OH
	1 Jan
	но о́н The naturally occurring <u>prostaglandin</u> E2 (PGE2 or PGE ₂) is known
	in <u>medicine</u> as dinoprostone . It has important effects in labour (softening the cervix and causing uterine contraction) and also stimulates <u>osteoblasts</u> to release factors that stimulate bone resorption by <u>osteoclasts</u> . PGE2 is also the prostaglandin that ultimately induces <u>fever</u> .
	PGE2 also suppresses T cell receptor signaling and may play a role in resolution of inflammation. ^[1]
	Cyclodextrin
	https://en.wikipedia.org/wiki/Cyclodextrin
	Cyclodextrins (sometimes called <u>cycloamyloses</u>) are a family of compounds made up of sugar molecules bound together in a ring (cyclic <u>oligosaccharides</u>).
	Cyclodextrins are produced from <u>starch</u> by means of <u>enzymatic</u> conversion. They are used in food, pharmaceutical, ^[1] <u>drug delivery</u> , ^[2] and chemical industries, as well as agriculture and environmental engineering.
	Cyclodextrins are composed of 5 or more α-D-glucopyranoside units linked 1->4, as in <u>amylose</u> (a fragment of <u>starch</u>). The 5-membered macrocycle is not natural. Recently, the largest well-characterized cyclodextrin contains 32 1,4-anhydroglucopyranoside units, while as a poorly characterized mixture, at least 150-membered cyclic oligosaccharides are also known. Typical cyclodextrins contain a number of <u>glucose</u> monomers ranging from six to eight units in a ring, creating a cone shape:
49.	Diphemanil Methylsulphate
	· · · · · · · · · · · · · · · · · · ·
	https://en.wikipedia.org/wiki/Diphemanil_metilsulfate
	or or
	Diphemanil metilsulfate is an <u>antimuscarinic</u> . <u>https://en.wikipedia.org/wiki/Muscarinic_antagonist</u>
	A muscarinic receptor antagonist (MRA) is a type of <u>anticholinergic</u> agent that blocks the activity of the <u>muscarinic acetylcholine receptor</u> . <u>Acetylcholine</u> (often abbreviated ACh) is a neurotransmitter whose receptor is a protein found in <u>synapses</u> and other cell membranes. Besides responding to their primary neurochemical, neurotransmitter receptors can be sensitive to a variety of other molecules. Acetylcholine receptors are classified into two groups based on this:
	 muscarinic, which respond to <u>muscarine</u> nicotinic, which respond to <u>nicotine</u>
	Most muscarinic receptor antagonists are synthetic chemicals; however, the two most commonly used anticholinergics, scopolamine and atropine, are belladonna alkaloids, and are naturally

	extracted.
50.	Divalproex Sodium
	雙丙戊酸鈉
	https://en.wikipedia.org/wiki/Valproate
	Valproate (VPA), and its valproic acid, sodium valproate, and divalproex sodium forms, are medications primarily used to treat <u>epilepsy</u> and <u>bipolar disorder</u> and to prevent <u>migraine</u> <u>headaches</u> . ^[2] It is useful for the prevention of seizures in those with <u>absence</u> <u>seizures</u> , <u>partial seizures</u> , and <u>generalized seizures</u> . It can be given <u>intravenously</u> or by mouth. Long acting formulations exist. ^[2] Mechanism of action[<u>edit</u>]
	Although the mechanism of action of valproate is not fully understood, ^[37] it has recently been shown to protect against a seizure-induced reduction in <u>phosphatidylinositol (3,4,5)-</u> <u>trisphosphate</u> (PIP3) as a potential therapeutic mechanism. ^[49] In addition, its anticonvulsant effect has been attributed to the blockade of voltage-dependent sodium channels and increased brain levels of <u>gamma-aminobutyric acid</u> (GABA). ^[37] The GABAergic effect is also believed to contribute towards the anti-manic properties of valproate. ^[37] In animals, sodium valproate raises cerebral and cerebellar levels of the inhibitory synaptic neurotransmitter, GABA, possibly by inhibiting GABA degradative enzymes, such as <u>GABA transaminase</u> , <u>succinate-semialdehyde</u> <u>dehydrogenase</u> and by inhibiting the re-uptake of GABA by neuronal cells. ^[37]
	It also has <u>histone deacetylase-inhibiting effects</u> . The inhibition of histone deacetylase, by promoting more transcriptionally active chromatin structures, likely presents the epigenetic mechanism for regulation of many of the neuroprotective effects attributed to valproic acid. Intermediate molecules mediating these effects include <u>VEGF</u> , <u>BDNF</u> , and <u>GDNF</u> . ^{[50][51]}
	Valproic acid has been found to be an <u>antagonist</u> of the <u>androgen</u> and <u>progesterone receptors</u> , and hence as a <u>non-steroidal antiandrogen</u> and <u>antiprogestogen</u> , at concentrations much lower than therapeutic serum levels. ^[52] In addition, the drug has been identified as a potent <u>aromatase</u> <u>inhibitor</u> , and suppresses <u>estrogen</u> concentrations. ^[53] These actions are likely to be involved in the reproductive endocrine disturbances seen with valproic acid treatment. ^{[52][53]}
51.	DL-methylephedrine Hydrochloride
	DL-甲基麻黃鹼 鹽酸鹽
	https://en.wikipedia.org/wiki/N-Methylephedrine
	N-Methylephedrine is a <u>derivative</u> of <u>ephedrine</u> . It has been isolated from <u>Ephedra distachya</u> . ^[2]
	In organic chemistry, <i>N</i> -methylephedrine is used as a <u>resolving agent</u> and as a precursor to chiral supporting electrolytes, <u>phase-transfer catalysts</u> , and <u>reducing agents</u> . ^[3]
	https://en.wikipedia.org/wiki/Ephedrine Ephedrine is a medication used to prevent <u>low blood pressure</u> during <u>spinal anesthesia</u> . ^[1] It has also been used for <u>asthma</u> , <u>narcolepsy</u> , and <u>obesity</u> but is not the preferred treatment.

	Mechanism of action[edit]
	Ephedrine, a sympathomimetic amine, acts on part of the <u>sympathetic nervous system</u> (SNS). The principal mechanism of action relies on its indirect stimulation of the <u>adrenergic</u> <u>receptor</u> system by increasing the activity of <u>norepinephrine</u> at the postsynaptic α and β receptors. ^[23] The presence of direct interactions with α receptors is unlikely, but still controversial. ^{[8]32[133]} L-ephedrine, and particularly its stereoisomer <u>norpseudoephedrine</u> (which is also present in <u>Catha edulis</u>) has indirect <u>sympathomimetic</u> effects and due to its ability to cross the <u>blood-brain barrier</u> , it is a <u>CNS stimulant</u> similar to <u>amphetamines</u> , but less pronounced, as it releases <u>noradrenaline</u> and <u>dopamine</u> in the <u>substantia nigra</u> . ^[34]
	The presence of an <i>N</i> -methyl group decreases binding affinities at α receptors, compared with norephedrine. Ephedrine, though, binds better than <u><i>N</i>-methylephedrine</u> , which has an additional methyl group at the nitrogen atom. Also the <u>steric</u> orientation of the hydroxyl group is important for receptor binding and functional activity. ^[32]
52.	Docetaxel
	多西他賽
	Docetaxel Trihydrate
	https://en.wikipedia.org/wiki/Docetaxel
	Docetaxel is a well-established <u>anti-mitotic chemotherapy</u> medication that works by interfering with <u>cell division</u> . Docetaxel is approved by the FDA for treatment of locally advanced or metastatic breast cancer, head and neck cancer, gastric cancer, hormone-refractory prostate cancer and non small-cell lung cancer. ^[1] Docetaxel can be used as a single agent or in combination with other chemotherapeutic drugs as indicated depending on specific cancer type and stage. ^[2]
	Docetaxel is a member of the taxane drug class, which also includes the chemotherapeutic medication <u>paclitaxel</u> .
	Molecular target[edit]
	Docetaxel binds to <u>microtubules</u> reversibly with high affinity and has a maximum stoichiometry of 1 mole docetaxel per mole tubulin in microtubules. ^[31] This binding stabilizes microtubules and prevents depolymerisation from calcium ions, decreased temperature and dilution, preferentially at the plus end of the microtubule. ^[31] Docetaxel has been found to accumulate to higher concentration in ovarian adenocarcinoma cells than kidney carcinoma cells, which may contribute to the more effective treatment of ovarian cancer by docetaxel. ^{[10][31]} It has also been found to lead to the phosphorylation of oncoprotein <u>bcl-2</u> , which is apoptosis-blocking in its oncoprotein form. ^[10]
	Modes of action[<u>edit</u>] The cytotoxic activity of docetaxel is exerted by promoting and stabilising microtubule assembly, while preventing physiological microtubule depolymerisation/disassembly in the absence of <u>GTP</u> . ^{[10][16][32]} This leads to a significant decrease in free tubulin, needed for microtubule formation and results in inhibition of mitotic cell division between metaphase and anaphase, preventing further cancer cell progeny. ^{[10][13][31]}
53.	Donepezil HCl
	多奈哌齊

	https://en.wikipedia.org/wiki/Donepe	zil	
	Donepezil , marketed under the trade name A <u>treatment</u> of <u>Alzheimer's disease</u> . ^{[1][2]} Donepezi people with Alzheimer's, but does not slow the	is used to improve cognition and behavior of	
	Common <u>side effects</u> include loss of appetite, vomiting, or muscle cramping. ^[4]	gastrointestinal upset, diarrhea, difficulty sleeping,	
	It was developed by <u>Eisai</u> and <u>Pfizer</u> and is so acts as a centrally acting reversible <u>acetylcho</u>	ld as a generic by multiple suppliers. Donepezil inesterase inhibitor. ^{চা}	
54.	Doxercalciferol	Doxercalciferol	
	骨化鈣醇	骨化鈣醇	
	https://en.wikipedia.org/wiki/Doxerca	lciferol	
	X		
	J.		
	Doxercalciferol (trade name Hectorol) is dru hyperparathyroidism and metabolic bone dise	ase. ^[1] It is a synthetic analog	
EE	of <u>ergocalciferol</u> (vitamin D ₂). It suppresses <u>pa</u>	rathyroidsynthesis and secretion. ^[2]	
55.	Duloxetine hydrochloride 度洛西汀 鹽酸鹽		
	https://en.wikipedia.org/wiki/Duloxet	ne	
	Duloxetine , sold under the brand name Cym <u>norepinephrine reuptake inhibitor</u> (SNRI). It is <u>disorder</u> , <u>generalized anxiety disorder</u> , <u>fibrom</u>	mostly prescribed for major depressive	
	toxicity and suicidal events; however, it was a	ress urinary incontinence amid concerns over liver oproved for this indication in the <u>UK</u> , where it is ess urinary incontinence instead of surgery. ^[3] It was	
56.	Econazole Nitrate		
	硝酸益康唑		
	https://en.wikipedia.org/wiki/Econazo	le	

	Econazole (commonly used as the nitrate salt) is an antifungal medication of the imidazole class.[1] Pharmaceutical derivatives[edit] The substituted imidazole derivatives are valuable in treatment of many systemic fungal infections.[17] Imidazoles belong to the class of azole antifungals <u>https://en.wikipedia.org/wiki/Antifungal#Imidazole.2C_triazole.2C_and_thiazole_antifungals</u> Azole antifungal drugs (except for abafungin) inhibit the enzyme lanosterol 14 α-demethylase; the enzyme necessary to convert lanosterol to ergosterol. Depletion of ergosterol in fungal membrane disrupts the structure and many functions of fungal membrane leading to inhibition of fungal growth.[2]
57.	Eflornithine Hydrochloride
	地普崙胺
	$\underbrace{\frac{https://en.wikipedia.org/wiki/Eflornithine}{CHF_2}}_{H_2N}$
	H_2N
	Eflornithine (α -difluoromethylornithine or DFMO) is a <u>drug</u> found to be effective in the treatment of facial <u>hirsutism^[1]</u> (excessive hair growth) as well as in <u>African trypanosomiasis</u> (sleeping sickness). ^[2] Eflornithine hydrochloride cream for topical application is meant for women affected by facial hirsutism.
	Description[<u>edit</u>] Eflornithine is a "suicide inhibitor," irreversibly binding to <u>Ornithine decarboxylase</u> (ODC) and preventing the natural substrate ornithine from accessing the active site (Figure 1). Within the active site of ODC, eflornithine undergoes decarboxylation with aid of the cofactor pyridoxal 5'- phosphate (PLP). Because of its additional difluoromethyl group in comparison to ornithine, eflornithine is able to bind to a neighboring Cys-360 residue, permanently remaining fixated within the active site.
58.	Entacapone
	恩他卡朋
	https://en.wikipedia.org/wiki/Entacapone
	Entacapone (<u>INN</u>) is a medication commonly used in combination with other medications for the treatment of <u>Parkinson's disease</u> . ^[1] Entacapone together with levodopa and carbidopa allows levodopa to have a longer effect in the <u>brain</u> and reduces Parkinson's disease <u>signs and</u> <u>symptoms</u> for a greater length of time than levodopa and carbidopa therapy alone. ^[1]
	Entacapone is known as a selective and <u>reversible inhibitor</u> of the enzyme <u>catechol-O-</u> <u>methyltransferase</u> (COMT). ^[1] When taken together with <u>levodopa</u> (L-DOPA) and <u>carbidopa</u> , entacapone stops catechol-O-methyltransferase from breaking down and <u>metabolizing</u> levodopa, resulting in an overall increase of levodopa remaining in the <u>brain</u> and <u>body</u> . ^[1]
	Mechanism of action[edit]
	Entacapone is a selective and reversible inhibitor of <u>catechol-O-</u> <u>methyltransferase</u> (COMT). ^[1] COMT eliminates biologically active <u>catechols</u> present

	in <u>catecholamines</u> (dopamine, <u>norepinephrine</u> , and <u>epinephrine</u>) and their <u>hydroxylated metabolites</u> . When administered with a <u>decarboxylase inhibitor</u> , COMT acts as the major metabolizing enzyme for levodopa and metabolizes it to <u>3-methoxy-4-hydroxy-L-</u> <u>phenylalanine</u> (3-OMD) in the brain and in the <u>periphery</u> . ^[1]
	For the treatment of Parkinson's disease, entacapone is given as an adjunct to levodopa and an aromatic amino acid decarboxylase inhibitor, <u>carbidopa</u> . Entacapone inhibits COMT and the metabolism of levodopa, thus increasing plasma levels of levodopa and causing more constant dopaminergic stimulation in order to reduce the <u>signs and symptoms</u> presented in the disease. ^[1]
59.	Entecavir monohydrate
	恩替卡韋一水合物
	https://en.wikipedia.org/wiki/Entecavir
	Entecavir (ETV), is an <u>antiviral medication</u> used in the treatment of <u>hepatitis B virus</u> (HBV) infection. It is taken by mouth. Entecavir is a <u>reverse transcriptase inhibitor</u> . It prevents the hepatitis B virus from multiplying and reduces the amount of virus in the body. ^[1]
	Entecavir is a <u>nucleoside analog</u> , ^[7] More specifically, it is a <u>deoxyguanosine analogue</u> belonging to a class of <u>carbocyclic nucleosides</u> , that inhibits <u>reverse transcription</u> , <u>DNA</u> <u>replication</u> and <u>transcription</u> in the <u>viral replication</u> process.
60.	Eperisone HCl
	丙哌維酮
	https://en.wikipedia.org/wiki/Eperisone
	Eperisone (formulated as the eperisone hydrochloride salt) is an <u>antispasmodic</u> drug.
	Eperisone acts by relaxing both <u>skeletal muscles</u> and <u>vascular smooth muscles</u> , and demonstrates a variety of effects such as reduction of <u>myotonia</u> , improvement of <u>circulation</u> , and suppression of the pain reflex. The drug inhibits the vicious circle of myotonia by decreasing pain, <u>ischaemia</u> , and <u>hypertonia</u> in skeletal muscles, thus alleviating stiffness and <u>spasticity</u> , and facilitating muscle movement ^[1]
	Eperisone also improves <u>dizziness</u> and <u>tinnitus</u> associated with <u>cerebrovascular</u> disorders or <u>cervical spondylosis</u> .
61.	Ephedrine Hydrochloride
	麻黃素
	https://en.wikipedia.org/wiki/Ephedrine
	OH HN S

	Ephedrine is a medication used to prevent <u>low blood pressure</u> during <u>spinal anesthesia</u> . ^[1] It has also been used for <u>asthma</u> , <u>narcolepsy</u> , and <u>obesity</u> but is not the preferred treatment. It can be taken by mouth or by <u>injection into a muscle</u> , <u>vein</u> , or just <u>under the skin</u> . Onset with intravenous use is fast, while injection it a muscle can take 20 minutes, and by mouth can take an hour for effect. When given by injection it lasts about an hour and when taken by mouth it can last up to four hours. ^[1] Ephedrine, a sympathomimetic amine, acts on part of the <u>sympathetic nervous system</u> (SNS). The principal mechanism of action relies on its indirect stimulation of the <u>adrenergic</u> <u>receptor</u> system by increasing the activity of <u>norepinephrine</u> at the postsynaptic α and β receptors. ^[23] The presence of direct interactions with α receptors is unlikely, but still controversial. ^{[8][28][23]} L-ephedrine, and particularly its stereoisomer <u>norpseudoephedrine</u> (which is also present in <u>Catha edulis</u>) has indirect <u>sympathomimetic</u> effects and due to its ability to cross the <u>blood-brain barrier</u> , it is a <u>CNS stimulant</u> similar to <u>amphetamines</u> , but less pronounced, as it releases <u>noradrenaline</u> and <u>dopamine</u> in the <u>substantia nigra</u> . ^[34] The presence of an <i>N</i> -methyl group decreases binding affinities at α receptors, compared with norephedrine. Ephedrine, though, binds better than <u>N-methylephedrine</u> , which has an additional methyl group at the nitrogen atom. Also the <u>steric</u> orientation of the hydroxyl group is important for receptor binding and functional activity. ^[82]
62.	Epoprostenol Sodium
	依前列醇鈉
	https://en.wikipedia.org/wiki/Prostacyclin
	Prostacyclin (also called prostaglandin l2 or PGI ₂) is a <u>prostaglandin</u> member of the <u>eicosanoid</u> family of <u>lipid molecules</u> . It inhibits platelet activation and is also an effective vasodilator.
	When used as a drug, it is also known as epoprostenol . ^[1] The terms are sometimes used interchangeably. ^[2]
	Prostacyclin (PGI ₂) is released by healthy endothelial cells and performs its function through a <u>paracrine</u> signaling cascade that involves <u>G protein-coupled receptors</u> on nearby platelets and endothelial cells. The platelet Gs protein-coupled receptor (<u>prostacyclin receptor</u>) is activated when it binds to PGI ₂ . This activation, in turn, signals adenylyl cyclase to produce <u>cAMP</u> . cAMP goes on to inhibit any undue platelet activation (in order to promote circulation) and also counteracts any increase in cytosolic calcium levels that would result from <u>thromboxane</u> <u>A2</u> (TXA ₂) binding (leading to platelet activation and subsequent <u>coagulation</u>). PGI ₂ also binds to endothelial <u>prostacyclin receptors</u> and in the same manner raise cAMP levels in the cytosol. This cAMP then goes on to activate <u>protein kinase A</u> (PKA). PKA then continues the cascade by promoting the phosphorylation of the <u>myosin light chain kinase</u> , which inhibits it and leads to <u>smooth muscle</u> relaxation and <u>vasodilation</u> . It can be noted that PGI ₂ and TXA ₂ work as physiological antagonists.
63.	Ertapenem
	厄他培南
	https://en.wikipedia.org/wiki/Ertapenem



