

## PPIs: Too Much of a Good Thing? When and How to Discontinue PPIs - Frankly Speaking EP 37

### Transcript Details

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### Dr. Frank Domino:

Tom is a 54-year-old patient in your practice who comes in for his yearly health maintenance visit. He states he feels well and has no complaints. His past history shows he has well-controlled hypertension, dyslipidemia, and gastroesophageal reflux. His medications currently are lisinopril 20 mg a day, atorvastatin 20 a day, and omeprazole 40 a day. He also takes an aspirin for cardiovascular prevention and a multivitamin. When you ask about his GERD symptoms on your review of systems, he tells you, "I have no symptoms if I take the medicines every day. But when I miss the med for a couple of days, boy, does my heartburn come back." You know the long-term proton pump inhibitor he uses is associated with some health risks, but you're not sure how to convey this to Tom. How do we counsel Tom about these risks and consider deprescribing while balancing most of his symptoms? Joining me today is Susan Feeney, Assistant Professor and Coordinator at the Family Nurse Practitioner track at the University of Massachusetts Medical School. Welcome to the show, Susan.

### Susan Feeney:

Thanks, Frank.

### Dr. Domino:

Tom and his GERD, [chuckle] pretty commonplace these days.

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**Susan Feeney:**

Very common.

**Dr. Domino:**

What are the current evidence-based guidelines around the diagnosis, treatment and management of GERD?

**Susan Feeney:**

Well, according to the American College of GI, or Gastroenterologists, simple GERD, meaning that there's no evidence of those alarm symptoms, and so there's no unintentional weight loss, there's no evidence of anemia, black or tarry stools, or black emesis, or difficulty or painful swallowing. In the absence of that, which you know as a primary care provider is probably the majority of people we see, then that's considered sort of... We can make an empiric decision. We make a decision that it's GERD and what's recommended is using the PPIs. They are superior in acid suppression and much more superior than the H2RAs. They recommend eight-week course of the prescriptive dose, the higher end of the prescription, and they don't recommend one over another.

And then at that point, the feeling is you'll have some healing if there's any erosions, because they don't recommend endoscopy, so at that point, you would then try to de-prescribe or start to taper them off, and hopefully, they would only need it in a small amount. But they also besides the medication, which is indicated, are lifestyle changes. They recommend weight loss. We know that increased pressure in the abdomen either from a fetus for a pregnant woman or adipose tissue is absolutely a pressure against the diaphragm and makes that lower esophageal sphincter open and it increases GERD. The concept too, is if you start the PPI then hopefully people have eight weeks to do their lifestyle changes, and good luck with that.

**Dr. Domino:**

And good luck. What about irritants like NSAIDs, or alcohol, tobacco, stress?

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**Susan Feeney:**

Yeah, so it's not just weight loss and there's also the age-old elevate the head of the bed. That's really only good for people who truly have nighttime symptoms. People who aren't bothered at night, they don't need to do that. There are irritants that absolutely... NSAIDs are famous because they have the antiprostaglandin effect and they can absolutely cause erosions. We know that spearmint, peppermint, alcohol, tobacco, caffeine, and fatty foods will increase pressure in the gut but also lower the tone of the lower esophageal sphincter. We know that progesterone, so birth control pills, pregnancy, hormone replacement therapy that also relaxes that sphincter as does diltiazem and some of the calcium channel blockers. So those things are important in those... And people will tell you, "I'm fine unless I go out and have marinara sauce." That's always an important thing to ask patients is if there is an issue, but fatty foods are clearly also a problem.

**Dr. Domino:**

So quite a few things we need to query about with regards to lifestyle.

**Susan Feeney:**

Right.

**Dr. Domino:**

Susan, you said something really important. We need to think about after eight weeks of therapy that have been successful deprescribing. How do we go about doing that? And when is it appropriate?

**Susan Feeney:**

Well, as you know in primary care, most people come in with a complaint of GERD have already started over the counter, either the lower dose PPIs or the H2RAs, and they may be popping TUMS as you go. It's really important that they are on a continuous eight-week program to try to take care of any erosion that might be there. And so, what we know is that there are risks associated with long-term proton pump inhibitor use. And to try to figure out what long-term is, then it's all over the block when you look at the literature. It's anywhere from 12 weeks to a year,

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and you know and I have patients who've been on them for years. There's some real risk associated with it. It turns out acid in the gut is a good thing. We need that for certain things and it is certainly associated with that acid suppression. There is reduction in magnesium absorption and increasing gastrin, and there is also something called atrophic gastritis, and we're not really sure what that's associated with. It might be a higher increase of Barrett's and adenocarcinoma, but that hasn't been born out.

But we know that since the advent of PPIs, we've definitely seen a decrease in esophagitis and esophageal strictures, which is a great thing, but there's been an increase in Barrett's and adenocarcinoma. But some of the things that we know for sure are risk, are increased risk of GI infections like C. Diff, and that is also a problem regardless if you've been on an antibiotic or not, which I found very interesting. And also there is possible increase in the risk of pneumonia, and they think that has to do with changes in the pathogens in the upper GI tract. So those are very real risks. There's also, because of the low magnesium and calcium, there's a risk of low bone density. And the FDA does have a warning that if someone is at risk for bone density loss, or they are your osteoporotic, you need to use these with great caution.

