Fast-Moving Drugs

FAST-MOVING DRUGS are medications filled or sold several times each day in the pharmacy, such as Synthroid (treats hypothyroidism), metformin (treats type 2 diabetes), and Atenolol (a beta-blocker). Many pharmacies organize their storage space to make fast-moving drugs easily accessible by pharmacy technicians. We will review the most frequently used prescription drugs and the most frequently purchased over-the-counter (OTC) drugs.



Objective:

Summarize the most frequently used drugs.

Key Terms:

- analgesic
- dermatological
- drug
- edema
- fast-moving drugs
- gastrointestinal
- gastroesophageal reflux disease (GERD)
- heartburn
- homeopathic drugs
- hypertension
- hypothyroidism
- immune system
- laxative
- nicotine
- ophthalmic
- over-the-counter (OTC) drugs
- prescription drugs
- Seasonal Affective Disorder (SAD)
- therapeutic
- triglycerides

Understanding Fast-Moving Drugs

A **drug** is any substance taken or applied to the body for the purpose of altering the body's biochemical functions and its physiological processes. The active ingredient in a drug exerts a **therapeutic** (related to the healing of disease) effect. Typically, the term "drug" evokes images of medications prescribed by a physician. However, drugs include prescription, OTC, and homeopathic types.

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Prescription drugs are an order of medication for a patient written by a licensed practitioner. **Over-the-counter (OTC) drugs** are medications available without a prescription. **Homeopathic drugs** are disease treatments that use natural substances, remedies, and diet supplements, including vitamins, minerals, and herbs.

THE MOST FREQUENTLY USED DRUGS

Our society relies on the pharmaceutical industry to treat various issues.

Fast-Moving Drugs

Fast-moving drugs are medications filled or sold several times each day in the pharmacy, such as Synthroid (treats hypothyroidism), metformin (treats type 2 diabetes), and Atenolol (a beta-blocker). Many pharmacies organize their storage space to make fast-moving drugs easily accessible by pharmacy technicians. There are many drugs on the market for many indications. After making a diagnosis, a physician may decide to treat the patient with a specific medication. Yet physicians often rely on medications with which they are most familiar.

Prescription Drugs

Fast-moving prescription drugs include the following most commonly prescribed in the United States:

- Synthroid has been the top prescribed medication for several years and continues to be the most prescribed medication in the United States. Levothyroxine (Synthroid) treats **hypothyroidism**, which is a thyroid deficiency of thyroxine. Low thyroid hormone levels can be caused by hormone imbalance, radiation treatment, surgery, or cancer.
- Atorvastatin Calcium (Lipitor) is used to treat high cholesterol and to lower the risk of stroke and heart attack in people with type 2 diabetes and/or coronary heart disease.
- Lisinopril (Prinivil) treats hypertension and is used to improve survival rates following a heart attack. **Hypertension** is high blood pressure.
- Omeprazole (Prilosec) decreases the amount of acid produced in the stomach. It is used to treat GERD and other conditions caused by excess stomach acid. **Gastroesophageal reflux disease (GERD)**, or acid reflux disease, is a chronic digestive disorder that occurs when stomach acid or stomach contents flow back to the esophagus. This backflow causes an irritation of the esophagus lining.
- Metformin (Glucophage) is a medication used to improve blood sugar control in people with type 2 diabetes.
- Amlodipine (Norvasc) is a drug that treats hypertension, chest pain, and other conditions caused by coronary artery disease.
- Simvastatin (Zocor) is a medication that lowers cholesterol and triglycerides in the blood. **Triglycerides** are a type of fat found in blood. Elevated triglyceride levels can lead to an increased risk of heart disease and stroke.

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- Hydrocodone/Acetaminophen (Lortab) is a combination drug used to relieve moderate to moderately severe pain.
- Azithromycin (Z-Pak) is a drug that treats a wide variety of bacterial infections.
- Furosemide (Lasix) is a medication used to reduce **edema**, which is extra fluid in the body caused by heart failure, liver disease, and kidney disease.



FIGURE 1. Dozens of prescription drugs have become household names. Some are proprietary (brand name), and some are generic.

Over-the-Counter Drugs

Fast-moving over-the-counter drugs include the following list of some most commonly purchased in the United States. OTCs typically treat common conditions that affect a large segment of the population. They are used for non-emergency medical issues (e.g., headaches, muscle aches, cold, flu, and minor injuries). OTC medications are popular because of their convenience.

