

# Medical Safety Information

Pharmaceuticals and Medical Devices Agency



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## Mix-ups of Drugs Due to Name Similarities (No. 2) – Similarity of Nonproprietary and Brand Names, Similarities of Brand Names –



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This is a joint project with the Project to Collect and Analyze Pharmaceutical Near-Miss Event Information by Japan Council for Quality Health Care. Please also refer to "Pharmaceutical Near-Miss Event Information to Be Shared No. 11 of Project to Collect and Analyze Pharmaceutical Near-Miss Event Information (11 2024)."

### 1 Drugs with Similar Nonproprietary Name and Brand Name

(Case 1)

When a doctor ordered "Caltan tablets (a drug for hyperphosphataemia)" during an inpatient prescription and entered "calta" in the search system, "Bicalutamide tablets (a drug for prostate cancer)" appeared as a candidate since Caltan tablets were not in the hospital's drug formulary. As a result, an unnecessary anticancer drug was prescribed to the patient.

### POINT Key points for safe use

- Be aware that drugs have brand names and nonproprietary names and that mix-ups have occurred due to confusion between various combinations (similar nonproprietary names, nonproprietary names and brand names, and similar brand names).
- Confirm whether the search method of your institution's system is a partial match or a forward match.

The illustration is divided into two panels. The left panel shows a doctor at a computer. A thought bubble above the doctor says "Caltan tablets should be entered as caluta...". The computer screen displays a "Drug Search Screen" with "caluta" entered in the "Name of Drug" field. Below, the "Search result" section shows "Bicalutamide tablets 80 mg". A red box with a prohibition sign and the text "Prescription errors" is overlaid on the search results. A red arrow points from the doctor's thought bubble to the search results. A red speech bubble from the doctor says "You are choosing Bicalutamide (anticancer drug)!". The right panel shows two doctors talking on mobile phones. A thought bubble above them says "Mr. A is prescribed an anticancer drug?". A speech bubble from the doctor on the right says "Mr. A is prescribed Bicalutamide tablets, an anticancer drug. What is his diagnosis?". A blue arrow points from the "Prescription errors" box to a blue box with a checkmark and the text "A prescription question prevented misuse."

## Examples of Similar Nonproprietary Names and Brand Names

Upper row: Nonproprietary name (brand name) Lower row: Brand name (original drug) (nonproprietary name)	Therapeutic category, etc.
<b>Candesartan</b> cilexetil (BLOPRESS)	Long-acting angiotensin II receptor antagonist
<b>Cardenalin</b> (doxazosin mesilate)	$\alpha$ 1-blocking antihypertensive agent
<b>Sodium ferrous citrate</b> (Ferromia)	Soluble non-ionic iron preparation
<b>QUENMET</b> (a combination drug of potassium citrate/sodium citrate hydrate)	Alkalinizing agent for improvement of aciduria and acidosis
<b>Glibenclamide</b> (EUGLUCON)	Hypoglycemic agent
<b>Glivec</b> (imatinib mesilate)	Antineoplastic agent (tyrosine kinase inhibitor)
<b>Spiro lactone</b> (Aldactone-A)	Anti-aldosterone diuretic/antihypertensive agent
<b>Spiropent</b> (clenbuterol hydrochloride)	Long-acting bronchodilator/therapeutic drug for stress urinary incontinence
<b>Torase mide</b> (LUPRAC)	Loop diuretic
<b>Trazenta</b> (Linagliptin)	Biliary excretory selective DPP-4 inhibitor
<b>Tranexamic acid</b> (TRANSAMIN)	Anti-plasmin drug
<b>Trandate</b> (Labetalol hydrochloride)	$\alpha\beta$ -blocking antihypertensive agent
<b>Bicaluta mide</b> (Casodex)	Therapeutic drug for prostate cancer
<b>Caltan</b> (precipitated calcium carbonate)	Therapeutic drug for hyperphosphataemia
<b>Flunitrazepam</b> (Silece)	Therapeutic drug for insomnia
<b>FLUITRAN</b> (trichlormethiazide)	Thiazide antihypertensive diuretic
<b>Betahistine mesylate</b> (Merislon)	Therapeutic drug for dizziness and balance disorder
<b>Bestatin</b> (Ubenimex)	Antineoplastic agent
<b>Betahistine mesylate</b> (Merislon)	Therapeutic drug for dizziness and balance disorder
<b>Betaselemin</b> (betamethasone/d-chlorpheniramine maleate combination product)	Corticosteroid/antihistamine combination product
<b>METHOTREXATE</b> (Methotrexate)	Folic acid antimetabolite
<b>Methotrexate</b> (Methotrexate, a generic product of RHEUMATREX)	Antirheumatic

The information in the tables on this page and the next page is current as of MM 202X. For more details, please check the latest package insert for each product available from the link on the right or the QR code on the right.

