

Facts and myths about generic drugs

Today, seven in 10 prescriptions filled in the United States are for generic drugs. This article explains how generic drugs are made and approved and debunks some common myths about these products.

FACT: FDA requires generic drugs to have the same quality and performance as the brand name drugs.

- When a generic drug product is approved, it has met rigorous standards established by the FDA with respect to identity, strength, quality, purity and potency. Some variability can and does occur during manufacturing, for both brand name and generic drugs. When a drug, generic or brand name, is mass produced, very small variations in purity, size, strength and other parameters are permitted. FDA puts limits on how much variability in composition or performance of a drug is acceptable.
- Generic drugs are required to have the same active ingredient, strength, dosage form and route of administration as the brand name (or reference) product. Generic drugs do not need to contain the same inactive ingredients as the brand product.
- Through review of bioequivalence data, FDA assures that the generic product will perform the same as its respective brand name (or reference) product. This standard applies to all generic drugs, whether immediate or controlled release.

- A generic drug must be shown to be bioequivalent to the reference

drug; that is, it must be shown to give blood levels that are very similar to those of the reference product. If blood levels are the same, the therapeutic effect will be the same. In that case, there is no need to carry out a clinical effectiveness study and they are not required.

- All generic manufacturing, packaging and testing sites must pass the same quality standards as those of brand name drugs and the generic products must meet the same exacting specifications as any innovator brand name product. In fact, many generic drugs are made in the same plants as innovator brand name drug products.
- If an innovator of a brand name drug switches drug production to an alternative manufacturing site, or they change formulation of their brand name drug, these companies are held to the same rigorous manufacturing requirements as those that apply to generic drug companies.

FACT: Research shows that generics work just as well as brand name drugs.

- A recent study evaluated the results of 38 published clinical trials that compared

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North Dakota
INSURANCE
DEPARTMENT
PROTECTING THE PUBLIC GOOD
PRESCRIPTION CONNECTION

■ Dear friends,

This newsletter is designed to keep you up to date about the Prescription Connection for North Dakota program and to keep you in the know about the various prescription assistance programs that are available. From time to time, we may also include other items of interest related to Medicare and the State Health Insurance Counseling (SHIC) program.

As always, thank you so much for all that you do for the Prescription

Connection program. Without your help, our work would be that much harder. Your efforts are valued and appreciated.

If you have items of interest that you think should be included in this newsletter, we would love to hear about them. Please contact Sharon St. Aubin at sstaubin@nd.gov or call her at 1.888.575.6611.



Adam Hamm
Insurance Commissioner

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cardiovascular generic drugs to their brand-name counterparts. There was no evidence that brand-name heart drugs worked any better than generic heart drugs. [Kesselheim et al. Clinical equivalence of generic and brand-name drugs used in cardiovascular disease: a systematic review and meta-analysis. JAMA. 2008;300(21)2514-2526].

FACT: When it comes to price, there is a big difference between generic and brand name drugs. On average, the cost of a generic drug is 80 to 85% lower than the brand name product.

- An IMS National Prescription Audit shows that a typical formulary now charges \$6 for generic medications, \$29 for preferred branded drugs, and \$40 or more for non-preferred branded drugs. [Aitken et al. Prescription drug spending trends in the United States: looking beyond the turning point. Health Aff (Millwood). 2009;28(1):w151-60].

- Independent research has shown that total prescription drug expenditures in the United States only increased by 4.0 percent from 2006 to 2007, with total spending rising from \$276 billion to \$287 billion. This is a sharp decrease from the 8.9% growth rate observed in prescription drug expenditures in 2006. One factor cited as a reason for the slowdown is an increase in availability and use of generic drugs [Hoffman et al. Projecting future drug expenditures--2009. Am J Health Syst Pharm. 2009;66(3):237-57].

Recently, some misinformation has raised concerns over generic drugs. Below are some common myths in circulation.

MYTH: FDA lets generic drugs differ from the brand name counterpart by up to 45 percent.

FACT: This claim is false. Anyone who repeats this myth does not understand how FDA reviews and approves generic drugs.

