

Sawbones 004: Plague Medicine

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Intro (Clint McElroy): Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose... Your mystery boil. We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from... That weird growth. You're worth it.

[Intro, *Medicines* by the Taxpayers plays]

Justin: [muffled sounding] Hello everybody and welcome to sawbones, a marital tour of misguided medicine. I am your co-host, Justin McElroy.

Sydnee: I'm kinda freaked out, Justin.

Justin: [muffled sounding] What's wrong, sweetheart? This is my wife, Sydnee, she's a medical practitioner.

Sydnee: What... What are you wearing?

Justin: [muffled sounding] Oh, this? Yeah, well, you told me we were going to be talking about the plague, which, pretty spooky, for me. So I thought... Because my immune system... You know, I work on the internet. So my immune system is basically non-existent at this point.

Sydnee: Sure.

Justin: [muffled sounding] So, I am trying to protect myself. I made sort of a mask, here.

Sydnee: I see that. What exactly were you trying to do with this thing?

Justin: [muffled sounding] Well, I'm trying to protect myself from catching the plague. I know you can't catch it from podcasting about it, but it's a conceit for the intro.

Sydnee: So-

Justin: [muffled sounding] Taking you behind the bit.

Sydnee: Tell me about this mask that you've rigged up here. Like what was your thinking with this nosepiece?

Justin: [muffled sounding] Yeah, the nosepiece is to keep the holes that I breathe in separate from my actual mouth. So it's to keep it distant. And I've got some potpourri inside, right?

Sydnee: Oh, okay. Oh! Okay.

Justin: [muffled sounding] Yeah, that's both... I mean, that's a little something for me, but also to keep the disease out.

Sydnee: Right.

Justin: [muffled sounding] Obviously.

Sydnee: And there was a basis for that. I mean, there wasn't. But they thought there was. So, okay.

Justin: [muffled sounding] And uh-

Sydnee: But what else... What have you got going on in the eyes here, honey? What would you call these?

Justin: [muffled sounding] That's glass. That's glass eyes, there.

Sydnee: Glass eyes? Okay. Any significance to having red glass eyes? In your mask here?

Justin: [muffled sounding] I'm trying to ward off evil. Which, now that I say it out loud, I realize that it sounds a little silly.

Sydnee: Right. So that was the plan? You're warding off evil? Which of course, is the plague.

Justin: [muffled sounding] The plague is evil. I assume.

Sydnee: Okay. Okay.

Justin: [muffled sounding] I mean, it's not good.

Sydnee: Sure. Well, it's probably a scourge from God, as punishment for something.

Justin: [muffled sounding] Right. Exactly. So the glass eye. You know, I'm going to take this off. I'm starting to... You're making me feel kind of silly.

Sydnee: Well, I mean, by all means, if you like it, it's a bold fashion statement.

Justin: [muffled sounding] It's not just a look though. I mean, it's definitely a spooky look, but...

Sydnee: It's a very spooky look. You didn't get the whole costume going on.

Justin: [muffled sounding] What else do I... What am I lacking? What do I need?

Sydnee: Well, I don't see that your clothes are covered in wax or animal fat or anything.

Justin: [muffled sounding] No, none of that.

Sydnee: That would have been a good plan.

Justin: [muffled sounding] Was that something that they did back in olden times? Ye olden times?

Sydnee: Yeah, yeah. And I mean, I don't see your coat or your gloves or your waders. And you don't have a cane.

Justin: [muffled sounding] No, I have a cane. Would that help?

Sydnee: Yeah. I mean, how else are you going to examine patients if you don't have a cane?

Justin: [muffled sounding] Okay, you got me on that one. I'm still a little unsure about taking the mask off, though. I'm going to need you to convince me that it's safe.

Sydnee: Well, if you're wearing a mask, for the same reason that a 17th or 18th century plague doctor would have worn a mask.

Justin: [muffled sounding] And I am.

Sydnee: It's because you believe in the miasma theory of disease.

Justin: [muffled sounding] And I do.

Sydnee: Which means that disease is like bad air, and it's just in an area, and it arises from something in that area and it makes everybody in the vicinity sick.

And of course, that's utterly wrong.

Justin: [muffled sounding] I should just take it off, huh?

Sydnee: So, basically, you should just take it off.