	acyltransferase which is involved in biosynthesis of triglycerides in the liver; and increased activity of lipoprotein lipase in blood.[1][3]
66.	Everolimus
	依維莫司
	Everolimus B20
	https://en.wikipedia.org/wiki/Everolimus
	Everolimus (INN) (/ ɛvəˈroʊləməs/) (earlier code name RAD001) is the 40-O-(2-hydroxyethyl) derivative of sirolimus and works similarly to sirolimus as an inhibitor of mammalian target of rapamycin (mTOR).
	It is currently used as an <u>immunosuppressant</u> to prevent <u>rejection</u> of <u>organ transplants</u> and treatment of renal cell cancer and other tumours. Much research has also been conducted on everolimus and other mTOR inhibitors as <u>targeted therapy</u> for use in a number of cancers.
67.	Exemestane
	依西美坦
	https://en.wikipedia.org/wiki/Exemestane
	Exemestane (trade name Aromasin) is a drug used to treat breast cancer. It is a member of the class of drugs known as <u>aromatase inhibitors</u> . Some breast cancers require <u>estrogen</u> to grow. Those cancers have estrogen <u>receptors</u> (ERs), and are called ER-positive. They may also be called estrogen-responsive, hormonally-responsive, or hormone-receptor-positive. <u>Aromatase</u> is an <u>enzyme</u> that synthesizes estrogen. Aromatase inhibitors block the synthesis of estrogen. This lowers the estrogen level, and slows the growth of cancers.
68.	Famotidine
	法莫替丁
	https://en.wikipedia.org/wiki/Famotidine
	$H_2 N \xrightarrow{NH_2} S \xrightarrow{NH_2} H_2 N \xrightarrow{NH_2} H_2 $
	Famotidine , sold under the trade name Pepcid among others is a <u>histamine H₂ receptor</u> <u>antagonist</u> that inhibits <u>stomach acid</u> production. It is commonly used in the treatment of <u>peptic</u> <u>ulcer</u> disease and <u>gastroesophageal reflux</u> disease.
	Unlike <u>cimetidine</u> , the first H ₂ antagonist, famotidine has no effect on the <u>cytochrome</u> <u>P450</u> enzyme system, and does not appear to <u>interact with other drugs</u> . ^[2]
	It was discovered in 1979. ^[3]

	https://en.wikipedia.org/wiki/H2_antagonist
	H_2 antagonists, also called H_2 blockers, are a class of <u>medications</u> that block the action of <u>histamine</u> at the <u>histamine H₂ receptors</u> of the <u>parietal cells</u> in the <u>stomach</u> . This decreases the production of <u>stomach acid</u> . H_2 antagonists can be used in the treatment of <u>dyspepsia</u> , but have been surpassed by the more effective ^[1] <u>proton pump inhibitors</u> . They are also used to treat <u>peptic</u> <u>ulcer disease</u> and <u>gastroesophageal reflux disease</u>
69.	Felodipine
	非洛地平
	https://en.wikipedia.org/wiki/Felodipine
	Felodipine is a <u>calcium channel blocker</u> (calcium antagonist), a drug used to control <u>hypertension</u> (high blood pressure). Felodipine is a <u>calcium channel blocker</u> . https://en.wikipedia.org/wiki/Calcium channel blocker
	Felodipine has additionally been found to act as an <u>antagonist</u> of the <u>mineralocorticoid receptor</u> , or as an <u>antimineralocorticoid</u> . ^[4]
70.	Flavoxate Hydrochloride
	氟沙星
	https://en.wikipedia.org/wiki/Flavoxate
	Flavoxate is an <u>anticholinergic</u> with <u>antimuscarinic</u> effects. Its <u>muscle relaxant</u> properties may be due to a direct action on the smooth muscle rather than by antagonizing muscarinic receptors. Flavoxate is used to treat urinary bladder spasms. It is available under the trade name Urispas (Paladin),Genurin (by Recordati, Italy) in Italy and KSA,Uritac by El Saad company in Syria, under the name Bladderon by <u>Nippon Shinyaku</u> of Japan, or Bladuril in Chile, Utispas (Apex Pharma) in Nepal.
	Flavoxate is indicated for symptomatic relief of <u>interstitial cystitis</u> , dysuria, urgency, nocturia, suprapubic pain, frequency and incontinence as may occur in cystitis, prostatitis, urethritis, urethrocystitis/urethrotrigonitis.
71.	Fluconazole
	氟康唑
	https://en.wikipedia.org/wiki/Fluconazole

	Fluconazole is an antifungal medication that is given either by mouth or intravenously. It is used to treat a variety of fungal infections, especially <u>Candida</u> infections of the vagina (<u>yeast</u> infections), mouth, throat, and bloodstream. It is also used to prevent infections in people with weak immune systems, including those with <u>neutropenia</u> due to cancer chemotherapy, transplant patients, and premature babies. In those who are pregnant it may increase the risk of <u>miscarriage</u> . ^[1] Mechanism of action[edit] Like other imidazole- and triazole-class antifungals, fluconazole inhibits the fungal cytochrome P450 enzyme 14α-demethylase. Mammalian demethylase activity is much less sensitive to
	fluconazole than fungal demethylase. This inhibition prevents the conversion of <u>lanosterol</u> to <u>ergosterol</u> , an essential component of the fungal <u>cytoplasmic membrane</u> , and subsequent accumulation of 14α -methyl sterols. ^[16] Fluconazole is primarily fungistatic; however, it may be <u>fungicidal</u> against certain organisms in a dose-dependent manner, specifically <i>Cryptococcus</i> . ^[25]
	It is interesting to note, when fluconazole was in development at Pfizer, it was decided early in the process to avoid producing any <u>chiral</u> centers in the drug so subsequent synthesis and purification would not encounter difficulties with <u>enantiomer</u> separation and associated variations in biological effect. ^[citation needed] A number of related compounds were found to be extremely potent <u>teratogens</u> , and were subsequently discarded. ^[citation needed]
72.	Fludiazepam
	氟脲重
	https://en.wikipedia.org/wiki/Fludiazepam
	Ň
	CI F
	Fludiazepam, marketed under the brand name Erispan (エリスパン) ^{[1][2]} is a potent <u>benzodiazepine</u> and 2'-fluoro derivative of <u>diazepam</u> , ^[3] originally developed by <u>Hoffman-</u>
	<u>La Roche</u> in the 1960s. ^[4] It is marketed in <u>Japan</u> and <u>Taiwan</u> . ^[citation needed] It exerts its pharmacological properties via enhancement of GABAergic inhibition. ^[5] Fludiazepam has 4 times
	more binding affinity for benzodiazepine receptors than diazepam. ^[6] It
	possesses <u>anxiolytic</u> , ^{[7][8][9]} <u>anticonvulsant</u> , <u>sedative</u> , <u>hypnotic</u> and <u>skeletal muscle</u> <u>relaxant</u> properties. ^[10]
	As with all benzodiazepines, fludiazepam is used recreationally.[11]
73.	Flumazenil
	氟馬西尼
	https://en.wikipedia.org/wiki/Flumazenil
	F N O
	Flumazenil (also known as flumazepil , code name <u>Ro</u> 15-1788) is a selective <u>benzodiazepine</u> <u>receptor</u> <u>antagonist^[1]</u> primarily available by injection only. It has antagonistic and antidote properties to therapeutically used benzodiazapenes, through <u>competitive inhibition</u> .
	It was first introduced in 1987 by Hoffmann-La Roche under the trade name Anexate, but only

	approved by the FDA on December 20, 1991. Flumazenil went off patent in 2008 so at present generic formulations of this drug are available. <u>Intravenous</u> flumazenil is primarily used to treat <u>benzodiazepine overdoses</u> and to help reverse anesthesia. Administration of flumazenil by <u>sublingual</u> lozenge and topical cream has also been tested. ^{[2][3]}
74.	Flupentixol Dihydrochloride
	氟達醇 三鹽酸鹽
	https://en.wikipedia.org/wiki/Flupentixol
	F
	N N OH
	Flupentixol (<u>INN</u>), also known as flupenthixol (former <u>BAN</u>), marketed under brand names such as Depixol and Fluanxol is a <u>typical antipsychotic drug</u> of the <u>thioxanthene</u> class. It was introduced in 1965 by Lundbeck. In addition to single drug preparations, it is also available as <u>flupentixol/melitracen</u> —a <u>combination product</u> containing both <u>melitracen</u> (a <u>tricyclic</u> <u>antidepressant</u>) and flupentixol. Flupentixol is not approved for use in the United States. It is, however, approved for use in the <u>UK</u> , ^[4] <u>Australia</u> , ^[5] <u>Canada</u> , <u>Russian Federation</u> , ^[6] <u>South</u> <u>Africa</u> , <u>New Zealand</u> , <u>Philippines</u> and various other countries.
75.	Fondaparinux Sodium
	磺達肝素鈉
	https://en.wikipedia.org/wiki/Fondaparinux
	Fondaparinux (trade name Arixtra) is an <u>anticoagulant</u> medication chemically related to <u>low</u> <u>molecular weight heparins</u> . It is marketed by <u>GlaxoSmithKline</u> . A generic version developed by Alchemia is marketed within the US by <u>Dr. Reddy's Laboratories</u> .
	Fondaparinux is a synthetic pentasaccharide <u>factor Xa</u> inhibitor. Apart from the O-methyl group at the reducing end of the molecule, the identity and sequence of the five monomeric sugar units contained in fondaparinux is identical to a sequence of five monomeric sugar units that can be isolated after either chemical or enzymatic cleavage of the polymeric <u>glycosaminoglycans heparin</u> and <u>heparin sulfate</u> (HS). Within heparin and heparin sulfate this monomeric sequence is thought to form the high-affinity binding site for the anti- coagulant factor <u>antithrombin III</u> (ATIII). Binding of heparin/HS to ATIII has been shown to increase the anti-coagulant activity of antithrombin III 1000 fold. In contrast to heparin, fondaparinux does not inhibit <u>thrombin</u> .
76.	Fulvestrant
	氟維司群
	https://en.wikipedia.org/wiki/Fulvestrant
	CH CH
	Fulvestrant (trade name Faslodex, by AstraZeneca) is a drug treatment of hormone receptor-

	positive metastatic breast cancer in postmenopausal women with disease progression following
	anti-estrogen therapy. It is a complete <u>estrogen receptor</u> <u>antagonist</u> with no agonist effects, which in addition, accelerates the <u>proteasomal</u> degradation of the estrogen receptor. ^[1] The drug has poor oral <u>bioavailability</u> , and is administered monthly via <u>intramuscular injection</u> . ^[2]
77.	Fursultiamine Hydrochloride
	Fursultiamine powder
	Thiamine Tetrahydrofurfuryl Disulfide
	維生素 B1 誘導體
	https://en.wikipedia.org/wiki/Fursultiamine
	Fursultiamine (INN; Adventan, Alinamin-F, Benlipoid, Bevitol Lipophil, Judolor), also known as thiamine tetrahydrofurfuryl disulfide (TTFD), is a <u>disulfide</u> derivative of thiamine, or an <u>allithiamine</u> . ^[1] It was synthesized in <u>Japan</u> in the 1960s for the purpose of developing forms of thiamine with improved <u>lipophilicity</u> for treating <u>vitamin B₁ deficiency</u> (i.e., <u>beriberi</u>), ^{[1][2]} and was subsequently commercialized not only in Japan but also in <u>Spain</u> , <u>Austria</u> , <u>Germany</u> , and the <u>United States</u> . ^[3] As a <u>vitamin</u> , it is available <u>over-the-counter</u> as well. ^[4]
	In addition to its clinical indication of <u>avitaminosis</u> , fursultiamine has been studied in <u>clinical</u> <u>trials</u> for <u>Alzheimer's disease</u> and <u>autistic spectrum disorders</u> with positive but modest benefits. ^{[5][6]} It has also been investigated in improving <u>energy metabolism</u> during <u>exercise</u> and reducing <u>exercise</u> -induced <u>fatigue</u> with conflicting results. ^{[4][7][8][9]}
78.	Gadodiamide Hydrate
	甘二酰胺水合物
	https://en.wikipedia.org/wiki/Gadodiamide
	Gadodiamide is a <u>gadolinium-based MRI contrast agent</u> , used in <u>MR imaging</u> procedures to assist in the visualization of blood vessels. It is commonly marketed under the <u>trade</u> <u>name</u> Omniscan .
	A 2015 study found trace amounts of Gadolinium deposited in the brain tissue of patients that had received Gadodiamide. ^{[1][2]}
	Gadodiamide is a <u>contrast medium</u> for cranial and spinal <u>magnetic resonance imaging</u> (MRI) and for general MRI of the body after intravenous administration. The product provides contrast enhancement and facilitates visualisation of abnormal structures or lesions in various parts of the body including the central nervous system (<u>CNS</u>). It does not cross an intact <u>blood brain</u> <u>barrier</u> but might give enhancement in pathological conditions.
79.	Gadopentetate Dimeglumine
	戊二酸二甲葡胺
1 1	https://en.wikipedia.org/wiki/Gadopentetic_acid



	<u>woronowii</u> (Amaryllidaceae) and related genera like <i>Narcissus</i> (<u>daffodil</u>), <u>Leucojum</u> <u>aestivum</u> (snowflake), and <i>Lycoris</i> including <u>Lycoris radiata</u> (red spider lily). ^[1]
	Studies of usage in modern <u>medicine</u> began in the <u>Soviet Union</u> in the 1950s. The active ingredient was extracted, identified, and studied, in particular in relation to its <u>acetylcholinesterase</u> (AChE)-inhibiting properties. The bulk of the work was carried out by <u>Soviet</u> pharmacologists <u>M. D. Mashkovsky</u> and R. P. Kruglikova–Lvova, beginning in 1951. ^[2] The work of Mashkovsky and Kruglikova-Lvova was the first published work that demonstrated the AChE-inhibiting properties of galantamine. ^[3]
82.	Gemcitabine HCl
	吉西他濱
	https://en.wikipedia.org/wiki/Gemcitabine
	Gemcitabine (pronunciation: jem-SITE-a-been) is a <u>nucleoside analog</u> used in <u>chemotherapy</u> . It is marketed as Gemzar by <u>Eli Lilly and Company</u> .
	It is on the WHO Model List of Essential Medicines, the most important medications needed in a basic health system. ^[1]
	Chemically gemcitabine is a <u>nucleoside analog</u> in which the <u>hydrogen atoms</u> on the 2' carbon of <u>deoxycytidine</u> are replaced by <u>fluorine</u> atoms.
	As with <u>fluorouracil</u> and other analogues of pyrimidines, the triphosphate analogue of gemcitabine replaces one of the building blocks of nucleic acids, in this case <u>cytidine</u> , during <u>DNA replication</u> . The process arrests tumor growth, as only one additional nucleoside can be attached to the "faulty" nucleoside, resulting in <u>apoptosis</u> .
	Another target of gemcitabine is the enzyme <u>ribonucleotide reductase</u> (RNR). The diphosphate analogue binds to RNR active site and inactivates the enzyme irreversibly. Once RNR is inhibited, the cell cannot produce the deoxyribonucleotides required for DNA replication and repair, and cell apoptosis is induced. ^[5]
83.	Gimeracil
	吉莫斯特
	https://en.wikipedia.org/wiki/Tegafur/gimeracil/oteracil
	CI OH
	Mechanism of action[edit]
	<u>Tegafur</u> is the actual chemotherapeutic agent. It is a <u>prodrug</u> of the active substance <u>fluorouracil</u> (5-FU).
	<u>Gimeracil</u> inhibits the degradation of fluorouracil by reversibly blocking a <u>dehydrogenase</u> enzyme. This results in higher 5-FU levels and a prolonged half-life of the substance.
	Oteracil mainly stays in the gut because of its low permeability, where it reduces the production of 5-FU by blocking the enzyme orotate phosphoribosyltransferase. Lower 5-FU levels in the gut

	result in a lower gastrointestinal toxicity. [®]
84.	Glyceryl Guaiacolate
	甘油癒創木酚
	Guaifenesin
	https://en.wikipedia.org/wiki/Guaifenesin
	O OH OH
	Guaifenesin <u>INN</u> /gwai fɛnɨsɪn/ or guaiphenesin (former <u>BAN</u>), also glyceryl guaiacolate , ^[2] is an <u>expectorant drug</u> sold <u>over the counter</u> and usually taken orally to assist the bringing up (<u>expectoration</u>) of <u>phlegm</u> from the <u>airways</u> in acute <u>respiratory tract infections</u> .
	Mechanism of action[<u>edit</u>]
	Guaifenesin is thought to act as an expectorant by increasing the volume and reducing the viscosity of secretions in the trachea and bronchi. It has been said to aid in the flow of respiratory tract secretions, allowing ciliary movement to carry the loosened secretions upward toward the pharynx. ^[12] Thus, it may increase the efficiency of the cough reflex and facilitate removal of the secretions.
	Guaifenesin has <u>muscle relaxant</u> and <u>anticonvulsant</u> properties and may be acting as an <u>NMDA</u> receptor antagonist. ^[13]
85.	Granisetron Base
	格拉司瓊
	Granisetron Hydrochloride
	https://en.wikipedia.org/wiki/Granisetron
	N-CH ₃
	Granisetron is a serotonin 5-HT ₃ receptor antagonist used as an antiemetic to treat nausea and vomiting following chemotherapy Granisetron is a serotonin 5-HT ₃ receptor antagonist used as an antiemetic to treat nausea and vomiting following chemotherapy. Its main effect is to reduce the activity of the vagus nerve, which is a nerve that activates the vomiting center in the medulla oblongata. It does not have much effect on vomiting due to motion sickness. This drug does not have any effect on <u>dopamine</u> receptors or <u>muscarinic receptors</u> .
86.	Hydroxychloroquine Sulfate
	羥基氯喹 硫酸鹽
	https://en.wikipedia.org/wiki/Hydroxychloroquine
	Hydroxychloroquine (HCQ), sold under the trade names Plaquenil among others, is

89.	Irinotecan hydrochloride
	It was discovered via a lengthy trial-and-error search for a more stable version of the natural product <u>thienamycin</u> , which is produced by the bacterium <u>Streptomyces cattleya</u> . Thienamycin has antibacterial activity, but is unstable in aqueous solution, so impractical to administer to patients. ^[4] Imipenem has a broad spectrum of activity against <u>aerobic</u> and <u>anaerobic</u> , <u>Grampositive</u> and <u>Gram-negative bacteria</u> . ^[5] It is particularly important for its activity against <u>MRSA</u> , however.
	Imipenem (Primaxin) is an <u>intravenous β-lactam antibiotic</u> discovered by Merck scientists Burton Christensen, William Leanza, and Kenneth Wildonger in 1980. ^[1] It was the first member of the <u>carbapenem</u> class of antibiotics. Carbapenems are highly resistant to the β -lactamase enzymes produced by many multiple drug-resistant Gram-negative bacteria, ^[2] thus play a key role in the treatment of infections not readily treated with other antibiotics. ^[3]
	https://en.wikipedia.org/wiki/Imipenem
88.	Imipenem 亞胺培南
	Imatinib , sold under the brand names Gleevec and Glivec , used in the treatment of multiple cancers, most notably <u>Philadelphia chromosome</u> -positive (Ph ⁺) <u>chronic myelogenous</u> <u>leukemia</u> (CML). ^[1] Due in large part to the development of Gleevec and related drugs having a similar mechanism of action, the five year survival rate for people with chronic myeloid leukemia nearly doubled from 31% in 1993 (before Gleevec's 2001 FDA approval) to 59% for those diagnosed between 2003 and 2009. ^[2] Median survival for imatinib-treated people with <u>gastrointestinal stromal tumors</u> (GIST) is nearly 5 years compared to 9 to 20 months in the pre-imatinib-era. ^[3]
	https://en.wikipedia.org/wiki/Imatinib
87.	Imatinib Mesylate 伊馬替尼 甲磺酸鹽
	As with other quinoline antimalarial drugs, the mechanism of action of quinine has not been fully resolved. The most accepted model is based on hydrochloroquinine, and involves the inhibition of hemozoin biocrystallization, which facilitates the aggregation of cytotoxic heme. Free cytotoxic heme accumulates in the parasites, causing their deaths. ^[c]
	It is on the <u>World Health Organization's List of Essential Medicines</u> , a list of the most important medication needed in a basic health system. ^[1]
	an <u>antimalarial</u> medication. It is also used to reduce inflammation in the treatment of <u>rheumatoid</u> <u>arthritis</u> (see <u>disease-modifying antirheumatic drugs</u>) and <u>lupus</u> . Hydroxychloroquine differs from <u>chloroquine</u> by the presence of a hydroxyl group at the end of the side chain: the <i>N</i> -ethyl substituent is beta-hydroxylated. It is available for administration by mouth as hydroxychloroquine sulfate.

