

International IUD for Health Professionals Clinical Scenario 03 – Irritability In An Infant – Anthony

Jenny Carlston has come in to see her new primary care physician, Dr Thomas Burley, with her 10-month old son Anthony.

THOMAS BURLEY: Hello Mrs Carlston, hello there Anthony. I'm Dr Burley.

JENNY CARLSTON: Hello doctor, thank you for seeing us today.

THOMAS BURLEY: Not at all. Now I understand you've just moved to the neighborhood. Have you come to see me for a **routine check-up** or do you have any particular concern in mind?

JENNY CARLSTON: I would say a bit of both. He's had a low fever in the past few days and has been **fussy** and irritable. My mother says he's probably **teething** but I thought I'd take him in to introduce him and just check if there's nothing more going on.

THOMAS BURLEY: Ok, well teething is definitely a possibility at his age. How about I take a general look at Anthony? Would you **prop** him on the couch over there please? I'll need him to be fully undressed to **weigh** him and check his overall skin condition. That's great, thanks. While you get those socks off him, I'll have a look at his teeth. Alright little buddy, let's open your mouth. No, nothing there yet, no sign of teeth coming out for a while, which is also normal, sometimes the first tooth can come out as late as 12 months. Has he been **chewing** on things more than usual and maybe **drooling** more in the past few days?

JENNY CARLSTON: Not that I've noticed, no.

THOMAS BURLEY: Ok, then it's probably not the teeth. Let's have a look at the **throat**. All pink and rosy, perfect. Let me take your temperature Anthony. 37.8°C – is that where it's been more or less?

JENNY CARLSTON: Yes, it's never really been more than 38°C so I wasn't too worried but he usually has a temperature of 37°C so it has been a little elevated.

THOMAS BURLEY: Let's see what could be causing that then. Let's have a look at your pretty eyes. Yeah, you can follow that light, yes, good. And now the ears. Just hold his hands gently for me for a minute please? Ah, sebum. Let me remove that, it won't hurt one bit. I know you don't like it Anthony but I'll be done very quickly. There you go. Let's have a look then. Well there is something going on here. Anthony has a middle ear infection.

JENNY CARLSTON: Oh, I had no idea.

THOMAS BURLEY: Well he can't really communicate that there's any pain there but that's probably what's been causing the temperature. Let me have a look at the rest of him. The fontanelles are good, so are the **lymph nodes**. Let's check the belly – would you lie down for me Anthony? Good job. Has he been digesting alright, no sign of **belly-ache** or diarrhea?

JENNY CARLSTON: No, not that I've noticed.

THOMAS BURLEY: Well it all feels just fine. Let's have a look at those hips then. Good mobility, yes, yes I know it's not the most comfortable position Anthony but it's all over! No irritation around the **seat**. Good. Now let's measure you: I'm just going to extend your little legs here. So that's 28.7 inches. Would you transfer him to those **scales** so we can weigh him? Thank you. Ok, 20.3 lbs., that's good. Well then, other than the ears, your little boy is looking great!

JENNY CARLSTON: So what is going on with the ears then?

THOMAS BURLEY: As I mentioned, Anthony has a middle ear infection. It's really the cause of his recent fussy behavior.

JENNY CARLSTON: Are you sure it's an ear infection? He had a cold last week. He was fussy then too.

THOMAS BURLEY: Ear infections are most **commonly** preceded by colds, so that's not surprising at all. When I looked into Anthony's ears with the otoscope, I could see that both of his **eardrums** were **bulging**, which is a classic sign of inflammation and infection. Also, the eardrums were discolored.

JENNY CARLSTON: Discolored? What do you mean?

THOMAS BURLEY: Well they were whitish-yellow in color, indicating that there is pus in them. If it were just a cold or non-infectious, the eardrums would be pink or grey.

JENNY CARLSTON: Ok, so what should we do? Is he going to be ok?

THOMAS BURLEY: He'll be fine. I'm going to **prescribe** an antibiotic, most probably amoxicillin, just to **clear up** the infection.

JENNY CARLSTON: It wouldn't get better without antibiotics?

THOMAS BURLEY: It might resolve by itself eventually but it would take longer. There are risks of complications such as the **spread** of infection from the middle ear space to the mastoid – that's the bone that surrounds the middle ear.

JENNY CARLSTON: Wow, ok, well I sure don't want that.

