



## **A REVIEW ON THE PROS AND CONS OF ONLINE PHARMACIES**

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### **Article Information**

Received: 7<sup>th</sup> Dec 2016

Revised: 14<sup>th</sup> Dec 2016

Accepted: 29<sup>th</sup> Dec 2016

### **Keywords**

*Online pharmacy, Unapproved drugs, Pros & Con*

### **ABSTRACT**

Now a day's buying a medicine online is common practice across the globe, because buyers are used to order for medicines through a click of a button rather than taking a trip to a drug store. Such online websites sell everything from prescription drugs to health related products. Most of such stores are legal outlets that safeguard all traditional procedures related to drug prescription. That is why most buyers are confident about dealing with these stores. But there are quite a few rogue stores that have come up in the recent past over the internet. These stores deal in illegal medications and unapproved drugs, buyers must be aware of such rogue stores. The fact remains that drugs purchased at online drug stores offer high levels of handiness, put forward privacy for the buyer as well as safeguard traditional procedures of prescribing drugs. Thus consumers can use these services with the same confidence as they would have had in the neighbourhood pharmacist. But they must stay away from "rogue sites" that sell unapproved products or sidestep conventional procedures that safeguard the interests of consumers. Additionally, customers have difficulty knowing whether an Internet pharmacy is a legitimate operation.

### **INTRODUCTION**

The Internet, first developed as a resource to facilitate communication, has now grown into a global network of computer systems that link multiple platforms and creates interrelationships between governments, academic institutions, businesses and consumers. Although experts predict that over 500 million people will be online by 2016, approximately 88% of all Internet users are presently situated in industrialized countries. <sup>[1]</sup>

Buying medicines online is common practice across the globe these days. This is because buyers are preferring to order for medicines through a click of a button rather than taking a trip to a drug store. Such online websites sell everything from prescription drugs to health related products. Most of such stores are legal outlets that safeguard all traditional procedures related to drug prescription. That is why most buyers are confident about dealing with these stores. But these are quite a few rogue stores that have come up in the recent past over the internet. These stores deal in illegal medications and

unapproved drugs. Buyers must be aware of such rogue stores. <sup>[2]</sup>

Within this global perspective, industry analysts have projected that Internet pharmacies will generate US\$ 15 billion in prescription drug sales by 2016 and over US\$ 30 billion by 2020. Currently, over 400 businesses dispensing prescription drugs operate on the Internet. Many of these websites, however, deliver prescription drugs without a valid prescription, dispense drugs of questionable quality, and fail to provide adequate independent information to patients on possible adverse reactions and drug interactions. Additionally, customers have difficulty knowing whether an Internet pharmacy is a legitimate operation. <sup>[3]</sup>

### **THE PROS OF BUYING DRUGS FROM ONLINE PHARMACY:**

**1. Privacy/ Anonymity:** Consumers privately and conveniently order for medicines from online chemist stores as well as get to avail free delivery. Consumers may feel more

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comfortable purchasing their medication online, or simply want to speak to someone about prescriptions and their health online or over the phone rather than in person. However, to prevent the use of buyer's personal information for unauthorized purposes, make sure the pharmacy has an appropriate privacy policy; this is one of the things that PharmacyChecker.com checks for you.

**2. Avails great choice:** The store of drugs at such stores is ample enough to cater to the needs of people living far from the pharmacy. Besides buyers get to compare the prices before placing orders on online drug stores. <sup>[4]</sup>

**3. Lower Prices:** Drug shopping on the internet helps a buyer to save money. Several surveys conducted by research bodies have shown that as much as one third the price can be saved on prescribed medicines if they are bought online. Buyers are also able to find the best prices only at these stores. Hence, one of the primary benefits people cite for using an online pharmacy is price. Typically, the prices for medications from an online pharmacy are less because of where the medications are produced, because the company has a lower overhead because there is not a physical store, the company has a large network of retailers to draw from, or a combination of factors. <sup>[5]</sup>

**4. Convenience:** Online stores offer greater convenience because these are one stop shops for a variety of products. The access to written product information at these sites is way easier to obtain than in traditional storefront pharmacies. If consumer find it physically difficult to make it to the pharmacy, live in a remote rural area, or have a busy schedule, online and mail-order pharmacies enable them to avoid travel and can save their time. Many online pharmacies will also remind consumers when they can order a refill to help them to maintain their regimen. Hence consumers prescription can be submitted at any time, there is no need to rush to the pharmacy during business hours, they don't have to wait in any long lines, and refills can be set up to be sent automatically.