	伊立替康
	https://en.wikipedia.org/wiki/Irinotecan
	CN CN TO
	Irinotecan , sold under the brand name Camptosar , is a medication used for the treatment of <u>cancer</u> . Its main use is in <u>colon cancer</u> , in particular, in combination with other chemotherapy agents.
	Irinotecan prevents DNA from unwinding by <u>inhibition</u> of <u>topoisomerase 1</u> . ^[1] In chemical terms, it is a semisynthetic molecule similar to the natural alkaloid <u>camptothecin</u> .
	It is on the <u>WHO Model List of Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[2] Irinotecan received accelerated approval from the <u>U.S. Food and Drug</u> <u>Administration</u> (FDA) in 1996 and full approval in 1998. ^{[3][4]}
	Mechanism[edit]
	Irinotecan is activated by hydrolysis to <u>SN-38</u> , an inhibitor of topoisomerase I. This is then inactivated by <u>glucuronidation</u> by uridine diphosphate glucoronosyltransferase 1A1 (<u>UGT1A1</u>). The inhibition of topoisomerase I by the active metabolite SN-38 eventually leads to inhibition of both DNA replication and transcription.
90.	Isoconazol nitrate
	Isoconazole
	異康唑
	https://es.wikipedia.org/wiki/Isoconazol
	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
	Isoconazole is an antifungal drug derived from imidazole that is used in external application to the skin and mucous membranes. It is usually present in the form of isoconazole nitrate. Mechanism of action: Isoconazole, like other imidazole derivatives, interacts with cytochrome P450-dependent enzyme systems, interfering with the metabolism of lanosterol (difficult 14-demethylation) leading to a decrease in ergosterol and, secondarily, to an accumulation Of anomalous sterols (14-alpha-methylated sterols). As ergosterol is much more important for the wall of fungi than for that of human cells, and because of the greater affinity of the former for azole, Selective action.2 The lack of ergosterol alters the permeability of the fungi membranes, leading to a disruption of the intracellular organelles and the ability to divide. Secondarily, the accumulation of anomalous
	sterols contributes to cell fragility and death.
91.	Lansoprazole
	蘭索拉唑
	https://en.wikipedia.org/wiki/Lansoprazole

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	unable to swallow solid-dose formulations. ^[9]
92.	Lapatinib Ditosylate
	拉帕替尼 二甲苯磺酸鹽
	https://en.wikipedia.org/wiki/Lapatinib
	Lapatinib (INN), used in the form of lapatinib <u>ditosylate</u> (USAN) (trade names Tykerb and Tyverb) is an orally active <u>drug</u> for <u>breast cancer</u> and other <u>solid tumours</u> . ^[1] It is a dual <u>tyrosine kinase inhibitor</u> which interrupts the <u>HER2/neu</u> and <u>epidermal growth factor</u> receptor (EGFR) pathways. ^[2] It is used in <u>combination therapy</u> for HER2-positive breast cancer. It is used for the treatment of patients with advanced or metastatic breast cancer whose tumors overexpress HER2 (ErbB2). ^[3] A tyrosine kinase inhibitor (TKI) is a <u>pharmaceutical drug</u> that inhibits <u>tyrosine kinases</u> . Tyrosine kinases are <u>enzymes</u> responsible for the activation of many proteins by <u>signal</u> <u>transduction</u> cascades. The proteins are activated by adding a <u>phosphate</u> group to the protein (<u>phosphorylation</u>), a step that TKIs inhibit. TKIs are typically used as anticancer drugs. For example, they have substantially improved outcomes in <u>chronic myelogenous leukemia</u> .
93.	Latanoprost
	拉坦前列腺素
	$\frac{\text{https://en.wikipedia.org/wiki/Latanoprost}}{\underset{H_0}{\text{H}_0}}$ $\textbf{Latanoprost} eye solution is a medication administered into the eyes to control the progression of glaucoma or ocular hypertension by reducing intraocular pressure (IOP). It is a prostaglandin$
	analogue(more specifically an analogue of prostaglandin $F_{2a}^{(1)}$) that lowers the pressure by increasing the outflow of aqueous fluid from the eyes through the uveoscleral tract. ^[2] Latanoprost is an isopropyl ester prodrug, meaning it is inactive until it is hydrolyzed by esterases in the cornea to the biologically active acid. ^[3] Mechanism of action[edit]Like tafluprost and travoprost, latanoprost is an ester prodrug that is activated to the free acid in the cornea. Also like the related drugs, latanoprost acid is an analog of prostaglandin F_{2a} that acts as a selective agonist at the prostaglandin F receptor. Prostaglandins increase the sclera's permeability to aqueous fluid. So, an increase in prostaglandin activity increases outflow of
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94.	aqueous fluid thus lowering intraocular pressure. ^{[9][10]}
94.	本氟米特 <u>https://en.wikipedia.org/wiki/Leflunomide</u>
	 Leflunomide (original brand name Arava) is an immunosuppressive disease-modifying antirheumatic drug (DMARD),^[2] used in active moderate-to-severe <u>rheumatoid</u> arthritis and psoriatic arthritis. It is a pyrimidine synthesis inhibitor that works by inhibiting <u>dihydroorotate dehydrogenase</u>.^[3] Dihydroorotate dehydrogenase (DHODH) is an <u>enzyme</u> that in humans is encoded by the <i>DHODH</i>gene on chromosome 16. The protein encoded by this gene <u>catalyzes</u> the fourth enzymatic step, the <u>ubiquinone</u>-mediated <u>oxidation</u> of <u>dihydroorotate</u> to <u>orotate</u>, in de novo <u>pyrimidine biosynthesis</u>. This protein is a <u>mitochondrial</u> protein located on the outer surface of the <u>inner mitochondrial membrane</u>(IMM).^[1] <u>Inhibitors</u> of this enzyme are used to treat <u>autoimmune diseases</u> such as <u>rheumatoid arthritis</u>.^[2]
95.	Letrozole
	來曲唑
	https://en.wikipedia.org/wiki/Letrozole
	Letrozole (INN, trade name Femara) is an oral non-steroidal <u>aromatase inhibitor</u> for the treatment of hormonally-responsive <u>breast cancer</u> after surgery. <u>Estrogens</u> are produced by the conversion of <u>androgens</u> through the activity of the <u>aromatase</u> enzyme. Estrogens then bind to an estrogen receptor, which causes cells to divide.
	Letrozole is an <u>aromatase inhibitor</u> .
	Letrozole prevents the aromatase from producing estrogens by competitive, reversible binding to the heme of its <u>cytochrome P450</u> unit. The action is specific, and letrozole does not reduce production of mineralo- or corticosteroids. ^[citation needed]
96.	Levonorgestrel
	左炔諾孕酮
	https://en.wikipedia.org/wiki/Levonorgestrel

	Levonorgestrel is a manufactured hormone used in a number of birth control methods. ^[11] In pill form, sold under the brand name Plan B among others, it is useful within 120 hours as emergency birth control. It becomes less effective the longer after sex and only works before pregnancy has occurred. ^[11] It is also combined with an <u>estrogen</u> to make <u>combined</u> oral birth control pill. ^[21] Within an <u>IUD</u> , sold as Mirena among others, it is effective for long term prevention of pregnancy. ^[11] An <u>implantable form of levonorgestrel</u> is also available in some countries. ^[21] Levonorgestrel is an <u>estrane steroid</u> derived from testosterone and is also known as 17α-ethynyl-18-methylestr-4-en-17β-ol-3-one. Levonorgestrel (levo=left) is one form of a steroid, <u>norgestrel</u> , that exists in two mirror image left and right forms (see <u>Chirality (chemistry</u>)). It is the <u>hormonally</u> active <u>levorotatory enantiomer</u> of the <u>racemic mixture</u> . It is a gonane progestin derived from 19-nortestosterone. ^[20] Its <i>in vitro</i> relative <u>binding affinities</u> at human steroid hormone receptors are: 323% that of progesterone at the <u>mineralocorticoid receptor</u> , 7.5% that of <u>cortisol at</u> the <u>glucocorticoid receptor</u> , and <0.02% that of <u>estradiol at the estrogen receptor</u> . ^[22] If taken together with drugs that induce the <u>CYP3A4</u> cytochrome liver enzyme, levonorgestrel may be metabolized faster and may have lower efficacy. ^{[3000000000000000000000000000000000000}
97.	Lidocaine
	利多卡因
	Lidocaine HCl
	https://en.wikipedia.org/wiki/Lidocaine
	The second secon
	Lidocaine, also known as xylocaine and lignocaine, is a medication used to <u>numb tissue in a</u> <u>specific area</u> and to treat <u>ventricular tachycardia</u> . ^{[3][4]} It can also be used for <u>nerve blocks</u> . Lidocaine mixed with a small amount of <u>epinephrine</u> is available to allow larger doses for numbing, and to make it last longer. ^[4] When used as an injectable, it typically begins working within four minutes and lasts for half an hour to three hours. ^{[4][5]} Lidocaine may also be applied directly to the skin for numbing. ^[4] Mechanism of action[<u>edit</u>]
	Lidocaine alters signal conduction in <u>neurons</u> by blocking the fast <u>voltage-gated Na⁺</u> <u>channels</u> in the neuronal cell membrane responsible for signal propagation. ^[34] With sufficient blockage, the membrane of the postsynaptic neuron will not depolarize and will thus fail to transmit an <u>action</u> <u>potential</u> . This creates the <u>anaesthetic</u> effect by not merely preventing pain signals from propagating to the brain, but by stopping them before they begin. Careful titration allows for a high degree of selectivity in the blockage of sensory neurons, whereas higher concentrations also affect other modalities of neuron signaling.
	The same principle applies for this drug's actions in the heart. Blocking sodium channels in the conduction system, as well as the muscle cells of the heart, raises the depolarization threshold, making the heart less likely to initiate or conduct early action potentials that may cause an arrhythmia. ^[35]
98.	Limaprost Alfadex

	利馬前列素 阿法環糊精
	https://www.drugs.com/international/limaprost.html
	CAS registry number (Chemical Abstracts Service)
	0088852-12-4 Chemical Formula : C22-H36-O5
	Molecular Weight : 380
	Therapeutic Categories : Vasodilator, Prostaglandin analogue.
	https://en.wikipedia.org/wiki/Prostaglandin_analogue
	Synthetic prostaglandin analogues are molecules which are manufactured to bind to a prostaglandin receptor.
	Wider use of prostaglandin analogues is limited by unwanted side effects and
	their <u>abortive</u> potential.
99.	Linezolid
	利奈唑胺
	https://en.wikipedia.org/wiki/Linezolid
	L'NELNIQ O
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	H
	Linezolid is an <u>antibiotic</u> used for the treatment of serious <u>infections</u> caused by <u>Gram-positive</u> <u>bacteria</u> that are <u>resistant</u> to other antibiotics. Linezolid is active against most Gram-positive
	bacteria that cause disease, including streptococci, vancomycin-resistant enterococci (VRE),
	and <u>methicillin-resistant</u> <u>Staphylococcus aureus</u> (MRSA). ^[1] The main uses are infections of the <u>skin</u> and <u>pneumonia</u> although it may be use for a variety of other infections
	The oxazolidinones are protein synthesis inhibitors: they stop the growth and reproduction of
	bacteria by disrupting <u>translation</u> of <u>messenger RNA</u> (mRNA) into <u>proteins</u> in the <u>ribosome</u> . Although its mechanism of action is not fully understood, ^[90] linezolid appears to work on the first
	step of protein synthesis, <i>initiation</i> , unlike most other protein synthesis inhibitors, which
	inhibit <u>elongation.^{[3][54]}</u> It does so by preventing the formation of the <i>initiation complex</i> , composed of
	the 30S and 50S subunits of the ribosome, tRNA, and mRNA. Linezolid binds to the 23S portion
	of the 50S subunit (the center of <u>peptidyl transferase</u> activity), ^[91] close to the <u>binding</u> sites of chloramphenicol, lincomycin, and other antibiotics. Due to this unique mechanism of
	action, <u>cross-resistance</u> between linezolid and other protein synthesis inhibitors is highly
	infrequent or nonexistent.[15][46]
100.	Loxoprofen sodium hydrate
	洛索丙芬鈉 水合物
	https://en.wikipedia.org/wiki/Loxoprofen
	Loxoprofen (INN) is a non-steroidal anti-inflammatory drug in the propionic acid derivatives
	group, which also includes ibuprofen and naproxen among others.
	Mechanism of action[edit]
	As most NSAIDs, loxoprofen is a non-selective cyclooxygenase inhibitor, and works by reducing the synthesis of prostaglandins from arachidonic acid.
101.	Lubiprostone

	魯比前列酮
	https://en.wikipedia.org/wiki/Lubiprostone
	Lubiprostone (<u>rINN</u> , marketed under the trade name Amitiza among others) is a <u>medication</u> used in the management of <u>chronic idiopathic constipation</u> , predominantly <u>irritable</u> <u>bowel syndrome</u> -associated constipation in women and <u>opioid-induced constipation</u> .
	It was initially approved by the U.S. Food and Drug Administration (FDA) in 2006. It is very expensive as of 2012. ^[1] Mechanism of action[edit] Lubiprostone is a bicyclic <u>fatty acid</u> derived from <u>prostaglandin E1</u> that acts by specifically activating <u>CIC-2 chloride channels</u> on the apical aspect of gastrointestinal <u>epithelial</u> cells, producing a chloride-rich fluid secretion. These secretions soften the stool, increase motility, and promote spontaneous bowel movements (SBM).
	Symptoms of constipation such as pain and bloating are usually improved within one week, and SBM may occur within one day.
102.	Maxacalcitol Hydrate
	馬沙骨化醇 水合物
	$\frac{\text{https://www.medchemexpress.com/DataSheet/Maxacalcitol.html}}{\downarrow \downarrow \downarrow$
	CAS No.: 103909-75-7, Cat. No.:HY-32339, MWt: 418.61 Formula: C26H42O4, Purity : >98%, Solubility: in DMSO > 10 mM Mechanisms: Pathways: Vitamin D Related; Target: VD/VDR Biological Activity: Maxacalcitol (22-Oxacalcitriol) is non-calcemic vitamin D3 analog and ligand of VDR-like receptors. IC50 value: Target: Maxacalcitol (22-Oxacalcitriol)suppresses parathyroid hormone (PTH) mRNA expression in vitro and in vivo. Maxacalcitol exhibits similar effects to calcitriol in osteoblast-like cells. Maxacalcitol(22-Oxacalcitriol) inhibits tumor growth of osteosarcoma in vitro in combination with all-trans retinoic acid.
103.	Meclofenamate Sodium
	甲氯芬那酸鈉
	https://en.wikipedia.org/wiki/Meclofenamic_acid

	Meclofenamic acid (meclofenamate sodium, brand Meclomen) is a drug used for joint, muscular pain, arthritis and <u>dysmenorrhea</u> . ^[1] It is a member of the <u>anthranilic acid derivatives</u> (or fenamate) class of <u>NSAID</u> drugs and was approved by the FDA in 1980. ^[2] Like other members of the class, it is a <u>COX</u> inhibitor and prevents formation of <u>prostaglandins</u> . ^[3]
	Scientists led by Claude Winder from <u>Parke-Davis</u> invented meclofenamate sodium in 1964, along with fellow members of the class, <u>mefenamic acid</u> in 1961 and <u>flufenamic acid</u> in 1963. ^{[4]:718}
	Patents on the drug expired in 1985 ^{[5]:295} and several generics were introduced in the US, but as of July 2015 only <u>Mylan</u> still sold it. ^{[6][7]}
	It is not widely used in humans as it has a high rate (30-60%) rate of gastrointestinal side effects. ^{[B]:310} As of 2015 the cost for a typical course of medication in the United States is 50 to 100 USD. ^[9]
104.	Mefenamic Acid
	甲芬那酸
	https://en.wikipedia.org/wiki/Mefenamic_acid
	С N Н О ОН
	Mefenamic acid is a member of the <u>anthranilic acid derivatives</u> (or fenamate) class of <u>NSAID</u> drugs, and is used to treat mild to moderate pain, including <u>menstrual pain</u> , and is sometimes used to prevent migraines associated with menstruation. ^{[1][2]} It is not widely used in the United States due to its side effects. ^{[3][4]:334}
	Its name derives from its systematic name, dimethylphenylaminobenzoic acid. It was discovered and brought to market by <u>Parke-Davis</u> in the 1960s under brandnames Ponstan , Ponstan Forte , Ponalar , Ponstyl , and Ponstel . It became generic in the 1980s and is available worldwide under many brand names. ^[5] As of 2015 the cost for a typical course of medication in the United States is more than 200 USD. ^[6]
105.	Melitracen hydrochloride
	米拉明
	https://en.wikipedia.org/wiki/Melitracen
	Melitracen (Adaptol, Dixeran, Melixeran, Thymeol, Trausabun) is a <u>tricyclic</u> antidepressant (TCA) marketed in <u>Europe</u> and <u>Japan</u> by <u>Lundbeck</u> and <u>Takeda</u> , respectively, for the treatment of <u>depression</u> and <u>anxiety</u> . ^{[1][2][3][4]} In addition to single drug preparations, it is also available as <u>Deanxit</u> , a combination product containing both melitracen and <u>flupentixol</u> . ^{[5][6][7][8]}
	The <u>pharmacology</u> of melitracen has not been properly investigated and is largely unknown, but it is likely to act in a similar manner to other TCAs. Indeed, melitracen is reported to have <u>imipramine</u> and <u>amitriptyline</u> -like effects and efficacy against depression and anxiety,

	though with improved tolerability and a somewhat faster onset of action. ^{[9][10]}
	https://en.wikipedia.org/wiki/Tricyclic_antidepressant#Pharmacology The majority of the TCAs act primarily as <u>serotonin-norepinephrine reuptake inhibitors</u> (SNRIs) by blocking the <u>serotonin transporter</u> (SERT) and the <u>norepinephrine transporter</u> (NET), respectively, which results in an elevation of the <u>synaptic</u> concentrations of these <u>neurotransmitters</u> , and therefore an enhancement of <u>neurotransmission</u> . ^{[20][21]} Notably, with the sole exception of <u>amineptine</u> , the TCAs have negligible <u>affinity</u> for the <u>dopamine</u> <u>transporter</u> (DAT), and therefore have no efficacy as <u>dopamine reuptake</u> <u>inhibitors</u> (DRIs). ^[20] Both <u>serotonin</u> and <u>norepinephrine</u> have been highly implicated in <u>depression</u> and <u>anxiety</u> , and it has been shown that facilitation of their activity has beneficial effects on these <u>mental disorders</u> . ^[22]
106.	Meloxicam
	美洛昔康
	https://en.wikipedia.org/wiki/Meloxicam
	N N N S
	Meloxicam is a <u>nonsteroidal anti-inflammatory drug</u> (NSAID) with <u>analgesic</u> and <u>fever</u> reducer effects. It is a derivative of <u>oxicam</u> , closely related to <u>piroxicam</u> , and falls in the <u>enolic</u> <u>acid</u> group of NSAIDs. ^[2] It was developed by <u>Boehringer-Ingelheim</u> . Meloxicam starts to relieve pain about 30–60 minutes after administration. ^[3] Mechanism of action[edit]
	<i>Main article: Non-steroidal anti-inflammatory drug</i> Meloxicam blocks cyclooxygenase (COX), the enzyme responsible for converting arachidonic acid into prostaglandin H ₂ —the first step in the synthesis of prostaglandins, which are mediators of inflammation. Meloxicam has been shown, especially at its low therapeutic doses, selectively to inhibit COX-2 over COX-1. ^[1]
107.	Meropenem
	美羅培南
	Meropenem and Sodium Carbonate
	https://en.wikipedia.org/wiki/Meropenem
	Meropenem is an ultra-broad-spectrum <u>antibiotic</u> used to treat a wide variety of infections. It is a β -lactam and belongs to the subgroup of <u>carbapenem</u> , similar to <u>imipenem</u> and <u>ertapenem</u> .
	Meropenem was developed by <u>Dainippon Sumitomo Pharma</u> and patented in 1983. ^[112]3] It gained <u>US FDA</u> approval in July 1996. It penetrates well into many tissues and body fluids, including <u>cerebrospinal fluid</u> , <u>bile</u> , <u>heart valve</u> , <u>lung</u> , and <u>peritoneal</u> fluid. ^[4] It was initially marketed by AstraZeneca under the trade name Merrem.
	Mechanism of action[edit]
	Meropenem is <u>bactericidal</u> except against <u>Listeria monocytogenes</u> , where it is <u>bacteriostatic</u> . It inhibits bacterial wall synthesis like other β-lactam antibiotics. In contrast to other beta-lactams, it

	is highly resistant to degradation by β -lactamases or cephalosporinases. In general, resistance arises due to mutations in <u>penicillin-binding proteins</u> , production of metallo- β -lactamases, or resistance to diffusion across the bacterial outer membrane. ^[5] Unlike imipenem, it is stable to <u>dehydropeptidase</u> -1, so can be given without <u>cilastatin</u> .
108.	Metaxalone 美他沙酮
	https://en.wikipedia.org/wiki/Metaxalone
	To to
	Metaxalone (marketed by <u>King Pharmaceuticals</u> under the brand name Skelaxin) is a <u>muscle</u> <u>relaxant</u> used to relax muscles and relieve pain caused by strains, <u>sprains</u> , and other musculoskeletal conditions. Its exact mechanism of action is not known, but it may be due to general <u>central nervous system depression</u> . It is considered to be a moderately strong muscle relaxant, with relatively low incidence of side effects. Skelaxin is available in an 800 mg scored tablet. Possible side effects include nausea, vomiting, drowsiness and <u>CNS</u> side effects, such as dizziness, headache, and irritability.
	The metabolism of metaxalone involves the liver cytochrome P450 system. Based on the information in the labeling, patients receiving metaxalone therapy and physicians prescribing metaxalone are directed to take precaution when coadministering it with other medications involving the P450 system. ^[1]2]
	Because of potential for side effects, this drug is considered high risk in the elderly. As of 2015 the cost for a typical month of medication in the United States is 100 to 200 USD. ^[3]
109.	Methocarbamol
	甲硫氨醇
	Methocarbamol DC 90%
	https://en.wikipedia.org/wiki/Methocarbamol
	Methocarbamol is a central <u>muscle relaxant</u> used to treat <u>skeletal muscle spasms</u> . Under the trade name Robaxin , it is marketed by Actient Pharmaceuticals in the United States and <u>Pfizer</u> in Canada. The mechanism of action of methocarbamol is currently unknown, but may involve the inhibition of <u>carbonic anhydrase</u> . ^[2] The muscle relaxant effects of methocarbamol are largely attributed to central depressant effects; ^[3] however, peripheral effects of methocarbamol to prolong muscle <u>refractory period</u> have also been reported.
110.	Methylphenidate Hydrochloride
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	https://en.wikipedia.org/wiki/Methylphenidate
	Methylphenidate, sold under various trade names, Ritalin being one of the most commonly