THOMAS BURLEY: Does Anthony attend **daycare**?

JENNY CARLSTON: No, why?

THOMAS BURLEY: Well, we want to try and determine **upfront** as best as we can whether the **strain** of bacteria responsible for the infection is resistant to antibiotics, specifically amoxicillin.

JENNY CARLSTON: Well how can you tell?

THOMAS BURLEY: We can't know for sure until we've begun the treatment but certain situations tend to be associated with resistant organisms. Attending daycare, that's one of those situations. And so are other **siblings**. Does Anthony have any siblings?

JENNY CARLSTON: No. Well, not yet anyway.

THOMAS BURLEY: What about recent history of antibiotic use? Has he been given antibiotics over the last month or two for any reason?

JENNY CARLSTON: Nope.

THOMAS BURLEY: Ok. It appears that the only factor that Anthony has for amoxicillin resistance is his young age, but given that this is his only **risk factor**, my guess here is that a resistant strain is not involved here. So I'm going to prescribe the amoxicillin. I need you to give that to him twice a day over the next 10 days with or without food. Now it's important to continue the **regimen** for all 10 days, even if his symptoms improve, ok?

JENNY CARLSTON: Ok, I understand.

THOMAS BURLEY: I also need you to watch him carefully for any **worsening** of symptoms over the next few days, such as a higher fever, or increased irritability. That would mean the antibiotic isn't working because he *has* a resistant strain of bacteria. Then we would just need **to switch to another antibiotic**. His symptoms should start to resolve over the next 48 to 72 hours. In the meantime, you can also give him some Tylenol for the next couple of days. It's going to help with the pain before the antibiotics take full effect.

JENNY CARLSTON: Ok. I have that at home.

THOMAS BURLEY: Anthony should be fine. Call me anytime, if you're worried about something or if things don't improve over the next couple of days.

JENNY CARLSTON: Thank you, doctor.

*5 months later, Jenny Carlston returns to see Dr Burley with Anthony, now 15 months old, for a **routine wellness check-up and vaccinations**. Dr Burley has just finished examining Anthony.*

THOMAS BURLEY: You know his health is really great Jenny. I did however notice some fluid in both of his ears. Has he been feeling ok? Any fever or fussiness?

JENNY CARLSTON: Well no, he's been fine. Well, I mean he's occasionally fussy but nothing unusual. Does he have another ear infection?

THOMAS BURLEY: No, there's no sign of an infection, it's just some fluid in his ears.

JENNY CARLSTON: Is the fluid **harmful**? Do we have to treat it?

THOMAS BURLEY: The only potential problem is if the fluid is affecting his hearing. Has he been experiencing any hearing loss?

JENNY CARLSTON: How can we tell?

THOMAS BURLEY: I assume he's talking a bit now? Yes?

JENNY CARLSTON: Yeah, he can say several words now. He says Mama and Dada and Dussy. That's our dog. And a few others; yes.

THOMAS BURLEY: That sounds pretty normal for his age. If he'd been experiencing any **significant hearing loss**, it would **likely** be affecting his vocabulary.

JENNY CARLSTON: Well, shouldn't we be giving him an antibiotic anyway to **get rid of the fluid**? I'd rather not have to wait until after hearing loss has affected his language skills.

THOMAS BURLEY: An antibiotic would only be effective if a bacterial infection were involved. It won't have any effect on presence of fluid if there is no infection.

JENNY CARLSTON: Is there anything I can do? What about things like decongestants, would those help to dry up the fluid in his ears?

THOMAS BURLEY: No, cold and allergy drugs such as decongestants and antihistamines will not have any significant effect on presence of fluid. Also, they can cause **side effects** such as **drowsiness** and irritability. What I would suggest at this time is to simply **keep an eye on** Anthony over the next few months. Give the effusion a chance to resolve on its own. If it seems to you like he's not responding to sounds, not learning new words, then give me a call. Otherwise, I'll schedule him in for a routine wellness check-up in three months. Hopefully by then, the fluid build-up will have resolved. Does that sound ok?

JENNY CARLSTON: Oh yes, that sounds just fine. I just worry, that's all, but **I'd rather** not give him any unnecessary medication.

THOMAS BURLEY: Every mother does. Anthony is going to be fine. So I'll see you in three months then, if nothing comes up before.

JENNY CARLSTON: Yes, thank you doctor.