Justin: [muffled sounding] I'm just going to take it off.

Sydnee: Yeah.

Justin: [clear sounding] Oh God, hoo. I got sweaty-itis. I don't know about a plague but...

Sydnee: I bet it's hot in there.

Justin: But, yeah.

Sydnee: Yeah. You know, one thing I will say that you got right is that 17th and 18th century plague doctors were usually people who weren't really doctors.

Justin: Oh, perfect. It's a great fit for me then.

Sydnee: Exactly. They were either physicians who maybe were so bad they couldn't actually set up their own practice, because word of mouth... You know, everybody realized, like "Hey, that dude doesn't know what he's doing."

Or they were just people. Just random people who said, "Hey, I could be a plague doctor." For instance, one famous plague doctor sold vegetables, right up until the moment he decided, "Hey..."

Justin: "Hey, I'm out of vegetables."

Sydnee: "I'm out of vegetables."

Justin: "And all these people are sick."

Sydnee: "I think I can get one of those masks."

Justin: "I can get a mask. My friend Darryl makes those."

Sydnee: "My wife's got some potpourri at home."

Justin: "I'm a doctor now."

Sydnee: Okay, if we're going to talk about the plague, maybe we should actually, you know, learn something about it. Other than-

Justin: Well, I can do this part. It's evil.

Sydnee: Okay. Uh-huh.

Justin: Made by Satan, or a vengeful God, to punish people led astray.

Sydnee: Right. That's not... No, it's not right.

Justin: Okay, let's hear-

Sydnee: I mean, that was a good try.

Justin: Let's hear your pseudo-scientific theories.

Sydnee: Pseudo-scientific theory. So basically, the plague, or it was also called the Black Death.

Justin: Is it the bubonic plague? Is it the same thing?

Sydnee: It's also the bubonic plague.

Justin: What's bubonic?

Sydnee: Bubonic, that's actually one form of the plague. So, it's caused by a bacteria, as a lot of disease is.

Justin: Okay. Not evil?

Sydnee: Not evil. It's caused by a bacteria. It's called *yersinia pestis*. Named for Alexandre Yersin, who discovered it.

So this bacteria can cause different forms of the plague. And the most famous, the one everyone remembers, is the bubonic form. Named because it would infect your lymph nodes.

And your lymph nodes would become huge and swollen and they would turn black and they were very painful. And they called them buboes.

Justin: Buboes.

Sydnee: So big, swollen, glands. And so that was the bubonic plague. The same bacteria could also cause the pneumonic plague, because it infected your lungs. You may have inhaled it.

Justin: So, were people getting one version? I mean, when these cause wide swathes of destruction, is everyone getting one version of these or is it manifesting in these different ways?

Sydnee: It depends on exactly how you were exposed to it. The bubonic plague was the one most people were familiar with. And I should say, all of these... I say inhaled, but all of it was transmitted by flea bite.

Justin: Oh, really?

Sydnee: Yeah.

Justin: I did not know that.

Sydnee: So, rodents have this bacteria, usually rats, but rodents of some kind, are a reservoir for it. Fleas bite the rats, and then they bite humans, and then you get the plague.

Justin: Ugh.

Sydnee: And if it infects your-

Justin: What is worse than rats? Is there anything worse than rats?

Sydnee: I know. You know, I debated this topic specifically because I knew we'd have to talk about rats and you would not-

Justin: Just the pits.

Sydnee: Now you're going to have nightmares about rats, with the plague. Although they'd look cute in those little masks.

Justin: Okay, I do like it. It's got kind of a Stuart Little vibe. I'm into it.

Sydnee: The little rats with the canes.

Justin: Little canes.

Sydnee: They're poking little rat patients to examine them.

Justin: Kind of a blind mice vibe. I like this.

Sydnee: So, the fleas bite humans and they give you bubonic if it infects your lymph nodes. They're septicemic, which means it's in your bloodstream, and those people get really sick.

They become... They go into shock. Their blood pressure drops and they can get necrotic fingertips and toes. Things rot off of them. And then there's the pneumonic, where it's mainly a lung infection.

Justin: Where you use it to remember things.

Sydnee: [laughing] Exactly. That's what happens. You get that plague and you're really good at devising little tricks to memorize things for tests.