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	known, is a <u>central nervous system</u> (CNS) <u>stimulant</u> of the <u>phenethylamine^[3]</u> and <u>piperidineclasses</u> that is used in the treatment of <u>attention deficit</u> <u>hyperactivity disorder</u> (ADHD) and <u>narcolepsy</u> . The original patent was owned by <u>CIBA</u> , now <u>Novartis Corporation</u> . It was first licensed by the US <u>Food and Drug Administration</u> (FDA) in 1955 for treating what was then known as hyperactivity.
	Medical use began in 1960; the drug has become increasingly prescribed since the 1990s, when the diagnosis of ADHD became more widely accepted. ^{[4][5]} Between 2007 and 2012 methylphenidate prescriptions increased by 50% in the <u>United Kingdom</u> and in 2013 global methylphenidate consumption increased to 2.4 billion doses, a 66% increase from the year before. The <u>United States</u> continues to account for more than 80% of global consumption. ^{[6][7]}
	ADHD and other similar conditions are believed to be linked to sub-performance of the <u>dopamine</u> and <u>norepinephrine</u> functions in the brain, primarily in the <u>prefrontal cortex</u> , responsible for <u>executive function</u> (e.g., <u>reasoning</u> , <u>inhibiting behaviors</u> , <u>organizing</u> , <u>problem</u> <u>solving</u> , <u>planning</u> , etc.). ^{[8][9]} Methylphenidate's <u>mechanism of action</u> involves the inhibition of <u>catecholaminereuptake</u> , primarily as a <u>dopamine reuptake inhibitor</u> . Methylphenidate acts by blocking the <u>dopamine transporter</u> and <u>norepinephrine transporter</u> , leading to increased concentrations of dopamine and norepinephrine within the <u>synaptic cleft</u> . This effect in turn leads to increased <u>neurotransmission</u> of dopamine and norepinephrine. ^[10] Methylphenidate is also a weak <u>5HT_{1A}</u> receptor agonist. ^[11]
111.	Metoprolol Succinate
	琥珀酸美托洛爾
	https://en.wikipedia.org/wiki/Metoprolol
	H ₃ CO CH ₃
	Metoprolol , marketed under the tradename Lopressor among others, is a selective $\underline{\beta}_1$ receptor blocker medication. ^[3] It is used to treat <u>high blood pressure</u> , <u>chest pain due to poor blood flow to</u> the heart, and a number of conditions involving an <u>abnormally fast heart rate</u> . It is also used to prevent further heart problems after <u>myocardial infarction</u> and to prevent headaches in those with <u>migraines</u> . ^[3]
	It comes in formulations that can be taken by mouth or given intravenously. The medication is often taken twice a day. There is an extended release formulation that is once per day. Metoprolol may be combined with <u>hydrochlorothiazide</u> in a single tablet. ^[3]
	Common side effects include trouble sleeping, <u>feeling tired</u> , feeling <u>faint</u> , and abdominal discomfort. ^[3] Large doses may cause serious toxicity. ^{[4][5]} Risk in pregnancy has not been ruled out. ^{[3][6]} It appears to be safe in breastfeeding. ^[7] Greater care is required with use in those with liver problems or <u>asthma</u> . ^[3] If stopped this should be done slowly to decrease the risk of further health problems. ^[3]
	Metoprolol was first made in 1969. ^[8] It is on the <u>World Health Organization's List of Essential</u> <u>Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[9] It is available as a <u>generic drug</u> . ^[3] In 2013, metoprolol was the 19th most prescribed medication in the United States. ^[10]
112.	Miconazole Nitrate
	咪康唑
	https://en.wikipedia.org/wiki/Miconazole

	Miconazole , sold under the brand name Monistat among others, is a <u>antifungal</u> <u>medication</u> used to treat <u>ring worm</u> , <u>pityriasis versicolor</u> , and <u>yeast infections</u> of the skin or vagina. ^[1] It is applied to the skin or vagina as a cream or ointment. ^[1]
	Common side effects include itchiness or irritation of the area in which it was applied. ^[1] Use in <u>pregnancy</u> is believed to be safe for the baby. ^[2] Miconazole is in the <u>imidazole</u> family of medications. It works by decreasing the ability of fungi to make <u>ergosterol</u> , an important part its <u>cell membrane</u> . ^[1]
	Miconazole was patented in 1968 and approved for medical use in 1971. ^[3] It is on the <u>World</u> <u>Health Organization's List of Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[4] <u>Miconazole</u> , <u>itraconazole</u> , and <u>clotrimazole</u> work in a different way, inhibiting synthesis of
	ergosterol from <u>lanosterol</u> by interfering with <u>14a-demethylase</u> . Ergosterol is a smaller molecule than lanosterol; it is synthesized by combining two molecules of farnesyl pyrophosphate, a 15- carbon-long terpenoid, into lanosterol, which has 30 carbons. Then, two methyl groups are removed, making ergosterol. The "azole" class of antifungal agents <u>inhibit</u> the enzyme that performs these <u>demethylation</u> steps in the biosynthetic pathway between lanosterol and ergosterol.
113.	Mifepristone
	米非司酮
	https://en.wikipedia.org/wiki/Mifepristone
	Mifepristone, also known as RU-486, is a medication typically used with <u>misoprostol</u> to bring about an <u>abortion</u> . ^[1] This combination is more than 95% effective during the first 50 days of <u>pregnancy</u> . It is also effective in the <u>second trimester</u> of pregnancy. ^{[2][3]} Two weeks after use effectiveness should be verified. It is taken by mouth. ^[1]
	Pharmacology[edit]
	It is a <u>synthetic</u> , <u>steroidal antiprogestogen</u> ($IC_{50} = 0.025$ nM for the <u>PR</u>), as well as an <u>antiglucocorticoid</u> ($IC_{50} = 2.2$ nM for the <u>GR</u>) and <u>antiandrogen</u> ($IC_{50} = 10$ nM for the <u>AR</u>) to a much lesser extent. ^[32] It is a 19- <u>norsteroid</u> with substitutions at positions C11 and C17 (17β- hydroxy-11β-(4-(dimethylamino)phenyl)-17α-(1-propynyl)estra-4,9-dien-3-one), which <u>antagonizes cortisol</u> action <u>competitively</u> at the <u>receptor</u> level. ^[33] Mifepristone is a low- <u>efficacy partial agonist</u> of the <u>progesterone receptor</u> . It is also a <u>glucocorticoid</u> <u>receptor</u> antagonist to a lesser extent.
	In the presence of <u>progesterone</u> , mifepristone acts as a <u>competitive progesterone receptor</u> <u>antagonist</u> (in the absence of progesterone, mifepristone acts as a <u>partial agonist</u>). Mifepristone is a 19- <u>nor steroid</u> with a bulky <u>p</u> -(dimethylamino) <u>phenyl substituent</u> above the plane of the molecule at the 11β-position responsible for inducing or stabilizing an inactive <u>receptor conformation</u> and a <u>hydrophobic</u> 1- <u>propynyl</u> substituent below the plane of the molecule at the 17α-position that increases its <u>progesterone receptor binding affinity</u> . ^{[34][35][36]}
114.	Miltefosine

	米替福新
	https://en.wikipedia.org/wiki/Miltefosine
	() $()$ $()$ $()$ $()$ $()$ $()$ $()$
	Miltefosine , sold under the trade name Impavido among others, is a medication mainly used to treat <u>leishmaniasis</u> and free-living <u>amoeba infections</u> such as <u>Naegleria fowleri</u> . ^[1] This includes leishmaniasis of the cutaneous, visceral, and mucosal types. ^[3] It may be used together with <u>liposomal amphotericin B</u> or <u>paromomycin</u> . ^[4] It is taken by mouth. ^[3]
	Common side effects include <u>vomiting</u> , abdominal pain, <u>fever</u> , <u>headaches</u> , and decreased kidney function. More severe side effects may include <u>Stevens-Johnson syndrome</u> or <u>low blood</u> <u>platelets</u> . Use during <u>pregnancy</u> appears to cause harm to the baby and use during <u>breastfeeding</u> is not recommended. How it works is not entirely clear. ^[1]
	Miltefosine was first made in the early 1980s and studied as a treatment for <u>cancer</u> . ^[5] A few years later it was found to be useful for leishmaniasis and was approved for this use in 2002 in India. ^[6] It is on the <u>World Health Organization's List of Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[7] In the <u>developing world</u> a course of treatment costs 65 to 150 USD. In the <u>developed world</u> treatment may be 10 to 50 times greater. ^[4]
	Mechanism of action[edit]
	Miltefosine primarily acts on <i>Leishmania</i> by affecting the species promastigote and amastigote stages. ^[23] Miltefosine exerts its activity by interacting with lipids, inhibiting cytochrome c oxidase and causing apoptosis-like cell death. ^[24] This may affect membrane integrity and mitochondrial function of the parasite.
115.	Misoprostol
	米索前列醇
	Misoprostol 1% HPMC Dispersion
	Misoprostol-HPMC 1% Dispersion
	https://en.wikipedia.org/wiki/Misoprostol
	HO HO
	Misoprostol , sold under the brandname Cytotec among others, is a <u>medication</u> used to <u>start</u> <u>labor</u> , cause an <u>abortion</u> , prevent and treat <u>stomach ulcers</u> , and treat <u>postpartum bleeding</u> due to poor contraction of the <u>uterus</u> . ^[1] For abortions it is often used with <u>mifepristone</u> or <u>methotrexate</u> . ^[2] By itself effectiveness for this purpose is between 66% and 90%. ^[3] It is taken either by mouth, under the tongue, or placed in the <u>vagina</u> . ^{[2][4]}
	Common side effects include <u>diarrhea</u> and abdominal pain. It is <u>pregnancy category</u> X meaning that it is known to result in negative outcomes for the baby if taken during <u>pregnancy</u> . <u>Uterine</u> <u>rupture</u> may occur. It is a <u>prostaglandin analogue</u> — specifically, a synthetic <u>prostaglandin</u> $\underline{E_1}$ (PGE ₁). ^[1]
	Misoprostol was developed in 1973. ^[5] It is on the <u>World Health Organization's List of Essential</u> <u>Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[6] It is available as a <u>generic medication</u> . ^[1] The wholesale cost in the <u>developing world</u> is about 0.36 to 2.00 USD a dose. ^[7] A months supply to treat stomach ulcers in the United States is between 100 and 200 USD. ^[8] The same costs between 30 and 55 EUR in Europe. ^[9]

116.	Montelukast Sodium
	孟魯司特鈉
	https://en.wikipedia.org/wiki/Montelukast
	Montelukast (trade name Singulair) is a <u>leukotriene receptor antagonist</u> (LTRA) used for the maintenance treatment of <u>asthma</u> and to relieve symptoms of seasonal <u>allergies</u> . ^{[2][3]} Montelukast comes as a tablet, a chewable tablet, flash tablet and granules to take by mouth. ^[4] Montelukast is usually taken once a day with or without food. ^[4] Montelukast is a <u>CysLT₁ antagonist</u> ; it blocks the action of <u>leukotriene</u> D4 (and secondary ligands LTC4 and LTE4) on the cysteinyl leukotriene receptor CysLT ₁ in the lungs and bronchial tubes by binding to it. This reduces the <u>bronchoconstriction</u> otherwise caused by the leukotriene and results in less inflammation.
	Because of its mechanism of action, it is not useful in the treatment of acute asthma attacks.
	Another leukotriene receptor antagonist is <u>zafirlukast</u> (Accolate). <u>Zileuton</u> (Zyflo), an asthma drug, blocks leukotriene synthesis by inhibiting <u>5-lipoxygenase</u> , an enzyme of the <u>eicosanoid</u> synthesis pathway. ^[5]
	The <i>Mont</i> in Montelukast stands for <u>Montreal</u> , the place where <u>Merck</u> developed the drug. ⁶¹
117.	Mupirocin
	莫匹羅星
	https://en.wikipedia.org/wiki/Mupirocin
	Mupirocin , sold under the brand name Bactroban among others, is an <u>antibiotic</u> useful against superficial <u>skin infections</u> such as <u>impetigo</u> or <u>folliculitis</u> . ^{[1][2]} It may also be used to get rid of <u>methicillin-resistant</u> <u>S. aureus</u> (MRSA) when present in the nose without symptoms. ^[1] Due to concerns of developing <u>resistance</u> , use for greater than ten days is not recommended. ^[2] It is used as a cream or ointment applied to the skin. ^[1]
	Common side effects include itchiness and rash at the site of application, headache, and nausea. Long term use may result in increased growth of <u>fungi</u> . Use during <u>pregnancy</u> and <u>breastfeeding</u> appear to be safe. ^[1] Mupirocin is in the <u>carbolic acid</u> class of medications. ^[3] It works by blocking the making of protein by the bacterial which usually results in <u>bacterial death</u> . ^[1]
	Mupirocin was initially isolated in 1971 from <u>Pseudomonas fluorescens</u> . ^[4] It is on the <u>World</u> <u>Health Organization's List of Essential Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[5]
	Mechanism[edit]
	Mupirocin reversibly binds to the isoleucyl t-RNA synthetase in <u>Staphylococcus</u> <u>aureus</u> and <u>Streptococcus</u> , resulting in inhibition of protein synthesis. <u>DNA</u> and cell wall formation are also negatively impacted to a lesser degree. ^[15] The inhibition of RNA synthesis was shown to be a protective mechanism in response to a lack of one <u>amino acid</u> , <u>isoleucine</u> . ^[16] In vivo studies in <u>Escherichia coli</u> demonstrated that pseudomonic acid inhibits isoleucine <u>t-RNA</u>

	synthetase (IIeRS). ^[8] This mechanism of action is shared with <u>furanomycin</u> , an analog of isoleucine. ^[17]
118.	Mycophenolate mofetil
	徽酚酸酯
	https://en.wikipedia.org/wiki/Mycophenolic_acid
	HO THE OH OH
	Mycophenolic acid , less accurately called mycophenolate , is an <u>immunosuppressant</u> drug used to prevent <u>rejection</u> in <u>organ transplantation</u> . It inhibits an enzyme needed for the growth of <u>T cells</u> and <u>B cells</u> . It was initially marketed as the <u>prodrug</u> mycophenolate mofetil (MMF) to improve oral <u>bioavailability</u> . More recently, the salt mycophenolate sodium has also been introduced. Mycophenolate mofetil is marketed under the trade name CellCept and mycophenolate sodium as Myfortic .
	Discovered by an Italian medical scientist <u>Bartolomeo Gosio</u> in 1893, mycophenolic acid was the first antibiotic to be synthesised in pure and crystalline form. But its medical application was forgotten until two American scientists C.L. Alsberg and O.M. Black resynthesised it in 1912, and gave its chemical name. It was eventually found to be a broad-spectrum acting drug having antiviral, antifungal, antibacterial, anticancer, and antipsoriasis properties. ^[3] The clinically usable drug Cellcept was developed by South African geneticist <u>Anthony Allison</u> and his wife Elsie M. Eugui. It was first approved by the <u>US Food and Drug Administration</u> on 3 May 1995 for use in <u>kidney transplantation</u> . ^[4]
119.	Naftopidil
	萘夫地爾
	https://en.wikipedia.org/wiki/Naftopidil
	Naftopidil (INN, marketed under the brand name Flivas) is a drug used in benign prostatic
	hypertrophy which acts as a <u>selective</u> α ₁ -adrenergic receptor antagonist or alpha blocker. ^[1]
120.	Nicametate Citrate
	枸橼酸烟胺乙酯
	https://pubchem.ncbi.nlm.nih.gov/compound/Nicametate_citrate#section=Top Chemical Names: Nicametate citrate; Euclidan Molecular Formula: C18H26N2O9, Molecular Weight: 414.411 g/mol
	Vasodilator Agents: Drugs used to cause dilation of the blood vessels.
121.	Nicotinamide
	煙酰胺

