Sawbones 154: Pneumonia

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Intro (Clint McElroy):
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[Intro, theme music plays]

Justin:
Hello, everybody, and welcome to *Sawbones*: a marital tour of misguided medicine. I am your co-host, Justin McElroy.

Sydnee:
And I'm Sydnee McElroy.

Justin:
Hey, Syd. How you doing?

Sydnee:
Oh, I'm fine.

Justin:
Good. I'm glad to hear it.

Sydnee:
I'm a little worn out. You know, from the Greek Festival and everything.

Justin:
Yeah, we went to the Greek Festival. It was fun, but, man. Oh, man. It is an exhausting time.

Sydnee:
It was hot.

Justin:
It was hot, too.

Sydnee:
It was hot and there were—

Justin:
And there was a lot of lines.

Sydnee:
… long lines for food.

Justin:
This is not related.

Sydnee:
This is not related at all. It's just… you asked how I was, and... They did have baklava sundaes, which were interesting, and good.

Justin:
"Interesting and good", is the review.

Sydnee:
Interesting and good!

Justin:
Comes the review from Sydnee. We… I don't know if you all noticed, but about a couple weeks back there, pneumonia was in the news. And—

Sydnee:
Well, that was, like, last week, honey.

Justin:
It was like last week. Gosh.

Sydnee:
It wasn't that long ago.

Justin:
I'm sorry. I'm still shooting this show, and I'm… I've lost all touch with reality.

But I have heard that pneumonia was in the news recently.

Sydnee:
That's right. One of our political candidates, one of our presidential candidates, Hillary Clinton, committed the horrible sin of getting sick.

Justin:
Getting pneumonia.

Sydnee:
[sarcastic] Which, obviously, if you're gonna run for a public office, you can never get sick.

Justin:
Ever.

Sydnee:
Ever. Certainly not pneumonia! Which it seems like a lot of people are not quite clear on.

Justin:
Yeah. It's one of those that, you know what? I'll be completely honest. I think even… Like, I realize that I don't have a great understanding of what pneumonia is.

And judging by the reaction, last week, [laughs] a lot of other people don't either.

So, we thought we'd talk about it, so we could all have a real good understanding of what pneumonia is.

Sydnee:
And I think it's a good- Not just because it was in the news, but it's a good thing to talk about, because chances are you either know someone, or personally have had, pneumonia in your life, or will someday.

It's really common. I- Justin, I've had pneumonia. Did you know that?

Justin:
Oh, gosh, Sydnee. How could you reveal something like this to me—

Sydnee:
I know. [laughs]

Justin:
… on air?

Sydnee:
I'll never be president. [laughs]

Justin:
Uh, so where- How far back does this go? Is this one we've recognized fairly recently?

Sydnee:
No. Not at all. But, first of all, let me thank a few people... Amy, Starla and Krista for all recommending this topic.

And, again, I know a lot of people have also tweeted about it and Facebooked us about it as well, because it was in the news. So thank you all. I hope that this helps. We have—

Justin:
Also, we- I should mention really quick. In case you were worried, if you've had a bellyful of political nonsense, [laughing] this is not what this episode is about.

It was just a convenient place to hang... hang that.

Sydnee:
Yeah, no, this episode's about pneumonia. I would… I would not call healthy political discourse nonsense...

Justin:
No, I don't think—

Sydnee:
But—

Justin:
Yeah, but if—

Sydnee:
This is not the show for it.

Justin:
… if you- Okay.

Sydnee:
I'm not- [laughs]

Justin:
If you've been getting healthy political discourse, please let me know where you're scooping that up. Because—

Sydnee:
[laughs]

Justin:
… it's not in abundance.

Sydnee:
You should talk to your wife more.

Justin:
Um... Okay.

Sydnee:
Whoa!

Justin:
Whoa. Blew your mind. Okay.

Sydnee:
[Explosion noise]!

Justin:
Okay. I'll give you five dollars to talk about pneumonia.

Sydnee:
Okay.

Justin:
Okay.

Sydnee:
Well, we're- I have a lot of things about it, so here we go.

Justin:
Go for it.

Sydnee:
Hippocrates wrote about pneumonia. So, it's- we have known about it a long time.

But it was also mentioned when Hippocrates wrote about it that it has been written about, "by the ancients". So, whoever Hippocrates considered the ancients were also writing about pneumonia.

Justin:
Yeah. Who he thought were very old.

Sydnee:
Yes.

Justin:
Old people.

Sydnee:
The ancients to him. Which, he would be ancient to us. So our grand-ancients. [laughs]

Justin:
Grand-ancients.

Sydnee:
So, it's been around a really long time. And I would imagine that that's because, as long as there have been lungs, which is the organ that we're focusing on here...

Justin:
Mm-hmm.

Sydnee:
And as long as there have been bacteria, or viruses, or fungi, there has been pneumonia. The two would meet. It was inevitable. And so there will be lung infections.

So, that, to start with, that's the most important thing to know. That is what pneumonia is.

Justin:
Mm-hmm.

Sydnee:
It's a lung infection.

Justin:
Lung infection.

Sydnee:
Yes.

Justin:
I think, for some reason, I thought it was just, like, fluid in the lungs? But it's not just that, right?

Sydnee:
No. No, no. Pneumonia references some sort of infectious process in the lungs. There could be fluid involved.