Justin: If you didn't die, it'd be a pretty good deal. Even trade.

Sydnee: Yeah, it's an X-Men power.

Justin: Yeah. A short-lived X-Men power.

Sydnee: It was not a very popular character. But anyway, depending on which thing it infected, that's the kind of plague you got.

Justin: So how far back are we talking? When did we first start hearing about the plague?

Sydnee: Well, the thought is actually that the plague was mentioned in the Bible.

Justin: Oh, yeah?

Sydnee: There is a plague in the First Book of Samuel that infected the Philistines, in 1000 BC after they stole the Ark of the Covenant, and it is thought, by scholars, that the plague that they're speaking of at that point was *the* plague.

Justin: So do you think that weird Nazi that's face melted off in Raiders, do you think that he got the bubonic? Is that what happened there?

Sydnee: Absolutely.

Justin: [Nazi from *Raiders of the Lost Ark* impression] It's so beautiful!

Sydnee: Scientifically speaking, that was the plague.

Justin: [sarcastic] George Lucas, scientist.

Sydnee: Exactly.

Justin: Who knew?

Sydnee: Have you heard of the Great Plague of Justinian?

Justin: No.

Sydnee: You'd think you would have.

Justin: You would think-

Sydnee: You would think you would know.

Justin: ... it would have caught up to me at this point. Lot of bad blood there, I'm assuming.

Sydnee: But that was confirmed, AD, 532, spread through Egypt, the Middle East, Mediterranean. Killed like half of the people. That was the plague.

Justin: God, humanity just gets going and then something like this has to go and happen.

We're just trying to get on our feet.

Sydnee: The plague just kept happening. It's still out there man.

Justin: Oh, man. I didn't need to know about that. I'm going to get my mask.

Sydnee: Don't worry, there's hope.

Justin: Oh, good.

Sydnee: We'll get to that.

Justin: We'll get to the hope later. First, we have to start with the utter dismay.

Sydnee: And it did. When people think about the Black Death, what they're usually referencing is the time that the plague spread through Europe from 1328 to 1351 and it killed a third of the people.

It's thought that it probably started in China, and then through trade routes it spread first through Italy, down through Sicily, and on the boats. The boats carried rats, that carried fleas.

Justin: Ugh. Bastards.

Sydnee: And then it spread up through Europe from there. The mortality rate from the plague, without any treatment, was like 50 to 90%, so...

Justin: What if they get help?

Sydnee: If you get help, you can still... I mean, today we can treat the plague. But it's still about a 15% mortality, so...

Justin: Yikes. And this is now in like, 2013?

Sydnee: Yeah, this is now. No, it's a big deal. And it's interesting, when we think back to the time period when it was spreading through, in the 1300s, when it was spreading from China across through Italy and up to Europe, that was actually probably the first incidence of bioterrorism.

Justin: Really? Where did it... From who? From who to where?

Sydnee: There was a city called Caffa, which is now Feodosia, in the Ukraine. And in 1346 it was being attacked by the Tartars. And the Tartars outside the city walls started dying of the plague.

So obviously they're going to lose at that point, right? They can't get in the walls. Everybody's dying of the plague. So what do they do? They start flinging plague-ridden corpses over the city walls.

Justin: Yikes!

Sydnee: Yeah.

Justin: That's one way to go about it, I guess.

Sydnee: Yeah.

Justin: That's one option.

Sydnee: And it devastated the city.

Justin: Yeah, I would think, because what are you going to do? You can't toss them back. You don't have your own catapult.

Sydnee: Maybe they did, but I mean, then you have to go pick up a plague-ridden corpse.

Justin: Do you think there was one guy? There had to be one guy on their team who's like, "You know what? We gotta catapult these bodies. They're not going to put themselves into the catapult. Let's just rock-paper-scissors it." Let's-

Sydnee: "Does anybody have gloves?"

Justin: "Does anybody know anything, any single thing, about like, germs and stuff? Like any of that?" No, I'm asking. This is a question I'm posing to the imaginary people about to fling bodies over walls.

Sydnee: And see, they wouldn't have even known what germs were.

Justin: Now, could they have got... I mean, they couldn't have got it from... I mean, unless the person had a flea on them, right? Like, they were cool?

Sydnee: Well, you can... I mean, if they're covered in like, oozy bacteria goo.