	https://en.wikipedia.org/wiki/Nicotinamide
	NH ₂
	Nicotinamide, (/ <u>,nɪkəˈtɪnəmaɪd/</u>) also known as niacinamide, ^{[2][3]} NAA, and nicotinic amide, is
	the <u>amide</u> of <u>nicotinic acid</u> (vitamin B_3 / niacin). ^[2]3] Nicotinamide is a water-soluble <u>vitamin</u> and is part of the <u>vitamin B</u> group. Nicotinic acid, also known as <u>niacin</u> , is converted to nicotinamide <u>in</u>
	<u>vivo</u> , and, though the two are identical in their vitamin functions, nicotinamide does not have the
	same pharmacological and toxic effects of <u>niacin</u> , which occur incidental to niacin's conversion. Thus nicotinamide does not reduce cholesterol or cause flushing, ^[4] although nicotinamide may
	be toxic to the liver at doses exceeding 3 g/day for adults. ^[5] In cells, niacin is incorporated
	into <u>nicotinamide adenine dinucleotide</u> (NAD) and <u>nicotinamide adenine dinucleotide</u> <u>phosphate</u> (NADP), although the pathways for nicotinic acid amide and nicotinic acid are very
	similar. NAD+ and NADP+ are coenzymes in a wide variety of enzymatic oxidation-
	reduction reactions. ^[6] Commercial production of niacin and niacinamide (several thousand tons annually) is by hydrolysis or aminolysis of 3-cyanopyridine (nicotinonitrile). ^[2]
	<u>Small intestinal bacterial overgrowth</u> is one known cause of nicotinamide deficiency.
122.	
122.	Olopatadine HCl
	奥洛他定
	https://en.wikipedia.org/wiki/Olopatadine
	С
	N N
	Olopatadine hydrochloride is an antihistamine (as well as anticholinergic and mast
	<u>cell</u> stabilizer), sold as a <u>prescription</u> eye drop manufactured by <u>Alcon</u> in one of three strengths: 0.7% solution or Pazeo in the US, 0.2% solution or Pataday (also called Patanol S in some
	countries), and 0.1% or Patanol (also called Opatanol in some countries). It is used to treat
	itching associated with allergic <u>conjunctivitis</u> (eye <u>allergies</u>). A <u>decongestant nasal</u> <u>spray</u> formulation is sold as Patanase , which was approved by the FDA on April 15, 2008. ^[1] It is
	also available as an oral tablet in Japan under the tradename Allelock , manufactured by Kyowa
	Hakko Kogyo. ^[2]
	It should not be used to treat irritation caused by <u>contact lenses</u> . The usual dose for Patanol is 1 drop in each affected eye 2 times per day, with 6 to 8 hours between doses. Both Pazeo and
	Pataday are dosed 1 drop in each eye daily.
	There is potential for Olopatadine as a treatment modality for steroid rebound (red skin syndrome). ^[3]
	Olopatadine was developed by Kyowa Hakko Kogyo. ^[4]
123.	Omeprazole
	奥美拉唑
	https://en.wikipedia.org/wiki/Omeprazole
	Omeprazole, sold under the brand names Prilosec and Losec among others, is a medication
	used in the treatment of <u>gastroesophageal reflux disease</u> , <u>peptic ulcer disease</u> , and <u>Zollinger–</u> <u>Ellison syndrome</u> . ^[1] It is also used to prevent <u>upper gastrointestinal bleeding</u> in people who are at
	<u>Emison syndrome</u> . It is also used to prevent <u>upper gastromicestinal precurity</u> in people who are at

	high risk. ^[1] It can be taken by mouth or injected into a vein. ^{[1][4]}
	Common side effects include nausea, vomiting, headaches, and <u>increased intestinal gas</u> . Serious side effects may include <u>Clostridium difficile</u> colitis, an increased risk of <u>pneumonia</u> , an increased risk of <u>bone fractures</u> , and the potential of masking <u>stomach cancer</u> . It is unclear if it is safe for use in <u>pregnancy</u> . Omeprazole is a <u>proton pump inhibitor</u> and as such blocks the release of stomach acid. ^[1]
	Omeprazole was discovered in 1979. ^[5] It is on the <u>World Health Organization's List of Essential</u> <u>Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[6] It is available as a <u>generic medication</u> . ^[1]
124.	Ondansetron HCI
	昂丹司瓊
	https://en.wikipedia.org/wiki/Ondansetron
	C -
	Ondansetron , marketed under the brand name Zofran , is a medication used to prevent <u>nausea</u> and <u>vomiting</u> caused by <u>cancer chemotherapy</u> , <u>radiation therapy</u> , or surgery. ^[1] It is also useful in <u>gastroenteritis</u> . ^{[2][3]} It has little effect on vomiting caused by <u>motion sickness</u> . ^[4] It can be given by mouth, by <u>injection into a muscle</u> or <u>into a vein</u> . ^[1]
	Common side effects include <u>diarrhea</u> , constipation, headache, sleepiness, and itchiness. Serious side effects include <u>QT prolongation</u> and <u>severe allergic reaction</u> . It appears to be safe during <u>pregnancy</u> but has not been well studied in this group. It is a <u>serotonin 5-HT₃ receptor</u> <u>antagonist</u> . ^[11] It does not have any effect on <u>dopamine receptors</u> or <u>muscarinic receptors</u> . ^[5]
	Ondansetron was first used medically in 1990. ^[6] It is on the <u>WHO Model List of Essential</u> <u>Medicines</u> , the most important medications needed in a basic <u>health system</u> . ^[7] It is available as a <u>generic medication</u> . ^[1] The wholesale cost of the injectable form in the <u>developing world</u> is about 0.10 to 0.76 USD per dose. ^[8] In the United States it costs about 1.37 USD per tablet. ^[1]
125.	Orciprenaline Sulphate
	奥西那林
	https://en.wikipedia.org/wiki/Orciprenaline
	OPH Orciprenaline (INN), also known as metaproterenol (USAN), is a bronchodilator used in the treatment of <u>asthma</u> . ^{[1][2]} Orciprenaline is a moderately selective <u>β₂ adrenergic receptor</u> agonist that stimulates receptors of the smooth muscle in the lungs, uterus, and vasculature supplying skeletal muscle, with minimal or no effect on α adrenergic receptors. The pharmacologic effects of β adrenergic <u>agonist</u> drugs, such as orciprenaline, are at least in part attributable to stimulation through β adrenergic receptors of intracellular <u>adenylyl cyclase</u> , the enzyme which catalyzes the conversion of <u>ATP</u> to <u>cAMP</u> . Increased cAMP levels are associated with relaxation of bronchial smooth muscle and inhibition of release of mediators of immediate hypersensitivity from many cells, especially from mast cells.
126.	Orlistat
	奧利司他
	https://en.wikipedia.org/wiki/Orlistat

	 orlistat is a drug designed to treat <u>obesity</u>. It is marketed as a <u>prescription drug</u> under the trade name Xenical by <u>Roche</u> in most countries, and is sold <u>over-the-counter</u> as Alli^[2] by <u>GlaxoSmithKline</u> in the <u>United Kingdom</u> and the <u>United States</u>.^[3] Its primary function is preventing the absorption of fats from the human diet by acting as a <u>lipase inhibitor</u>, thereby reducing <u>caloric</u> intake. It is intended for use in conjunction with a healthcare provider-supervised <u>reduced-calorie diet</u>.^[4] Orlistat is the <u>saturated</u> derivative of <u>lipstatin</u>, a potent <u>natural</u> inhibitor of <u>pancreatic</u> <u>lipases</u> isolated from the <u>bacterium <i>Streptomyces toxytricini</i>.^[5] However, due to its relative simplicity and stability, orlistat was chosen over lipstatin for development as an <u>anti-obesity</u> <u>drug</u>.^[5]</u>
127.	Oteracil Potassium 氧嗪酸鉀 https://en.wikipedia.org/wiki/Tegafur/gimeracil/oteracil →→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→→
128.	Oxazolam 嘧唑崙 <u>https://en.wikipedia.org/wiki/Oxazolam</u> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i>

	a <u>prodrug</u> for <u>desmethyldiazepam</u> . ^[1]
129.	Oxethazaine
	奥昔卡因
	https://en.wikipedia.org/wiki/Oxetacaine
	OH OH N N N N N N N N N N N N N
	Oxetacaine (INN, also known as oxethazaine) is a potent <u>local anesthetic</u> . It is administered orally (usually in combination with an <u>antacid</u>) for the relief of pain associated with <u>peptic ulcer</u> <u>disease</u> or <u>esophagitis</u> . It is also used topically in the management of <u>hemorrhoid</u> pain. Oral oxetacaine preparations are available in several countries, including <u>India</u> , <u>South</u> <u>Africa</u> , <u>Japan</u> and <u>Brazil</u> , but not the United States.
	Unlike most local anesthetics, oxetacaine does not break down under strongly <u>acidic</u> conditions. ^[1]
	https://en.wikipedia.org/wiki/Local_anesthetic
	Mechanism of action[edit]
	All LAs are <u>membrane</u> -stabilizing drugs; they reversibly decrease the rate of depolarization and repolarization of excitable membranes (like <u>nociceptors</u>). Though many other drugs also have membrane-stabilizing properties, not all are used as LAs (<u>propranolol</u> , for example). LA drugs act mainly by inhibiting <u>sodium</u> influx through sodium-specific <u>ion channels</u> in the <u>neuronal cell</u> <u>membrane</u> , in particular the so-called voltage-gated sodium channels. When the influx of sodium is interrupted, an <u>action potential</u> cannot arise and signal conduction is inhibited. The receptor site is thought to be located at the cytoplasmic (inner) portion of the sodium channel. Local anesthetic drugs bind more readily to sodium channels in an activated state, thus onset of neuronal blockade is faster in rapidly firing neurons. This is referred to as state-dependent blockade.
	LAs are weak <u>bases</u> and are usually formulated as the hydrochloride salt to render them water soluble. At a pH equal to the protonated base's pKa, the protonated (ionized) and un-protonated (unionized) forms of the molecule exist in equal molar amounts, but only the un-protonated base diffuses readily across cell membranes. Once inside the cell, the local anesthetic will be in equilibrium, with the formation of the protonated (ionized form), which does not readily pass back out of the cell. This is referred to as "ion-trapping". In the protonated form, the molecule binds to the LA binding site on the inside of the ion channel near the cytoplasmic end. Most LAs work on the internal surface of the membrane - the drug has to penetrate the cell membrane, which is achieved best in the non-ionized form.
130.	Paclitaxel
	紫杉醇
	https://en.wikipedia.org/wiki/Paclitaxel
	Paclitaxel (PTX), sold under the brand name Taxol among others, is a <u>chemotherapy</u> <u>medication</u> used to treat a number of types of <u>cancer</u> . This includes <u>ovarian cancer</u> , <u>breast</u> <u>cancer</u> , <u>lung cancer</u> , <u>Kaposi sarcoma</u> , <u>cervical cancer</u> , and <u>pancreatic cancer</u> . It is given by <u>injection into a vein</u> . ^[2] There is also an <u>albumin bound formulation</u> . ^[2]
	Common side effects include hair loss, bone marrow suppression, numbness, allergic reactions,

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	muscle pains, and diarrhea. Other serious side effects include heart problems, increased risk of infection, and <u>lung inflammation</u> . Use during <u>pregnancy</u> may result in harm to the baby. ^[2] Paclitaxel is in the <u>taxane</u> family of medications. ^[3] It works by interference with the normal function of <u>microtubules</u> during <u>cell division</u> . ^[2]
	Paclitaxel was first isolated in 1971 from the <u>Pacific yew</u> and approved for medical use in 1993. ^{[4][5]} It is on the <u>World Health Organization's List of Essential Medicines</u> , the most important medication needed in a basic <u>health system</u> . ^[6] The wholesale cost in the <u>developing world</u> is about 7.06 to 13.48 USD per 100 mg vial. ^[7] This amount in the United Kingdom costs the <u>NHS</u> about 66.85 pounds. ^[8] It is now manufactured by <u>cell culture</u> . ^[5]
	Mechanism of action[edit] Paclitaxel is one of several <u>cytoskeletal drugs</u> that target <u>tubulin</u> . Paclitaxel-treated cells have defects in mitotic spindle assembly, chromosome segregation, and cell division. Unlike other tubulin-targeting drugs such as <u>colchicine</u> that inhibit <u>microtubule</u> assembly, paclitaxel stabilizes the microtubule polymer and protects it from disassembly. Chromosomes are thus unable to achieve a metaphase spindle configuration. This blocks the progression of mitosis and prolonged activation of the mitotic checkpoint triggers <u>apoptosis</u> or reversion to the G-phase of the cell cycle without cell division. ^{[18][19]}
	The ability of paclitaxel to inhibit spindle function is generally attributed to its suppression of microtubule dynamics, ^[20] but recent studies have demonstrated that suppression of dynamics occurs at concentrations lower than those needed to block mitosis. At the higher therapeutic concentrations, paclitaxel appears to suppress microtubule detachment from centrosomes, a process normally activated during mitosis. ^[21] Paclitaxel binds to beta-tubulin subunits of microtubules. ^[22]
131.	p-Aminomethylbenzoic acid
	對氨基甲基苯甲酸
	https://en.wikipedia.org/wiki/Aminomethylbenzoic_acid
	Ним
	Aminomethylbenzoic acid (more precisely, 4-aminomethylbenzoic acid or p-
	aminomethylbenzoic acid , PAMBA) is an <u>antifibrinolytic</u> . https://en.wikipedia.org/wiki/Antifibrinolytic
	Antifibrinolytic
	From Wikipedia, the free encyclopedia Antifibrinolytics, such as <u>aminocaproic acid</u> (ε-aminocaproic acid) and <u>tranexamic acid</u> are
	used as inhibitors of <u>fibrinolysis</u> . ^[1] These <u>lysine</u> -like drugs interfere with the formation of the fibrinolytic enzyme plasmin from its precursor plasminogen by plasminogen activators (primarily t-PA and u-PA) which takes place mainly in lysine rich areas on the surface of fibrin. These drugs block the binding sites of the enzymes or <u>plasminogen</u> respectively and thus stop <u>plasmin</u> formation.
	They are used in <u>menorrhagia</u> and bleeding tendency due to various causes. Their application may be beneficial in patients with hyperfibrinolysis because they arrest bleeding rapidly if the other components of the haemostatic system are not severely affected. This may help to avoid the use of blood products such as <u>fresh frozen plasma</u> (FFP) with its associated risks of infections or anaphylactic reactions.
	In 2010, the CRASH-2 trial showed that the antifibrinolytic drug tranexamic acid safely reduces mortality in bleeding trauma patients. ^[2]
	The antifibrinolytic drug <u>aprotinin</u> was abandoned after identification of major side effects, especially on kidney.
	The indication for use of antifibrinolytic drugs is made with various methods. The most rapid and suitable one is <u>thromboelastometry</u> (TEM) in whole blood, which is even possible in patients

	on <u>heparin</u> . With various assays, an enhanced <u>fibrinolysis</u> becomes visible in the curve signature (TEMogram) and from the calculated values, e.g. the maximum <u>lysis</u> parameter. A special test for the identification of increased <u>fibrinolysis</u> (APTEM) compares the TEM in the absence or presence of the fibrinolysis inhibitor <u>aprotinin</u> . In severe cases of activated fibrinolysis, this assay confirms the syndrome already in less than 15 min during the early phases of clot formation ^[3]
132.	Paricalcitol
	帕立骨化醇
	https://en.wikipedia.org/wiki/Paricalcitol
	$ \begin{aligned} & $
	Like 1,25-dihydroxyergocalciferol, paricalcitol acts as an <u>agonist</u> at the vitamin D receptor and thereby lowers parathyroid hormone levels in the blood. ^[1]
133.	Pazopanib Hydrochloride
	鹽酸帕唑帕尼
	$\frac{\text{https://en.wikipedia.org/wiki/Pazopanib}}{\underset{\substack{\downarrow \\ 0=s=0\\ NH_2}}{}$
	 Pazopanib (trade name Votrient) is a potent and selective multi-targeted receptor tyrosine kinase inhibitor that blocks tumour growth and inhibits angiogenesis. It has been approved for renal cell carcinoma and soft tissue sarcoma by numerous regulatory administrations worldwide.^{[3][4][5][6]} Mechanism of action[edit] It is a multikinase inhibitor, with c-KIT, FGFR, PDGFR and VEGFR being amongst the inhibited enzymes.^{[2][12][15][16][17][18]}
134.	Pemetrexed Disodium Hemipentahydrate
	培美曲塞半水合二鈉
	https://en.wikipedia.org/wiki/Pemetrexed
	Pemetrexed (brand name Alimta) is a chemotherapy drug manufactured and marketed by Eli Lilly and Company. Its indications are the treatment of pleural mesothelioma and non-small cell lung cancer. Mechanism of action[edit] Pemetrexed is chemically similar to folic acid and is in the class of chemotherapy drugs

	called folate antimetabolites. It works by inhibiting three enzymes used in purine and pyrimidine synthesis—thymidylate synthase (TS), dihydrofolate reductase (DHFR), and glycinamide ribonucleotide formyltransferase ^{[16][17]} (GARFT). By inhibiting the formation of precursor purine and pyrimidine nucleotides, pemetrexed prevents the formation of DNA and RNA, which are required for the growth and survival of both normal cells and cancer cells.
135.	Pentobarbital Sodium
	戊巴比妥鈉
	https://en.wikipedia.org/wiki/Pentobarbital
	Pentobarbital (US English) or pentobarbitone (UK English) is a short-acting <u>barbiturate</u> . Pentobarbital can occur as both a free acid and as <u>salts</u> of elements such as <u>sodium</u> and calcium. The free acid is only slightly soluble in water and <u>ethanol</u> . ^{[1][2]}
	One brand name for this drug is Nembutal , coined by John S. Lundy, who started using it in 1930, from the structural formula of the sodium salt— N a (sodium) + <u>ethyl</u> + <u>methyl</u> + <u>butyl</u> + <u>al</u> (common <u>suffix</u> for <u>barbiturates</u>). ^[3] Nembutal is trademarked and manufactured by the Danish pharmaceutical company <u>Lundbeck</u> , and is the only injectable form of pentobarbital approved for sale in the United States. ^[4]
	In high doses, pentobarbital causes death by respiratory arrest. In the <u>United States</u> , the drug has been used for <u>executions</u> of convicted criminals. Lundbeck (one of many manufacturers) does not permit its sale to prisons or corrections departments to carry out the death penalty. ^[5] Mechanism of action [<u>edit</u>] <u>https://en.wikipedia.org/wiki/Barbiturate#Mechanism of action</u>
	Barbiturates act as <u>positive allosteric modulators</u> , and at higher doses, as <u>agonists</u> of <u>GABA_A receptors</u> . ^[20] <u>GABA</u> is the principal inhibitory neurotransmitter in the <u>mammalian central nervous system</u> (CNS). Barbiturates bind to the GABA _A receptor at multiple homologous transmembrane pockets located at subunit interfaces, ^[21] which are binding sites distinct from <u>GABA</u> itself and also distinct from the <u>benzodiazepine</u> binding site. Like benzodiazepines, barbiturates potentiate the effect of GABA at this receptor. In addition to this GABAergic effect, barbiturates also block <u>AMPA</u> and <u>kainate receptors</u> , subtypes of <u>ionotropic</u> <u>glutamate receptor</u> . Glutamate is the principal excitatory neurotransmitter in the mammalian CNS. Taken together, the findings that barbiturates potentiate inhibitory GABA _A receptors and inhibit excitatory AMPA receptors can explain the superior CNS-depressant effects of these agents to alternative GABA potentiating agents such as benzodiazepines and <u>guinazolinones</u> . At higher concentration, they inhibit the <u>Ca²⁺</u> -dependent release of neurotransmitters such as glutamate via an effect on <u>P/Q-type voltage-dependent calcium channels</u> . ^[22] Barbiturates produce their pharmacological effects by increasing the duration of chloride ion channel opening at the GABA _A receptor (pharmacodynamics: This increases the efficacy of GABA), whereas benzodiazepines increase the frequency of the chloride ion channel opening at the <u>GABA_A</u> receptor (pharmacodynamics: This increases the potency of GABA). The direct gating or opening of the chloride ion channel is the reason for the increased toxicity of barbiturates compared to <u>benzodiazepines</u> in overdose. ^{[23][24]}
	representatives. This superfamily of ion channels includes the neuronal <u>nACh receptor</u> channel, the <u>5-HT₃receptor</u> channel, and the <u>glycine receptor</u> channel. However, while GABA _A receptor currents are increased by barbiturates (and other general anaesthetics), ligand-gated ion channels that are predominantly permeable for cationic ions are blocked by these compounds.