**5. Drug Approval:** Most of these legal stores have a process of drug approval. They require a prescription from a personal physician, or at least offer a drug as a prescribed medication only after the consumer fills up a questionnaire. This questionnaire is reviewed by a doctor before the drug is dispatched. <sup>[6, 7]</sup>

**6. Medical information:** Some online pharmacies provide useful information about medications and diseases as well as links to medical resources such as universities, government agencies, and health associations. <sup>[8]</sup>

## THE CONS OF BUYING DRUGS FROM ONLINE PHARMACY: <sup>[9, 10]</sup>

**1. Lack of Physical evaluation in place:** Since the internet makes it easy to sidestep the safety net, these online stores do not have any processes of medical supervision or physical evaluation in place. If at all there is any such process, these are not performed by a licensed health professional.

**2. Need of using the same online pharmacy all of the time:** If you do not use the same online pharmacy all of the time, they may not be aware of any potential drug interactions, it can be difficult to find someone to answer any specific questions about medications you may have, it is not possible to get the prescription the same day, and you lose the personal interaction available in a person to person transaction.

**3. Some do not dispense drugs through licensed pharmacies:** Licensed, regulated and properly inspected pharmacies require safe dispensing practices and the oversight of licensed pharmacists. Purchasing drugs from an unlicensed pharmacy can greatly increase your chances of buying counterfeit, substandard, or adulterated products. Some international pharmacies are licensed specifically to import and export prescription medication in a free trade zone area, but not within the domestic jurisdiction: PharmacyChecker.com inspects these international pharmacies and only approves those meeting stringent safety requirements.

**4. Some online pharmacies don't adequately safeguard your health:** By failing to require a prescription, you could take medication that is not appropriate for you. It could make you sick or kill you. PharmacyChecker.com- approved pharmacies must require prescriptions. Some illegal online drug stores deal in dangerous contaminated, counterfeit or outdated drugs that can lead to dangerous drug interactions.

**5. Some do not adequately protect your personal and financial information:** It's important for pharmacy websites to publish their privacy policy, one that promises not to share your personal information with third parties. Online financial transactions should be secured through adequate use of encryption technology. PharmacyChecker.com verifies whether privacy is promised and transmittal of financial information is secured.

**6. Some do not give their address and/or telephone number:** Pharmacy websites that do not publish their contact information or, even worse, publish false information, are more likely to sell counterfeit, substandard, adulterated products or even not send you anything. PharmacyChecker.com verifies

contact information and provides it in the profile of each online pharmacy listed on this site. If you have a complaint, question, or concern about an online pharmacy, you want to be sure you can make contact by phone, mail, and email.

**7. Additional fees are typically added to the drug price:**

There is often a shipping fee and there could also be a medical fee, and/or an account set up fee, but it's not very common. Our price comparison pages show you these fees, so you are better informed about the final price of a prescription order.

**8. Prices can change quickly:** Some pharmacy sites post lowball prices to attract customers, and then raise them. We make sure prices listed on our site are up to date and accurate as possible.

**9. Some may sell medications that can be extremely dangerous, if not taken under medical supervision:** In the U.S., these drugs are known as controlled substances, such as hydrocodone, Valium, or Xanax. Don't order from a website offering to sell you controlled substances without a prescription or to write you a prescription for them based on your responses to an online questionnaire. Other drugs, known as restricted distribution drugs, such as Accutane, Mifeprex or Thalomidare, are not controlled substances, but are also dangerous if taken without the appropriate medical supervision.