Justin: [gagging sounds]

Sydnee: You know, then yeah, absolutely you can get it.

Justin: Gross.

Sydnee: And if people are still alive and they're coughing and hacking bacteria in your face...

Justin: That's disgusting.

Sydnee: Yeah, I mean, it can spread. I mean, the main way that the plague was spreading was from these rats and these fleas, but it definitely was spreading person to person.

Justin: Bacteria goo to bacteria goo.

Sydnee: Bacteria goo to... Well, I mean, that was the thing is that people were trying to take care of their diseased loved ones.

Justin: [sarcastic] Trying to give them butterfly kisses where they got the bacteria goo and then oops, it's in your eye. 'Eyebonic' plague.

Sydnee: Exactly.

Justin: Done. They wish they had those glass eyes then. They wish they hadn't been so fast to make fun of me.

Sydnee: It wasn't going to ward off evil.

Justin: Well...

Sydnee: But it was going to ward off bodily fluids.

Justin: Warding off something.

Sydnee: Yeah. So, the thing is, nobody knew what to do about the plague. They had lots of ideas. Most of them were really bad.

Justin: Oh, this is my favorite part. What have we got?

Sydnee: We have a lot of things.

Justin: We got treatments.

Sydnee: So, we already talked about the fact that there were special doctors who took care of people.

Justin: Correct.

Sydnee: And they were all based on the idea that the plague was coming from some infected, evil air that everyone was breathing in. So-

Justin: It sounds remarkably like the plot of a Doctor Who episode. [sarcastic] Most medicine in that time was Doctor Who centric.

Sydnee: One of the most common things people would do is kind of like aromatherapy. So you mentioned that you had potpourri inside your mask.

Justin: I did.

Sydnee: So that-

Justin: That was scientifically-based.

Sydnee: Exactly. Because you don't want to breathe in this evil air, so you've got to filter it through something that smells good. So some people just simply carried around bouquets of flowers and held them up to their face.

Justin: Ugh. What assholes those people were.

Sydnee: Which really isn't a plague treatment, so to speak, but...

Justin: It's not even a plague defense.

Sydnee: Prophylaxis.

Justin: How dumb do you think this plague is that you're just... [peasant voice that sounds suspiciously like Taako Adventurezone] "I'm just carrying some daisies. They'll protect me."

Sydnee: I think what's better are the people who said, "You know what? I'm smelling the air, and it doesn't smell that bad. But it's still making people sick. I'm going to go the other direction, and I'm going to run and hide in the sewer, where things smell super bad, because it'll ward off that good-smelling infection air."

Justin: [laughing] Oh my God.

Sydnee: So there were people who took to the sewers and stayed there.

Justin: [laughing] Just because they thought that the plague air smelled normal?

Sydnee: Right.

Justin: So if they got that bad funky air, at least it would not be that nice-smelling plague air?

Sydnee: Right. The poop air would [laughs]-

Justin: They poo gas that they were inhaling was not plague infected.

Sydnee: ... ward off the smells, or the non-smells, of the plague air.

Justin: God, and you know the rats got the biggest kick out of that. "Oh no, you're safe down here, bro. You are fine. You just come over here, give me a little pet-a-rini, don't worry about those fleas. We're cool."

Sydnee: Which is terrible too, because not only were these people still getting the plague, obviously.

Justin: Obviously.

Sydnee: They were getting everything else.

Justin: And proclaiming themselves as Rat Kings and lording over the sewers in a tyrannical reign. You don't want that.

Sydnee: Do you think there's still maybe a whole race of people living in the sewers?

Justin: "We can't come above ground."

Sydnee: Underneath London.

Justin: "The bubo!"

Sydnee: And you've got to remember that, especially when we're talking about in the 1640s, when this next big wave of the plague... So we talked about the 1300s, so now in the 1600s, this next big wave of the plague comes through.

London is packed at this point. Like there's a lot of people living there, and there are a lot of people who are not disposing of waste at all, really.

Justin: I've seen movies. They just throw it out their windows.

Sydnee: So there are a lot of dirty people living in dirty conditions close to each other. So can you imagine what those sewers were like, man?

Justin: Well, they're fine, because they're just throwing it on the street. The sewers are perfectly pleasant.