	For example, neuronal nAChR channels are blocked by clinically relevant anaesthetic concentrations of both thiopental and pentobarbital. ^[25] Such findings implicate (non-GABA-ergic) ligand-gated ion channels, e.g. the neuronal nAChR channel, in mediating some of the (side) effects of barbiturates. ^[26] This is the mechanism responsible for the (mild to moderate) anesthetic effect of barbiturates in high doses when used in anesthetic concentration
136.	Phenylephrine bitartrate
	去氧腎上腺素 酒石酸鹽
	Phenylephrine HCl
	Phenylephrine Hydrochloride
	https://en.wikipedia.org/wiki/Phenylephrine
	HO
	Phenylephrine is a selective $\underline{\alpha}_1$ -adrenergic receptor agonist of the phenethylamine class used primarily as a decongestant, as an agent to dilate the pupil, and to increase blood pressure. Phenylephrine is marketed as an alternative for the decongestant pseudoephedrine, although <u>clinical trials</u> show phenylephrine, taken orally at the recommended dose, to be no more effective than <u>placebo</u> for allergy relief. ^{[1][2]} Phenylephrine can also cause a decrease in <u>heart rate</u> through <u>reflex bradycardia</u> . ^[3]
137.	Phenylpropanolamine Hydrochloride
	苯丙醇胺
	https://en.wikipedia.org/wiki/Phenylpropanolamine
	OH NH ₂
	Phenylpropanolamine (<u>BAN</u> and <u>INN</u> ; PPA, β- <u>hydroxyamphetamine</u>), also known as the <u>stereoisomers</u> norephedrine, <u>norpseudoephedrine</u> , and <u>cathine</u> , is a <u>psychoactive drug</u> of the <u>phenethylamine</u> and <u>amphetamine chemical classes</u> which is used as a <u>stimulant</u> , <u>decongestant</u> , and <u>anorectic</u> agent. ^[11] It is commonly used in <u>prescription</u> and <u>over- the-counter cough and cold preparations</u> . In <u>veterinary medicine</u> , it is used to control <u>urinary</u> incontinence in dogs under <u>trade names</u> Propalin and Proin .
	In the <u>United States</u> , PPA is no longer sold due to a purported increased risk of <u>stroke</u> in younger women. In a few countries in <u>Europe</u> , however, it is still available either by prescription or sometimes over-the-counter. In <u>Canada</u> , it was withdrawn from the market on 31 May 2001. ^[2] In <u>India</u> human use of PPA and its formulations was banned on 10 February 2011, ^[3] but the ban was overturned by the judiciary in September 2011. ^[4] Pharmacology[<u>edit</u>]
	Phenylpropanolamine acts as an <u>alpha-adrenergic receptor</u> and <u>beta-adrenergic</u> receptor agonist as well as a <u>dopamine receptor D_1 partial agonist.^[5]</u>
	Many sympathetic hormones and neurotransmitters are based on the phenethylamine skeleton, and function generally in "fight or flight" type responses, such as increasing heart rate, blood pressure, dilating the pupils, increased energy, drying of mucous membranes, increased sweating, and a significant number of additional effects.
138.	Phenyltoloxamine Citrate
	苯基托沙胺
	https://en.wikipedia.org/wiki/Phenyltoloxamine

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	Phenyltoloxamine is an <u>antihistamine</u> with <u>sedative</u> and <u>analgesic</u> effects. It is a member of the <u>ethanolamine</u> class of <u>antihistaminergic</u> agents and an <u>anticholinergic</u> . Common use[edit] Phenyltoloxamine is widely used in preparations as an enhancing agent for some analgesics and
	antitussives (<u>acetaminophen</u> , <u>dihydrocodeine</u> , <u>codeine</u> , <u>hydrocodone</u>). It is widely used in certain parts of the world as <u>cough suppressant</u> usually with codeine, and sometimes by itself or in addition to <u>dextromethorphan</u> as it, like <u>diphenhydramine</u> , possesses antitussive action of its own and is particularly useful in semi-productive coughs because of its moderate drying action.
	<u>https://en.wikipedia.org/wiki/Antihistamine</u> An antihistamine is a type of <u>pharmaceutical drug</u> that opposes the activity of <u>histamine</u> <u>receptors</u> in the body. ^[1] Antihistamines are subclassified according to the <u>histamine</u> receptor that they act upon: the two largest classes of antihistamines are <u>H₁-antihistamines</u> and <u>H₂-</u> <u>antihistamines</u> . Antihistamines that target the <u>histamine H₁-receptor</u> are used to treat <u>allergic</u> <u>reactions in the nose</u> (e.g., itching, runny nose, and sneezing) as well as for <u>insomnia</u> . They are sometimes also used to treat motion sickness or <u>vertigo</u> caused by problems with the <u>inner ear</u> . Antihistamines that target the <u>histamine H₂-receptor</u> are used to treat <u>gastric acid</u> conditions (e.g., <u>peptic ulcers</u> and <u>acid reflux</u>). H ₁ -antihistamines work by binding to <u>histamine</u> <u>H₁ receptors</u> in <u>mast cells</u> , <u>smooth muscle</u> , and <u>endothelium</u> in the body as well as in the <u>tuberomammillary nucleus</u> in the brain; H ₂ -antihistamines bind to <u>histamine H₂ receptors</u> in the upper <u>gastrointestinal tract</u> , primarily in the <u>stomach</u> .
139.	Pipethanate Ethobromide <u>http://www.druginfosys.com/drug.aspx?drugcode=2164&type=1#Shortcuts</u> Overview
	Pipethanate ethobromide is an antimuscarinic with actions similar to those of atropine. Categories
	 4 Antidotes and other substances used in poisonings 4.2 Specific antidotes 4.2.3 Organophosphate and carbamate poisoning
	17 Gastrointestinal drugs 17.5 Antispasmodics
	Side Effects The severe or irreversible adverse effects of Pipethanate ethobromide, which give rise to
	further complications include Deaths. The signs and symptoms that are produced after the acute overdosage of Pipethanate ethobromide include Nausea, Vomiting, Confusion, Hallucinations, Ataxia, CNS stimulation, Incoordination, Rashes, Paranoid psychosis, Increased respiration rate, Excitement.
140.	Potassium Cresolsulfonate
	煤溜油酚磺酸鉀 http://www.chemicalbook.com/ChemicalProductProperty_CN_CB11104948.htm
	OH S S S K ⁺
141.	Pramoxine HCl
	普莫林 https://op.wikipodia.org/wiki/Promosaina
	https://en.wikipedia.org/wiki/Pramocaine

· · ·	
	 Pramocaine (INN and BAN, also known as pramoxine or pramoxine HCI) is a topical anesthetic discovered at Abbott Laboratories in 1953⁽¹¹⁾ and used as an antipruritic. During research and development, pramocaine hydrochloride stood out among a series of alkoxy aryl alkamine ethers as an especially good topical local anesthetic agent.⁽¹¹⁾ Pharmacologic study revealed it to be potent and of low acute and subacute toxicity, well tolerated by most mucous membranes and of a low sensitizing index in humans.⁽¹¹⁾ Like other local anesthetics, pramocaine decreases the permeability of neuronal membranes to sodium ions, blocking both initiation and conduction of nerve impulses. Depolarization and repolarization of excitable neural membranes is thus inhibited, leading to numbness. Use[edit] Topical anesthetics are used to relieve pain and itching caused by conditions such as sunburn or other minor burns, insect bites or stings, poison ivy, poison oak, poison sumac, and minor cuts and scratches.^[2] The popular itch creams Gold Bond and some forms of calamine lotion use pramocaine hydrochloride to numb sensitive skin, as does the pain relief variant of Neosporin and some formulations of Sarna. The hydrochloride salt form of pramocaine is water-soluble. Pramocaine and <u>dibucaine</u> are also common ingredients in <u>over the counter hemorrhoid</u> preparations.
142.	Pravastatin Sodium
	普伐他汀鈉
	$\frac{\text{https://en.wikipedia.org/wiki/Pravastatin}}{\underset{HO}{\overset{H}{H$
	Pravastatin (marketed as Pravachol or Selektine) is a member of the drug class of <u>statins</u> , used in combination with diet, exercise, and weight loss for lowering <u>cholesterol</u> and preventing <u>cardiovascular disease</u> .
	Medical uses[edit] Pravastatin is primarily used for the treatment of <u>dyslipidemia</u> and the prevention of <u>cardiovascular disease</u> . ^[2] It is recommended to be used only after other measures, such as diet, exercise, and weight reduction, have not improved cholesterol levels. ^[2]
	Mechanism of action[edit]
	Pravastatin acts as a lipoprotein-lowering drug through two pathways. In the major pathway, pravastatin inhibits the function of <u>hydroxymethylglutaryl-CoA (HMG-CoA) reductase</u> . As a <u>reversible competitive</u> inhibitor, pravastatin <u>sterically hinders</u> the action of HMG-CoA reductase by occupying the active site of the enzyme. Taking place primarily in the liver, this enzyme is responsible for the conversion of <u>HMG-CoA</u> to <u>mevalonate</u> in the rate-limiting step of the biosynthetic pathway for cholesterol. Pravastatin also inhibits the synthesis of very-low-density lipoproteins, which are the precursor to low-density lipoproteins (LDL). These reductions increase the number of cellular LDL receptors, thus LDL uptake increases, removing it from the bloodstream. ^[7] Overall, the result is a reduction in circulating cholesterol and LDL. A minor reduction in triglycerides and an increase in high-density lipoproteins (HDL) are common.
143.	Prazosin Hydrochloride

	哌唑嗪鹽酸鹽
	https://en.wikipedia.org/wiki/Prazosin
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	Prazosin , trade names Minipress , Vasoflex , Lentopres and Hypovase , is a sympatholytic drug used to treat high blood pressure, anxiety, and posttraumatic stress disorder (PTSD). ^{[2]]3} It is an α_1 -blocker which acts as an inverse agonist at alpha-1 adrenergic receptors. ^[4] These receptors are found on vascular smooth muscle, where they are responsible for the vasoconstrictive action of norepinephrine. ^[3] They are also found throughout the central nervous system. ^[5] As of 2013, prazosin is off-patent in the US, and the FDA has approved at least one generic manufacturer.
144.	Probucol
	普羅布考
	https://en.wikipedia.org/wiki/Probucol
	HO J S S J OH
	Probucol is an anti-hyperlipidemic <u>drug^[1]</u> initially developed in the treatment of <u>coronary artery</u> <u>disease</u> .
	However, clinical trials were stopped after it was found that it may lower HDL in patients with a previous history of heart disease.
	Probucol was initially developed in the 1970s by a chemical company to maximize airplane tire longevity. Probucol is associated with QT interval prolongation. Mechanism[edit] Probucol lowers the level of cholesterol in the bloodstream by increasing the rate of LDL establisher. Additionally, probucol may inhibit cholesterol aurthoria and delay cholesterol.
	catabolism. Additionally, probucol may inhibit cholesterol synthesis and delay cholesterol absorption. ^[2] Probucol is a powerful antioxidant which inhibits the oxidation of cholesterol in LDLs; this slows the formation of foam cells, which contribute to atherosclerotic plaques.
	It is believed to act at <u>ABCA1.^[3]</u> It also lowers levels of <u>HDL.^[4]</u>
	https://en.wikipedia.org/wiki/ATP-binding_cassette_transporter
	ATP-binding cassette transporters (ABC transporters) are members of a transport system superfamily that is one of the largest and is possibly one of the oldest families with representatives in all extant phyla from prokaryotes to humans. ^[1]2] ABC transporters often consist of multiple subunits, one or two of which are transmembrane proteins and one or two of which are membrane-associated ATPases. The ATPase subunits that utilize the energy of adenosine triphosphate (ATP) binding and hydrolysis to energize the translocation of various substrates across membranes, either for uptake or for export of the substrate
145.	Procainamide Hydrochloride
	普魯卡因
	https://en.wikipedia.org/wiki/Procainamide
	H ₂ N N

	Procainamide is a medication of the antiarrhythmic class used for the treatment of cardiac arrhythmias. It is classified by the Vaughan Williams classification system as class la.Mechanism of action[edit]Procainamide works as an anti-arrhythmic agent and is used to treat cardiac arrhythmia. It induces rapid block of the batrachotoxin (BTX)-activatedsodium channels of the heart muscle and acts as antagonist to long gating closures. The block is voltage dependent and can occur from both sides; either from the intracellular or the extracellular side. Blocking from the extracellular side is weaker than from the intracellular side because it occurs via the hydrophobic pathway. Procainamide is present in charged form and probably requires a direct hydrophobic access to the binding site for blocking of the channel. Furthermore, blocking of the channel shows a decreased voltage sensitivity, which may result from the loss of voltage dependence of the blocking rate. Due to its charged and hydrophilic form, procainamide has its effect from the internal side, where it causes blockage of voltage-dependent open channels. With increasing concentration of procainamide, the frequency of long blockage becomes less without the duration of blockage being affected. The rate of fast blocking and decreased unblocking of the channels. Procainamide slows the conduction velocity and increases the refractory period, such that the maximal rate of depolarization is reduced. ^[2]
146.	Propafenone Hydrochloride 普羅帕酮
	$\begin{array}{l} \label{eq:https://en.wikipedia.org/wiki/Propafenone} \\ \hline \qquad \qquad$
147.	Pseudoephedrine base 假麻黃鹼 Pseudoephedrine Hydrochloride Pseudoephedrine sulfate https://en.wikipedia.org/wiki/Pseudoephedrine $\int_{I} \int_{I} \int_{I$

	and/or paracetamol (acetaminophen) or an NSAID (such as aspirin or ibuprofen).
	Mechanism of action [edit] Pseudoephedrine is a <u>sympathomimetic amine</u> . Its principal mechanism of action relies on its direct action on the <u>adrenergic receptor</u> system. ^[BII9] The <u>vasoconstriction</u> that pseudoephedrine produces is believed to be principally an α -adrenergic receptor response. ^[10] Pseudoephedrine acts on α - and β 2-adrenergic receptors, to cause vasoconstriction and relaxation of smooth muscle in the bronchi, respectively. ^[BII9] α -adrenergic receptors are located on the muscles lining the walls of blood vessels. When these receptors are activated, the muscles contract, causing the blood vessels to constrict (vasoconstriction). The constricted blood vessels now allow less fluid to leave the blood vessels and enter the nose, throat and sinus linings, which results in decreased inflammation of nasal membranes, as well as decreased mucus production. Thus, by constriction of blood vessels, mainly those located in the nasal
	passages, pseudoephedrine causes a decrease in the symptoms of nasal congestion. Activation of β 2-adrenergic receptors produces relaxation of smooth muscle of the bronchi, ^[8] causing bronchial dilation and in turn decreasing congestion (although not fluid) and difficulty breathing.
148.	Rabeprazole Sodium
	雷貝拉唑鈉
	https://en.wikipedia.org/wiki/Rabeprazole
	Rabeprazole / ræ. bɛp.ræ.zɔ:l/ is an antiulcer drug in the class of proton pump inhibitors. https://en.wikipedia.org/wiki/Proton-pump_inhibitor
	It was developed by Eisai Co. and is available worldwide under many brand names.
	Indications and usage[edit] Short-term treatment in healing and symptomatic relief of duodenal ulcers and erosive or gastroesophageal reflux disease (GERD); maintaining healing and reducing relapse rates of heartburn symptoms in patients with GERD; treatment of daytime and nighttime heartburn and other symptoms associated with GERD; long-term treatment of pathological hypersecretory conditions, including Zollinger-Ellison syndrome and in combination with amoxicillin and clarithromycin to eradicate <i>Helicobacter pylori</i> .
	Gastric ulcer (GU)
	 Peptic ulcer disease (PUD) Maintenance of healing of erosive or ulcerative GERD
	Healing of erosive and ulcerative GERD
	 Healing of duodenal ulcers. Treatment of symptomatic GERD
	 Treatment of pathological hypersecretory conditions (Zollinger-Ellison syndrome) Helicobacter pylori eradication to reduce risk of duodenal ulcer recurrence
149.	Rapamycin
	雷帕黴素
	https://en.wikipedia.org/wiki/Sirolimus

	$ \begin{array}{l} \overset{H^{o}}{}{}{}{}{}{}{}$
	It is produced by the bacterium <i>Streptomyces hygroscopicus</i> and was isolated for the first time in 1972 by Suren Sehgal and colleagues from samples of <i>Streptomyces hygroscopicus</i> found on Easter Island. ^{[7][8]} The compound was originally named rapamycin after the native name of the island, Rapa Nui. ^[5] Sirolimus was initially developed as an antifungal agent. However, this use was abandoned when it was discovered to have potent immunosuppressive and antiproliferative properties due to its ability to inhibit mTOR. It was approved by the US Food and Drug Administration in September 1999 and is marketed under the trade name Rapamune by Pfizer (formerly by Wyeth). mTOR inhibitors
	https://en.wikipedia.org/wiki/MTOR_inhibitors
150.	Rasagiline Mesylate
	甲磺酸雷沙吉蘭
	https://en.wikipedia.org/wiki/Rasagiline
	HN HN Rasagiline (Azilect, TVP-1012, N-propargyl-1(R)-aminoindan ^[1]) is an irreversible
	inhibitor of monoamine oxidase-B ^[2] used as a monotherapy to treat symptoms in early Parkinson's disease or as an adjunct therapy in more advanced cases. ^[3]
	The racemic form of the drug was invented by Aspro Nicholas in the early 1979s. Moussa B.H. Youdim identified it as a potential drug for Parkinson's disease, and working with collaborators at Technion – Israel Institute of Technology in Israel and the drug company, Teva Pharmaceutical, identified the R-isomer as the active form of the drug. ^[4] Teva brought it to market in partnership with Lundbeck in Europe and Eisai in the US and elsewhere. It was approved in Europe in 2005 and in the US in 2006. Mechanism of Action[edit]
	Parkinson's disease is characterized by the death of cells that produce <u>dopamine</u> , a <u>neurotransmitter</u> . An enzyme called <u>monoamine oxidase</u> (MAO) breaks down neurotransmitters. MAO has two forms, <u>MAO-A</u> and <u>MAO-B</u> . MAO-B breaks down <u>dopamine</u> . Rasagiline prevents the breakdown of dopamine by irreversibly binding to MAO-B. Dopamine is therefore more available, somewhat compensating for the diminished quantities made in the brains of people with Parkinsons. ^[5]
	<u>Selegiline</u> was the first selective MAO-B inhibitor. It is partly <u>metabolized</u> to <u>levomethamphetamine</u> (I-methamphetamine), one of the two <u>enantiomers</u> of <u>methamphetamine</u> , <u>in vivo</u> . ^{[9][10]} While these metabolites may contribute to selegiline's ability to <u>inhibit reuptake</u> of the neurotransmitters dopamine and <u>norepinephrine</u> , they have also been associated with <u>orthostatic hypotension</u> and <u>hallucinations</u> in some people. ^{[10][11][12]} Rasagiline metabolizes into 1(<i>R</i>)-aminoindan which has no amphetamine-like

	characteristics ^[13] and has neuroprotective properties in cells and in animal models. ^[14] It is selective for <u>MAO type B</u> over type A by a factor of fourteen. ^[15]
151.	Regadenoson
	瑞加德松
	https://en.wikipedia.org/wiki/Regadenoson
	Regadenoson (CVT-3146 , Lexiscan) is an A _{2A} adenosine receptor agonist that is a coronary vasodilator that is commonly used in pharmacologic stress testing. It produces hyperemia quickly and maintains it for a duration that is useful for radionuclide myocardial perfusion imaging. ^[1] The selective nature of the drug makes it preferable to other stress agents such as adenosine, which are less selective and therefore cause more side-effects.
	Regadenoson was approved by the United States Food and Drug Administration on April 10, 2008 and is marketed by Astellas Pharma under the tradename Lexiscan. ^[2] It is approved for use in the European Union and under the name of Rapiscan. It is currently being marketed by GE Healthcare and is being sold in both the United Kingdom and Germany.
	Regadenoson has a 2 to 3 minute biological half-life, as compared with adenosine's 10-second half-life. As a result, regadenoson stress protocols use a single bolus, instead of a 4-6 minute continuous infusion, which was needed with adenosine. Another difference is that adenosine infusion is weight based (140mcg/kg/minute), while with regadenoson, a 0.4mg/5mL preloaded syringe dose is standard for all weights. Regadenoson stress tests are not affected by the presence of beta blockers, as regadenoson vasodilates via the adenosine pathway without stimulating beta adrenergic receptors. ^[citation needed]
	One side effect of regadenoson is that it can temporarily disrupt the integrity of the blood-brain barrier by inhibiting P-glycoprotein function. ^[3]
152.	Riluzole
	利魯唑
	https://en.wikipedia.org/wiki/Riluzole#Mechanism_of_Action
	$H_2N \xrightarrow{N}_{S} \xrightarrow{F}_{F}$
	Riluzole (Rilutek, Teglutik) is a <u>drug</u> used to treat <u>amyotrophic lateral sclerosis</u> . These are marketed by <u>Sanofi</u> Pharmaceuticals and Martindale Pharma respectively. Riluzole delays the onset of <u>ventilator</u> -dependence or <u>tracheostomy</u> in selected <u>patients</u> and may increase survival by approximately two to three months. ^[2] Mechanism of Action[edit]
	Riluzole preferentially blocks <u>TTX</u> -sensitive <u>sodium channels</u> , which are associated with damaged <u>neurons</u> . ^{[15][16]} Riluzole has also been reported to directly inhibit the <u>kainate</u> and <u>NMDA</u> <u>receptors</u> . ^[17] However, the action of riluzole on <u>glutamate receptors</u> has been controversial, as no binding of the drug to any known sites has been shown for them. ^{[18][19]} In addition, as its antiglutamatergic action is still detectable in the presence of sodium channel blockers, it is also uncertain whether or not it acts via this way. Rather, its ability to stimulate glutamate uptake seems to mediate many of its effects. ^{[20][21]} In addition to its role in accelerating glutamate clearance from the synapse, Riluzole may also prevent glutamate release from presynaptic terminals. ^[22] These effects combined could significantly reduce glutamate signaling and cause indirect antagonism without acting at glutamate receptors themselves.

