Obstructive Sleep Apnea: Recommendations for Screening Adults - Frankly Speaking EP 9

Transcript Details

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Dr. Frank Domino
Feel better, help you lose weight and make your significant other happy, is this too good to be true? Today we're going to be discussing obstructive sleep apnea with Susan Feeney, Assistant Professor at the University of Massachusetts Medical School, Graduate School of Nursing, and Family Nurse Practitioner Program Coordinator. Susan, welcome to the show.

Susan Feeney:
Hey, Frank, glad to be here.

Dr. Domino:
I have a 59-year-old patient who comes in for a physical, he's got a BMI of 32, and I just have a hundred things to think about for his health. What are the current recommendations and guidelines around screening for obstructive sleep apnea?

Susan Feeney:
Well, the USPSTF just came out with a new guideline for asymptomatic patients, which is what their focus is. And basically, it was inconclusive. They had an I statement, which means that there's insufficient data to recommend general screening of asymptomatic patients. What that means is though, if you have a patient with risk factors, that you'd want to be asking them about some of these symptoms. Because what they also pointed out was in studies of primary care

providers, that primary care providers rarely ask patients about sleep disorder breathing. And they may see risk factors but they may not ask about the symptoms. And then they found that only 20% of people who had those symptoms actually self-reported them. So, if you have a patient with those risk factors, that we'll discuss in a second, you would really want to find out if they were symptomatic so that you could think about doing some screening.

Dr. Domino:
That's amazing that only 20% of patients actually will report it. Well, let's pretend my 59-year-old patient comes in for his physical, and on review of systems, I'm able to tease out that he does admit to snoring very loudly and regularly, and that his wife reports that sometimes during the night she wakes up because he's stopped breathing. What are some of the risk factors for the development of obstructive sleep apnea?

Susan Feeney:
Well, your patient has quite a few. Male gender is one of the top risk factors. Although women catch up or get close, post menopausally.

Dr. Domino:
Really?

Susan Feeney :
Yeah, so like everything else, estrogen is a double-edged sword. They do catch up, not quite to the levels of male, but that gap narrows. And then age. The peak ages for OSA or obstructive sleep apnea, is 40-70 years, and then after that it seems to plateau, but those are sort of the peak years. So he's right in the thick of that. And then an increased BMI, which he clearly has; he's in the obese section. They also look at neck size, neck circumference, and if he has, I believe it's 19 inches, but if he has a increased neck size, that seems to be a risk factor. And any sort of missing teeth or dentures that they don't wear at night, any sort of cranial facial abnormalities, thickening or problems in the sinuses, nasopharynx, that kind of thing. But he clearly has some risk factors and he's also symptomatic, 'cause he's complaining about snoring, gasping. The other

thing the spouse may report is some sort of thrashing or arousal and movement. That would all be indicative of potential obstructive sleep apnea.

Dr. Domino:
I've had two patients lately tell me that, as they've aged, they've routinely started falling asleep on long trips. That's also something that's been scaring me.

Susan Feeney:
Right, and that's actually a very good point. Daytime sleepiness is up there as one of the hallmarks of symptoms. It isn't just snoring, because many people will say, you know, "I don't snore. I feel fine." And when you really ask them, "Do you fall asleep during the day?", they may say, "No, not really." But what things you need to ask, which come out in a screen test called, the Epworth Sleepiness Scale are, "Do you fall asleep in the afternoon if you sit at a traffic light? If you sit down with a newspaper, can you get through an article without falling asleep? Can you watch a television show in the evening without falling asleep?" All of those things are indicative of daytime sleepiness. And that would be, again, another symptom that we would want to explore with him.

Dr. Domino:
That's great. Well, now we know some of the common signs and symptoms of obstructive sleep apnea. What are the health risks of this problem?

Susan Feeney:
First of all, there's a very strong association, obviously with obesity, that people who are obese are more apt to have sleep apnea, but also that sleep apnea has been indicated as worsening obesity. There's theories that it might be increased cortisol because they're stressed at night, because they're constantly trying to keep their airway open. Again, daytime sleepiness which can lead to motor vehicle accidents. Hypertension has been linked. And then there is also good evidence that there could be a relationship with heart failure, with coronary artery disease, metabolic syndrome, which you know is that central obesity, that takes you back to the obesity

connection. And the increased triglycerides, low HDL, that seems to be worsened by sleep apnea. And there does seem to be an increase in all-cause mortality.

And we know that with severity, as a sleep apneist becomes more severe, more apneic or hypopneic episodes at night, there's definitely a risk for, again, cardiovascular disease and also renal failure. Depression has been linked to it. Ventricular ectopy, that they've seen more frequently in older men, and then cognitive impairment in older women that were living independently. There definitely seems to be a association with these things. They do note that most of these people that have sleep apnea also have other conditions so they don't know the real cause, but there definitely seems to be an association.

Dr. Domino:
Those associations, we're talking about many of the common complaints, and this is a self-fulfilling cycle, so that if you get overweight, you increase your risk of sleep apnea, you become more overweight, it tumbles into hypertension, heart disease.

Susan Feeney:
Exactly. The other thing, too, that I want to mention, is there's a very strong association between type 2 diabetes and sleep apnea. And we know that folks who have diabetes very often meet the criteria for at least mild sleep apnea. And there is a recommendation from the ADA that should be at least assessed in all patients with type 2 diabetes.

Dr. Domino:
I think that makes perfect sense. Now that we've discussed some of the risk factors and the adverse outcomes of obstructive sleep apnea, let's talk a little bit about treatment options, because patients seem to have different abilities to tolerate the most common ones. What do you suggest?