- FDA recently evaluated 2,070 human studies conducted between 1996 and 2007. These studies compared the absorption of brand name and generic drugs into a person's body. These studies were submitted to FDA to support approval of generics. The average difference in absorption into the body between the generic and the brand name was only 3.5 percent [Davit et al. Comparing generic and innovator drugs: a review of 12 years of bioequivalence data from the United States Food and Drug Administration. Ann Pharmacother. 2009;43(10):1583-97]. Some generics were absorbed slightly more, some slightly less. This amount of difference would be expected and acceptable, whether for one batch of brand name drug tested against another batch of the same brand, or for a generic tested against a brand name. In fact, there have been studies in which branded drugs were compared with themselves as well as with a generic. As a rule, the difference for the generic-to-brand comparison was about the same as the brand-to-brand comparison.

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Improvement not required for coverage of skilled therapy

The Centers for Medicare & Medicaid Services (CMS) has incorrectly denied coverage for skilled nursing facility (SNF) and home health care to individuals, according to two recent federal court decisions. CMS had denied coverage because, in the Medicare program's view, the plaintiffs' conditions had not improved. The courts found, however, that under the law, individuals could obtain coverage for qualified therapy in SNF and home care settings if the services were needed to prevent deterioration of their condition, and that

improvement is not required for coverage of such services. The Center for Medicare Advocacy (CMA) is leading an education and advocacy campaign about the improper use of the improvement standard in Medicare. The focus of the campaign is to raise awareness about the issue, and to eliminate the improper use of the standard by Medicare and Medicare contractors.

Medicare Watch

New Medicare-covered equipment and supplies program in your community

If you help people with Medicare get certain medical equipment and supplies, such as oxygen or power wheelchairs, you should know about a new Medicare program, called the Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS) competitive bidding program, that may change the suppliers people with Medicare will need to use.

The new program will begin Jan. 1, 2011 in nine areas around the country, including Charlotte-Gastonia-Concord, NC-SC; Cincinnati-Middletown, OH-KY-IN; Cleveland-Elyria-Mentor, OH; Dallas-Fort Worth-Arlington, TX; Kansas City, MO-KS; Miami-Fort Lauderdale-Pompano Beach, FL; Orlando-Kissimmee, FL; Pittsburgh, PA; Riverside-San Bernardino-Ontario, CA.

People with Original Medicare who live in or travel to one of these areas with a prescription for any of the items listed here will almost always need to get these items from contract suppliers if they want Medicare to help pay for the item, unless their current suppliers become grandfathered suppliers (non-contract suppliers that choose to continue to provide certain rented equipment under the terms of the program). Non-contract suppliers are required to send written notices to people with Medicare by Nov. 17 regarding their intent to grandfather.



People will need to find out which suppliers are Medicare contract suppliers to make sure their medical products and services will be covered by Medicare. You can find out if a supplier is included in the program by visiting www.medicare.gov or by calling 1-800-MEDICARE.

The nine product categories that are included in the program are:

1. Oxygen, oxygen equipment and supplies
2. Standard power wheelchairs, scooters and related accessories;
3. Complex rehabilitative power wheelchairs and related accessories (Group 2 only);
4. Mail-order diabetic supplies;
5. Enteral nutrients, equipment and supplies;
6. Continuous Positive Airway Pressure (CPAP) devices and Respiratory Assist Devices (RADs) and related supplies and accessories;
7. Hospital beds and related accessories;
8. Walkers and related accessories; and
9. Support surfaces (Group 2 mattresses and overlays in Miami-Fort Lauderdale-Pompano Beach, FL only).

CMS SHIP

PAP updates

- RxOutreach has removed Quaaluan from its program and has added Zerit and Demadex.
- URL Pharma now has PAPs for Colcrys and Quaaluan.
- Vimovo (naproxen/esomeprazole magnesium) is now covered under the AZ&ME prescription savings program.
- Xubex added various doses of Atacand, Intuiv,

Jalyn, Viracept

- Xopenex and Zovirax to its copay and free programs.
- Tribenzor is now covered by the Daiichi
- Sankyo Open Care Program. Sciele Pharma is now Shionogi Pharma.

Patient Advocate News

Check these out!