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	muscle pains, and diarrhea. Other serious side effects include heart problems, increased risk of infection, and lung inflammation. Use during pregnancy may result in harm to the baby. ^[2] Paclitaxel is in the taxane family of medications. ^[3] It works by interference with the normal function of microtubules during cell division. ^[2]
	Paclitaxel was first isolated in 1971 from the Pacific yew and approved for medical use in 1993. ^{[4][5]} It is on the World Health Organization's List of Essential Medicines, the most important medication needed in a basic health system. ^[6] The wholesale cost in the developing world is about 7.06 to 13.48 USD per 100 mg vial. ^[7] This amount in the United Kingdom costs the NHS about 66.85 pounds. ^[8] It is now manufactured by cell culture. ^[5] Mechanism of action [<u>edit</u>]
	Paclitaxel is one of several cytoskeletal drugs that target tubulin. Paclitaxel-treated cells have defects in mitotic spindle assembly, chromosome segregation, and cell division. Unlike other tubulin-targeting drugs such as colchicine that inhibit microtubule assembly, paclitaxel stabilizes the microtubule polymer and protects it from disassembly. Chromosomes are thus unable to achieve a metaphase spindle configuration. This blocks the progression of mitosis and prolonged activation of the mitotic checkpoint triggers apoptosis or reversion to the G-phase of the cell cycle without cell division. ^{[18][19]}
156.	Sevelamer Carbonate
	碳酸司维拉姆
	Sevelamer Hydrochloride
	https://en.wikipedia.org/wiki/Sevelamer
	Sevelamer (rINN) (/sɛ'vɛləmər/ or /sɛ'vɛləmɪər/) is a phosphate binding drug used to treat hyperphosphatemia in patients with chronic kidney disease. When taken with meals, it binds to dietary phosphate and prevents its absorption. Sevelamer was invented and developed by GelTex Pharmaceuticals. Sevelamer is currently marketed by Sanofi under the trade names Renagel (sevelamer hydrochloride) and Renvela (sevelamer carbonate).
	Chemistry and pharmacology[edit] Sevelamer consists of <u>polyallylamine</u> that is crosslinked with <u>epichlorohydrin</u> . ^[1] The marketed form sevelamer hydrochloride is a partial hydrochloride salt being present as approximately 40% <u>aminehydrochloride</u> and 60% sevelamer base. The amine groups of sevelamer become partially <u>protonated</u> in the intestine and interact with phosphate ions through <u>ionic</u> and <u>hydrogen</u> <u>bonding</u> .
	Medical uses [<u>edit</u>] Sevelamer is used in the management of <u>hyperphosphatemia</u> in adult patients with stage 4 and 5 <u>chronic kidney disease</u> on hemodialysis. Its efficacy at lowering phosphate levels is similar to that of calcium acetate, but without the accompanying risk of <u>hypercalcemia</u> .
157.	Sodium Starch Glycolate
	澱粉乙醇酸鈉
	https://www.drugs.com/inactive/sodium-starch-glycolate-type-a-potato-412.htmlSodium starch glycolate type A potato is the sodium salt of carboxymethyl ether of starch from potato origin. Starch glycolates are also of rice, wheat or corn origin. It is a white to off-white, tasteless, odorless, relatively free-flowing powder.Sodium starch glycolate is used as a pharmaceutical grade dissolution excipient for tablets and capsules. Sodium starch glycolate absorbs water rapidly, resulting in swelling which leads to rapid disintegration of tablets and granules. It is used as a disintegrant, a suspending agent and as a

	gelling agent. Without a disintegrant, tablets may not dissolve appropriately and may effect the amount of active ingredient absorbed, thereby decreasing effectiveness.[1] [2]
158.	Sodium Stearyl Fumarate
	硬脂酰富馬酸鈉
	https://www.drugs.com/inactive/sodium-stearyl-fumarate-320.html
	Sodium stearyl fumarate is a water-soluble lubricant used in the pharmaceutical industry for compressing tablets ("tableting"). Sodium stearyl fumarate is an inert, hydrophilic, tablet lubricant, useful in situations where other lubricating agents (i.e., magnesium stearate) fail to provide tablets of adequate stability, hardness, content uniformity, disintegration and dissolution rate.[1][2]
159.	Sodium Valproate
	丙戊酸鈉
	https://en.wikipedia.org/wiki/Valproate
	HOH
	Valproate (VPA), and its valproic acid, sodium valproate, and divalproex sodium forms, are medications primarily used to treat epilepsy and bipolar disorder and to prevent migraine headaches. ^[2] It is useful for the prevention of seizures in those with absence seizures, partial seizures, and generalized seizures. It can be given intravenously or by mouth. Long and short acting formulations exist. ^[2]
	Common side effects include nausea, vomiting, sleepiness, and a dry mouth. Serious side effects can include liver problems and regular monitoring of liver function tests is therefore recommended. Other serious risks include pancreatitis and an increased suicide risk. It is known to cause serious abnormalities in the baby if taken during pregnancy. Because of this it is not typically recommended in women of childbearing age who have migraines. It is unclear how valproate works. ^[2]
	Mechanism of action[edit]
	Although the mechanism of action of valproate is not fully understood, ^[37] it has recently been shown to protect against a seizure-induced reduction in <u>phosphatidylinositol (3,4,5)-</u> <u>trisphosphate</u> (PIP3) as a potential therapeutic mechanism. ^[49] In addition, its anticonvulsant effect has been attributed to the blockade of voltage-dependent sodium channels and increased brain levels of <u>gamma-aminobutyric acid</u> (GABA). ^[37] The GABAergic effect is also believed to contribute towards the anti-manic properties of valproate. ^[37] In animals, sodium valproate raises cerebral and cerebellar levels of the inhibitory synaptic neurotransmitter, GABA, possibly by inhibiting GABA degradative enzymes, such as <u>GABA transaminase</u> , <u>succinate-semialdehyde</u> <u>dehydrogenase</u> and by inhibiting the re-uptake of GABA by neuronal cells. ^[37]
	It also has <u>histone deacetylase-inhibiting effects</u> . The inhibition of histone deacetylase, by promoting more transcriptionally active chromatin structures, likely presents the epigenetic mechanism for regulation of many of the neuroprotective effects attributed to valproic acid. Intermediate molecules mediating these effects include <u>VEGF</u> , <u>BDNF</u> , and <u>GDNF</u> . ^{[50][51]}
	Valproic acid has been found to be an <u>antagonist</u> of the <u>androgen</u> and <u>progesterone receptors</u> , and hence as a <u>non-steroidal antiandrogen</u> and <u>antiprogestogen</u> , at concentrations much lower than therapeutic serum levels. ^[52] In addition, the drug has been identified as a potent <u>aromatase</u> <u>inhibitor</u> , and suppresses <u>estrogen</u> concentrations. ^[53] These actions are likely to be involved in the reproductive endocrine disturbances seen with valproic acid treatment. ^{[52][53]}
160.	Sulcaine

	蘇爾卡因
	https://pubchem.ncbi.nlm.nih.gov/compound/3300
161.	Tacrolimus
	他克莫司
	https://en.wikipedia.org/wiki/Tacrolimus
	Tacrolimus (also FK-506 or fujimycin, trade names Prograf, Advagraf, Protopic) is an immunosuppressive drug used mainly after allogeneic organ transplant to lower the risk of organ rejection. It achieves this by inhibiting the production of interleukin-2, a molecule that promotes the development and proliferation of T cells, which are vital to the body's learned (or adaptive) immune response. Tacrolimus is also used in the treatment of other T cell- mediated diseases such as eczema (for which it is applied to the skin in a medicated ointment), severe refractory uveitis after bone marrow transplants, exacerbations of minimal change disease, Kimura's disease, and the skin condition vitiligo.
	Chemically it is a 23-membered macrolide lactone that was first discovered in 1987 from the fermentation broth of a Japanese soil sample that contained the bacterium <i>Streptomyces tsukubaensis</i> .
	Mechanism of action[edit]
	Tacrolimus is a macrolide calcineurin inhibitor. In T-cells, activation of the T-cell receptor normally increases intracellular calcium, which acts via calmodulin to activate calcineurin. Calcineurin then dephosphorylates the transcription factor nuclear factor of activated T-cells (NF- AT), which moves to the nucleus of the T-cell and increases the activity of genes coding for IL-2 and related cytokines. Tacrolimus prevents the dephosphorylation of NF-AT. ^[16]
	In detail, tacrolimus reduces peptidylprolyl isomerase activity by binding to the immunophilin FKBP12 (FK506 binding protein), creating a new complex. This FKBP12–FK506 complex interacts with and inhibits calcineurin, thus inhibiting both T-lymphocyte signal transduction and IL-2 transcription. ^[17] Although this activity is similar to that of ciclosporin, the incidence of acute rejection is reduced by tacrolimus use over ciclosporin use. ^[1] Although short-term immunosuppression concerning patient and graft survival is found to be similar between the two drugs, tacrolimus results in a more favorable lipid profile, and this may have important long-term implications given the prognostic influence of rejection on graft survival. ^[18]
162.	Tafluprost
	他氟前列腺素
	https://en.wikipedia.org/wiki/Tafluprost

	Tafluprost (trade names Taflotan by Santen Pharmaceutical and Zioptan by Merck in the US)is a prostaglandin analogue. It is used topically (as eye drops) to control the progression of open-angle glaucomaand in the management of ocular hypertension, alone or in combination withother medication. It reduces intraocular pressureby increasing the outflow of aqueous fluid fromthe eyes.[1][2]Mechanism of action[edit]Tafluprost is a prodrug of the active substance, tafluprost acid, a structural and functional analogue of prostaglandin F _{2α} (PGF _{2α}). Tafluprost acid is a selective agonist at the prostaglandin F receptor, increasing outflow of aqueous fluid from the eyes and thus lowering intraocular pressure.[2][3]Other PGF _{2α} analogues with the same mechanism include latanoprost and travoprost.
163.	Taltirelin
	他替瑞林
	https://en.wikipedia.org/wiki/Taltirelin
	O N O
	Taltirelin (marketed under the tradename Ceredist) is a <u>thyrotropin-releasing hormone</u> (TRH)
	analog, which mimics the physiological actions of TRH, but with a much longer half-life and duration of effects, ^[1] and little development of tolerance following prolonged dosing. ^[2] It has <u>nootropic</u> , ^[3] neuroprotective ^[4] and <u>analgesic</u> effects. ^[5]
	Taltirelin is primarily being researched for the treatment of <u>spinocerebellar ataxia</u> ; limited research has also been carried out with regard to other neurodegenerative disorders, e.g., <u>spinal muscular atrophy</u> . ^{[6][7][8]}
	https://en.wikipedia.org/wiki/Thyrotropin-releasing_hormone
	Thyrotropin-releasing hormone (TRH), also called thyrotropin-releasing factor (TRF) or thyroliberin , is a <u>releasing hormone</u> , produced by the <u>hypothalamus</u> , that stimulates the release of thyrotropin (<u>thyroid-stimulating hormone</u> or TSH) and <u>prolactin</u> from the <u>anterior pituitary</u> . It is a <u>tropic</u> , <u>tripeptidal hormone</u> .
	TRH has been used clinically for the treatment of <u>spinocerebellar degeneration</u> and <u>disturbance</u> <u>of consciousness</u> in humans. ^[1] Its <u>pharmaceutical</u> form is called protirelin (<u>INN</u>) (/prov'taɪrilin/).
164.	Tamsulosin HCl
	坦洛新
	https://en.wikipedia.org/wiki/Tamsulosin
	H_2N H_3CO H_3CO H_3CO H_3CO H_3CO
	Tamsulosin , sold under the <u>trade name</u> Flomax , is a medication used to treat symptomatic <u>benign prostatic hyperplasia</u> (BPH), help with the passage of <u>kidney stones</u> , ^[2] and for <u>urinary retention</u> along with other measures.
	Tamsulosin, and other medications in the class called <u>alpha blockers</u> , work by relaxing bladder neck muscles and muscle fibers in the prostate itself and make it easier to urinate. ^[3] It is an α_{1a} <u>adrenergic receptor</u> antagonist.
	Tamsulosin was developed by Yamanouchi Pharmaceuticals (now part of Astellas Pharma) and

	was first marketed in 1996. The U.S. patent expired in October 2009. ^[4] The <u>U.S. Food and Drug</u> <u>Administration</u> (FDA) approved generics in March 2010. ^[5] Mechanism[edit] <i>Main article: Alpha blocker</i>
	Tamsulosin is a selective $\underline{\alpha}_1$ receptor antagonist that has preferential selectivity for the $\underline{\alpha}_{1A}$ receptor in the prostate versus the $\underline{\alpha}_{1B}$ receptor in the blood vessels. ^[19]
	When alpha 1 receptors in the bladder neck and the prostate are blocked, this causes a relaxation in smooth muscle and therefore less resistance to urinary flow. Due to this, the pain associated with BPH can be reduced. Selective action of tamsulosin in alpha 1A/D receptors is controversial and over three quarters of tamsulosin registered human studies are unpublished. ^[20]
165.	Tegafur
	https://en.wikipedia.org/wiki/Tegafur
	Tegafur (INN, BAN, USAN) is a <u>chemotherapeutic fluorouracil prodrug</u> used in the treatment of cancers. It is a component of the combination drug <u>tegafur/uracil</u> . When metabolised, it becomes 5-fluorouracil. ^[1] Mechanism of action[edit]
	It is a prodrug to <u>fluorouracil</u> which is a <u>thymidylate synthase</u> inhibitor. ^[2] https://en.wikipedia.org/wiki/Thymidylate_synthase
	Thymidylate synthetase (<u>EC 2.1.1.45</u>) ^[4] is an <u>enzyme</u> that catalyzes the conversion of <u>deoxyuridine monophosphate</u> (dUMP) to <u>deoxythymidine monophosphate</u> (dTMP). Thymidine is one of the <u>nucleotides</u> in DNA. With inhibition of TS, an imbalance of <u>deoxynucleotides</u> and increased levels of <u>dUMP</u> arise. Both cause DNA damage. ^{[5][6]}
166.	Telavancin HCl
	特拉萬星
	https://en.wikipedia.org/wiki/Telavancin
	Telavancin (trade name Vibativ) is a <u>bactericidal lipoglycopeptide</u> for use in <u>MRSA</u> or other <u>Gram-positive</u> infections. Telavancin is a semi-synthetic derivative of <u>vancomycin</u> . ^{[1][2]}
	The FDA approved the drug in September 2009 for <u>complicated skin and skin structure</u> <u>infections</u> (cSSSI), ^[3] and in June 2013 for <u>hospital-acquired</u> and ventilator-associated bacterial pneumonia caused by <u>Staphylococcus aureus</u> . ^[4] Mechanism of action [<u>edit</u>] Like vancomycin, telavancin inhibits bacterial <u>cell wall</u> synthesis by binding to the D- <u>Ala</u> -D-Ala terminus of the peptidoglycan in the growing cell wall (see <u>Pharmacology and chemistry of</u> <u>vancomycin</u>). In addition, it disrupts bacterial <u>membranes</u> by <u>depolarization</u> . ^{[2][9]}
167.	Temozolomide
	替莫唑胺

https://en.wikipedia.org/wiki/Temozolomide <i>i</i> → → → → → → → → → → → → → → → → → → →
 Temozolomide (TMZ; brand names Temodar and Temodal and Temcad) is an oral chemotherapy drug. It is an <u>alkylating agent</u> used as a treatment of some brain cancers; as a second-line treatment for <u>astrocytoma</u> and a first-line treatment for <u>glioblastoma multiforme</u>.^[11]2] Mechanism of action[edit] The therapeutic benefit of temozolomide depends on its ability to <u>alkylate/methylate</u> DNA, whic most often occurs at the N-7 or O-6 positions of <u>guanine</u> residues. This methylation damages to DNA and triggers the death of tumor cells. However, some tumor cells are able to repair this ty of DNA damage, and therefore diminish the therapeutic efficacy of temozolomide, by expressin a protein O⁶-alkylguanine DNA alkyltransferase (AGT) encoded in humans by the <u>O-6-methylguanine-DNA methyltransferase</u> (<i>MGMT</i>) gene.^[4] In some tumors, <u>epigenetic</u> silencing of the <i>MGMT</i> gene prevents the synthesis of this enzyme, and as a consequence such tumors ar more sensitive to killing by temozolomide.^[6] Conversely, the presence of AGT protein in brain tumors predicts poor response to temozolomide and these patients receive little benefit from chemotherapy with temozolomide.^[6] Thiamine Disulfide
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https://en.wikipedia.org/wiki/Thiamine
https://www.drugs.com/ingredient/thiamine.html
NH ₂
N N S
H_3C N H_3C
он Thiamine, also known as vitamin B₁, is a <u>vitamin</u> found in food and used as a <u>dietary</u>
supplement. ^[2] As a supplement it is used to treat and prevent thiamine deficiency and disorders
that result from it including <u>beriberi</u> and <u>Korsakoff's syndrome</u> . Other uses include <u>maple syrup</u> urine disease and Leigh's disease. It is taken by mouth or by injection. ^[1]
Side effects are generally few. <u>Allergic reactions</u> including <u>anaphylaxis</u> may occur. Thiamine is
the <u>B complex</u> family. It is needed for the <u>metabolism</u> of <u>carbohydrates</u> . ^[1] As people are unable
make it, thiamine is an <u>essential nutrient</u> . Food sources include <u>whole grains</u> , meat, and fish. ^[2]
Thiamine was discovered in 1897, isolated in 1926, and first made in 1936. ^{III} It is on the World Health Organization's List of Essential Medicines, the most important medication needed in a
basic <u>health system</u> . ^[4]
https://en.wikipedia.org/wiki/Vitamin
A vitamin is an <u>organic compound</u> and a vital <u>nutrient</u> that an <u>organism</u> requires in limited amounts. An organic chemical compound (or related set of compounds) is called a vitamin whe
the organism cannot synthesize the compound in sufficient quantities, and it must be obtained
through the diet; thus, the term "vitamin" is conditional upon the circumstances and the particu organism.
169. Thiopental
https://en.wikipedia.org/wiki/Sodium_thiopental

