Questions and Answers about PPI Medications and GERD

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Reading time: 4 minutes © Copyright 2009 by the International Foundation for Gastrointestinal Disorders

Question – What are the differences between the proton-pump inhibitors? Do they all have the same side effect profile? If I experience side effects from one, will I experience the same effects if I try another?

Answer – Proton pump inhibitors (PPIs) are the most commonly prescribed class of medication for the treatment of heartburn and acid-related disorders. They work by blocking the site of acid production in the parietal cell of the stomach. Because there are millions of parietal cells that are constantly reproducing, complete inhibition of stomach acid production is virtually impossible. This probably explains the tremendous safety of these medications.

There are now five PPIs available in the United States. The five medications are structurally and chemically similar. There are relatively few comparisons of these drugs with each other. All five medications heal esophagitis in 90–94% of patients. There are no significant differences in overall healing and symptom improvement rates between the medications. Omeprazole (Prilosec) and lansoprazole (Prevacid) have been available the longest and consequently are the most familiar to physicians and patients. While the newer medications, rabeprazole (Aciphex) and pantoprazole (Protonix) have data to suggest better suppression of stomach acid compared to omeprazole, there is no proof that the differences are clinically important. Rabeprazole and pantoprazole are smaller and may be better for patients who have problems swallowing capsules. Pantoprazole is marketed as being cheaper, and may be better for patients paying for their own medications. On February 20, 2001, esomeprazole (Nexium), a new and very potent PPI, was approved by the U.S. Food and Drug Administration (FDA). The FDA approved the sale of generic omeprazole in 2002 and over-the-counter omeprazole in 2003. The PPIs have been shown to be very safe. Most of the information that we have on side effects come from studies where a PPI is compared to a placebo. The most common side effects are headache, abdominal pain, bloating, diarrhea, and nausea. They occur in 1–2% of patients given PPIs. Interestingly, the incidence of these "side effects" is the same as when patients take the placebo. It is hard to compare side effect profiles between the medications, but there is no reason to believe that there are significant differences.

There is no scientific data to guide physicians on how to deal with the relatively few patients that have side effects from one of the PPIs. However, nearly all physicians have had the experience of switching from one PPI to another successfully. If a patient is having side effects from a PPI, they will not necessarily develop the same side effects if they switch to another PPI. The patient should be encouraged to discuss this option with their physician. The only exception may be in the extremely rare instance of severe allergic reactions.

Question – I am an older adult on multiple medications. I have developed problems with reflux. What are the common medications that may affect the tone of the LES? What can I take to correct the problem?

Answer – The medications most likely to cause clinical problems are the calcium channel blockers and theophyllines. Calcium channel blockers are commonly used for high blood pressure and angina. Theophyllines are oral medications, commonly used for asthma and breathing difficulty. These types of medications weaken the lower esophageal sphincter, making it easier for stomach acid to reflux into the esophagus. The list of medications that may worsen gastroesophageal reflux also includes most sedatives and narcotic pain relievers. Many of these concerns are more theoretical than scientifically proven. Additionally, it is not likely that these medications will cause reflux in an otherwise healthy person.

If prescription medications are causing reflux to worsen, then there are two options. First, try to switch the offending medication to something else. There are many types of medications available to treat high blood pressure. The inhalers for asthma and other breathing problems probably cause less reflux than the oral theophyllines. Second, if the offending medication cannot be stopped, better treatment for the reflux would be in order. For example, either increasing the dose of the current medication, or switching to a more powerful drug may be the only alternative (consult with your doctor).

People who suffer from reflux should be aware of another pill-related problem. If a medication were to become lodged in the esophagus, it may cause injury to the lining. This may lead

to ulcers and narrowing of the esophagus. Medications most likely to do this are certain antibiotics (particularly tetracycline), potassium supplements, quinidine (a medication for heart palpitations), and alendronate (Fosamax). All non-steroidal anti-inflammatory agents, even those over the counter, can do this as well. A good rule of thumb is to be careful with any pain medication. Other than acetaminophen, patients taking medications for pain should do two things. First, take a full glass of water with these medications to wash them down. Second, do not lie down for 30–60 minutes after taking these pills. Taking these precautions helps one to more safely take these medications and help avoid pill-induced injury to the esophagus.

Facts about GERD

Studies suggest that people with gastroesophageal reflux disease can have a worse quality of life than some individuals with menopausal symptoms, peptic ulcer disease, angina, or congestive heart failure. The combination of symptoms, dietary restrictions, and functional limitations can take a toll on overall sense of well-being.

Approximately 33% of the population experience occasional symptoms associated with reflux of acid from the stomach into the esophagus.

Approximately 10–20% of Americans experience frequent heartburn, the most common symptom of GERD.

Frequent symptoms, erosive esophagitis, swallowing disorders, and stricture formation may characterize GERD.

In the USA alone, reflux disease accounts for between 4 and 5 million physician visits per year.

If left untreated, GERD can potentially lead to more serious complications such as erosions of the esophagus, changes in the lining of the esophagus, asthma and other respiratory problems, and dental erosion.

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