Cough, Cold, and Allergy

The American College of Preventive Medicine reported that the most commonly sold OTC products in the United States are cough, cold, and allergy remedies. These medications include:

- Nasal decongestants, such as pseudoephedrine (Sudafed), relieve stuffed up noses.
- Cough suppressants, such as dextromethorphan (Delsym or Robitussin), work to ease coughing.
- Expectorants, such as guaifenesin (Mucinex), work to loosen mucus so it can be coughed up.
- Antihistamines, such as loratadine (Claritin), work to ease the symptoms of sneezing and runny noses that can occur in response to allergies.

Pain

The second most common OTC products are analgesics. An **analgesic** is a pain medication. For example:

- Acetaminophen (Tylenol) works to relieve fever, headaches, and other aches and pains.

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- Nonsteroidal anti-inflammatory drugs (NSAIDS) are a form of analgesics that relieve inflammation and include aspirin, ibuprofen (Advil or Motrin), and naproxen (Aleve). NSAIDS fight fever, pain, and swelling that may be caused by arthritis or strained muscles.



FIGURE 2. Analgesics are drugs designed specifically to relieve pain. The type of pain you are experiencing determines the type of analgesic you would purchase.

Antacids and Anti-Gas Products

Antacids and anti-gas products are the third most common OTC medications.

- Antacids treat **heartburn** (indigestion). They work by neutralizing the stomach acid that causes heartburn. Common antacids include calcium carbonate (Tums and Prilosec OTC) and aluminum/magnesium (Maalox).
- Anti-gas medications, like simethicone (Gas-X), work to relieve discomfort from excess gas in the **gastrointestinal** (related to the stomach and intestines) tract.

Laxative

A **laxative** is a product that promotes emptying of the bowels. It is the next most common type of OTC medication. These products include stool softeners such as docusate (Colace), which allows more moisture to enter the stools and softens them to create an easier bowel movement.



FIGURE 3. Abdominal pain can be cramp-like, achy, dull, or sharp. This is commonly referred to as a stomachache. These symptoms can be accompanied by gas, diarrhea, or constipation.

Anti-Diarrheal Medications

The fifth most commonly used OTC products are diarrhea medications. These include loperamide (Imodium A-D) and bismuth subsalicylate (Pepto-Bismol). The medications slow down the process of moving materials through the bowels and reduce inflammation to keep certain bacteria and viruses that cause diarrhea from growing in the stomach and intestines.

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Dermatological

Another commonly purchased group is **dermatological** (related to the skin, hair, and nails) products. Dermatological products are applied directly on to the skin, hair, or nails. These include:

- Cleansing agents, such as Neutrogena soaps
- Acne products, such as Clearasil
- Anti-infective products, such as Neosporin
- Anti-inflammatory products, such as BENGAY
- Anti-fungal products, such as Lamisil

Ophthalmic

Ophthalmic (related to the eyes) products include:

- Eye drops and ointments that treat conditions for dry eyes and redness
- Contact lens solution, such as Bausch and Lomb Sensitive Eyes Plus Saline

Women's Health

Women's health products include:

- Menstrual pain relievers, such as Midol
- Vaginal antifungal products, such as AZO Yeast, to relieve itching, pain, and abnormal discharges
- Medications to relieve the pain associated with urinary tract infections, such as AZO Standard
- Ovulation tests, such as First Response, to determine best conception dates
- Pregnancy tests, such as First Response

Dietary Supplements

More than half of all Americans take one or more dietary supplements daily or on occasion. Supplements are available without a prescription and come in pill, powder, or liquid form. Common supplements are:

- Vitamins, such as Centrum, are common.
- Minerals (e.g., magnesium) Low magnesium levels have been linked to osteoporosis, anxiety, irritability, depression, and ADHD.
- Herbal products, such as Echinacea, are said to promote immune health.

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Nicotine

More Americans are addicted to nicotine than any other drug. **Nicotine** is a drug present in tobacco that can cause increased heart rate, stroke risk, and oxygen consumption by the heart muscle. Nicotine is also highly addictive, so stopping smoking can be difficult and may require several attempts. Numerous products can help smokers quit. For example:



FIGURE 4. There are many ways to quit smoking.

- Nicotine patches, such as Nicoderm CQ, deliver small doses of nicotine through your skin to reduce cravings.
- Nicotine gum, such as Nicorette, delivers small doses of nicotine to reduce cravings.
- Nicotine lozenges, such as GoodSense, are short acting to control nicotine cravings.

SEASONAL DRUGS

The **immune system** is a complex defense system that shields people from foreign pathogens and infections. Research has shown that immune systems vary with the seasons, and scientists report that incidents of various diseases vary with the seasons. Medications used to treat these conditions are more commonly purchased and used during the seasons for which these conditions (e.g., allergies) are more prevalent. The time of year also comes into play when ordering medications.

- The fall and winter seasons promise increased purchases of cold and flu medications: antivirals, cough suppressants, and nasal decongestants.
- The spring and summer are associated with fewer cold and flu medications and more allergy medications.

