

Ep #121: 3 Pediatric Case Studies: Diagnostic Tests and Management Strategies for Nurse Practitioners



Full Episode Transcript

With Your Hosts

Sarah Michelle and Anna

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Welcome to the *Real Deal NP Club*. Whether you're hoping to become a real deal nurse practitioner or you already are one, this is the place for you to get the resources you need as you tackle this massive transition into practice. We're your hosts, Sarah Michelle, Chief Nursing Officer of Blueprint Test Prep, and Anna Miller, Director of Nursing Content. And we're here to hang out with you each week like your best friends in the NP space. Let's dive in.

Sarah: Hello, friends. Anna and I are back this week with some more patient stories and case scenarios. And we are going to be walking again through some patient vignettes and cases just loosely based on clinical scenarios, which we have altered, of course, for patient confidentiality, learning purposes, all the good things. And the theme today, which I know will excite a lot of you because it scares a lot of you, is pediatrics.

Anna: Yes, definitely scares a good amount. You either love it or you do not want anything to do with PEDS. But we've got some interesting cases today about conditions that typically present in childhood. And again, these are just cool different approaches to highlighting important clinical practice concepts. And we always enjoy making those connections to what you're learning in your programs, to how this could be applied to real life, because sometimes they're a little bit different, right? So we've got some great little cases for you today.

Sarah: Yeah, this first case is pretty brief, but I want to mention a cause of chest pain in adolescents, so it's kind of a weird one. And you might be thinking, well, why would adolescents get chest pain at all? And let's talk about that. So adolescents typically do not have heart attacks, and so chest pain is typically caused by muscle strain or acid reflux or maybe like costochondritis or a respiratory infection. However, what would you think if a teenager reported sharp, shooting chest pain that lasts for a few seconds and seems to be worse when they take a deep breath.

Anna: Hmm, all right, I am intrigued now. And if it's worse with a deep breath, I mean, maybe it's respiratory related?

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Sarah: Maybe, but I'll also tell you, the pain has no relation to the physical activity and the patient has had no recent infections or cough.

Anna: Hmm, okay, well, that's a little trickier then. But ultimately, I mean, we still need to rule out a cardiac cause, right?

Sarah: Well, it is a little bit tricky. So the likelihood of a serious cardiac condition is pretty low, but it is still wise to at least get an EKG at this point. But there is this condition called precordial catch syndrome. And precordial catch syndrome, or Texador's twinge, is this benign condition and a common cause of chest pain in adolescents. And the exact cause is not really known, but it is believed to be from an irritated nerve or a muscle spasm in the chest due to poor posture. And it also seems to be more frequent during growth spurts, which makes sense.

Anna: Well, this is really, really fascinating. I am learning a ton right now. So is there any particular education we can give patients or families if they experience this precordial catch syndrome.

Sarah: You know, I rarely say to reassure, but the big thing here is to reassure them that this is not serious. The frequency is usually pretty sporadic. It's not going to limit their activity, which is going to be a big question. And eventually what happens is it resolves over time, usually by the time a patient is in their early 20s. But if it does happen, they should be trying to correct any poor posture and they want to breathe slowly until that pain resolves.

Anna: Fascinating. Well, I have a different story. And this one comes from another NP colleague of mine who actually works in pediatrics, and it involved a 10-month-old under-vaccinated patient. And we'll say under-vaccinated because the patient completed vaccines up until about four months old due to parental fear over neurodevelopmental issues, which again, we know there's not evidence to support, but that is a very real fear that parents face. And this 10-month-old patient that day was actually being seen for a sick visit, and the NP diagnosed them with acute

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otitis media, so ear infection, bilateral, and this is their third infection in about six months.

Sarah: Well, that has to be a concern there with frequent ear infections, because the most common bacteria that cause ear infections are going to be that *Streptococcus pneumoniae* and *Haemophilus influenzae*, both of which can be prevented through those routine childhood vaccinations.

Anna: Yeah, you're absolutely right. And I mean, that's not to say all otitis media infections can be prevented through vaccinations. I mean, my child is fully vaccinated and still gets ear infections like crazy, but adequate vaccinations can certainly decrease the frequency and the severity of infections.

Sarah: But.

Anna: For this patient, the ear infection is not the end of the story. So during the visit, the temperature was 100.5, little bit of a low-grade fever there. The NP prescribed antibiotics and the patient was picking those up at the pharmacy next door. And of course, we educate the parent to medicate for the fever once they got home and settled. Well, about 20 minutes later, the NP is in a room with another patient and they hear the nurse yelling for them to come out and help.