Sydnee: There were some treatments, if you actually got the plague, that weren't quite as disgusting.

Justin: Okay.

Sydnee: So, you could just wash them in vinegar and water.

Justin: Probably couldn't hurt, I guess.

Sydnee: No. No. I mean-

Justin: Vinegar has no properties like that, does it? I mean...

Sydnee: No. Not that I can think off the top of my head.

Justin: Volcano properties, when mixed with baking soda, I guess.

Sydnee: [laughs] Well, that's true. And it's really good in some dishes. Like for instance on french fries.

Justin: Yeah, that's good. That's not going to help your plague.

Sydnee: Malt vinegar, so... No.

Justin: I don't even think they had french fries.

Sydnee: But that's a tasty treat. I'm sorry.

Justin: [laughing] If you want to distract yourself from the plague... You're hungry, aren't you?

Sydnee: On your chips.

Justin: On your chips.

Sydnee: Not your french fries.

Justin: We're in England, I guess, right? In our imaginations.

Sydnee: Well, right now for the plague we are.

Justin: Sure. What else?

Sydnee: So, one of our standard favorite treatments for anything, bleed them.

Justin: [sarcastic] Aww yeah!

Sydnee: There you go. Just cut them open. Bleed them dry. And then put some clay and some violets on those cuts.

Justin: [snorts] Clay and violets?

Sydnee: Clay and violets. Mix it all together and paste it on there.

Justin: Were we using leeches, do you think, at this point?

Sydnee: Yeah. If you had more money, you could use leeches. That was usually a class thing.

Justin: Oh, nice. That's the only thing-

Sydnee: The richer people used leeches.

Justin: [sarcasm] That's perfect. That's what I want roaming around. Not just leeches that'll suck your blood, but leeches that'll suck your blood and are infected with the bubonic plague. That's perfect. That's perfect.

Put one to a rat's back and let's just create the ultimate terror. Just roaming the countryside.

Sydnee: I like the idea that the class divide with leeches is that leeches will not feed on the blood of the lower class.

Justin: [high-class voice] No, they don't want that.

Sydnee: [high-class voice] Excuse me.

Justin: [high-class voice] Oh, 'tis common.

Sydnee: [high-class voice] No thank you.

Justin: [high-class voice] No, drink this delicious affluent blood.

Sydnee: Other than pastes of clay and violets, there are other things that people like to mix together and apply to human bodies.

So specifically, let's say you did get the bubonic form of the plague.

Justin: Oh, we got some tinctures coming up? Some salves? Some poultices?

Sydnee: Yeah, yeah. Sort of. Some poultices. So you got a big bubo, maybe under your armpit. That's-

Justin: A bubo being like-

Sydnee: There are some lymph nodes there. Or maybe in your groin.

Justin: Is it like a big blister-type thing?

Sydnee: No, this is a big lymph node.

Justin: Okay.

Sydnee: Big, giant, swollen lymph node. Looks like a big... And they usually turned black after a while as they started to die and necrose.

Justin: [sarcastic] Hm. Delightful. Hm, wonderful.

Sydnee: Like a big grapefruit in your groin, or under your armpit.

Justin: [sarcastic] Perfect. Wonderful.

Sydnee: So they would cut them open, to let the infection out. Well, they didn't think that. Let the evil out.

Justin: Yeah, right. The sin.

Sydnee: And then you would mix together some natural stuff.

Justin: Like what have we got?

Sydnee: Some tree resin.

Justin: Okay, mm-hmm. Got some of that.

Sydnee: Some root of white lilies.

Justin: Perfect.

Sydnee: And some human excrement.

Justin: Oh! [sarcastic] Oh, good, you dirty freaks.

Sydnee: Just mix that all together and just shove that right in that open wound.

Justin: Who was the one guy who suggested it???

"I know what would be perfect. Let me see. What do you have in this poultice? Tree resin? Good. Root of white lilies? Perfect. I have one other ingredient I would like to humbly suggest, as our most experienced doctor of two years. I would like to suggest human excrement."

Sydnee: You know that was one of these plague doctors. One of these weirdos.

Justin: I don't know, we've tried everything else. How about some poo-poo?

Sydnee: And these guys were hired by the city. It's not like you called the plague doctor to come see you and out of the goodness of his heart he... No, like the city hired a guy and said, "Please, be our plague doctor, all of our real doctors left."