Spring and Summer Seasons

Allergies caused by blooming flowers and grasses can cause severe symptoms for some individuals.

- Antihistamines (Zyrtec or Allegra) calm the body's immune system reaction to an allergen and relieve the sneezing, runny nose, watery eyes, and itchy eyes and nose associated with those reactions.
- Decongestants (Sudafed) relieve nasal and sinus congestion.

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FURTHER EXPLORATION...

SCIENCE CONNECTION: Allergy Skin-Testing

Do you suffer from sneezing, congestion, and itchy and/or watery eyes? If you are not sure what is causing these symptoms, an allergy skin test may determine the cause. Read "How the Test is Performed" at https://medlineplus.gov/ency/article/003519.htm to determine if your body has an allergic reaction to a known substance. Be sure to click on the images of the three common methods of allergy skin testing. Then read the related article about what to ask your doctor about allergic rhinitis.

Fall and Winter Seasons

When the weather turns colder, the threat of catching certain widespread illnesses becomes greater. Some health problems are triggered or worsened by cold weather.

Asthma

Cold air is a major trigger of asthma symptoms, such as wheezing and shortness of breath. Patients with mild, infrequent asthma symptoms may only need a short-acting rescue medication, such as Albuterol. A controller medication, such as inhaled corticosteroids or Theophyline, is used to prevent or improve asthma conditions in patients who experience frequent symptoms.

Colds

The common cold is an upper respiratory infection caused by different viruses. Common colds can affect anyone at any time of the year, but peak cold activity hits during the winter and during rainy months. Symptoms of the common cold are runny nose, sneezing, cough, and sore throat.

- Nasal decongestants (Sudafed) can shrink the swollen tissue in the nose.
- Cough suppressants (Robitussin) contain dextromethorphan that block the nerve impulse that causes the cough reflex.
- Expectorants (Mucinex) help thin and loosen mucus so it can be coughed up more easily.

Influenza

Influenza (the flu) is a contagious respiratory illness caused by a virus that infects the nose, throat, and lungs. The peak of flu season occurs anywhere from late November through March. Antiviral drugs (Tamiflu) can reduce the severity and shorten the duration of the illness.

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Allergies

Fall and winter allergies can include a stuffed up and runny nose as well as itchy, watery eyes.

- Antihistamines (Benadryl or Claritin) block histamines that the immune system releases when exposed to an allergen.
- Corticosteroids (Flonase) relieve seasonal nasal allergy symptoms by blocking six allergic substances, not just histamine.

Seasonal Affective Disorder (SAD)

Seasonal Affective Disorder (SAD) is a type of depression related to changes in the seasons. SAD tends to occur as the hours of daylight grow shorter during the fall and winter months, but it may occur during the summer months for some individuals. Antidepressant medications (e.g., Prozac, Zoloft, and Lexapro) have been found to be effective in treating seasonal affective disorder. Light therapy is an alternative therapy.



FIGURE 5. Seasonal affective disorder is a type of depression related to changes in seasons.

Summary:

Fast-moving drugs are those medications filled or sold several times each day in the pharmacy. Many pharmacies organize their storage space to make fast-moving drugs easily accessible by pharmacy technicians. After making a diagnosis, physicians may decide to treat the patients with a specific medication. Physicians often rely on medications with which they are most familiar. Prescription drugs are an order of medication for a patient written by a licensed practitioner. Over-the-counter (OTC) drugs are available without a prescription. Homeopathic drugs are disease treatments that use natural substances, remedies, and diet supplements, including vitamins, minerals, and herbs.

Sometimes the choice of medication may be dependent upon the season. Certain disorders may be more prevalent at certain times of the year, and those medications used to treat those disorders will be used more frequently during a specific season.

Checking Your Knowledge:

1. Explain how fast-moving drugs affect inventory storage.
2. Differentiate between prescription, over-the-counter, and homeopathic medicines.

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3. List a minimum of five of the most frequently used prescription medications and the conditions they treat.
4. List a minimum of five of the most frequently used OTC medications and the conditions they treat.
5. Describe seasonal drugs and the typical conditions they treat.

Expanding Your Knowledge:



Arrange to speak with the pharmacist or pharmacy technician at a local pharmacy. Find out which drugs are fast-moving prescription and OTC medications. Ask the professional to explain to you how these fast-moving medications, as well as seasonal drugs, affect their inventory.

Web Links:



Season Allergies
http://acaai.org/allergies/seasonal-allergies

The GoodRx Top 10
http://www.goodrx.com/drug-guide

Top-Selling OTC Drugs by Category
http://www.verywell.com/top-selling-otc-drugs-by-category-2663170

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