Depression and Medication Side Effects: Is Your Depression Due to Something You Are Taking? - Frankly Speaking EP 88

Transcript Details

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Dr. Frank Domino:

You are seeing Maria today, a 55-year-old female who comes in for fatigue. As you're discussing things with her and completing your exam, you're worried that she may have depression. Maria's PHQ-9 score today is 10, which is consistent with the diagnosis of depression. She tells you that the symptoms have been gradually getting worse. As you review her medications, you recognize that six weeks ago you began omeprazole, 20 milligrams a day, for a new diagnosis of GERD. This is in addition to her taking metoprolol, lisinopril, and her PRN ibuprofen for her occasional knee pain. Could her medications be contributing or actually the cause of her depressive symptoms?

Hi, this is Frank Domino, Professor at the University of Massachusetts Medical School. And joining me today is Susan Feeney, Assistant Professor at the University of Massachusetts Medical School, Graduate School of Nursing, Program Coordinator for the family nurse practitioner tract. Thanks for bringing this idea and this patient forward, Susan.

Susan Feeney:

Sure. Thanks, Frank.

Dr. Domino:

I think having a 54-year-old patient who's on multiple meds and developing GERD's pretty common.

Susan Feeney:

Yeah.

Dr. Domino:

What do we know about the prescribing practices of clinicians in the United States when we're treating adults?

Susan Feeney:

Well, it's very interesting. There was a study published in JAMA in 2015 that really looked at prescribing practices across the US, and they used NHANES data from 1999 to 2012. And what they found was there'd been a fairly significant increase in the number of prescription meds written over that time, or taken by the patients. 51% percent of American adults in 1999 reported being on at least one prescription med, and that went up to 59% in 2011. Now, there's a lot of factors, all it is is a data point. We don't know why, but that's certainly an increase. The other thing that was kind of startling is the increase in polypharmacy, which would be five meds or more, prescription meds, not even over the counter. It went from 8% to 15%, and I think most of us would think that that might even be slightly underreported.

Dr. Domino:

I agree.

Susan Feeney:

And the increase was mainly in... There were 11 classes, but the biggest increase, which I don't think is a surprise to anybody, are the antilipid meds, antihypertensives, antidepressants, the PPIs, and muscle relaxants. I think if you work in primary care you're not surprised by that. So that was startling to me, and I think knowing that the population is aging, I think those numbers are going to continue to increase.

Dr. Domino:

And they made the definition five or more meds, which on objective hearing sounds crazy, yet it's hard to go through a day without... Even a half day without having more than a few patients having that many medicines.

Susan Feeney:

Absolutely.

Dr. Domino:

So what's the danger of polypharmacy, and in this case, what about depression?

Susan Feeney:

Well, this article, this study, really caught my eye because this was a study that was done by Kato et al, and it compared NHANES data from 2005 and 2006 to 2013 and 2014, looking at specifically medications that have a depression as a side effect. And I thought that was interesting because we know that depression is fairly common, and I was surprised to find out how many medications have depression as a documented side effect. In general, about 5% of the US population has this diagnosis of depression.

Dr. Domino:

Really, just 5%?

Susan Feeney:

That's what it said. I think for major depression. But they're saying that 29% are either undiagnosed or untreated, and they were looking specifically very hard at that depression diagnosis, not dysthymia, not social anxiety. We look at anxiety as well, that was not covered there. And we know that there are multiple ED admissions, and people are hospitalized for adverse side effects, and we all know that depression is very prevalent in our patients. So what they looked at, they used Micromedex and looked at specifically depressive side effects, including suicidality, in various medications. And they found the major categories that have these side effects is basically everything we prescribe. [chuckle] It's antihypertensives, specifically beta blockers, no surprise, but ACE inhibitors, antidepressants, all the SSRIs and the tricyclics, hormones, and specifically birth control pills, anxiolytics, analgesics, so ibuprofen all the way up to opioids, GI agents, so PPIs and H2RAs, antihistamines, montelukast, anticonvulsants, which we're using a lot now for pain, and corticosteroids. So [chuckle] you think about your patients on polypharmacy, if someone comes in with depression symptoms, how do you tease out what is truly organic depression and what might be caused by the side effect? It really gives pause, I think, when we're prescribing.