Justin:
Okay.

Sydnee:
But that's not necessarily true. And it can be caused by a lot of different organisms. When we say "pneumonia," we just mean "you have a lung infection."

It could be a bacteria; it could be a virus; like I said, it could be a fungus. A lot of different things can cause lung infections. Pneumonia just means there's an infection of your lung.

Now, I will say, though, Justin, the idea that pneumonia references fluid in the lungs, you are not alone in that belief.

Justin:
Okay.

Sydnee:
That is part of the reason, when you start reading about the history of pneumonia and how we used to treat it, it gets really difficult, because terms got really confusing.

As you can imagine, we didn't know when someone- we didn't know what infection was, so we certainly didn't understand what pneumo- like, what the cause of pneumonia was.

So a lot of stuff got mixed in together. For instance, if you had fluid in your lungs, we may have called it pneumonia. Now—

Justin:
A long time ago.

Sydnee:
Right, a long time ago.

Justin:
So, when you say that...

Sydnee:
When you start reading about the history of pneumonia, you- there's lots of different words that might have been used, and they actually meant pneumonia.

Justin:
So when you say I'm not alone in my belief that it was fluid in the lungs...

Sydnee:
Uh-huh.

Justin:
You mean it's me... and some old dudes from a billion years ago, who didn't have access to any scientific tools whatsoever.

Sydnee:
Right. Exactly.

Justin:
Got it. Okay.

Sydnee:
So you're in great company.

Justin:
Excellent.

Sydnee:
Well, I mean, Hippocrates...

Justin:
Yeah. I mean, it's just me and Hippocrates.

Sydnee:
Could be worse.

Justin:
Yeah, that's true... that's- that's fair.

Sydnee:
There were words that you can, you will find, pop up throughout writings, like peripneumonia, or peripneumonie, or pleuritis.

All of these things may have been referencing pneumonia. They may have been referencing pleurisy, like an inflammation of the lungs, or a pleural effusion, like fluid in the lungs...

Justin:
Mm-hmm.

Sydnee:
Sometimes, it could even be asthma. Asthma was kind of a catch-all term for a lot of different lung disorders. So it may mean asthma, it may mean pneumonia. If they say pneumonia, they may mean asthma.

So all of this would have been mixed in together.

Justin:
Mm-hmm.

Sydnee:
So, to differentiate how exactly they treated pneumonia vs. pleurisy, or some other lung problem, well, it gets really tricky.

One suggestion that Hippocrates had is that if they were still alive... [laughs] Because most of the time this was more of an academic debate afterwards.

Justin:
Right...

Sydnee:
Like, "What do you think they had?

Justin:
Be- well, because they didn't have the tools, right?

Sydnee:
Right. Well, and because pneumonia, back this long ago, would have been very, very serious.

Justin:
Hmm.

Sydnee:
And often fatal. So, a lot of the times, this was more of, like, an academic debate, as opposed to any practical application.

Justin:
Right.

Sydnee:
But, if they were still alive, you could try to diagnose them by shaking them.

Justin:
And you'd just hear how they sloshed?

Sydnee:
If you heard pus rattling around in their lungs, then you thought maybe... that was pneumonia, that they were about to die from. Because you really didn't...

It was really more like a topic of conversation for the funeral.

Justin:
Yeah, right.

Sydnee:
As opposed to actually, you know, changing—

Justin:
Not a fun topic of conversation...

Sydnee:
No… [laughs]

Justin:
Really. Like, you could probably do better.

Sydnee:
And there weren't a lot of autopsies back then, so you wouldn't have... You didn’t… We didn't really know. And… And—

Justin:
So you would be at a funeral, and you'd be like, "Here's a fun guess, as to what I think might've killed ‘em.

“I was shaking them earlier, and I think it might've been pneumonia, but it's impossible to say. Anyway, did you try the deviled eggs? They are delicious."

Sydnee:
[laughs] That's pretty much how it would have gone.

Justin:
Yeah. Right.

Sydnee:
If they had deviled eggs back then. Which I don't know. I am not an authority on deviled eggs, or the foods of ancient Greece.

Justin:
Fair enough.

Sydnee:
If you had "fever, pain in your side, and your sputum was blond and frothy..."

Justin:
[Grossed out] Mmm…

Sydnee:
Then that was usually a bad sign. They knew that.

Justin:
[laughs] Yeah.

Sydnee:
But it really didn't matter what you had, because they were gonna treat it all the same way.

Hippocrates' favorite treatment for everything was "rest, exercise, a healthy diet, plenty of sleep, and good hygiene."

Justin:
I mean, he's not wrong a lot of the time.

Sydnee:
Sure. It's not gonna fix pneumonia. Well... hmm. Well, maybe.

Justin:
Maybe?

Sydnee:
Maybe. We'll get into- There are different kinds of pneumonia, and sometimes there's not much to do but wait for it to get better.

Justin:
Okay.

Sydnee:
Which is why, like, not everybody died of pneumonia, always.

Justin:
Because some people exercised.

Sydnee:
Well, no. [laughs] Some people just got better.

Justin:
Oh. Fair.

Sydnee:
But, if that wasn't working, some things that you would have tried, again, for just anything that may have been thought to be pneumonia, or any other lung problem: bleeding, of course.

Justin:
Sure.