<https://www.pmda.go.jp/PmdaSearch/iyakuSearch/>



Please also see the **PMDA Medical Safety Information No. 51 Revised** for examples of measures using the system to prevent mix-ups due to similar names!

<https://www.pmda.go.jp/files/000220059.pdf>



## 2 Drugs with Similar Brand Names

**(Case 2)** A 28-day prescription for a patient with no history of a present illness of diabetes mellitus had a description of 1 “ACTOS Tablet (a drug for type 2 diabetes mellitus)” upon awakening for 4 days. Based on the dosage and administration and the number of days of prescription, someone suspected this description as a prescription error for Actonel Tablets (a drug for osteoporosis) and asked a prescription question to the prescribing doctor; then it turned out that the prescription was not for Actos tablets, but for “Actonel tablets,” which was an error.

**(Case 3)** A woman in her 20s was prescribed “Betanis tablets (a drug for overactive bladder).” Someone noticed that “1. Warnings” on the package insert stated that administration to patients of reproductive age should be avoided and questioned the prescribing physician about the discrepancy. It was then found that Betanis tablets had been confused with “Beova tablets,” a drug with the same indication.

### POINT Key points for safe use

- Be aware that some drugs have similar brand names, and be sure to check each drug name.
- Share information and raise awareness about examples of drugs with similar names in the table below and those handled in your institution.

#### Examples of Similar Brand Names (No. 1)

Brand name (nonproprietary name)	Therapeutic category, etc
<b>ACTOS</b> (pioglitazone hydrochloride)	Insulin resistance improving agent (therapeutic drug for type 2 diabetes mellitus)
<b>Actonel</b> (sodium risedronate hydrate)	Therapeutic drug for osteoporosis and therapeutic drug for Paget's disease of the bone (17.5 mg only)
<b>Astomin</b> (dimemorfan phosphate)	Antitussive
<b>Fareston</b> (toremifene citrate preparation)	Therapeutic drug for breast cancer
<b>INVEGA</b> (paliperidone)	Antipsychotic
<b>Intuniv</b> (guanfacine hydrochloride)	Therapeutic drug for attention deficit hyperactivity disorder
<b>ECARD combination tablets LD/HD</b> (candesartan cilexetil/hydrochlorothiazide)	Long-acting angiotensin II receptor antagonist/diuretic combination product
<b>EquMet combination tablets LD/HD</b> (vildagliptin/metformin hydrochloride)	Selective DPP-4 inhibitor/biguanide combination product
<b>GLACTIV</b> (sitagliptin phosphate hydrate)	Selective DPP-4 inhibitor
<b>Gramalil</b> (tiapride hydrochloride)	Tiapride preparation (idiopathic dyskinesia, Parkinsonism, etc.)
<b>GLYCYRON</b> (combination tablet of monoammonium glycyrrhizinate, glycine, and DL-methionine)	Drug for liver diseases/allergies
<b>GLIMICRON</b> (gliclazide)	Sulfonylurea hypoglycemic agent
<b>THIURAGYL</b> (propylthiouracil)	Therapeutic drug for hyperthyroidism
<b>THYRADIN-S</b> (levothyroxine sodium hydrate)	Thyroid hormone preparation
<b>DESALEX</b> (desloratadine)	Long-acting selective H1 receptor antagonist/therapeutic drug for allergic disease
<b>DEBERZA</b> (tofogliflozin hydrate)	Selective SGLT2 inhibitor
<b>Trazenta</b> (linagliptin)	Selective DPP-4 inhibitor
<b>TRANSAMIN</b> (tranexamic acid)	Anti-plasmin drug
<b>Plavix</b> (clopidogrel sulfate)	Antiplatelet agent
<b>Lasvic</b> (lascefloxacin hydrochloride)	New quinolone antimicrobial
<b>Beova (vibegron)</b>	Selective β3-adrenergic receptor agonist for the treatment of overactive bladder
<b>Betanis (mirabegron)</b>	Selective β3-adrenergic receptor agonist for the treatment of overactive bladder
<b>BETANAMIN</b> (pemoline)	Psychotropic
<b>Betanis</b> (mirabegron)	Selective β3-adrenergic receptor agonist for the treatment of overactive bladder

Although the therapeutic category, etc., of both drugs are the same, their precautions, such as “1. Warning” and “2. Contraindications” are different!