Dr. Domino:

Oh, I agree. The list you just read sounds like most everybody we see. [chuckle] And so you're often seeing folks with hypertension and hyperlipidemia that you're using medications for. We're very quick to prescribe medications like we did for Maria here if she's describing GERD symptoms, and so these meds are ubiquitous. They're everywhere.

Susan Feeney:

Absolutely.

Dr. Domino:

So what strategies are available to prevent these adverse effects and how do we manage them when they occur, like it has in Maria?

Susan Feeney:

Well, I think first it has to start with, before we prescribe a medication, is an understanding that anything that we prescribe either with a written prescription or over the counter, these are not benign substances, even something... We all think of PPIs, or we used to, as, "Oh, this is a wonderful drug." Now we find out it interferes with B12 absorption, and it's associated with C Diff. All medications can have a side effect. But we also know that GERD can have terrible side effects and Barrett's esophagitis, so you have to balance those things. But I think before we write a prescription, we really have to spend time with our patients and say, "Here are potential side effects. Let's think about non-pharma types of approaches first, or maybe we can start on a lower dose and then add those behavioral things." And this is the conundrum in primary care is trying to get behavioral changes that we know will have a positive impact on the diagnosis, but it takes time to really engage the patient and come up with some of those behavioral strategies.

But I think also doing a thorough screening for depression. Was Maria slightly depressed? Did she have a tendency for this anyway and I missed it? Maybe more thorough screening, which we know is backed by all research, that before we think about these medications... And to understand when we look at side effects, I know I get... It's dizzying, 'cause they'll have a list a mile long of potential side effects, and you think, "Well, everything causes depression." But this is real data that shows that it can actually cause that. The one thing

that did come out in the study is that people who are on three meds or more had a much higher rate of depression than people that were maybe just on a statin. If they were on three medications and had depression as a side effect, they had a much higher risk of having depression. So the polypharmacy is really something we need to address.

Dr. Domino:

And I think that's one of the strong bottom lines here. We know that there are very, very few randomized controlled trials with patients on four or more meds. And when they do those trials, they're particularly looking for a specific endpoint like heart failure or AFib. They're not necessarily looking for the new onset depression or new onset GERD or anything else. So one of the important things I've learned today is that we have to be very careful with our patients who are on multiple meds at looking for adverse effects and not necessarily treating them. So here she's been on ibuprofen for her knee arthritis, and now she's on something for GERD. And so it could very well be that she needs a referral to physical therapy, or she needs to focus more on other behavioral changes, not necessarily just taking another pill. And as you said, that takes time on our part, which I think we need to electively choose. We need to say, "I'm gonna spend today's visit just chatting with you and figuring out what we can do to treat your most urgent problem," and not worry so much about having a detailed physical exam that's unlikely to improve outcomes.

Susan Feeney:

That's right. One of the other strategies that we were talking about earlier was what about having some sort of chart review? If you're in a practice and you can say, "I can flag my polypharmacy patients," and maybe have some kind of rounds to sit down with your colleagues and say, "Okay, I have Maria and here's her situation. Let's strategize on ways that we could maybe take her off of some of the medications, or do you have any wisdom?" I think that there's a lot of benefit to that, because we see these patients and

sometimes we need new eyes, and we just wanna have a different approach. But polypharmacy is a real concern. And then they also said in the study that obviously the older someone is, female, widowed, or multiple chronic conditions, does absolutely increase their risk of depression.

Dr. Domino:

Sure. Makes good sense.

Susan Feeney:

Which is not a surprise. So, again, I think we need to look at our patients individually, and then really always consider, is there a side effect from a medication that's causing a problem, and am I treating a side effect of another med?

Dr. Domino:

Susan, thanks so much. This is very helpful.

Susan Feeney:

My pleasure. Practice pointer: Always consider medication side effects as a potential cause of depression or exacerbation of organic depression, especially if your patient is on three or more prescription medications where depression is a known side effect.

Dr. Domino:

Battling burnout practice pointer: When you have patients who are challenging or on multiple meds and you're unsure what to do, gather a group of peers and review the chart with them. Working together can help you figure out problems in a much less stressful manner than doing it alone. Join us next time when we talk about fracture nonunion and the risks associated with opioid use versus NSAID use for pain control. And for more timely,

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