Sydnee:
Obviously. You know, if there's anything wrong with you, let's just... cut you open, and let some blood out, and see if that fixes it.

Justin:
Mm-hmm.

Sydnee:
That's the best historical treatment. If you have a fever, an enema was thought to be particularly helpful.

Justin:
Sure! That's a real natural... choice.

Sydnee:
Right. Because you've already got pneumonia, why not also [laughs] give you an enema?

Justin:
“Let's see where else we can get liquid.”

Sydnee:
Yeah.

Justin:
[sarcastic] Great!

Sydnee:
Just- And you know… And a lot of this, too, we go back to, like, the humors. We're trying to balance out your four humors. So that's why we would-

If you think about, like, "Why were they bleeding people, and making people poop and puke and all that?" That's why.

Justin:
Because there's something in there that we... yeah.

Sydnee:
Mm-hmm. Yes. Let's just balance the humors.

If there was pain in your chest, they thought, like, a hot water bottle, or a sponge of hot water, or…

A lot of different things would be applied to the chest that were thought to be warming to the chest. Like something with linseed in it.

Something to warm the chest was thought to be good for pneumonia, because pneumonia was thought of as something cold. It was just kind of a cold—

Justin:
So, more symptomatic treatment than...

Sydnee:
Exactly.

Justin:
Yeah.

Sydnee:
Well... symptomatic, but also, we never understood- We didn't- We had no idea what was happening inside the chest. So, "Maybe it fixes it?"

Justin:
"Maybe? I don't know."

Sydnee:
A symptom getting better would have been seen as the disease getting better.

Justin:
True.

Sydnee:
If you think about it.

Justin:
True.

Sydnee:
There were all kinds of things like honey and pine fruit that were suggested. You know, different kind of herbal remedies.

There was something called oxymel we've talked about before.

Justin:
Uh, that sounds familiar...
Sydnee:
Do you remember that? It was in our vinegar episode? Honey and vinegar.

Justin:
Right. Right, right, right.

Sydnee:
That you would- You could put something called “southern wood” in the oxymel, mix that together, and give that to somebody. There was a specific bitter resin called opopanax.

Justin:
Well, now, what is that?

Sydnee:
It was just a kind of plant resin that was very bitter, had a garlicky taste. You would mix that with some oxymel. So, that with some honey and vinegar.

Justin:
This is a killer dressing so far.

Sydnee:
[laughs] These are- These would all be tasty on salads. Or on your chest, should you have pneumonia.

Justin:
Also, I'm pretty sure I said that when we talked about oxymel initially. And if so, forgive me. I'm sorry.

Sydnee:
[laughs] That's okay. I'll forgive you.

Justin:
Thanks, Syd.

Sydnee:
I don't know if the listeners... That's- hmm.
Justin:
All I—

Sydnee:
They're a whole other—

Justin:
You're the only one I care about.

Sydnee:
That's a whole other thing. He also noted that if you... And this- These are-

A lot of these come from Hippocrates, and from his Greek contemporaries. That you could tell if things weren't going well if the patient, uh, stopped peeing. That that was a bad sign.

Justin:
Yeah.

Sydnee:
And if they were peeing a lot, that was a good sign.

Justin:
Okay? I mean... The first one, yeah. Like—

Sydnee:
I don't know what you would do with that information, but there you go.

Justin:
If anybody stops peeing, that's probably a bad sign.

Sydnee:
Yes. No, that's true. That's true. And a lot of this is kind of strange, because he also noted, like, "By the way, it probably… You're probably gonna die in, like, seven days. So if you don't die in seven days…"

Justin:
Good news.
Sydnee:
"You're probably through the woods."

Justin:
Yeah.

Sydnee:
If you... I mean, if you do, like—

Justin:
You die. We're all done here.

Sydnee:
Right, that's... Which is a weird position. Like, it makes me think that for a while, physicians were more just, like, predictors of death. As opposed to people who actually did anything to stave it off.
[laughs]

Justin:
Yeah. They're just running the numbers. There's a weird sort of logic thing in there of, like, "If I wait long enough, I will have fixed you. Or, you won't be my problem anymore. So it's really a no-lose scenario for me."

Sydnee:
[laughs]

Justin:
As an ancient physician.

Sydnee:
And there was a lot of debate at this point, because pneumonia was seen as such a serious disease. If someone had it, should you even try all these things?

There was even a recognition back then of some sense of, like, palliative care. Meaning things to just make the patient more comfortable.

Justin:
Mm-hmm.

Sydnee:
Sometimes that was the way to go, was, like, "Listen. We know we're not gonna be able to do anything for this, so just, like... you know. Give 'em… Give 'em some opium." [laughs]

Justin:
Yeah. [laughs]

Sydnee:
Once we had that. Wine. That was—

Justin:
Sure.

Sydnee:
That was often recommended, wine. Or added to the list of cures.

Galen was one of the first ones to distinguish pneumonia from pleurisy, to actually start to kinda tease out these different lung problems.

Justin:
Yeah, what is the distinction?

Sydnee:
Well, just, like, an infection vs. an inflammation...

Justin:
Got it. Okay.

Sydnee:
Kind of thing. But it didn't really matter, because he just said, "You do the same thing that Hippocrates said."

Justin:
Man. It must have been- Good on him. Differentiating infection from inflammation in those times must have been...

Sydnee:
Mm-hmm.

