Sawbones 458: Update: Blood Donation

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Justin: Hi y'all, it's Justin.

Sydnee: And it's Sydnee.

Justin: We've had some interesting developments in the world of blood donation, and we are going to talk to you about some of the new guidelines, because it means a lot of people who maybe couldn't give blood before will be able to.

But to do that, what we're going to do first is play you an episode about blood donation that we have already done. It's called—

Sydnee: And Charles Drew.

Justin: Yes, absolutely. And at the end of the episode, we will be back to tell you about some of these new updates. It's a fascinating story. Hope you enjoy it and we'll talk to you in just a few.

Clint: *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.

[theme music plays]

Justin: Hello everybody, and welcome to *Sawbones*: a marital tour of misguided medicine. I'm your cohost, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: And today we're going to be celebrating a very special month. The month that I, Justin McElroy, became a notary public. Just got the paperwork through today. Uh, it's very exciting. A lot of people are talking about it, and, um, gosh, February.

Sydnee: That's not the most important thing to celebrate this month.

Justin: I like to think every February, people should take a moment, look around, and remember: I wasn't always a notary public, you know?

Sydnee: You were on the inside.

Justin: That's true. I do have a very notary public vibe.

Sydnee: Yeah, yeah. Justin gives off that feeling of like, "That guy's a notary, I bet."

Justin: "I bet that guy is... a notary."

Sydnee: "I need something notarized. I bet I should call Justin McElroy."

Justin: [laughs quietly]

Sydnee: "I bet he... "

Justin: I don't know that—you know what's interesting about that? I don't know that that's necessarily my podcast personality is, like, guy who should be a notary, but like, if you know me personally that is 100% my level. That is where I'm at.

Sydnee: Yeah. Guy who's probably a notary, and now is.

Justin: And now is!

Sydnee: And you'd be correct, he is a notary. No, Justin!

Justin: February, folks.

Sydnee: February is not about you. [sarcastically] Everything's about you!

Justin: [laughs quietly]

Sydnee: Sorry. Uh, February's not about you.

Justin: Okay.

Sydnee: It's—it's Black History Month. You know that.

Justin: I know.

Sydnee: Yes.

Justin: Just having some fun.

Sydnee: Yes. And, uh, you know, because it is Black History Month, I thought we would do something that we don't often get to do on *Sawbones*, which is talk about someone in medical history who did good stuff. [laughs]

Justin: Wow! Always nice to hear.

Sydnee: Not—not—usually we're talking about—when you come up as a figure of interest on our show...

Justin: Yeah. You don't want Sydnee—you want Sydnee to keep—keep your name out her mouth.

Sydnee: Now, we cover—we've done this before. We've talked about other, you know, famous people in medical history who actually, like, did good stuff and contributed and that kind of thing. So this isn't the first time, but I thought that this would be particularly timely because not only can we celebrate an amazing Black physician in history, but we can also emphasize the importance of blood donation at the same time, because as you may be aware, uh, we're in dire straits in much of the country in terms of, uh, blood banking supplies.

Justin: Yeah. It is not—it is not, uh—now, some people are doing their part.

Sydnee: Yes, like you.

Justin: [laughs] I mean...

Sydnee: I know—I know you wanted to brag about that. [laughs]

Justin: It's, uh... you know, I just got the notification that my blood is headed to... God. It's headed to WBU to be used in the medical center there. Uh, I do wish that I could have somehow indicated to them that that's the blood of a notary. I mean, it wasn't when it was extracted, so I don't know if it's quite the same thing.

Sydnee: Right, mm-hmm.

Justin: But, like, next time I donate I'll be sure to, like, "Can you please put an "N" on there?"

Sydnee: For notary?

Justin: Or NP, for notary public, or, you know, something like that.

Sydnee: Oh, yeah, okay.

Justin: 'Cause I want people to know. [laughs quietly]

Sydnee: You want people to know. It's a wonderful experience—we'll talk more about that, and urge you, if you can, to consider donating blood at the end, but it is a wonderful experience. I donated blood once overseas and had the opportunity to actually, like, take my bag of blood from my body and hang it on an IV pole and help—well, I didn't hook it up 'cause I... am not as good at that as the nurse that I was working with. [laughs quietly]

Justin: That's that farm—

Sydnee: They hooked it up. But I got to do that, and it was such an amazing feeling, and you can get that glow.

Justin: That's that Syd-to-vessel blood. It just goes straight—you can't get fresher than that.

Sydnee: No, it was still warm. [laughs] Still warm from—from my vein. Uh, but anyway, we have done an episode before about the history of blood transfusions, back in 2015, when we were so... young.

Justin: Oh, gosh.

Sydnee: And naive. Had no idea what was in store. Um, so if you want to hear the whole history of all the dumb stuff we did... [laughs quietly] before we figured out blood transfusions, and all of our attempts, that is detailed in that episode. I don't want to go back and talk about all of that again. But I did think, like I said, this was a really good opportunity to talk about blood donation, blood banking, and celebrate the work of Dr. Charles Drew.

Justin: Okay.

Sydnee: Which when I say Dr. Drew...

Justin: Let's be clear.