**LOCAL PHARMACY VERSUS ONLINE PHARMACY:**

Many of the benefits to using a local pharmacy reflect the disadvantages found in an online pharmacy. Some of these include being sure a person is watching for any negative drug interactions, access to someone if you have questions about a medication, and the ability to get medications the same day they are prescribed. Disadvantages include the possibility of an increased cost for the medications, having to fill prescriptions within a set period of time, a smaller selection of medications and their generic counterparts, and contributing to the continuance of a locally owned business.<sup>[11]</sup>

**REPORT OF WHO ON ONLINE PHARMACY:**

In 1997, the World Health Organization called on its Member States to tighten controls on the sale of medical products through the Internet.

WHO was especially concerned that Internet sales may bypass national drug regulatory authorities, thereby liberating medical products onto the market which are unapproved, fraudulent, unsafe, or ineffective. WHO has declared that ordering medical

products without the safeguards offered by competent regulation could endanger public health and pose a risk to individual patients.<sup>[12]</sup>

**Possible risks of e-commerce pharmaceuticals as per WHO:**

According to WHO, under present conditions, patients can obtain prescription medications over the Internet in several ways. First, in some countries they can request direct delivery of medications if their doctor submits a prescription by telephone or a script attachment. Alternatively, patients can contact their physician over the Internet, request a medication, and have the physician transmit the prescription to the online pharmacy. Compared to the first model, this approach allows the patient's pharmacist to review the prescription although it bypasses a visit to the physician. Thirdly, consumers can order medications directly over the Internet without seeing a physician or a pharmacist. The latter method is associated with the greatest potential risk to the consumer because it does not require a visit to the physician or review by a pharmacist.<sup>[13]</sup>

The danger for consumers of purchasing medicines in this way cannot be underscored, since they will not be provided with sufficient information allowing them to distinguish between legal on-line pharmacies and illegal commercial sites selling any kind of medical products. To gain consumer confidence and make a clearer distinction between legal and illegal sites, the United States National Association of Boards of Pharmacy (NABP) has developed the Verified Internet Pharmacy Practice Sites (VIPPS) programme. To be VIPPS certified, a pharmacy must comply with the licensing and inspection requirements of their State and each State to which they dispense pharmaceuticals. If the pharmacy has demonstrated to NABP compliance with VIPPS criteria, it will display the VIPPS hyperlink seal on its website. VIPPS criteria include patient rights to privacy, authentication and security of prescription orders, adherence to a recognized quality assurance policy, and provision of meaningful consultation between patients and pharmacists.<sup>[14]</sup>

On the other hand, if a patient buys medicines from an illegal commercial site there is a total absence of any quality guarantee covering the medicine. This means that medicines may be counterfeit or substandard or even unapproved new drugs. Illegal websites selling pharmaceuticals do not have counselling services by health-care professionals and they have been identified as selling prescription-only drugs such as

antibiotics, toxic chemotherapy regimens or anti-acne drugs that can cause birth defects. These sites also have misleading advertising and information: products are offered as suitable for self-care which, when used in the wrong way, may have serious consequences. Other products are presented as medicines which may not have any proven therapeutic effect.<sup>[15]</sup>

Some Internet pharmacies offer online prescribing only upon completion of a short questionnaire by the purchaser. Typically, it is claimed that the questionnaire is reviewed by a doctor and the drug is only prescribed if the doctor approves the questionnaire, however, this is difficult to verify. To address this concern, the American Medical Association has declared that any health care practitioner who offers a prescription to a patient solely on the basis of an on-line questionnaire without having ever examined the patient has not met the appropriate medical standard of care.<sup>[16]</sup>

Different organizations have warned consumers not to purchase medicines via the Internet. WHO has published a document "Medical products and the Internet: A guide to finding reliable information".<sup>[17]</sup> National authorities such as the US Food and Drug Administration (FDA) has published tips and warnings for consumers in the Internet to make people aware of the dangers of buying medical products online.<sup>[18]</sup> Professional pharmaceutical and medical bodies such as the Pharmaceutical Group of the European Union (PGEU) and Standing Committee of European Doctors (CP) have released their own document "The Internet and Medicines: enjoy the Internet but don't risk your health!"<sup>[19]</sup>. Other related risks are a lack of security for payments, possible disclosure of confidential information, or mishandling of personal data. In Internet transactions, the supplier is processing confidential personal data which includes information on the physical and mental health of individuals.