Susan Feeney :
Well, for treatment the two that are the most common is the CPAP, the Continuous Positive

Airway Pressure machine, and then the Mandibular Alignment devices. The CPAP does have some pretty good evidence. It shows that it really can reduce the, what we refer to as the AHI Index, which is the Apnea-Hypopnea Index, that's how many of those episodes occur in an hour. That's obviously measured during a sleep study, that that you can get into a normal range if you use your CPAP as prescribed. The Mandibular devices, they're mouthpieces that help push the lower jaw out and away from it so that the tongue is pulled from the back of the throat, has not as strong evidence that it helps reduce that, there is some reduction, not as strong as the CPAP. But both of these help with the Epworth Sleepiness Scale, that people have a perceived increase in arousal, and awake during the day and less sleepiness during the day. The CPAP shows that there is some evidence of a modest improvement in hypertension as well. The problem is, is that the studies that they look at as far as outcomes, some of them only go out 12 weeks, a few are out a year, they're not powered very well, so it's hard to really say how well this is sustained.

The other thing with the CPAP machine, as you know, people have to use it. And they really are working really hard to get these face masks to be less obtrusive. They have the little nasal pillows that most people would rather have, but then depending on the person's facial structure or how much obstruction they have, they may not be able to use those nasal pillows, they may have to use the face mask. And I have patients that'll say, "Yeah, I use it for about an hour and a half and then I rip it and throw it across the room." So that's not helping them. Many providers will say, "Let's start with the mandibular device and see if that can help." and then also if they can lose weight. 'Cause losing weight also can help, obviously, if they can shrink some of those structures that are causing the obstruction in their oropharynx area.

But surgery is less talked about, and that's really in very specific cases where people might have sinus congestion or hypertrophy of those tissues or nasal polyps. I had a patient who really didn't fit the criteria of being someone who should have sleep apnea but she did, she was thin, she was young. They did a uvulectomy, and she was really funny, she said, "I found out what that's for, it's to stop milk going up your nose." [chuckle] She had to go to a speech therapist to be trained how to swallow. But that's an option that really is used very rarely. But the CPAP is probably the gold standard, and the problem is is trying to get people to use it consistently.

Dr. Domino:
Any hints or advice, when you're treating obstructive sleep apnea, for patients who choose to go the CPAP method? Do you have any other suggestions?

Susan Feeney:
Well, what I do is, I say it's really worth their while to spend a good amount of time at the equipment store. Because those folks really can fit it to the face, and many times they can titrate the pressure, because a lot of times people will put it on, it pops off their face. And so if they can really dedicate some time to spend there, lay down, maybe take a nap, watch how it fits on their face, that can really help. They really do need to clean it frequently because the facial oils will get on it and that can cause a rash. And it can also, if that seal of the mask is not good, it's not gonna feel good and they'll talk about it popping off and being distracting. But once they can get it fitted and if they are suitable for the nasal pillows, I don't know if you've seen this but I've patients who, they're back in the room sleeping with their spouse. They're actually getting up and feeling good during the day. And I've seen some, just anecdotally, some great reductions in blood pressure. In fact, what I tell my students is, "If you've got a patient who is following things very well and taking their medication and you can't get their blood pressure under control, you really need to think about sleep apnea as a complicating factor. And that even just because you've ordered the CPAP, doesn't mean they're using it." So you really have to work with that.

Dr. Domino:
I think that's fantastic, I mean we think about causes of resistant hypertension, and we think about alcohol or NSAID use, but thinking about obstructive sleep apnea and addressing it is a great suggestion. Any other final thoughts on diagnosis and management of obstructive sleep apnea?

Susan Feeney:
Well, the diagnosis, what's interesting is we now are seeing more of the home sleep apnea testing, because there's four different levels of testing, there's type one, two, three and four. And

type one is the classic polysomnography, that is done in the sleep lab, and that's the gold standard and that's probably $3,000. And that measures everything, you get EEGs, you can see what's happening sleep-wise, are they in REM, 'cause there's a lot of REM disorder, sleep disordered breathing that can occur during REM sleep. And it also picks up movement, so if you're really not sure what's going on with your patient, is it restless leg? Is it rapid limb movement? Is it central sleep apnea? Then that's really the gold standard because it's observed, it's attended, you get to look at how many of these episodes occur in an hour.

The type three and four are the ones that are becoming more popular. Three is, the home study comes under that. The home study is not attended, so there's no technician, but the feeling is the person sleeping in their own bed, they're going to have a better nights sleep. Obviously it's unobserved, you don't know what position they're in, we know that people with sleep apnea when they're on their back it's much worse, so you don't have that information. But what I have seen is the data's coming out that for sleep apnea, if the test is positive, it's very sensitive. Where it becomes a problem is if it's sort of equivocal or normal, because it underestimates that index, that you can't really be completely reassured that your patient doesn't have sleep apnea. But if it comes back positive you can have a pretty good feeling that that's a positive test. And it's more palatable for people to do that, to have the test at home.

Dr. Domino:
So it sounds like, if you have someone that you suspect has obstructive sleep apnea, doing the type-three home study is a great first place to go. If you're unsure of what's going on you might want to go to the type-one traditional sleep study.

Susan Feeney:
Right and what's also nice is insurance now seems to be picking up the home study.

Dr. Domino:
Susan, this was an excellent overview of obstructive sleep apnea. I really appreciate your taking the time to join us today. Thanks so much.

Susan Feeney:

It was my pleasure.