Justin:
… quite the feat.

Sydnee:
Specifically infection of the lung tissue versus inflammation of the pleural lining. Like, kind of the lining of the lungs.

Justin:
Mm-hmm.

Sydnee:
That would be very hard to tease out. And a lot of this was interesting, because they—

Justin:
Especially when you don't even understand what infection is.

Sydnee:
Yeah. But a lot of this—

Justin:
Yeah.

Sydnee:
It's interesting, too, because he was able to tease that out, and that was without any kind of, obviously, imaging to do it.

Justin:
Sure.

Sydnee:
So just based on physical exam kind of findings. But again, I don't know why these things, back then, there was no attempt to try to treat it differently. In the 1100s, we started to really hone in on the symptoms that were specific to pneumonia. So, like, we moved past, "Something's going on in your... chest-al region." [laughs]

Justin:
Yeah. "Uh, this zone right here."

Sydnee:
"This- this chest zone. Something bad is happening. I don't know. Put a leech on it."

We start to say, "Look, if they're coughing, if they're breathing fast, if they're short of breath, this probably means that they have pneumonia."

But still it was more of, like, a, "So..."

Justin:
"So..."

Sydnee:
"Call the... coroner."

Justin:
"Yeah. Or, don't... It's hard to say."

Sydnee:
"If it's been a week."

Justin:
"This isn't my problem, is what I'm saying."

Sydnee:
It's interesting, 'cause that week, that seven-day cut-off, I wonder if this has to do with the fact that... And I'll tell patients this a lot.

A lot of viruses, after a week, you can tell that it was a viral illness. Because in the beginning, the symptoms are very similar. But after about a week, you're probably gonna be getting better.

Justin:
Right.

Sydnee:
Right? So, like, if it's a virus, it's seven to ten days, is what we'll tell people. Most viruses last about that long.

So, after seven days, you should say, "Meh, I feel a little better. Maybe not 100%, but, yeah, I feel a little better than yesterday."

A bacterial illness, that's not necessarily true for. After seven days, you may feel just as bad, or even worse.

Justin:
Mm-hmm.

Sydnee:
So that's, like, kind of a loose cut-off, if you're trying to figure out what might be causing a problem.

So I wonder if that's where that seven days came from. Is, if it was viral, after seven days, your patient probably looks like they're not gonna die.

Justin:
Yeah.

Sydnee:
If it was bacterial, maybe not.

Justin:
Mm.

Sydnee:
Back in the 1400s, a lot of pneumonia would have been just blamed on, like, evil things.

Justin:
Sure.
Sydnee:
Or, like, bad behavior.

Justin:
Yeah. Things always get bad right- Just when we start to-

Sydnee:
[laughs]

Justin:
Start climbing back...

Sydnee:
There were, like, evil spirits in the air that you breathed in.

Justin:
The Middle Ages.

Sydnee:
Or, like, bad smells? Remember, we've talked about this before?

Justin:
Oh, yeah. Sure.

Sydnee:
The idea that, like, bad smells, or bad things in the air, you can breathe in, and those make you sick.

Cupping would have been a popular treatment at this point, which we've talked about before.

Justin:
Yeah.

Sydnee:
Like, applying suction in a cup.

Justin:
[sarcastic] That great, effective treatment.

Sydnee:
[laughs] That was very popular at this time. Again, we're still kind of basing it on, like, a humoral, like, move-the-humors-around kind of thought...

Justin:
Right.

Sydnee:
Especially—

Justin:
[sarcastic] But nowadays, it's not that anymore. Nowadays, it's scientific.

Sydnee:
Yeah, no, nowadays it's... because it helps you swim fast.

Justin:
Yeah.

Sydnee:
Back then, it was to pull the pus out of your chest. Or something.

Justin: Yeah.

Sydnee:
Whatever.

Justin:
So it didn’t work back then than it does now.

Sydnee:
No, no. Mustard plasters became common at this point, which would just be like mustard seeds, like, kinda smashed inside some of, like, a dressing material, and then put on your chest. Usually with something warm.

Justin:
Wait. Mustard seeds smashed inside a dressing?

Sydnee:
No. Like a—

Justin:
What is with you—

Sydnee:
That- I don't mean to [laughs]—

Justin:
… and salad today?

Sydnee:
I don't mean like dressing, like, on a salad. I mean like a wound dressing.

Justin:
Okay. Okay.

Sydnee:
Like, something that you would put on, you know, like…

Justin:
Sure. So maybe honey?

Sydnee:
… fabric. Some sort of...

Justin:
Mustard...

Sydnee:
No. Not—

Justin:
… dressing, and then you're just good to go. Is that…?

Sydnee:
And then you're good. And then you need some chicken tenders.

Justin:
[laughs] Oh, no. Your salad broke bad.

Sydnee:
Can we go- Can we go to Arby's later? [laughs]

Justin:
[laughs] Yeah. What? No! Ew.

Sydnee:
But I really like their honey mustard.

Justin:
I've… I've not sampled it. What are we doing?

Sydnee:
I don't want to put it on my chest...

Justin:
More science.

Sydnee:
Up until the 1600s, a lot of deaths that were blamed on something like plague were probably actually pneumonia.

Because one fact about pneumonia we didn't talk about is that, who gets pneumonia? Well, anyone can. But the people who are at the biggest risk for it are either...