Sydnee: I'm talking about Dr. Charles Drew. [laughs quietly]

Justin: We're talking about the... good one.

Sydnee: The good one. The famous American physician, surgeon, uh, scienti—blood scientist expert who is the father of blood banking as you know it.

Justin: Not... Loveline Dr. Drew.

Sydnee: No. Who I think has said some sort of—

Justin: He's said some things. We're not gonna get into it. We don't have time for Dr. Drew right now.

Sydnee: Yeah, we're not gonna get into that Dr. Drew. Yeah, no. Dr.—Dr. Charles Drew was born in Washington, DC in 1904, the oldest of five children. He studied at Amherst College, and then he worked as a—a professor of biology and chemistry for a couple years at Morgan College to save money for medical school. Uh, when I applied to medical school he decided to go to McGill University in Montreal.

Justin: Mm-hmm.

Sydnee: Um, for his medical training. And while he was there he would work alongside a Dr. John Beattie. Now, I tried to find out more about Dr. John Beattie, and I couldn't find a lot of, like, documentation of, like, his work there, because I kinda wanted some, like, context for—like, I knew he was working on treatments for shock and, like, what was he doing and what was his history? Apparently there is al—'cause we're in Canada, right? Apparently there was also a John Beattie in Canada who was associated with, like... neo-Nazis? So it was really hard to research [laughs weakly] this specific John Beattie. So I can't tell you much about him, but he was a guy who was—[laughs quietly] who was a doctor working there who was interested in, how can we treat shock? Now, do you know what shock is?

Justin: Uhh... oh-ho. I mean, I understand basically... it's when... you got t—you receive too much... of something, input-wise.

Sydnee: Mm-hmm. Yeah.

Justin: Be that temperature, or visual, or whatever-

Sydnee: [laughs quietly]

Justin: —and it makes your body go, "Whoa!"

Sydnee: Okay. Well, that's different. [laughs] Than the shock I'm talking about. That is—that is a shock, yes. [laughs] I am talking about, like, medical shock. Like, the—the condition of—

Justin: Yes!

Sydnee: -- and there's different, like--

Justin: What did I just say? What am I talking about?

Sydnee: No. Like, okay. Shock is a-

Justin: "He's in shock!" You know what I mean? Like-

Sydnee: Yeah, but that's not when you're-

Justin: "He just defeated Hans Gerber! He's—it's been so—"

Sydnee: That's when you're, like, stunned.

Justin: "-he's in shock!"

Sydnee: Um, there are different types of shock, medical shock, and they're usually distinguished by, like, the cause. Like septic shock is when you're septic, probably from—or, well, from an infection of some sort. I shouldn't say "probably." You are. You have an infection. You've become septic, and you can go into shock from that.

Um, there's hemorrhagic shock, which is you lose a lot of blood and you go into shock. And basically the idea is that you're not getting blood and therefore oxygen to a lot of parts of your body all at the same time. Your blood pressure will drop. Um, you can start to have multi organ damage. Um, it's a big deal, right? It is deadly if not treated, shock. No matter what the cause is, you gotta do something about it.

Justin: The treatment of shock is different from shock treatment. Those are two—

Sydnee: Yes.

Justin: —similar-sounding concepts that are completely different.

Sydnee: No, this has nothing to do with electricity, like, shocks. This is—this is... different.

Justin: Okay.

Sydnee: Okay? So basically, what he was looking at is in a lot of these cases you need to put volume back in the vascular system. You need to put something back in to maintain blood pressure, to keep blood flowing to the organs, to keep, you know, you from going into kidney death, and liver death, and brain death, and everything dying, right?

Justin: Right.

Sydnee: Um, if for instance it's because you're bleeding a lot, then you need to put blood in there.

Justin: Yeah!

Sydnee: So... that's the solution for a lot of these conditions. We need to put blood or—there's lots of options we have now. We didn't have any of this yet.

Justin: I'm on pins—I'm on pins and needles finding out the other things we put in there besides blood.

Sydnee: Well, at this point we didn't have a lot of ideas. [laughs quietly] Um, because—[laughs]

Justin: I mean, blood seems good! [wheezes loudly] Right?

Sydnee: [crosstalk] There's lots of options now.

Justin: [hesitantly] Saline?

Sydnee: Yeah.

Justin: Gatorade?

Sydnee: No. Not Gatorade.

Justin: Pedialyte?

Sydnee: Well, you don't—I mean, you can drink Pedialyte. But that—but like, when somebody's going into shock you don't have time to be like, "Go get me a case of Pedialyte!"

Justin: What about Brondo?

Sydnee: No. So, okay. At this point in history, the idea of just, someone needs blood, give it to them, is not that simple, okay? Here's why. So, we knew already about the concept of blood transfusions. And like I said, a lot of this we talked about in a past episode. But just to kind of sum up so you know where we are, we had at—like I said, we had already known about it for about 100 years. Dr. James Blundell was a British obstetrician who, during a delivery where the patient was losing a lot of blood, he actually took blood out of the patient's husband, the father of the child, took blood from him and injected it into her.