So, I think it's really important that we talk to our patients about the risk of long-term use, and that we also know that there was a med analysis that was done looking at deprescribing, and even though the evidence was low to moderate and there was a lot of differences between the studies, what they found was that when you take people off of long-term PPIs, most of them will relapse. There's also something called a hypersecretory response, sort of a rebound that can happen. So what they recommend is a slow taper, it is to say to someone, "If you've been on this for 12 months, and you know that you stop it cold turkey, you're gonna have symptoms." Then you tell them, "Go to the over-the-counter dose." Like for omeprazole, "You're on 40 mg, go to 20 mg a day." And give them that for two weeks and see how they do. If they have breakthrough, they recommend, well, maybe give them an H2RA at bedtime. It has less acid suppression, doesn't have as many of the side effects, and you can lower the dose, and it is a dose response. And then you can do that for a couple of weeks, and then DC and see how they do.

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What was very clear in the med analysis is that the on-demand concept of PPIs doesn't work very well, because if you look at the pharmacodynamics of the drug, it takes about five days to get to that level of acid suppression, so it's not gonna work hit or miss, but the H2RAs will. So if they can get good relief with that on a PRN basis, that would be a nice strategy. But what you hear, and what the literature has said over and over again, is if you cannot get them off of PPIs, go with the lowest doses tolerable, and then continue every so often to challenge them to see if you can get them off, like every six months or so. So just checking to say, "Oh, you're GERD free, you're on your proton pump inhibitor," is not gonna be good enough. We really have to challenge them. While they're weaning off, you also wanna recommend like, "If you do a 5% weight loss, that might be enough loss of weight in your abdomen to reduce some of that reflux." You might be able to get some buy-in on that.

**Dr. Domino:**

I love the thought of a small change in weight, or looking at their medications, or looking at some of their personal habits and helping the patient feel empowered to make changes, because I don't think anyone enjoys the symptoms of GERD. And while the PPI use makes you feel better quickly, sometimes it decreases patients' incentive to make changes. Quickly tell us a bit about when we should be worried and consider sending Tom in for an endoscopy. What are some flags that, if he fails therapy or whatever?

**Susan Feeney:**

Well, they're very clear from the American College of Gastroenterology, is that people who are non-responders, so if you've got someone who you think has classic GERD, doesn't have red flags, he doesn't have all the symptoms I mentioned earlier. But you put them on a proton pump inhibitor, and it's now two weeks in, and they have poor response, you really need to investigate if there's another etiology. Is there Barrett's? Is there something else? Now, some of the literature said try them on a different PPI because there are rapid responders and slow responders, and we don't know who those folks are, so they may do better on a different PPI. But certainly if you've got someone who's... They're on 40 mg of omeprazole for two weeks and they have had no change, I would send him to a gastroenterologist. I may not do the upper endoscopy, I may send

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them for a referral.

The other thing they say is if they've been in good control and there's been no obvious change, and then the symptoms worsen, see if that... Then they need a referral. If they have non-cardiac chest pain, you can't determine that. You have to rule out all the cardiac issues. So those folks need to be evaluated. You can't just assume, "Oh my, this is probably related to their GERD." If they have a chest pain that mimics cardiovascular, that cardiovascular etiology has to be ruled out. And then of course, if you had someone, you're following them, they have good resolve of their GERD symptoms, but you check them and now they've an iron deficiency, I'd certainly would do an occult stool and send them off to see if they needed an endoscopy.

**Dr. Domino:**

This is a great discussion of GERD and PPI use. Any final thoughts on Tom, our patient, or GERD in general?

**Susan Feeney:**

Well, it really is... Sometimes... The thing that really got me when looking at the literature is very few of these conditions are due to an oversecretion of acid. Most of it is that there's just acid getting into the esophagus from a malfunctioning lower esophageal sphincter, which is due to lifestyle. Certainly, some people may have a congenital issue there. Really working with people on those lifestyle changes and talking to them about, "I know that you have... You feel like you're in good control with the GERD but all medications have a risk and let's see if we can work together with changing some of your lifestyle, what you're eating, a little bit of weight loss and to see if we can either take you off completely or at least lower the dose so your risk decreases." And I think that's a discussion we have to have with our patients and understanding that. And I think the... Oh, the other thing I mentioned is they can block iron and B12 absorption as well. There are some real risks and I think people are smart and they will listen to you if you've got good evidence and you work together and if they are miserable, try to work on some sort of combination of lower dose PPI with an H2RA and some lifestyle change.

**Dr. Domino:**

Thanks so much, Susan. This is a great discussion.

**Susan Feeney:**

Thank you.

**Dr. Domino:**

Practice pointer, chronic proton pump inhibitors increase the risk for a variety of adverse outcomes including C. Difficile, pneumonia and possibly inducing things like B12 deficiency, iron deficiency anemia, vitamin D deficiency, and obesity. Join us next time where we discuss the best evidence in the diagnosis and treatment of major depressive disorder in the primary care setting.