Justin: "Come rub doody in our wounds, city official!"

Sydnee: And this is a sad thing, you know, on a sad note, a lot of the upper class, a lot of the physicians who were wealthier, and certainly the royalty, just took off. Anywhere where this was happening, they just left.

Justin: They just dipped.

Sydnee: Yeah.

Justin: Just go to Cannes for the spring or something. Just get out of here, get our base tans.

Sydnee: Exactly. That's what they were trying to do.

But they used, like I said, they used human excrement as treatment. But they also were a fan of using urine.

Justin: Yeah, well that's good for-

Sydnee: For treatment.

Justin: ... jellyfish or the plague. Either way.

Sydnee: Exactly.

Justin: You're covered.

Sydnee: Jellyfish and the plague. They would bathe in urine, that was one way to treat-

Justin: Boy. You got to have a lot of devoted friends to get enough urine to bathe in.

Sydnee: You're supposed to use your own, ideally.

Justin: Just kind of lie there like a wacky kids' fountain, just spraying hither and yon.

Sydnee: Just put the stopper in the tub and stay in the tub for a couple weeks.

Justin: Just stay hydrated.

Sydnee: There you go. You also-

Justin: I hope you can fill your bathtub with pee before your plague kills you. Have a good last week!

Sydnee: Guess what? You can't.

Justin: Guess what? You... Oops.

Sydnee: You could also drink your own urine.

Justin: [sarcastic] Yeah, well I do that anyway. It's good to know I'm plague covered though.

Sydnee: Did you mean to share that?

Justin: No, that was in my head, I didn't mean to say it out loud.

Sydnee: If you're going to drink your own urine, you should drink a full glass twice a day.

Justin: Perfect.

Sydnee: I mean, if you're trying to fight the plague and you live in the 1600s.

Justin: And I'm an idiot.

Sydnee: Don't... That was not actual medical advice.

Justin: What about some less traditional... As silly as it seems.

Sydnee: Were those traditional?

Justin: We have anything a little more, you know, magical?

Sydnee: A little more magical? Well, there was the Vicary Method.

Justin: Okay, I'm ready.

Sydnee: Named for Thomas Vicary. He was a plague doctor, I guess. Or he was some kind of physician. I mean, he was a doctor, in theory.

And his recommendation was that you should take a live hen, and strap it to any bubo that you have.

Justin: You know, you real doctors, you get a lot of static. And in this day and age, I'm not sure you allopathic physicians deserve some of the heat you get.

But you do have to admit that if you're in the 17th or 18th century, you got the plague. You go to three people, one says, "I'll rub some poo-poo in there and then maybe pee-pee in a bathtub and wallow around in it."

And an old witch is like, [old witch voice] "Put a hen on it!" Like, you would think, "Well, okay old witch. That sounds pretty good, actually. I think I will give that a shot before I resort to the doody."

Sydnee: Well, and the idea is that you strap the chicken to your bubo. You wait 'til it drains like on the chicken, for a while.

Justin: [sarcastic] Cool day for a chicken.

Sydnee: You take the chicken off, clean it off, strap it back there, and either... You know you're done when the chicken dies, basically.

Justin: [laughing] Oh.

Sydnee: Either you die or the chicken dies. If the chicken dies, you win. If you die, obviously-

Justin: PETA would have had a field day with that.

Sydnee: ... somebody should unstrap the chicken.

Justin: Yeah. [As plague victim] "Can't get this chicken off me. I think it died, and I don't feel any better."

Sydnee: [laughing] I would love to see somebody with like... I keep picturing them with hens strapped all over them. You know, in their armpits and in their groin.

Justin: Yeah, people could laugh, but those people smelled like poo-poo that they put in their open wounds, so I don't know where they get off.

Sydnee: I don't know that smelling like chicken poop is any better.

Justin: Yeah, maybe. Maybe not. That's a little gross.

Sydnee: There were some ideas that actually weren't dangerous. They probably still didn't work, but people thought that any food that could spoil might make you more at risk to get the plague.

And I can see where that idea might arise from. People seemed like they were spoiling when they got the plague. I mean, they would become necrotic and things would fall off of them.

