What Does the Evidence Tell Us About Diagnosing and Treating Sinusitis? - Frankly Speaking EP 48

Transcript Details

This is a transcript of an episode from the podcast series "Frankly Speaking" accessible at Pri-Med.com. Additional media formats for this podcast are available by visiting: http://www.pri-med.com/online-education/Podcast/sinusitis-dependence-frankly-speaking-episode-48.aspx#sm.0001qlmi7x10xkf7my23kvyul704q

Dr. Frank Domino:

This is Frank Domino, Professor in the Department of Family Medicine and Community Health, and joining me today is Susan Feeney, Assistant Professor and Coordinator of the Family Nurse Practitioner program at the University of Massachusetts Medical School Family Nurse Practitioner program. Hi, Susan.

Susan Feeney:

Hi, Frank.

Dr. Domino:

So I have about 100 Marilyns in my practice. [chuckle] Can you tell me, what's the deal with sinusitis, can you go over some of the basics before we get into how to address Marilyn's issue?

Susan Feeney:

Sure. And as you say, this is such a common, a problem in primary care. In fact, the estimate is about 30 million people a year are diagnosed with sinusitis. Remember, sinusitis just means inflammation of the sinuses. It's what's causing the sinusitis. And in the vast majority of cases, it's a viral infection, a rhinovirus, adenovirus, something like that. And it causes inflammation of the sinuses and para-sinuses, and nasal passages, and it's unpleasant. But out of the people who complain of sinusitis from a viral... And 90% of people who have colds or viral illnesses will have a

sinusitis presentation. Only 0.5% to 2% actually develop a bacterial infection. So the thing that is stunning is that, what do you think the amount of people who get antibiotics?

Dr. Domino:

Probably 80% to 90%

Susan Feeney:

Yeah. 84% to 91%.

Dr. Domino:

Wow.

Susan Feeney:

You are amazing.

Dr. Domino:

That was a god guess.

Susan Feeney:

Yes. And they get antibiotics and only 2% of people truly have it. So there's clearly a disconnect and what they've decided is, it's patient expectation, it's confusion over guidelines and it's probably also system problems that we have short amount of time with people and it's easier to give them the antibiotic. So...

Dr. Domino:

So there are things plotting against us.

Susan Feeney:

(Laughter) Yes.

Dr. Domino:

Are there any symptoms that we can use or any clinical evidence based upon our history and physical exam that'll help us determine who needs an antibiotic and who needs to just be treated symptomatically?

Susan Feeney:

Absolutely. There are two major guidelines. There's the American Association of Otolaryngology and the Infectious Diseases Society of America, and they both have guidelines and they're very similar as far as how to determine. They have a temporal measurement that you need to have symptoms for more than 10 days and the symptoms need to be consistent. And the one guideline isn't quite as specific as the other. For example, the IDSA has a set of symptoms, they have major symptoms are purulent drainage in the nose, nasal congestion obstruction, facial congestion/fullness, facial pain or pressure, and difficulty with smell. And then minor symptoms would be headache, ear pain, dental pain, bad breath, cough, fatigue, that kind of thing. And they're very specific about that you need two major or a major and two minors. So, the real key here is that we are doing our due diligence with diagnosis, is that we're not... People coming in with some facial pressure, some green drainage after four days, and calling it a sinusitis.

Dr. Domino:

Well, or it might be a sinusitis but it's certainly not one that needs an antibiotic.

Susan Feeney:

Exactly, exactly.

Dr. Domino:

So, 10 days plus really significant symptoms.

Susan Feeney:

Exactly. And what's very interesting is the European society and the Canadian society's guidelines along with the American Association of Otolaryngologists actually recommend a watchful

waiting approach. For people who meet this criteria even at 10 days, the otolaryngologists say that regardless of severity, we should have a shared decision making process where they wait for seven days before we decide to do an antibiotic, if the person is willing because the statistics show that 70%, 80% of people will have their symptoms resolve. And this is the thing that people don't understand, is they come in, they get an antibiotic, will they feel better? Well, yes, because that's a normal progression of that, even if it is a bacterial infection. The IDSA has not embraced the watchful waiting, but they have a little more stringent diagnostic criteria.

Dr. Domino:

Well, Marilyn's been sick for four to five days. What can we give her to do between now and the 10-day cutoff?