Justin:
Elderly or kids.

Sydnee:
Yes. Exactly. Which is true for a lot of different illnesses. But also if you have any kind of chronic illness.
Justin:
Mm-hmm.

Sydnee:
Like lung problems, or heart problems, or anything that would affect your immune system. And then also if you've just had some sort of illness, you're at greater risk for pneumonia.

Justin:
Mm-hmm.

Sydnee:
So if you just were recovering from the plague, and you've been super sick, you may be at risk at that point to get pneumonia. Same thing with the flu. That can happen.

After influenza epidemics throughout history, we probably had a lot more pneumonias.

Justin:
Mm-hmm.

Sydnee:
Anything that would have made you sick, you would have been more likely to get pneumonia afterwards.

Justin:
Hmm.

Sydnee:
So. Also after surgery, but we weren't doing surgeries back then.

Justin:
Right.

Sydnee:
We'll get to that. So… But it really didn't matter what it was. I mean, the fact that they thought it was plague? Well, whatever. They were just bleeding everybody, so…

Justin:
Yeah, right. Their treatment didn't vary, so it really didn't matter what they thought they were doing.

Sydnee:
Yeah. They could have named it anything. [laughs]

Justin:
Yeah.

Sydnee:
And you were gonna get a leech on your chest one way or another, so…

Justin:
Why waste time discussing it?

Sydnee:
Exactly.

Justin:
Well, okay, Syd. So we're… I feel… I feel a breakthrough coming. I feel like we're getting closer to maybe understanding something, at all..

Sydnee:
Yes.

Justin:
… about pneumonia. So, hit me.

Sydnee:
There's a light at the end of this lung tunnel. But first, we gotta head to the billing department.

Justin:
Let's go!

[We head to the Billing Department, theme song plays]

[We leave the Billing Department]

Justin:
So, Syd, let's fix pneumonia… together.

Sydnee:
We're almost there. So, we have moved on to the 1700s. We've, like I said, we are better- we are somewhat better- at distinguishing pneumonia from other lung problems.

But we're not necessarily better at treating it, with bleeding still being the mainstay. Now, the one thing that was, interestingly, added in the 1700s was called Huxham's Tincture.

This was by Dr. John Huxham. And this was a mixture of the cinchona bark, which we talked about before.

Justin:
Oh, yeah. Uh… helped, uh, use it…

Sydnee:
Malaria.

Justin:
Quinine…

Sydnee:
Yeah. Because it's got quinine in it.

Justin:
To treat malaria.

Sydnee:
So, the thought process that, "Oh, it's good for other things." You know.
Justin:
"Maybe it's... This is medicine!"

Sydnee:
"This works- this works for something."

Justin:
"Hey, is this- is this medicine? This is medicine!"

Sydnee:
It was back in the time where, like, “This worked for a fever. So this works for fevers? Maybe?”

Justin:
“Maybe?”

Sydnee:
It also contained bitter orange peel, some serpentary root, saffron, and it was all mixed in some sort of spirit, of course.

Justin:
Natch.

Sydnee:
Obviously.

Justin:
Always gotta have an effect, of some sort.

Sydnee:
That- And I mean, I think that's… When you look at a lot of these kind of old medicines, like, things like A Guy's Name Tincture... It could have been… It could have been A Gal's Name as well. Just, often, it was A Guy's Name.

Justin:
Mm-hmm.

Sydnee:
Their tincture, their tonic, or their... whatever. It usually was mixed in whiskey or rum or vodka...

Justin:
Sure. 'Cause then at least it felt like they were having an effect.

Sydnee:
Exactly. It feels all warm inside. This was used for years, along with bleeding. We were still bleeding people. But this- You would also say, "But maybe go get some Huxham's Tincture."

I wonder, when you see in, like, old movies, somebody who has to, like, travel, like, "We gotta get to the pharmacist, 'cause-"

Justin:
Oh, yeah.

Sydnee:
"... Little Billy's sick with pneumonia, and so we gotta-"

Justin:
Have to ride all night—

Sydnee:
"He's got the fever, so..."

Justin:
… just to go get some [laughs] Huxham’s Tincture.

Sydnee:
I wonder if this is the kinda thing they were getting.

Justin:
You know?

Sydnee:
This would have been that kinda medicine. In the late 1800s, pneumonia, at this point, has been declared "the most fatal of all acute diseases" by William Osler.

It was… This was a big deal at this point. We knew there was an entity called pneumonia. We'd distinguished it from all these other lung problems.

We were trying to figure out, "How can we treat all this stuff, and how can we keep people alive?" Pneumonia was still eluding us.

Justin:
Mm-hmm.

Sydnee:
By now, bleeding is beginning to fall out of favor as the mainstay of treatment for pneumonia.

But it's being replaced by things that aren't necessarily more helpful, just cathartics. Things to make you puke, and pee, also.

Justin:
Yeah.

Sydnee:
And laxatives. So, like, mercury as a laxative. Antimony for vomiting. Cupping, of course, is still being used. And then they also start blistering the chest at this point.

Justin:
Eugh!

Sydnee:
So, to try to draw out…

Justin:
[sarcastic] Sure, right...

Sydnee:
… whatever is inside. We'll just- We'll blister. And this was, again, used for other sorts of, like, what we now understand are infectious processes, to draw something out.

Justin:
Yeah.