Still unsure how the new health reform law works? This Kaiser Family Foundation's Schoolhouse Rockesque video explains everything in nine minutes: <http://healthreform.kff.org/the-animation.aspx>

Want to know the timeline of implementation of new health reform provisions year by year, topic by topic? Bookmark this interactive site: <http://healthreform.kff.org/timeline.aspx>

Patient Advocate News

Serious concerns over alcoholic beverages with added caffeine

Alcoholic beverages to which caffeine has been added as a separate ingredient have raised health concerns at the Food and Drug Administration (FDA) as well as in other federal, state and local agencies. On Nov. 17, the FDA sent warning letters to four companies that make these products. Click the following link to read more: <http://bit.ly/ccHEAW>



New medicines in development

A record 235 new medicines to treat diabetes, one of the fastest-growing diseases in America, are being developed by America's biopharmaceutical companies. The new medicines currently in the pipeline, some in early development stages and some awaiting FDA approval, include numerous drugs to treat eye diseases associated with diabetes. New medicines to treat foot ulcers could reduce the need for amputations. Researchers are pushing into new territories that include gene therapy and are working on such treatments as a once-weekly medication similar to a natural hormone critical to blood sugar regulation.

Recent FDA approvals for diabetes treatment

- Victoza® (liraglutide)—approved for the treatment of type 2 diabetes (1/25/2010)
- Onglyza™ (saxagliptin)—approved for the treatment of type 2 diabetes (7/31/2009)

Click the following link for a full list of recent FDA approvals in all disease areas: <http://bit.ly/fxwqb1>.

Innovation.org

Generic drugs: vital facts

- Generic drugs are identical to their brand-name equivalents in dosage, safety, strength, quality, performance characteristics, intended use and the way they're administered to patients.
- On average, the cost of a generic drug is 80 to 85 percent lower than the brand-name product.

Generic medications

Each year, the Food and Drug Administration (FDA) approves many generic drugs that treat a wide variety of conditions and help consumers save money.

Significant FDA approvals of generic medications are listed below.

Be aware that the notes included with the description of each drug listed below do not include all warnings, side effects or use instructions associated with these products. You should read the medication guide, when available, and speak with a health care professional regarding any medication you are taking, have been prescribed or are considering taking.

Anastrozole Tablets (1 mg)

Used for treating early breast cancer in women who have been through menopause. Also used (in women who have been through menopause) as a first treatment of breast cancer that has spread within the breast or to other areas of the body. Availability in the U.S.: Prescription only Originally marketed as: Arimidex Tablets, by AstraZeneca UK

Date generic approved: June 28, 2010

Notes: For use by postmenopausal women only.

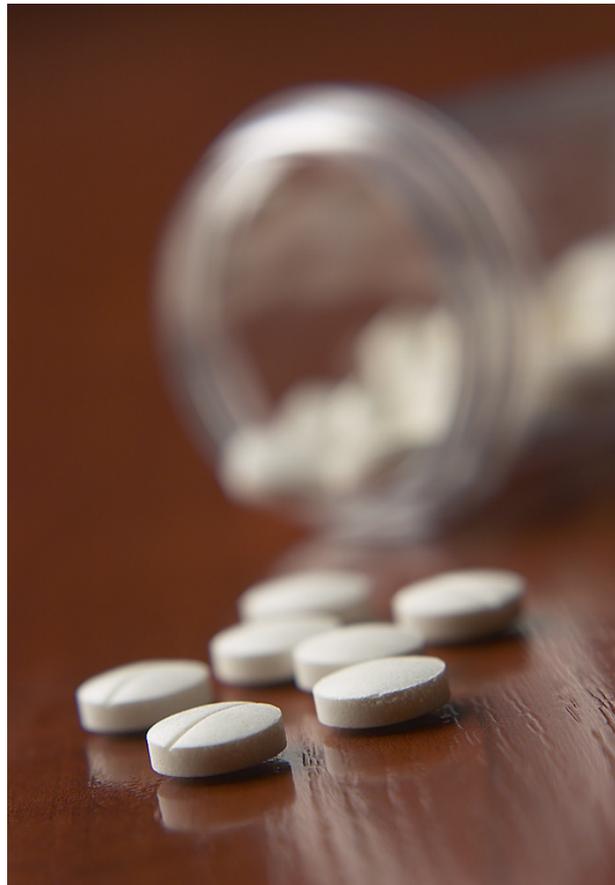
This medication may harm the fetus when given to a pregnant woman. In addition, it offers no clinical benefit to women with breast cancer who have not gone through menopause.