Sarah: Oh my goodness, this is never a good scenario. That must've been really alarming.

Anna: Never good if someone is yelling at you to come out and help when you least expect it. And what was more alarming is that the nurse was actually carrying that same infant who had just left into a room and the infant was having a seizure. Now, thankfully, the seizure broke very quickly after the NP got the patient undressed, but emergency services were absolutely called anyway. And when they rechecked the temperature, it had risen to 104 degrees. So I'm not kidding you, in a matter of 20 minutes, this temperature rose three and a half degrees.

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Sarah: How long was this patient seizing for?

Anna: That's a really great question because we always want to know the time, right? And as it turns out, as the patient was buckling the infant back into their car seat after waiting in the pharmacy for the antibiotic, that is when that 10 month old started to seize. So thankfully, that office was right next door to the pharmacy. So, I'm not kidding you. The parent grabbed their child, ran back into the office, and that's where the nurse took over. And then of course, that child was observed in the emergency department for a little bit and then discharged home.

Sarah: Well, first of all, I'm so happy that the child did well. And I think this too highlights an important feature of febrile seizures. It's not necessarily about how high the fever goes, but more so how quickly it rises. And also we need to know too and be aware, this patient might be at an increased risk for future febrile seizures, but not other seizure disorders like epilepsy. And so that can be really reassuring for parents and caregivers to hear too.

Anna: Yeah, absolutely.

Sarah: So thank you for that one. That one was really interesting too. I wanted to wrap up today by kind of reviewing the testing for a common condition. And it's not particular to young children, adolescents, but typically presents in patients in those ages. And so to kind of paint this scenario a little bit, let's say we have a 14-year-old, they come in with some vague abdominal complaints like bloating, cramping, diarrhea. They've had some nausea. This has been going on for several months. And the general workup is negative. So CBC, metabolic panels, stool culture, everything's negative.

Anna: Yeah, well, it sounds like you started out in a really great spot, right? You've ruled out infection. You've ruled out some GI causes. What about something like a symptom diary?

Sarah: I actually love it when patients do symptom diaries. It's so helpful and so insightful because so often we can identify triggers for symptoms

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and really pinpoint what's going on. And so in this case, the symptom diary definitely showed worse symptoms after meals that contained things like pasta and bread.

Anna: Oh yeah, ding, ding, ding. This sounds to me absolutely like a gluten allergy or something like celiac disease.

Sarah: Absolutely, but we need to confirm it. And so the big teaching point here is as much as we want the patient to avoid gluten to see if their symptoms improve, in order for celiac testing to be accurate, the patient needs to be consuming gluten.

Anna: Which is so, so interesting. So what are those tests for celiac disease?

Sarah: There is a serologic test for immunoglobulin A, that IgA tissue transglutaminase antibody, which is a screening test. And in patients with celiac disease who are consuming gluten, the result of that test will be elevated. And if the IgA test is elevated, the patient should be referred to GI for that confirmatory testing with a biopsy of their small intestine.

Anna: So let's rewind for a minute here. Let's say they stopped eating anything with gluten in it because it was helping their symptoms. They realized that was a trigger. So what if that patient who avoided gluten then did the serologic testing.

Sarah: Well, unfortunately, that could possibly cause a false negative result. If a patient with celiac disease avoids gluten, they have less antibodies, they have less inflammation, and therefore that test result might not actually be accurate, which would really stink for them if they truly did have it. And that kind of wraps up our three pediatric cases today. What did you think of this one, Anna?

Anna: I really enjoy these. I always learn so much, especially in populations that I don't care for on a regular basis. And I know we've gotten feedback

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from our listeners and students who say they really like these and get some new knowledge as well.

Sarah: Yeah, and as we've said in previous episodes, when we do these vignettes and these case studies, if there are any particular topics that you're thinking of that you would love to hear us talk about, feel free to reach out in the Facebook group, Instagram, email, et cetera, because we would love to hear from you and tailor an episode to whatever it is that you're looking for the most. But we'll be talking to you in a couple of weeks.

Thanks for listening to the *Real Deal Nurse Practitioner Club*. If you want more information about the different types of support that we offer to students and new nurse practitioners, you can visit [npreviews](http://npreviews.com), with an S, dot com. We'll see you next week.