And so, stay away from meat and cheese and fish and stuff that can go bad. Just eat things like bread or vegetables. Which, you know, it didn't work, but again, probably not dangerous.

And then there were some efforts for sanitation.

Justin: Okay. Oh, thank God.

Sydnee: So they thought, "Hey, maybe if we cleaned all this human and animal waste off the streets, that would help." Which, I don't know if it helped with the plague, but it certainly would help with *e.Coli*.

Justin: Just, property values, if nothing else.

Sydnee: It would help with the smell.

Justin: Yeah. It sucks that that's what it took for that to occur. Like at no point before the plague, no one had said, "Guys, this is gross. It's gross. We've got poo-poo everywhere."

Sydnee: Well, you've got to understand, it took people a long time to understand the concept that if you lived by a river, because you needed the river for water, that you should get the drinking water upstream from the place where you pee and poop in the river.

It took us decades to figure that out.

Justin: [sarcastic] Cool. Good job humanity.

Sydnee: So, you know, this is pretty good. So they wanted to clean the streets up. And then that also gave rise to the whole, Monty Python, "Bring out your dead!" thing.

Justin: Oh yeah, just big carts of bodies.

Sydnee: That was a real deal. They really had the body collectors come around at night. They really did yell, "Bring out your dead!"

And now, after a while they couldn't come out at night, because they just had to come out all the time, because they were overwhelmed with bodies.

Justin: [sarcastic] Great.

Sydnee: But they would cart them out of the city and burn them, with their clothes as well. The thought being that whatever was on them, they didn't want in the house.

Again, that kind of was, even though they didn't know what they were doing, was kind of a good idea. I don't know that it helped very much.

Justin: What about religious folks? They always like to get up in it.

Sydnee: Well, and the plague is no exception. You know, any... Before we really understood the idea that germs cause disease, it was always thought that, whether it be cholera or the plague or tuberculosis, that it was

probably a punishment from God. That it was probably something we as humans had done to displease God, and that was across all religions.

So there was a lot of prayer. Depending on what faith, some people just kind of strapped in and said, "We've gotta wait this out. God's kind of cleaning the countryside and we earned it."

But that gave rise to a lot of self-flagellation.

Justin: Like in the Da Vinci Code?

Sydnee: Exactly. So you just beat yourself and maybe then God will stop being mad at you and take your plague away.

Justin: [sarcastic] Boy, there's nothing that feels better when your plague-ridden than just hitting yourself with a whip. Ooh, that goes down smooth.

Sydnee: That was the other use for the canes that the plague doctors carried.

Justin: [As plague doctor] Here, take this into the other room and do the right thing. I'll be in the hall.

Sydnee: You're joking, but that's not far off.

Justin: Oh, man.

Sydnee: They really, some patients resorted to that, no knowing what else to do, they would take... You know, the doctor could offer their cane.

Justin: Such a bummer.

Sydnee: There were some others. So, they would sometimes eat the powder of crushed emeralds.

Justin: [sarcastic] Finally, a solution that everyone can use.

Sydnee: It seems very cost-effective.

Justin: [sarcastic] Delicious. At least then when you rubbed your poopy into your wounds it would be beautiful and sparkly.

Sydnee: Well, you've got all those emeralds laying around. Why not crush them?

Justin: And that was the earliest noted case of bedazzling. Kind of a backwards way to go around it, but...

Sydnee: There were a lot of things. They also, if you didn't have emeralds, maybe, because nobody did, you could crush some eggshells, mix them with some leaves and some marigolds and put them in some ale and add some treacle and then drink that.

Justin: What's treacle?

Sydnee: Treacle's like this syrupy stuff that's left over in the sugar process. So when they were making sugar, when they're refining sugar, it's a syrupy by-product.

Justin: Oh, cool.

Sydnee: So it's sweet. Although dark treacle's kind of bitter, I read. So... But anyway.

Justin: Any other fake treatments before we talk about the real ones?

Sydnee: By the end of the last big run of the plague, in the 17th and 18th centuries, people were trying anything. They were drinking arsenic. They were... Mercury was back on the scene.

Justin: Aww, there he is!

Sydnee: Everybody loves mercury. They started just behavioural things. Don't think about the plague, and you won't get it. Don't think about death, it won't happen.

Justin: Oh, humanity.