While ordering routines can technically be handled via the Internet, the issue of physical delivery remains. There are two concerns. One is that delivery does not take place immediately - online pharmacies must also invest in delivery points to be able to guarantee delivery on time. The second concern is safety of delivery whereby packages are sent to homes by mail or by express delivery without the certainty that the customer is actually there and without being able to control exactly what happens to the package at delivery. Regular mail delivery does not ensure that packages of pharmaceuticals will arrive

undamaged, and in some countries either hot or extremely cold weather may cause changes to the product.<sup>[20]</sup>

## **WARNING AND GUIDELINES OF FDA TO RECOGNIZED ILLEGAL WEBSITES:**<sup>[21]</sup>

The Food and Drug Administration (FDA) wants to warn consumers about the possible dangers of buying medicines over the Internet. Some websites sell prescription and over-the-counter drugs that may not be safe to use and could put people's health at risk. So how can you protect yourself? FDA says that consumers should know how to recognize a legal Internet pharmacy and how to buy medicines online safely. Guidelines for the same are stated as follow:

### **1. Don't Be Deceived:**

Buying prescription and over-the-counter drugs on the Internet from a company you don't know means you may not know exactly what you're getting. There are many websites that operate legally and offer convenience, privacy, and safeguards for purchasing medicines. But there are also many "rogue websites" that offer to sell potentially dangerous drugs that have not been checked for safety or effectiveness. Though a rogue site may look professional and legitimate, it could actually be an illegal operation. These rogue sites often sell unapproved drugs, drugs that contain the wrong active ingredient, drugs that may contain too much or too little of the active ingredient, or drugs that contain dangerous ingredients. e.g.: FDA purchased and analyzed several products that were represented online as Tamiflu (oseltamivir). One of the orders, which arrived in an unmarked envelope with a postmark from India, consisted of unlabeled, white tablets. When analyzed by FDA, the tablets were found to contain talc and acetaminophen, but none of the active ingredient oseltamivir. FDA also became aware of a number of people who placed orders over the Internet for one of the following products:

- Ambien (zolpidem tartrate)
- Xanax (alprazolam)
- Lexapro (escitalopram oxalate)
- Ativan (lorazepam)

Instead of receiving the drug they ordered, several customers received products containing what was identified as foreign versions of Haldol (haloperidol), a powerful anti-psychotic drug. As a result, these customers needed emergency medical treatment for symptoms such as difficulty in breathing, muscle

spasms, and muscle stiffness, all problems that can occur with haloperidol. Other websites sell counterfeit drugs that may look exactly like real FDA-approved medicines, but their quality and safety are unknown.

## 2. Signs of a trustworthy website:

- It's licensed by the state board of pharmacy where the website is operating. A list of these boards is available at the website of the National Association of Boards of Pharmacy ([www.nabp.net/boards-of-pharmacy](http://www.nabp.net/boards-of-pharmacy))
- It has a licensed pharmacist available to answer your questions
- It requires a prescription for prescription medicines from your doctor or another health care professional who is licensed to prescribe medicines.
- It provides contact information and allows you to talk to a person if you have problems or questions.
- Another way to check on a website is to look for the National Association of Boards of Pharmacy's (NABP) Verified Internet Pharmacy Practice Sites™ Seal, also known as the VIPPS® Seal. This seal means that the Internet pharmacy is safe to use because it has met state licensure requirements, as well as other NABP criteria. Visit the VIPPS website ([www.vipps.info](http://www.vipps.info)) to find legitimate pharmacies that carry the VIPPS® seal.