Venlafaxine Hydrochloride extended-release capsules (37.5mg, 75mg, and 150mg)

Used for treating Major Depressive Disorder (MDD).

- New drugs are patented to protect the investments of the manufacturers that develop them. As patents or other periods of exclusivity on new drugs expire, manufacturers—including firms that did not develop the drugs—can seek FDA approval to sell generic versions.

FDA



Availability in the U.S.: Prescription only Originally marketed as: Effexor XR Capsules, by Wyeth

Date generic approved: June 28, 2010

Notes: Not approved for use in pediatric patients. In short-term studies, children, adolescents and young adults given antidepressants such as venlafaxine hydrochloride had an increased risk of suicidal thinking and behavior when compared to children, adolescents and young adults given a placebo.

Aztreonam (for injection)

Used for treating a wide variety of bacterial infections. It is an antibiotic that stops the growth of bacteria.

Availability in the U.S.: Prescription only
Originally marketed as: Azactam for Injection, by Bristol Myers Squibb

Date generic approved: July 18, 2010

Notes: This medication should be used only to treat or prevent infections that are proven—or strongly suspected—to be caused by bacteria. Aztreonam may cause antibiotic-associated diarrhea.

Enoxaparin Sodium Injection

Used for multiple purposes, including prevention of deep vein thrombosis, a potentially deadly condition that occurs when a blood clot forms in one of the body's deep veins, usually in the legs.

Availability in the U.S.: Prescription only
Originally marketed as: Lovenox Injection (Preservative-Free), by Sanofi-Aventis

Date generic approved: July 23, 2010

Notes: Use of this medication in patients undergoing spinal/epidural anesthesia or spinal puncture increases the risk of spinal or epidural bleeding and bruising, which may cause long-term or permanent paralysis.

Losartan Potassium Tablets (25 mg, 50 mg and 100 mg)

Used to help control high blood pressure, which is also known as hypertension. It is also used to lower the risk of stroke in people who have high blood pressure and a heart condition called left ventricular hypertrophy (enlargement of the walls of the left side of the heart).

Availability in the U.S.: Prescription only
Originally marketed as: Cozaar Tablets, by Merck
Date generic approved: Oct. 6, 2010

Notes: This medication could cause serious side effects. Users should notify a health care professional immediately if they experience difficulty breathing or swallowing, fainting, hoarseness, or swelling of the face, throat, hands, feet, lower legs, ankles or tongue.



- Any generic drug modeled after a single, brand name drug (the reference) must perform approximately the same in the body as the brand name drug. There will always be a slight, but not medically important, level of natural variability—just as there is for one batch of brand name drug to the next.

MYTH: People who are switched to a generic drug are risking treatment failure.

FACT: There is no evidence for this claim.

Treatment failures can and do occur when taking generic or brand name drugs. If someone is switched to a generic drug around the time they are relapsing, they may attribute the problem to the switch.

- Many people who have recovered from major depression have a relapse despite continued treatment. These relapses have been shown in trials of long-term therapy. [Byrne and Rothschild. Loss of antidepressant efficacy during maintenance therapy: possible mechanisms and treatments. *J Clin Psychiatry*. 1998;59(6):279-88].
- Many people who are on seizure medications will re-experience a seizure despite continued treatment. [Randomised study of antiepileptic drug withdrawal in patients in remission. Medical Research Council Antiepileptic Drug Withdrawal Study Group. *Lancet*. 1991;337(8751):1175-80].
- A percentage of people will re-experience gastric ulcers, despite an initial, positive response to and continued treatment with prescription strength antacids (cimetidine tablets; <http://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?id=8131#nlm34067-9>).

MYTH: Generic drugs cost less because they are inferior to brand name drugs.

FACT: Generic manufacturers are able to sell their products for lower prices, not because the products are of lesser quality, but because generic manufacturers generally do not engage in costly advertising, marketing and promotion, or significant research and development.

- When a brand name drug comes off patent and generic drugs are permitted to compete with the brand name drug, the generic products compete by

offering lower prices. Unlike the manufacturers of brand name drugs, generic drug companies do not have significant expenses to recoup for advertising, marketing and promotion, or research and development activities.

