

## Is it Safe to Buy Drugs Over the Internet?

Prescription medications can be very expensive, even for generic drugs. Internet advertisements for cheap, generic prescription medications available through sources that do not even require a prescription bombard us each day when we check our email. The problem, however, is that most of these medications come from foreign countries—places that do not have the same quality standards as the United States. This can affect patient safety, which is the greatest concern to doctors and policy makers.

In a recent study, one drug, simvastatin (marketed as Zocor in the US), was purchased from 20 international pharmacy Web sites and compared with the US product. Simvastatin is most often used to lower cholesterol and is known to prevent heart disease. The imported “simvastatin” medications were then checked for characteristics such as disintegration and dissolution (how well the tablet falls apart and dissolves in the digestive tract fluids so that the



drug can be absorbed), tablet weight, and the amount of medication actually in the tablet or capsule.

Patients may not understand why characteristics such as disintegration and dissolution are important, but these are key aspects of the manufacturing process. If a drug cannot disintegrate or break down quickly in the digestive system, the patient may not absorb and receive enough medication. Instead, the drug will be eliminated through bowel movements without providing any benefit.

Compared with Zocor, researchers found that only 15 of 20 imported “simvastatin” products met US standards for dissolution. Considerable variation was found in tablet weights for these products as well. This indicates that some products may have more or less of the active ingredient than expected. Indeed, detailed analysis to identify the actual drug content of the tablets

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Partnership for Prescription Assistance  
[www.pparx.org/Intro.php](http://www.pparx.org/Intro.php)

RxAssist  
[www.rxassist.org](http://www.rxassist.org)

Medicare Prescription Drug Plan  
[www.medicare.gov/pdphome.asp](http://www.medicare.gov/pdphome.asp)

Based on “Comparison of Simvastatin Tablets from the US and International Markets Obtained Via the Internet Using Quality Assurance Testing Methods” by Michael Veronin and Nga Nguyen, *The Annals of Pharmacotherapy*, May 2008, <http://dx.doi.org/10.1345/aph.1K560>. For Our Patients is provided by *The Annals* to help explain the latest research and information relating to your medications. These summaries are for informational purposes only and are not a substitute for professional advice from your personal medical provider. If you have questions about this material, you should discuss it with your physician or pharmacist. This summary may be reproduced without permission for not-for-profit educational purposes only. Any other use must be approved by the publisher. © Copyright 2008, Harvey Whitney Books Company, [www.hwbooks.com](http://www.hwbooks.com). FOPE7 DOI 10.1345/fop.1K560

and capsules purchased over the Internet showed that 2 of 20 did not reach US standards for containing the amount of drug claimed. One of the capsule medications was labeled as having 20 mg of simvastatin, while analysis showed that the amount in each capsule ranged from 29.7 mg to 40.09 mg. This inconsistency could cause adverse events for patients. According to the study authors, with this amount of variability, it is likely that this drug did not even come from a legitimate manufacturer, and therefore puts the health of consumers at risk—specifically since the identity of the other ingredients in the capsule is unknown.

Other factors, such as stability, contaminants, and microbial testing, are also unknown when consumers purchase medications from outside the US, and these factors could also affect safety. It is estimated that 210 countries make drug products. One-third of those nations have good regulatory controls in place; another third have regulatory controls but lack enforcement, and the remaining third have no regulatory controls. Without adequate oversight, it is likely that US consumers may import a product through the Internet that does not meet the quality and safety specifications of US-made products.

While you might be able to save money on medications purchased through the Internet, you risk sacrificing adequate treatment or even suffering serious adverse events. Furthermore, because of variability in product appearance (dif-

ferent size, shape, color, markings, etc.) of products that come from abroad, these foreign medications often cannot be identified by physicians, pharmacists, or even poison control centers.

When it comes to prescription medications, err on the side of safety. Purchase medications that have been tested according to US standards. If you truly cannot afford your medications, talk to your doctor or pharmacist. There may be less expensive alternatives, pharmacy discount programs, or even prescription assistance programs offered by drug manufacturers for which you are eligible.

**FOR MORE INFORMATION ABOUT BUYING MEDICATIONS THROUGH THE INTERNET:**

Food and Drug Administration  
[www.fda.gov/oc/opacom/reports/confusingnames.html](http://www.fda.gov/oc/opacom/reports/confusingnames.html)  
[www.fda.gov/fdac/features/2005/105\\_buy.html](http://www.fda.gov/fdac/features/2005/105_buy.html)

Mayo Clinic  
[www.mayoclinic.com/print/buying-prescription-drugs-online/GA00042/METHOD=print](http://www.mayoclinic.com/print/buying-prescription-drugs-online/GA00042/METHOD=print)

World Health Organization  
[www.who.int/mediacentre/factsheets/fs275/en/](http://www.who.int/mediacentre/factsheets/fs275/en/)