	S [⊕] Na [⊕]
	 Sodium thiopental, also known as Sodium Pentothal (a trademark of <u>Abbott Laboratories</u>, not to be confused with <u>pentobarbital</u>), thiopental, thiopentone, or Trapanal (also a trademark), is a rapid-onset short-acting <u>barbiturate general anesthetic</u> that is an analogue of <u>thiobarbital</u>. Sodium thiopental was a core medicine in the <u>World Health Organization</u>'s "<u>Essential Drugs</u> <u>List</u>", which is a list of minimum medical needs for a basic healthcare system, but was supplanted by <u>propofol.^[3]</u> It was previously the first of three drugs administered during most <u>lethal</u> <u>injections</u> in the United States, but the U.S. manufacturer <u>Hospira</u> stopped manufacturing the drug and the <u>EU</u> banned the export of the drug for this purpose.^[4] Mechanism of action[<u>edit</u>] <i>Main article: <u>Barbiturate</u></i> Sodium thiopental is a member of the barbiturate class of drugs, which are relatively nonselective compounds that bind to an entire superfamily of ligand-gated ion channels, of which the GABA_A receptor channel is one of several representatives. This superfamily of ion channels includes the neuronal nAChR channel, the 5HT3R channel, the GlyR channel and others. Surprisingly, while GABA_A receptor currents are increased by barbiturates (and other general anesthetics), ligand-gated ion channels that are predominantly permeable for cationic ions are blocked by these compounds. For example, neuronal nAChR channels are blocked by clinically relevant anesthetic concentrations of both sodium thiopental and pentobarbital.^[23] Such findings implicate (non-GABA-ergic) ligand-gated ion channels.^[24] The GABA_A receptor is an inhibitory channel that decreases neuronal activity, and barbiturates enhance the inhibitory action of the GABA_A receptor.^[26]
170.	Timolol Maleate
	馬來酸噻嗎洛爾
	https://en.wikipedia.org/wiki/Timolol
	Timolol is a medication used either by mouth or as <u>eye drops</u> . ^{[2][3]} As eye drops it is used to treat increased <u>pressure inside the eye</u> such as in <u>ocular hypertension</u> and <u>glaucoma</u> . ^[2] By mouth it is used for <u>high blood pressure</u> , <u>chest pain due to not enough blood flow to the heart</u> , to prevent further complications after a <u>heart attack</u> , and to prevent <u>migraines</u> . ^[3]
	Common side effects with the drops is irritation of the eye. ^[2] Common side effects by mouth include feeling tired, <u>slow heart beat</u> , itchiness, and <u>shortness of breath</u> . ^[3] Other side effects include masking the symptoms of low blood sugar in those with <u>diabetes</u> . Use is not recommended in those with <u>asthma</u> , <u>heart failure</u> , or <u>COPD</u> . ^[2] It is unclear if use during pregnancy is safe for the baby. ^[4] Timolol is in the <u>non-selective Beta blocker</u> family of medication. ^[2]
171.	Tipepidine Hibenzate
	阿斯维林;提培匹定;双噻甲哌啶;海苯酸替培啶;羟苯酰苯酸替培啶;双噻甲哌啶 2-(4-羟
	基苯甲酰)苯甲酸盐;3-[二(噻吩-2-基)亚甲基]-1-甲基哌啶 2-(4-羟基苯甲酰)苯甲酸盐
	(1:1)
	http://www.chemicalbook.com/chemicalproductproperty_cn_cb1299803.htm

	https://en.wikipedia.org/wiki/Tipepidine
	$\langle \mathcal{I}_{\mathcal{I}} \mathcal{I}_{\mathcal{S}} \rangle$
	Tipopiding (INN) (brand names Asympton Antuney Asympton Asympton Difference Cofdenin
	Tipepidine (<u>INN</u>) (brand names Asverin , Antupex , Asvelik , Asvex , Bitiodin , Cofdenin A , Hustel , Nodal , Sotal), also known as tipepidine hibenzate (<u>JAN</u>), is a <u>synthetic</u> , non- <u>opioid antitussive</u> and <u>expectorant</u> of the <u>thiambutene</u> class. ^{[1][2]} It acts as an <u>inhibitor</u> of <u>G</u> <u>protein-coupled inwardly-rectifying potassium channels</u> (GIRKs). ^[3] The drug was discovered in the 1950s, ^[4] and was developed in <u>Japan</u> in 1959. ^[5] It is used as
	the <u>hibenzate</u> and <u>citrate</u> salts. ^{[1][5]}
	The usual dose is 20 mg every 4–6 hours. [citation needed] Possible side effects of tipepidine, especially in <u>overdose</u> , may include <u>drowsiness</u> , <u>vertigo</u> , <u>delirium</u> , <u>disorientation</u> , <u>loss of consciousness</u> , and <u>confusion</u> . ^[5]
	Tipepidine has recently garnered interest as a potential <u>psychiatric drug</u> . It is being investigated in <u>depression</u> , ^{[3][6][7]} <u>obsessive-compulsive disorder</u> , ^[8] and <u>attention-deficit hyperactivity</u> <u>disorder</u> (ADHD). ^{[9][10]} Through inhibition of GIRK channels, tipepidine increases <u>dopamine</u> levels in the <u>nucleus accumbens</u> , but without increasing <u>locomotor activity</u> or producing <u>methamphetamine</u> -like <u>behavioral sensitization</u> , and this action appears to be at least partly responsible for its <u>antidepressant</u> -like effects in rodents. ^{[11][12]}
172.	Tolperisone HCI
	托哌酮
	https://en.wikipedia.org/wiki/Tolperisone
	N N
	Tolperisone , a <u>piperidine</u> derivative, is a centrally acting <u>muscle relaxant</u> . Trade names include Biocalm , Muscodol , Mydeton , Mydocalm , Mydoflex , Myolax , Myoxan and Viveo . Mechanism of action [<u>edit</u>]
	Tolperisone is a centrally acting muscle relaxant that acts at the <u>reticular formation</u> in the brain stem ^[1] by blocking <u>voltage-gated sodium</u> and <u>calcium channels</u> . ^{[7][8]}
173.	Topiramate
	托吡酯
	https://en.wikipedia.org/wiki/Topiramate
	Topiramate (brand name Topamax) is an <u>anticonvulsant</u> (antiepilepsy) drug. In late 2012, topiramate was approved by the <u>United States Food and Drug Administration</u> (FDA) in combination with <u>phentermine</u> for weight loss. The drug had previously been used <u>off-label</u> for this purpose. Topiramate was originally produced by <u>Ortho-McNeil Neurologics</u> and Noramco, Inc., both divisions of the <u>Johnson & Johnson</u> Corporation. This medication was discovered in 1979 by <u>Bruce E. Maryanoff</u> and Joseph F. Gardocki during their research work at McNeil Pharmaceutical. ^{[1][2]3]}
	Topiramate came into commercial use in 1996. ^[4] Generic versions are available in Canada and these were approved by the FDA in September 2006. <u>Mylan Pharmaceuticals</u> was recently granted final approval for generic topiramate by the FDA for sale in the <u>United States</u> . ^[5] The last

	patent for topiramate in the U.S. was for use in children and expired on February 28, 2009.			
	Anticonvulsant: <u>https://en.wikipedia.org/wiki/Anticonvulsant</u> Conventional antiepileptic drugs may block sodium channels or enhance γ-aminobutyric acid (<u>GABA</u>) function. Several antiepileptic drugs have multiple or uncertain mechanisms of action. ^[7] Next to the voltage-gated sodium channels and components of the GABA system, their targets include GABA _A receptors, the GAT-1 GABA transporter, and <u>GABA</u> . <u>transaminase</u> . ^[8] Additional targets include voltage-gated <u>calcium channels</u> , <u>SV2A</u> , and α2δ. ^{[9][10]} By blocking sodium or calcium channels, antiepileptic drugs reduce the release of excitatory glutamate, whose release is considered to be elevated in epilepsy, but also that of GABA. ^[11] This is probably a side effect or even the actual mechanism of action for some antiepileptic drugs, since GABA can itself, directly or indirectly, act proconvulsively. ^[11] Another potential target of antiepileptic drugs is the <u>peroxisome proliferator-activated receptor</u> <u>alpha</u> . ^{[12](13][14][15][16][17][18]} The drug class was the 5th-best-selling in the US in 2007. ^[19]			
174.	Topotecan HCI			
	托泊替康鹽酸鹽			
	https://en.wikipedia.org/wiki/Topotecan			
	HO C C N C C C C C C C C C C C C C C C C			
	Topotecan (trade name Hycamtin) is a <u>chemotherapeutic agent</u> that is a <u>topoisomerase</u> <u>inhibitor</u> . It is a synthetic, water-soluble <u>analog</u> of the natural chemical compound <u>camptothecin</u> . It is used in the form of its <u>hydrochloride salt</u> to treat <u>ovarian cancer</u> , <u>lung cancer</u> and other cancer types.			
	After <u>GlaxoSmithKline</u> received final <u>FDA</u> approval for Hycamtin Capsules on October 15, 2007, topotecan became the first topoisomerase I inhibitor for oral use. Mechanism of action[edit]			
	Topotecan is a semi-synthetic derivative of <u>camptothecin</u> . Camptothecin is a natural product extracted from the bark of the tree <u>Camptotheca acuminata</u> . Topoisomerase-I is a nuclear enzyme that relieves torsional strain in <u>DNA</u> by opening single strand breaks. ^[16] Once topoisomerase-I creates a single strand break, the DNA can rotate in front of the advancing replication fork. In physiological environments, topotecan is in equilibrium with its inactive carboxylate form. ^[12] Topotecan's active lactone form <u>intercalates</u> between DNA bases in the topoisomerase-I cleavage complex. ^[18] The binding of topotecan in the cleavage complex prevents topoisomerase-I from religating the nicked DNA strand after relieving the strain. ^[18] This intercalation therefore traps the topoisomerase-I in the cleavage complex bound to the DNA. ^[18] When the replication-fork collides with the trapped topoisomerase-I, DNA damage occurs. ^[18] The unbroken DNA strand breaks and mammalian cells cannot efficiently repair these double strand breaks. ^[19] The accumulation of trapped topoisomerase-I complexes is a known response to apoptotic stimuli. ^[20] This disruption prevents DNA replication and ultimately leads to cell death. This process leads to breaks in the DNA strand resulting in <u>apoptosis</u> . Administration of topotecan down-regulates its target, topoisomerase-I; therefore, it is dosed to maximize efficacy and minimize related toxicity. ^[17] Topotecan is often given in combination with <u>Paclitaxel</u> as first line treatment for extensive-stage <u>small-cell lung cancer</u> . ^[17]			
175.	Trandolapril			
	群多普利			
	https://en.wikipedia.org/wiki/Trandolapril			



	https://e	ibits <u>platelet</u> aggregation and smooth muscle proliferation. en.wikipedia.org/wiki/Prostacyclin#Mode_of_action f action[<u>edit]</u>						
		Prost	acyclin effect	Mechanism	Cellular response			
		Classical functions	Vessel tone	↑cAMP, ↓ET-1 ↓Ca ²⁺ , ↑K ⁺	↓SMC proliferation ↑Vasodilation			
			Antiproliferative	↑cAMP ↑PPARgamma	↓Fibroblast growth ↑Apoptosis			
			Antithrombotic	↓Thromboxane-A2 ↓PDGF	↓Platelet aggregation ↓Platelet adherence to vessel wall			
		Novel	Antiinflammatory	↓IL-1, IL-6 ↑IL-10	↓Proinflammatory cytokines ↑Antiinflammatory cytokines			
		functions	Antimitogenic	↓VEGF ↓TGF-β	↓Angiogenesis ↑ECM remodeling			
178.	Unoprostone Isopropyl 烏諾前列酮							
	https://en.wikipedia.org/wiki/Unoprostone							
	was ma	Unoprostone (<u>INN</u>) is a <u>prostaglandin analogue</u> . Its <u>isopropyl ester</u> , unoprostone isopropyl , was marketed under the trade name Rescula for the management of <u>open-angle</u> <u>glaucoma</u> and <u>ocular hypertension</u> , but is now discontinued in the US. ^[1]						
179.		Valproic acid						
	丙戊酸							
	https:/	https://en.wikipedia.org/wiki/Valproate						
	As: Div	As: Divalproex Sodium						
180.	Vilazodone HCl							
	維拉佐	面						
	https:/	//en.wikip	oedia.org/wiki/	Vilazodone				

Г I	
	Vilazodone (United States trade name Viibryd <i>VEYE-brid</i>) is a <u>serotonergic antidepressant</u> developed by <u>Clinical Data</u> for the treatment of <u>major depressive</u> <u>disorder</u> . The chemical compound was originally developed by <u>Merck</u> . <u>KGaA</u> (Germany). ^[2] Vilazodone was approved by the <u>FDA</u> for use in the United States to treat major depressive disorder in 2011. ^{[3][4][5]} Its activity can be thought of as a combination of an <u>SSRI</u> and <u>buspirone</u> in some ways. Pharmacology[edit] Vilazodone acts as a <u>serotonin reuptake inhibitor</u> (IC ₅₀ = 2.1 nM; K _i = 0.1 nM) and <u>5-</u> <u>HT_{1A} receptor partial agonist</u> (IC ₅₀ = 0.2 nM; IA = ~60-70%). ^{[6][11]} It has negligible <u>affinity</u> for other <u>serotonin receptors</u> such as <u>5-HT_{1D}, <u>5-HT_{2A}</u>, and <u>5-HT_{2C}.^{[11][2]} It also exhibits negligible inhibitory activity at the norepinephrine and dopamine transporters (IC₅₀ = 56 nM for <u>NET</u> and 37 nM for <u>DAT</u>).^[1]</u></u>
181.	Zoledronic acid
	唑來膦酸
	https://en.wikipedia.org/wiki/Zoledronic_acid
	 Zoledronic acid (INN) or zoledronate is a <u>bisphosphonate</u> drug given intravenously to treat some bone diseases. It is sold under many trade names worldwide.^[1] Mechanism of action[edit] Zoledronic acid slows down bone resorption, allowing the bone-forming cells time to rebuild normal bone and allowing bone remodeling.^[2] Medical uses[edit] Bone complications of cancer[edit] Zometa is used to prevent skeletal fractures in patients with cancers such as multiple myeloma and prostate cancer, as well as for treating osteoporosis.^[3] It can also be used to treat hypercalcemia of malignancy and can be helpful for treating pain from bone metastases.^[4] It can be administered at home rather than in hospital. Such administration has shown safety and quality-of-life benefits in breast cancer patients with bone metastases.^[5] Osteoporosis[edit] Marketed as Aclasta (in Australia) or Reclast (in the US), zoledronic acid may be given as a 5 mg infusion once per year for treatment of osteoporosis in men and post-menopausal women at increased risk of fracture.^{Imedical cluston needed} In 2007, the U.S. Food and Drug Administration (FDA) also approved Reclast for the treatment of postmenopausal osteoporosis.^[Imedical cluston needed]
182.	Zolmitriptan
	佐米曲普坦
	https://en.wikipedia.org/wiki/Zolmitriptan
	H ₃ C ₁ ,-CH ₃
	Zolmitriptan is a selective serotonin receptor agonist of the 1B and 1D subtypes. It is a triptan,

	used in the acute treatment of migraine attacks with or without aura and cluster headaches.				
	Zolmitriptan is marketed by <u>AstraZeneca</u> with the brand names Zomig , Zomigon (Argentina, Canada & Greece), AscoTop (Germany) and Zomigoro (France). In 2008, Zomig generated nearly \$154 million in sales. ^[1]				
	AstraZeneca's U.S. patent on Zomig tablets expired on November 14, 2012, and its pediatric exclusivity extension expired on May 14, 2013. ^[2] The patent in certain European countries has already expired too, and generic drug maker <u>Actavis</u> released a generic version in those countries, starting in March 2012. ^[3]				
183.	Zotarolimus				
	佐他莫司				
	https://en.wikipedia.org/wiki/Zotarolimus				
	Zotarolimus (<u>INN</u> , codenamed ABT-578) is an <u>immunosuppressant</u> . It is a semi-synthetic derivative of <u>rapamycin</u> . It was designed for use in <u>stents</u> with <u>phosphorylcholine</u> as a carrier. Coronary stents reduce early complications and improve late clinical outcomes in patients needing interventional cardiology. ^[1] The first human coronary stent implantation was first performed in 1986 by Puel et al. ^{[1][2]} However, there are complications associated with stent use, development of <u>thrombosis</u> which impedes the efficiency of coronary stents, haemorrhagic and restenosis complications are problems associated with stents. ^[1]				
	These complications have prompted the development of <u>drug-eluting stents</u> . Stents are bound by a membrane consisting of polymers which not only slowly release zotarolimus and its derivatives into the surrounding tissues but also do not invoke an inflammatory response by the body.				
	Medtronic are using zotarolimus as the anti-proliferative agent in the polymer coating of their Endeavor and Resolute products. ^[3]				

International Nonproprietary Name:

https://en.wikipedia.org/wiki/International_nonproprietary_name

An **international nonproprietary name (INN)** is an official <u>generic</u> and non<u>proprietary</u> name given to a <u>pharmaceutical drug</u> or <u>active ingredient</u>.^[2] International nonproprietary names make communication more precise by providing a unique standard name for each active ingredient, to avoid <u>prescribing</u> errors.^[1] The INN system has been coordinated by the <u>World Health Organization</u> (WHO) since 1953.

Having unambiguous standard names for each drug (<u>standardization</u> of <u>drug</u> <u>nomenclature</u>) is important because a drug may be sold by many different brand names, or a branded medication may contain more than one drug. For example, the branded medications Celexa, Celapram and Citrol all contain the same active ingredient: <u>citalopram</u>; and the branded preparation <u>Lemsip</u> contains two active ingredients: <u>paracetamol</u> and <u>phenylephrine</u>.

Each drug's INN is unique but may contain a word stem that is shared with other drugs of the same <u>class</u>, for example the <u>beta blocker</u> drugs <u>propranolol</u> and <u>atenolol</u> share the - *olol* <u>suffix</u>, and the benzodiazepine drugs <u>lorazepam</u> and <u>diazepam</u> share the - *azepam* suffix.

The WHO issues INNs in English, <u>Latin</u>, French, Russian, Spanish, Arabic, and Chinese, and a drug's INNs are often <u>cognate</u> across most or all of the languages, with minor

spelling or pronunciation differences, for example: "<u>paracetamol</u>" (<u>en</u>) "paracetamolum" (<u>la</u>), "paracétamol" (<u>fr</u>) and "парацетамол" (<u>ru</u>). An established INN is known as a *recommended* INN (**rINN**), while a name that is still being considered is called a *proposed* INN (**pINN**).

Active ingredient:

https://en.wikipedia.org/wiki/Active_ingredient

An **active ingredient** (AI) is the <u>ingredient</u> in a <u>pharmaceutical drug</u> that is <u>biologically</u> <u>active</u>. The similar terms **active pharmaceutical ingredient** (API) and **bulk active** are also used in medicine, and the term **active substance** may be used for natural products. Some medication products may contain more than one active ingredient. The traditional word for the API is **pharmacon** or **pharmakon** (from <u>Greek</u>: φάρμακον, adapted from <u>pharmacos</u>) which originally denoted a magical substance or drug.

The term **active constituent** is often chosen when referring to the active <u>substance</u> of interest in a plant (such as <u>salicylic acid</u> in <u>willow</u> bark or <u>arecoline</u> in <u>areca nuts</u>), because the word *ingredient* in many minds <u>connotes</u> a sense of human agency (that is, something that a person combines with other substances), whereas the <u>natural</u> <u>products</u> present in plants were not added by any human agency but rather occurred naturally ("a plant doesn't have ingredients").

In contrast with the active ingredients, the inactive ingredients are usually called <u>excipients</u> in pharmaceutical contexts. The main excipient that serves as a medium for conveying the active ingredient is usually called the <u>vehicle</u>. <u>Petrolatum</u> and <u>mineral</u> <u>oil</u> are common vehicles.

Pharmaceuticals[edit]

The <u>dosage form</u> for a pharmaceutical contains the active pharmaceutical ingredient (API), which is the drug itself, and <u>excipients</u>, which are the substances of the tablet, or the liquid the API is suspended in, or other material that is pharmaceutically <u>inert</u>. Drugs are chosen primarily for their active ingredients.

Patients often have difficulty identifying the active ingredients in their medication, and are often unaware of the notion of an active ingredient. When patients are on multiple medications, active ingredients can interfere with each other, often resulting in severe or life-threatening complications.^[11]There now exist online services which can identify the active ingredient of most medications, such as the Medicines database providing information on medications available in Australia.^[2]

Herbal medicine[edit]

In phytopharmaceutical or <u>herbal medicine</u>, the active ingredient may be either unknown or may require <u>cofactors</u> in order to achieve therapeutic goals. This leads to complications in labelling. One way manufacturers have attempted to indicate strength is to engage in <u>standardization</u> to a <u>marker</u> compound. However, standardization has not been achieved yet: different companies use different markers, or different levels of the same markers, or different methods of testing for marker compounds. For instance, <u>St</u> <u>John's wort</u> is often standardized to the <u>hypericin</u> which is now known not to be the "active ingredient" for antidepressant use. Other companies standardize to <u>hyperforin</u> or both, although there may be some 24 known possible active constituents. Many herbalists believe that the active ingredient in a plant is the plant itself.^[3]