Sydnee:
The only thing I can say is that at least we had opium by now, so...

Justin:
It made it a little more comfortable, at least.

Sydnee:
Yes. A little less painful while we were blistering your chest and making you poop with as much mercury as we could get in you.

Justin:
[laughs]

Sydnee:
This is actually- A lot of these treatments I read about because Stonewall Jackson went through all this.

Justin:
Really?

Sydnee:
He was… He was shot, and then went through an amputation, and then developed pneumonia afterwards, and became quite sick. And then all of these things happened.

Justin:
Right.

Sydnee:
And then he passed away.

Justin:
Rough, rough, rough putt there, at the end, for old Stonewall.

Sydnee:
In the 1800s, pneumonia was- as I mentioned- it was very common. It was the third leading cause of death.

But it was often called "the old man's friend," because it was also considered, outside of the treatments, a fairly painless way to go.

Justin:
Well, that's charming!

Sydnee:
[laughs]

Justin:
[Deathly voice] "Come with me, old friend. It's me, Pneumonia. I'm here to whisk you away!"

[As old man] "Oh, thank you! So much!"

[As Pneumonia] "No, it's no problem."

Sydnee:
[laughs]

Justin:
[As Pneumonia] "Come along."

Sydnee:
[laughs]

Justin:
[As old man] "Ooh. That sounds so nice."

Sydnee:
One of the—
Justin:
[As old man] "Smooth."

Sydnee:
I mean, it's better than dysentery, I guess.

Justin:
"It's better than dysentery," reads the… Sydnee McElroy, the Greek Festival. And uh—

Sydnee:
[laughs]

Justin:
"The Greek Festival's baklava sundae. Better than dysentery! Good and interesting." [laughs]

Sydnee:
This is why I could never work on a campaign staff.

Justin:
Yeah.

Sydnee:
What's our new campaign slogan? "Better than dysentery?"

Justin:
"Better than dysentery?"

Sydnee:
Hmm.

Justin:
It wouldn't be the worst one I've heard.

Sydnee:
[laughs] One of the less offensive treatments for pneumonia that came around in the 1800s was something called a pneumonia jacket.
Justin:
Okay…

Sydnee:
You can look at pictures of these. They're easy to find.

But they were these little… little like, warm jackets, that you would have, like, tied on, or fastened on. That were made of muslin or oiled silk, to keep your chest warm.

Again, the idea was, like, "I don't know, maybe if we keep their chest really warm it'll be better?"

Justin:
"Maybe?"

Sydnee:
Sometimes they would even have little systems of, like, rubber tubing inside, that you could run warm water through.

Justin:
Oh, that sounds nice!

Sydnee:
To keep the chest really warm.

Justin:
That sounds really soothing.

Sydnee:
Again, they prob- They might not have helped very much, but they probably weren't... They were probably kinda comfy.

Justin:
Mm-hmm.

Sydnee:
They look comfy. They look cozy. There are some cute little ones you can find, like, for kids.

Justin:
Lots of kicky, funky colors, and…

Sydnee:
No. No, not really.

Justin:
… fun designs? They got some… They got some elephants and giraffes on 'em for the kids?

Sydnee:
Not so much.

Justin:
No?

Sydnee:
They were the 1800s, so, like, everything's kind of tan. [laughs]

Justin:
Yeah, just that general tan.

Sydnee:
That beige kind of color.

We began to understand that there were different kinds of pneumonia, and what may have been happening in them, in the late 1800s and the early 1900s.

A lot of this, I kind of already alluded to this, is that the influenza outbreaks led to lots more cases of pneumonia, because people were sick and then they got pneumonia.

And so we were able to kind of investigate all these people. Pasteur, Louis Pasteur, was actually instrumental in this.

He began to isolate some sort of bacteria- a pneumococcus, he called it- in the saliva, and in the fluid from the lungs of patients who had pneumonia.

Other physicians were doing this as well, or other scientists, he wasn't the only one who found this.

But it wasn't until 1875 Edwin Klebs actually put that together, that this little- this little bug- this bacteria, that we're seeing, has something to do with the pneumonia.

Justin:
Mm-hmm.

Sydnee:
That it actually is, like, the causative agent of pneumonia. That's when we finally figured that out.

From there, we see two other scientists, Carl Friedlander and Hans Christian Gram, of the Gram Stain...

Justin:
Woah! A big name.

Sydnee:
This is a- this is a big guy. Gram of stain fame.

Justin:
[laughs]

Sydnee:
Started working together, in a hospital in Berlin, actually, in their morgue.

And they started to identify other specific types of bacteria that happened- that were causing pneumonia in different patients.

So, in 1882, we found a bacteria called streptococcus pneumoniae.

Justin:
Strep throat! Right?

Sydnee:
Well... no.

Justin:
No?

Sydnee:
No, it's the one that causes pneumonia.

Justin:
Well, streptococcus is strep throat, right?

Sydnee:
Well there is- Okay. So there is a whole family of streptococcus.

Justin:
Okay.

Sydnee:
So there are—

Justin:
[sarcastic] Cool family.

Sydnee:
Yeah. And there are different groups in them. There's group A, and group B, and group C, and... Anyway, group A streps cause... strep throat.

Justin:
It's not strep throat. Streptococcus pneumoniae is not strep throat.