Sydnee: Stop having sex.

Justin: Well, I mean, if you have the plague that's probably not like super bad advice.

Sydnee: Don't go outside.

Justin: There's plague there.

Sydnee: And in the worst case, no jokes here, in the worst case, genocide. There was a belief, for one period of time, that it was related to those of the Jewish faith.

Justin: Oh man.

Sydnee: And so it actually resulted in killing Jewish people at one point.

Justin: [sarcastic] Oh, that's great humanity. You done did it again.

Sydnee: [sarcastic] I know.

Justin: So Syd, I've got the plague. What are you gonna do for me? It's 2013. It's a new day. We have real medicine. What are you gonna do for me, a plague haver?

Sydnee: Well, first I'm going to go put on the mask you just took off, right?

Justin: [sarcastic] Perfect. Just to give everybody in the room a laugh.

Sydnee: Get my flagellating cane.

Justin: It's important to laugh.

Sydnee: [laughing] And then I'm probably just gonna prescribe you an antibiotic.

Justin: Oh, man.

Sydnee: A lot of antibiotics, streptomycin, gentamicin, tetracyclines, fluoroquinolones, a lot of different antibiotics will work against the plague.

Again, it's still a serious disease. Fifteen percent of people can die, even with treatment.

Justin: Is that like, when you say even with treatment, is it like everything else where if you get to it a little bit earlier then your odds are a little bit better? Or is it...?

Sydnee: Absolutely. And it also depends on how healthy the person is who gets it and where they are.

Justin: Sure.

Sydnee: And like you said, how early they seek treatment.

A lot of the problem is that, let's say you get the septicemic version, it can put you into septic shock, which we can help you through. You know, hospitals, doctors, there are ways we can support you and save your life and get you through that.

But if you don't come in and get help right away, it might be too late.

Justin: Yeah, there's not a lot they can do for you at that point.

Sydnee: And this disease is still happening. I mean, it's not something that we see a lot in the U.S., but it does happen in some parts of the Southern U.S.

And then in other developing nations we're still seeing the plague. Not common, but it still happens. It's still out there.

Justin: So, ladies and gentlemen, keep your masks on. Keep yourself safe from plague carriers. Namely rats, if you see one, just go ahead and put it out to pasture. Just for me. For your old buddy Justin.

Sydnee: Wait, did you just advocate killing rats?

Justin: Just... Yeah, absolutely.

Sydnee: Well, no. I have a better idea. Just don't hang out with rats.

Justin: Just don't hang out with rats. Even if you are the Rat King, or part of the rat community at the start of the 1700s and has never seen daylight. Which they have convinced themselves is a mystery. A myth, rather.

Sydnee: I like the idea that this Rat King community is living in the sewers below London, and also they're listening to our podcast.

Justin: Yeah. Well, they still have Wi-Fi. They're not savages.

Sydnee: They're our biggest listening base, actually. They're our number one fan.

Justin: Speaking of listening base, thank you so much for listening at home. If you've reviewed the show on iTunes or tweeted about it, we super, super appreciate you. It means the world to us.

I want to thank Boing-Boing, for writing about our program and recommending it. Lots of you tuned in as a result of that, so thank you so much.

Thank you to folks tweeting about the show, like Christian Halberg?, Brian Methani, Tally Robinson-Wren, Soul Rosenbaum, Matthew Voss. So many of you are tweeting about the show with the Sawbones hashtag.

You can also follow us, @sawbonesshow.

Want to thank the Maximum Fun Network, as always, for having us on their family of programs. Lots of great stuff you can listen to. Judge John Hodgman, Jordan, Jesse, Go!, Wham Bam Pow.

And thank you so much for listening to our program. Again, it means so much, and if you could share this with a friend we would certainly appreciate it. We're a young podcast just starting.

Sydnee: Absolutely, guys.

Justin: Making our way in the Earth.

Sydnee: Yeah. and thanks for listening. It means a lot to us. I really appreciate it. Don't take anything I say seriously, but you know, do keep listening to it.

Justin: Yeah, we appreciate it. And make sure to join us again next Friday for another episode of Sawbones. I'm Justin McElroy.

Sydnee: I'm Sydnee McElroy.

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

[Outro, *Medicines* by the Taxpayers plays]

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