## Examples of Similar Brand Names (No. 2)

Brand name (nonproprietary name)	Therapeutic category, etc.
<b>Phosribbon combination granules</b> (sodium dihydrogen phosphate monohydrate/disodium hydrogen phosphate anhydrous)	Therapeutic drug for hypophosphataemia
<b>Fosrenol granules sachets</b> (lanthanum carbonate hydrate)	Therapeutic drug for hyperphosphataemia
<b>REXULITI</b> (brexpiprazole)	Antipsychotic
<b>Lexotan</b> (bromazepam)	Psychotropic
<b>RESPLEN</b> (eprazinone hydrochloride)	Antitussive/airway mucolytic
<b>RESLIN</b> (trazodone hydrochloride)	Therapeutic drug for depression/depressive states
<b>ROCORNAL</b> (trapidil)	Circulatory function improving agent
<b>LOCHOL</b> (fluvastatin sodium)	HMG-CoA reductase inhibitor

In addition to the above, notices from pharmaceutical companies are posted on the website of the Pharmaceuticals and Medical Devices Agency (PMDA).

<https://www.pmda.go.jp/safety/info-services/medical-safety-info/0178.html>

Please take a look at the points to check carefully, preventive measures using the prescription ordering system, etc. posted on the website.



## Naming Rules for the Brand Names of Drugs

[PMSB Notification No. 935 dated September 19, 2000]

<https://www.pmda.go.jp/files/000144004.pdf>

**Brand name of original drug: (Brand name) + “dosage form” + “content (or concentration)”**

**Brand name:** Name given by the pharmaceutical company

It is stipulated that there must be no other products with similar names, even if a brand name is partially omitted.

[PFBS/ELD Notification No. 0922001 dated September 22, 2005]

<https://www.pmda.go.jp/files/000250556.pdf>

**Brand name of generic drug: (Nonproprietary name) + “dosage form” + “content (or concentration)” + “trade name, etc.”**

**Nonproprietary name (nonproprietary name):**

Name of active ingredient, name of ingredient

Note that there are exceptions, such as combination products.

**Products with similar chemical structures are likely to have similar names!**

### <Reference: Examples of Clever Brand Names>

Since there are 2 existing original drugs, this example includes an identification code to avoid mistakes when prescribing, etc.!

- Zonisamide tablets 100 mg **EX** “KO”
- Zonisamide OD tablets 25 mg **TRE** “SMPP” and Zonisamide OD tablets 50 mg **TRE** “SMPP”

**EX** : **EXCEGRAN** (therapeutic category: antiepileptic drug)

**TRE** : **TRETRIEF OD** (therapeutic category: therapeutic drug for Parkinson’s disease, etc.)

### About this information

- \* PMDA Medical Safety Information is issued by the Pharmaceuticals and Medical Devices Agency for the purpose of providing healthcare providers with clearer information from the perspective of promoting the safe use of pharmaceuticals and medical devices. The information presented here has been compiled, with the assistance of expert advice, from cases collected as Medical Accident Information Reports by the Japan Council for Quality Health Care, and collected as Adverse Drug Reaction and Malfunction Reports in accordance with the Law on Securing Quality, Efficacy and Safety of Pharmaceuticals and Medical Devices.
- \* We have tried to ensure the accuracy of this information at the time of its compilation but do not guarantee its accuracy in the future.
- \* This information is not intended to impose constraints on the discretion of healthcare professionals or to impose obligations and responsibility on them, but is provided as a support to promote the safe use of pharmaceuticals and medical devices by healthcare professionals. Access to the most up-to-date safety information is provided via the PMDA Medi-navi service.
- \* This English version is intended to be a reference material to provide convenience for users. In the event of inconsistency between the Japanese original and this English translation, the former shall prevail

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