Sydnee:
It... Yes? I mean, it… [sighs] If you had an infection in your throat, from streptococcus pneumoniae, that would be strep throat.

Justin:
Great. So I was both right and wrong simultaneously. Is that what you're saying to me?

Sydnee:
Well, yea- No, I mean, you're… You're right... You're right. Yes.

Justin:
[laughs]

Sydnee:
It's just, we're talking about a different thing.

Justin:
Okay. Sorry. I didn't mean to, uh, interrupt you with my attempt to tie—

Sydnee:
[laughs]

Justin:
… it to some small crevice—

Sydnee:
Well, it’s hard—

Justin:
…of medical knowledge on my part.

Sydnee:
It… No, no, it's important to know that when we say "streptococcus", that's… There's… That's a whole genus.

Justin:
Okay.

Sydnee:
Right? Do you understand that?

Justin:
Right. Yeah, I know genuses.

Sydnee:
Okay. [laughs]

Justin:
I may not be a genius, but I know genus.

Sydnee:
Oh, boy.

Justin:
That was a pun.

Sydnee:
Oh, yuck.

Justin:
That was a pretty good pun.

Sydnee:
Oh, boy...

Justin:
Somebody write that down.

Sydnee:
Uh-huh ... In 1884, we figured out Klebsiella pneumoniae as well it's a—

Justin:
Because genus...

Sydnee:
It's a different—

Justin:
… and genius.

Sydnee:
Yeah. Different causative agent of pneumonia.

Justin:
Mm-hmm.

Sydnee:
So, we figured out that there are some pneumonias that are caused by bacteria, which is groovy. Like, we have put that together now.

Justin:
Mm-hmm.

Sydnee:
But, again, we're still in the 1800s, and then in the early 1900s—

Justin:
So we have no idea how to treat it.

Sydnee:
What do- what do we do with that? We still don't know what to do. Osler did come up with the idea of giving people with pneumonia oxygen. Which was a good plan.

Justin:
Mm-hmm.

Sydnee:
'Cause, if they didn't have enough, giving them more would help keep them alive.

Justin:
Mm-hmm.

Sydnee:
Through the pneumonia, if they survived the pneumonia. But it really isn't until, you probably know where this is headed...

Justin:
The '40s?

Sydnee:
Good ol' Fleming and his penicillin in the '40s.

Justin:
Aw, yeah.

Sydnee:
And the antibiotic era is really what changed things. That's what changed the game for pneumonia.

Once we were able to treat bacterial pneumonias…

And of course we probably would have thrown antibiotics at everything that was pneumonia, not knowing the difference between virus and bacteria, and… or what caused what, back then.

But we actually started to see the mortality from pneumonia turn around, at this point in history.

Justin:
Good! Good job, Fleming.

Sydnee:
So and then in 1977, we get the pneumonia vaccine.

Justin:
That's a thing? I didn't... Did I get that?

Sydnee:
Well, as kids, since the year 2000, we've had one for kids. But not back in '70... In '77, the pneumovax was the first one to come out.

Justin:
Have I been vaccinated?

Sydnee:
You have al- I'm pretty sure you haven't.

Justin:
Well, come on! We're—

Sydnee:
Well, there's no indication to vaccinate you right now.

Justin:
Why?

Sydnee:
You don't have any of the risk fa- Okay. So not everybody will get the pneumonia vaccine at the same time.

Justin:
Oh, okay.

Sydnee:
It depends on chronic illnesses you might have, or other, like, behavioral factors, or if you have a compromised immune system, that kind of thing.

So, like—

Justin:
Is it because my risk factors for pneumonia are low enough, should I get it, that I… It's contra… indicated for me?

Sydnee:
Well, it's not contra-indicated. It's just you are not… You are not the at-a-higher-risk population.

Justin:
Okay.

Sydnee:
You are not in that population.

Justin:
That makes sense.

Sydnee:
So, everybody does get a pneumonia shot at 65, if you have not gotten it already for some other reason.

Justin:
Right.

Sydnee:
But then you're probably gonna get a booster at 65 anyway.

Justin:
Okay.

Sydnee:
And then kids get the Prevnar, and now—

Justin:
Prevnar!

Sydnee:
… since 2010, we're expanding the use of the PREVNAR, actually, to adults as well.

So, depending on their- if they have certain illnesses, or, you know. So not everybody gets these. So, it is a good thing, I will say this, to inquire of your doctor, "Am I someone who needs this?"

Justin:
Right.

Sydnee:
Because they'll know. [laughs] And it's a good reminder to say, "Oh, you know what, actually, for instance, if you smoke…"

Justin:
You should get it.

Sydnee:
"You may be eligible for a pneumonia vaccine."

So, it's a good thing to ask your doctor, "Am I somebody who needs one?" Not everybody does, so if they say you don't, they're not lying. You don't.

I have not had a pneumonia vaccine. But, kids get them now. So, most people younger than us are gonna have had them. We're just too old.

Justin:
Like, as if they needed another advantage.

Sydnee:
[laughs] We're just too old. We missed it.

Justin:
Too—

Sydnee:
Now, currently, like I said, not only do we live in the antibiotic era, when… where we have multiple different antibiotics that can treat…

There are many different kinds of bacteria, and viruses, and like I said, even fungal organisms that can cause pneumonia.

Justin:
Mm-hmm.

