A Good Night's Sleep: The Possible Association Between the Early Introduction of Food and Infant Sleep - Frankly Speaking EP 90

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/pediatric-sleep-frankly-speaking-90

Dr. Frank Domino:

Dana is an elementary school teacher who presents today with a sore throat. Her rapid antigen test is positive for Group A beta hemolytic strep. As you start to prescribe penicillin, she reminds you that she thinks she had a penicillin allergy when she was one years old. You ask her what she knows about that allergy or if her mother remembers anything that happened and she says she doesn't know but she's been told never to take penicillin. Hi, this is Frank Domino, Professor in the Department of Family Medicine and Community Health at the University of Massachusetts Medical School, and joining me today is Susan Feeney, assistant professor and coordinator of the Family Nurse Practitioner Program at the Graduate School of Nursing at the University of Massachusetts Medical School. Susan, thanks for coming.

Susan Feeney:

My pleasure. So, this story, Dana, this is a very common story and we are always challenged like this in primary care. So, how common is a true Penicillin allergy?

Dr. Domino:

So, it turns out they've done some cohort studies and about 8% of the general population reports that they have a Penicillin allergy, and then one in ten of hospitalized patients have on their chart that they have a Penicillin allergy. Yet, when they've tested these patients, well over 90% test negative for Penicillin allergy. So, the reason is is that lots of things cause reactions. If you take a medication like penicillin and you have certain viral illnesses, it can set off a rash. If you, there is one popular amoxicillin clavulanate drug, that when you take it the clavulanate induces diarrhea and many people think "Oh, I took that medicine. I got diarrhea, I must have an allergy to it". Allergic reactions are severe. They're difficulty breathing, hypotension, tachycardia, treated with epinephrine. They're very severe, yet people think "Oh, I got a rash" or "Oh, I developed diarrhea" or "I got headaches" or whatever, they believe they have a Penicillin allergy and therefore, they... Someone tells them to put it on a medical record and it tends to follow people for the rest of their lives.

Susan Feeney:

So what are the risks of a reported Penicillin allergy to someone?

Dr. Domino:

So the British Medical Journal published this wonderful paper and they looked at over 300,000 folks at looking to determine what increases the risk of Methicillin-resistant staph or C. Difficile infections and it turns out, having a "history of a penicillin allergy" more than increased the risk of MRSA very greatly and increased the risk of C. Diff by about 20%. So, you've got two serious, life-threatening conditions in hospitalized patients that are based upon what's a recollection that may be false up to 90% of the time. One other thing that was found was that people with true IgE mediated penicillin allergy, that over 10 years, most of those people lose that hypersensitivity. So, even if you truly did have a Penicillin allergy, you may not have it anymore. So, the real dangers here is that we have everyone

thinking they have this problem and the vast, vast majority don't and having that thought actually increases the risk of a life-threatening outcome.

Susan Feeney:

Right, because it takes a whole class of medications out that they may very well be able to take. And then, of course, if you look at the supposed cross-over to cephalosporins, that's almost two classes...

Dr. Domino:

Two large classes of medications are often off the table. It turns out that if you think you have a Penicillin allergy, your risk for being put on a macrolide is increased by a factor of four, your risk for a clindamycin intake is increased by about a factor of four, and you double your risk for taking a fluoroquinolone for infections that don't require those medications and taking those medications have their own risks. We know macrolides in older adults increase the risk of adverse cardiac arrhythmias, including ventricular tachycardia. Taking clindamycin has such a host of problems, and even fluoroquinolones, a relatively safe class if you're not at risk for tendon rupture, but none-the-less, more and more drug resistance is in overuse. So, having a history or the recollection that you might have a Penicillin allergy comes with a large number of risks that can easily be avoided.

Susan Feeney:

So, what should we do? How do we deal with... How do we talk to Dana. I mean, how do we do this with someone who says, "I have this history and my mother said 'Never, never take Penicillin".

Dr. Domino:

So it's a great question, and I don't think anyone knows what to do. But what I did was

when these papers came out, I contacted my friends in allergy and I said, "I don't know what to do. Is there a blood test I can order? And they said, "Not yet". They said "you can't order a blood test to see if someone's got a penicillin allergy. It's being researched, but it's not there yet". So, the only way to do it is to have them get skin prick testing, see if they develop a minor reaction, or not. If they don't develop anything serious, then do an oral challenge right there in the office and they'll put them on 20 milligrams per kilogram of penicillin right in the office and watch them for 15 minutes. If the patient doesn't develop acute shortness of breath, diaphoresis, hypotension, they feel very comfortable that the chance of you giving, this person having a life-threatening reaction to future penicillin exposure is extremely low and low enough to the point that it's the same in the general population.

Susan Feeney:

Wow. And this is so important because we do, I mean, we should be more judicious with prescribing antibiotics anyway, but when you think of how many times we could be going with something as nice as a penicillin or a cephalosporin and is taken right out, and we go right to the big guns and the risk of resistance growing, I mean this is a very important topic.

Dr. Domino:

Well, I thought "Okay, gee. That doesn't sound too hard". Skin prick testing, I'm sure they sell some sort of antigen exposure. I could do that in my office, and then give an oral challenge, I could do that. I will tell you though, I've stepped away from that. I think in our highly risk-averse society unless you feel comfortable having a crash cart in your office and intubating people, probably not something you should be doing in your office. This is what I do, and I will be honest with you, since this paper has come out every patient I see who I incidentally see on their chart that they have a Penicillin allergy, I ask them to remind me

what happened and if it wasn't something that sounded like anaphylaxis, I recommend strongly that, and I put in a referral right then and there for them to go see an allergist and get tested. Now that might be expensive, that might be crazy, but not putting someone on clindamycin once makes it totally worth it for me. And I'm not causing a case of C. Difficile or increasing the risk of C. Difficile or MRSA is huge and this is so simple. Everyone's mother, my mother told me I have a drug allergy and I don't. Everyone has some concern about this, I think they don't necessarily realize that there are other complications to medications besides an allergic reaction and we know that MRSA and C. Diff are life threatening.

Susan Feeney:

Yeah, well, this is really important study, and I'm so glad to have been able to talk to you about it today.

Dr. Domino:

Susan, thanks for helping me. Practice pointer: Consider referring patients who state they have a penicillin allergy in the past for allergy testing, as most probably do not.