Susan Feeney:

Well, what I usually tell people, as I say, "Look, I've got good news and bad news. The good news is, you don't need an antibiotic," and I tell them why that's good. "And the bad news is, is you have a viral infection, an inflammation in your sinuses, so we have some work to do." So there are some things they can do. All the guidelines recommend saline irrigation, so they can use a neti pot, as long as cleaned. They can use saline nasal spray, and I always tell people, once you've used it for an illness, throw it out, get a new one, [chuckle] 'cause it's a nice little petri dish. They can actually go into the shower and suck up some water in there from their hand. So, nasal irrigation is really important.

And the other thing that's very important is they're finding that steroid nasal spray can be very effective and remember there's a latency, it takes maybe five days before you get a real reaction or a therapeutic effect, but it helps the sinuses be less inflamed. It reduces some of the mucus because of the inflammation, it's not a mucolytic, but it reduces that. And if there's an allergic rhinitis component, which many people who do have chronic sinus complaints, will have a baseline allergic rhinitis that goes on. If they start this and use it over a length of time, they may actually reduce the frequency of their sinusitises.

Dr. Domino:

Okay. So, it sounds like sinus irrigation is important with saline or just plain water, possibly a steroid nasal spray. Any other non-antibiotic treatments we should recommend?

Susan Feeney:

Well, they do recommend acetaminophen or ibuprofen for pain control, because really people wanna feel better, and NSAIDs gonna help if they can take it, if they don't have any other contraindications that will help with some of the edema that they have in their sinuses, and with the pain. Interesting about decongestants; the otolaryngologists recommend that you can use them with caution, that you can use the oral, and remember, they're alpha-adrenergic agonists, so people with hypertension can't have them. And they actually recommend the topical, but being careful for rebound, and they say no more than five days, I usually caution for a lot less than that, like three days. But they said five days in their guideline, but the IDSA does not mention the alpha-adrenergic agonists, the decongestants. They do not recommend oral steroids, any of the organizations. They say there's no place for that here.

Dr. Domino:

Alright. So, nasal irrigation, topical or oral possibly decongestants, pain control, anti-inflammatory use. Let's say Marilyn's gone now, it's 11, 12 days and she's just really annoyed. If we're gonna give her an antibiotic, what should we be using?

Susan Feeney:

Well, we need to think about a couple of things. We need to think about the pathogens, we need to think about the risk of resistance, that one of these strains might have resistance. And then what's the risk of treatment failure for Marilyn? If we choose the wrong antibiotic, what's her risk for a bad outcome? So, usually, it's Strep pneumo, Haemophilus influenzae and Moraxella catarrhalis are the three biggies, so we need a gram-positive, gram-negative. And both guidelines recommend amoxicillin with clavulanate. IDSA says that as the first line and the otolaryngologists said you go 3 grams a day of amoxicillin, adding clavulanate if they are smokers, because of the risk of Haemophilus influenzae resistance.

So you would start with that. If they had a penicillin allergy, doxycycline, and then if there's failure on that, and if you fail on that antibiotic, the assumption is you have a resistant strain, either a drug-resistant Strep pneumo. Then the IDSA says you look at three to five days for treatment failure, if they're not improved, you would go to a bigger gun, either a higher dose amoxicillin or one of the fluoroquinolones, like moxifloxacin or levofloxacin, where the otolaryngologists say, go seven days before you assess for failure, because they say that most people aren't gonna feel... Only 30 to 40 people actually feel significant improvement within three or five days. So, what it means is, we need to assess people.

Dr. Domino:

So, I think your points are wonderful: Treat preventatively, treat topically, treat conservatively, and save your big treatment if symptoms persist for more than 10 days, and in this case, something like amoxicillin and clavulanate or doxycycline are the drugs of choice, where macrolides, which people commonly ask for, are not.

Susan Feeney:

No.

Dr. Domino:

Susan, thanks for bringing this case forward. This is great information, especially this time of year.

Susan Feeney:

You're Welcome.

Dr. Domino:

Practice pointer: Until patients have had symptoms of sinus infection for more than 10 days, use conservative measures like nasal irrigation, possibly topical decongestants, and pain control with NSAIDs or acetaminophen. And when you do make a diagnosis and treatment of acute sinusitis that needs antibiotics, consider amoxicillin-clavulanate or doxycycline.