MYTH: There are quality problems with generic drug manufacturing. A recent recall of generic digoxin (called Digitek) shows that generic drugs put patients at risk.

FACT: FDA's aggressive action in this case demonstrates the high standards to which all prescription drugs—generic and brand name—are held.

- In March 2008, FDA performed a scheduled inspection of the Actavis production facility and identified products that were not manufactured to required specifications over a period of time extending back to the year 2006. Included in this list of products was one particular lot of Digitek.
- Actavis detected a very small number of oversized tablets in this lot (specifically, 20 double-sized tablets in a sample of approximately 4.8 million tablets).
- Although Actavis attempted to remove the affected Digitek tablets through visual inspection, FDA determined that this method of removal was inadequate to assure the product's quality and consistency in accordance with the current Good Manufacturing Practice (cGMP) regulations.
- Since the detection of the manufacturing problem, FDA has been actively engaged with this company to ensure that ALL potentially affected lots of Digitek tablets have been recalled. In our best judgment, given the very small number of defective tablets that may have reached the market and the lack of reported adverse events before the recall, harm to patients was very unlikely.
- FDA takes action whenever we find that a drug manufacturer is not following cGMPs. Over the last ten years, FDA has taken enforcement action against many brand name and generic firms for failing to meet FDA manufacturing quality standards.

MYTH: FDA's enforcement action against the generic drug company Ranbaxy demonstrates quality problems with imported generic drugs.

FACT: FDA's action demonstrates FDA's commitment to safe generic drugs.

- FDA has taken several regulatory actions against the generic drug manufacturer Ranbaxy, on the basis of problems at two of Ranbaxy's manufacturing facilities. Ranbaxy is one of many non-U.S. based generic and brand drug manufacturers.
- On Sept. 2008, the FDA issued two warning letters and instituted an Import Alert barring the entry of all finished drug products and active pharmaceutical ingredients from Ranbaxy's Dewas, Paonta Sahib and Batamandi Unit facilities due to violations of U.S. cGMP requirements. That action barred the commercial importation of 30 different generic drugs into the United States and remains in effect today (<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm149532.htm>).
- Subsequent FDA investigations also revealed a pattern of questionable data raising significant questions regarding the reliability of certain generic drug applications from Ranbaxy.
- To address the allegedly falsified data, the FDA has invoked its Application Integrity Policy (AIP) against the Paonta Sahib facility. When the AIP is implemented, the FDA stops all substantive scientific review of any new or pending drug approval applications that contain data generated by the Paonta Sahib facility. This AIP covers applications that rely on data generated by the Paonta Sahib facility only.
- In the fiscal year 2008, FDA performed 2,221 drug-related inspections. FDA takes many different enforcement actions, not just against generic

drug manufacturers. For a list of enforcement actions in the fiscal year 2008, see <http://www.fda.gov/downloads/ICECI/EnforcementActions/EnforcementStory/UCM129812.pdf>. It is FDA's responsibility to ensure that the drugs people use, generic or brand name, are safe and effective.

MYTH: Brand name drugs are safer than generic drugs.

FACT: FDA receives very few reports of adverse events about specific generic drugs. Most reports of adverse events are related to side effects of the drug ingredient itself.

- The monitoring of postmarket adverse events for all drug products, including generic drugs, is one aspect of the overall FDA effort to evaluate the safety of drugs after approval. In most cases, reports of adverse events generally describe a known reaction to the active drug ingredient.

MYTH: FDA does not care about concerns over generic drugs.

FACT: FDA is actively engaged in making all regulated products—including generic drugs—safer.

- We are aware that there are reports noting that some people may experience an undesired effect when switching from brand name drug to a generic formulation or from one generic drug to another generic drug. Evidence indicates that if problems with interchangeability of drug formulations occur, they occur only for a very small subset of people.
- FDA is encouraging the generic industry to investigate whether, and under what circumstances, such problems occur. The Agency does not have the resources to perform independent clinical studies, and lacks the regulatory authority to require industry to conduct such studies. FDA will continue to investigate these reports to ensure that it has all the facts about these treatment failures and will make recommendations to healthcare professionals and the public if the need arises.

FDA