Sydnee:
But, again, we have two different vaccines, who… that, if you are eligible for, if you are someone who should be getting these vaccines, you absolutely should get these vaccines.

Justin:
Right.

Sydnee:
Which is why you should ask your doctor if you need them.

It is most often treatable, so it is not, you know, it is not nearly the death sentence that we thought it was, you know, thousands of years ago.

Justin:
Right.

Sydnee:
Now we expect that we should be able to treat most kinds of pneumonia.

Anyone can get pneumonia. Of course, you're… We talked about specific populations that are at high risk. But, again, like I mentioned, I had pneumonia.

Justin:
Sure.

Sydnee:
When I was a young, healthy college student. I got what you probably have heard referred to as “walking pneumonia”?

Justin:
Yeah, the boogie-woogie flu. That's the other one, right?

Sydnee:
[laughs] I never got that.

Justin:
No. No boogie-woogie flu?

Sydnee:
[laughs] But walking pneumonia, just meaning that it's a pneumonia, but you can usually still kind of function with it. Like, you're sick, but you could, like me, drag yourself to class if you really need to.

Justin:
Mm-hmm.

Sydnee:
It’s also called mycoplasma pneumonia. But that's fairly common, actually.

Justin:
Okay.

Sydnee:
So… And it's treatable with antibiotics. It is an acute illness, not a chronic one.

Now, there are people who have certain illnesses that put them at risk for getting pneumonia multiple times throughout their life, but pneumonia, the infection of the lung, is an acute problem.

Justin:
Which means it can be cured, and over and done with.

Sydnee:
Exactly. You… It is not something that you carry with you forever. So, like, for instance, getting pneumonia does not mean that you were hiding some sort of medical issue from people that you had.

Justin:
It just means you got pneumonia.

Sydnee:
It just means you got pneumonia.

Justin:
Mm-hmm.

Sydnee:
It's not particularly contagious. Depending on what caused it, once you have- Let's say you have a bacterial pneumonia that's infecting one lobe of your- of your lungs.

At that point, I mean, obviously, you don't want to spit in anybody's mouth, but, like, you should never do that.

Justin:
Sure. Yeah.

Sydnee:
And we should all wash our hands. But being in the room with someone who has pneumonia, most of the time, is not an incredibly risky thing to do.

Now, if you got pneumonia because of some sort of viral upper respiratory infection that weakened your immune system, or because you had the flu first or something like that—

Justin:
Mm-hmm.

Sydnee:
… those things are all contagious, of course.

And obviously, you know, if we're coughing on each other, and not washing our hands, and sharing food and drink, and all that kinda stuff, it puts you at high risk.

But, I mean, in general, like, the idea that being in the room with someone with pneumonia is gonna give you pneumonia is not… that's not really well-founded.

Justin:
Okay.

Sydnee:
And again, having pneumonia, I would not think, should make anyone less qualified to hold any position in government. Because, like… will make 'em dead, or—

Justin:
Right.

Sydnee:
And then they will longer have pneumonia. And again, like, I had it.
Justin:
Yeah. And if Sydnee can get it... She's strong as an ox.

Sydnee:
Well, right, exactly. And I should still be president someday.

And remember, like, our early presidents, the majority of 'em, had things like smallpox, and dysentery, and typhoid, and we all voted for those guys! Or, somebody did.

Justin:
Hey! Somebody did.

Sydnee:
Somebody voted for 'em, and they were fine. And, like, FDR had polio. And JFK had Addison's Disease.

Justin:
Sure.

Sydnee:
And they did a pretty good job. I think.

Justin:
They did fine. They did okay.

Sydnee:
So, everybody chill out about pneumonia, is what I'm trying to say.

Justin:
Just chill.

Sydnee:
Get vaccinated if you- Go talk to your doctor. If you are somebody who should, you should get vaccinated. If you are eligible for it, go ask them about it.

And of course, it's always important to take proper precautions, and you know, if you are sick, you need to rest.

Justin:
Mm-hmm.

Sydnee:
A lot of these illnesses do require, like, to take a day off.

And, you know, the thing is, some people are just really tough and devoted, and work really hard, and just don't wanna let anything stand in their way.

And so maybe they just try to work right through a sickness, you know?

Justin:
Yeah.

Sydnee:
Maybe that's all it is.

Justin:
Maybe that's all it is.

Sydnee:
Maybe they're just that tough.

Justin:
Okay. Folks, that's gonna—

Sydnee:
Just. That. Tough.

Justin:
That's gonna do it for us here—

Sydnee:
[laughs]

Justin:
On *Sawbones*. Thank you so much for joining us. Thanks to The Taxpayers for letting us use their song “Medicines” as the intro and outro of our program.

Thank you to the Maximum Fun Network for having us as a part of their extended podcasting family. There's a ton of great shows you can enjoy over there at maximumfun.org.

And that's gonna do it for us. Sorry that the episode was a little late this week. This... TV thing has just been… Just… just a lot of time. But—

Sydnee:
[mocking] "It's so hard. To be famous."

Justin:
Okay. All right. All right, get bent. Um—

Sydnee:
[laughs]

Justin:
[laughs] So this is- It'll be over next weekend, and then we'll be back on our regular schedule. But until then, my name is Justin McElroy.

Sydnee:
I'm Sydnee McElroy.

Justin:
And as always, don't drill a hole in your head.

[Outro, theme song plays]

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