## 3. Signs of an unsafe website

- It sends you drugs with unknown quality or origin.
- It gives you the wrong drug or another dangerous product for your illness.
- It doesn't provide a way to contact the website by phone.
- It offers prices that are dramatically lower than the competition.
- It may offer to sell prescription drugs without a prescription—this is against the law!
- It may not protect your personal information.

## 4. Know Your Medicines

Before you get any new medicine for the first time, talk to a health care professional such as your doctor or pharmacist about any special steps you need to take to fill your prescription. Any time you get a prescription refilled

- check the physical appearance of the medicine (color, texture, shape, and packaging)
- check to see if it smells and tastes the same when you use it

- alert your pharmacist or whoever is providing treatment to anything that is different

Be aware that some drugs sold online

- are too old, too strong, or too weak
- aren't FDA-approved
- aren't made using safe standards
- aren't safe to use with other medicines or products
- aren't labeled, stored, or shipped correctly
- may be counterfeit

## 5. Counterfeit Drugs

Counterfeit drugs are fake or copycat products that can be difficult to identify. The deliberate and fraudulent practice of counterfeiting can apply to both brand name and generic products, where the identity of the source is often mislabelled in a way that suggests it is the authentic approved product.

e.g.: counterfeit versions of the FDA-approved weight loss drug Xenical, which contains the active ingredient orlistat, recently were obtained by three consumers from two different websites. Laboratory analysis showed that the capsules that the consumers received contained the wrong active ingredient, sibutramine. Sibutramine is the active ingredient of a different medicine called Meridia, a prescription drug also approved by FDA to help obese people lose weight and maintain weight loss. In addition, sibutramine is classified as a controlled substance by the Drug Enforcement Administration because of its potential for abuse and misuse. Using medicine that contains an active ingredient that wasn't prescribed by your licensed health care provider may be harmful. FDA continues to proactively protect consumers from counterfeit drugs. The agency is working with drug manufacturers, wholesalers, and retailers to identify and prevent counterfeit drugs. FDA also is exploring the use of modern technologies and other measures that will make it more difficult for counterfeit drugs to get mixed up with, or deliberately substituted for, safe and effective medicines.

## 6. How to Protect Yourself

- Only buy from state-licensed pharmacy websites.
- Don't buy from websites that sell prescription drugs without a prescription.
- Don't buy from websites that offer to prescribe a drug for the first time without a physical exam by your doctor or by answering an online questionnaire.

- Check with your state board of pharmacy or the National Association of Boards of Pharmacy to see if an online pharmacy has a valid pharmacy license and meets state quality standards.
- Look for privacy and security policies that are easy to find and easy to understand.
- Don't give any personal information—such as a social security number, credit card information, or medical or health history—unless you are sure the website will keep your information safe and private.
- Use legitimate websites that have a licensed pharmacist to answer your questions.
- Make sure that the website will not sell your personal information, unless you agree. <sup>[21]</sup>

### CONCLUSION

Finally summing up above explanation it can be conclude that, online pharmacies don't have the personal touch that a physical pharmacy has. You can't talk to a pharmacist to get advice about side effects or drug interactions the way you can at an actual pharmacy. I don't know about you, but I like the people who work at my local pharmacy. They're always polite and it's nice knowing that someone cares. Hopefully our article taught you something about the pros and cons of mail order pharmacies. They can be very convenient and less expensive than traditional pharmacies, but always keep in mind the dangers of using an online pharmacy. Now-a-days the "rogue sites" drug stores are under scrutiny through Internet surveillance practices. This is a sort of an enforcement priority that targets the sale or purchase of prescription drugs without a valid prescription as well as controls unapproved new drugs and similar health frauds. The fact remains that drugs purchased at online drug stores offer high levels of handiness, put forward privacy for the buyer as well as safeguard traditional procedures of prescribing drugs. Thus consumers can use these services with the same confidence as they would have had in the neighbourhood pharmacist. But they must stay away from "rogue sites" that sell unapproved products or sidestep conventional procedures that safeguard the interests of consumers.

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