Justin: Quick—uh, hey, shoutout to the people who were choosing their obstetrician, and there was some man named Blun—Dr. Blundell?!

Sydnee: [laughs quietly]

Justin: And they were like, "Sounds good." "Dr. Blundell guarantees to drop your baby just the regular amount! No matter what—even though it sounds like I'm played by friggin' Rowan Atkinson, like, I—trust me. I'm a regular, good doctor."

Sydnee: And he, like, was one of the early, like, pioneers of blood transfusion. Good!

Justin: Despite the name Dr. Blundell! [wheezes loudly]

Sydnee: So-

Justin: [high-pitched, through laughter] Dr—Dr Blundell sounds like a pudding doctor.

Sydnee: So, this was back in 1818. Um, and this is obviously not how we do blood transfusions today. We don't just randomly, like, "Here, let me draw some blood from you and inject it straight into you. Good, good work." Like, we wouldn't do that now. But this was, like, the first attempt at these things.

And since then, there had been a lot of research done in that area to try to make the process better. Um, to do, like, whole blood transfusions, so not just, like—like, he literally had drawn a few CCs of blood from the one person and injected it into the other person. So, like, doing whole blood transfusions for patients with hemophilia. That was one of the first areas where they really tried this. Um, discovering blood types.

At this point in history we already know about blood types. We know about infu—transfusion reactions if you don't use the right type, what can happen. Um, we have the concept of matching somebody's type, and also crossing the blood. Like, let's take blood from the donor and blood from who we're gonna give the blood to, the recipient, and put it together and make sure nothing crazy happens. Like, we had already sort of figured a lot of that stuff out.

We had briefly tried some weird stuff like, "Why don't we transfuse milk into people?"

Justin: Oh yeah!

Sydnee: That wasn't great. There were a lot of reactions from the transfusion of—it was, like, cow or human milk? So we weren't doing that. We had figured out saline at this point, that if somebody just needs volume, you just need more stuff to keep—

Justin: Which is sa—it's just saltwater. The doctor's come up with a fancy name for it, but it's just saltwater.

Sydnee: That's true. [laughs quietly] Um, and we even knew about, like-

Justin: Like the ocean!

Sydnee: There's other stuff in the ocean.

Justin: Pshh, ain't that the truth.

Sydnee: Saline is, like, just... saltwater.

Justin: Mermen. Coral. Mystery?

Sydnee: [laughs quietly] Uh, we knew about, like, universal donors, and we knew—

Justin: Titanic is in there.

Sydnee: [laughs quietly] And we knew about, um, anti-clotting stuff like sodium citrate that you can put in there so that the blood won't clot in the big, 'cause that was a big problem at first was, like, you don't have a lot of time—

Justin: [laughs] Here—here—here it is! I'm ready to save your life with my... bag of scabs.

Sydnee: [laughs] Well, I mean, that really would've been a problem. That was why—

Justin: I know, that's why I said it. That was why I said it like I did.

Sydnee: It was, like, direct—well, you're right.

Justin: You don't have to act so shocked every time I say something that's apropos to the conversation.

Sydnee: [laughs quietly]

Justin: "[exaggerated surprise] Yeah!"

Sydnee: But this—this allowed—

Justin: "[exaggerated surprise] It would be like that!"

Sydnee: This allowed for, like, you could store the blood for short periods of time, very short. We're talking a couple days. Like, you still don't have blood banking abilities, but you at least don't have to take it directly out of one person and put it into another. They even tried for a while, like, sewing a vein from one person to an artery of another person to, like, have the blood flow...

Justin: Direct hookup. I like that.

Sydnee: Yeah. Like, but that didn't work very well. But it was—it was very important to, like, organ transplantation science later, so, like, it was a really big thing that they did, but that didn't really help blood transfusion.

Anyway... so, if a patient needs blood, and you've got a couple units that you've stored for a couple days or whatever, great. But in an emergency, when maybe multiple people need blood product or somebody needs more than just a few units, this is not ideal, right?

A lot of hospitals are not gonna be able to maintain that, and do this. So because he worked with this John Beattie at McGill on this sort of shock treatment and... well, treatment of shock. [laughs quietly] And that kind of thing, uh, he was already aware of this problem.

This was already something that he was interested in, he'd studied, he had knowledge about. Um, as he continued his career, he graduated with a medical degree and a Master of Surgery from McGill, and he went to work initially as a professor of pathology at Howard, um, and then as a surgical instructor and assistant at Freedmen's Hospital.

But in 1938, this is really when he kind of took all that knowledge and experience and he would sort of embark on the—the science that would define his career. He was a Rockefeller scholar at Columbia, and while he was there he devoted the research, and what he would eventually earn his

doctorate in is, um, blood sciences. Which I didn't know that was its own... I think that's a very cool thing. Like, "I am a doctor of blood science."

Justin: Pretty good. Sounds cool.

Sydnee: I think it's a very cool thing to—yeah. So he's already a medical doctor. He's getting also—this is, like, a PhD. He's getting another doctorate.

Justin: I bet the interview process to make sure you're not a vampire for that is, like, wild. Like, 'cause of course you would be. You know what I mean?

Sydnee: Like, a lot of vampires are trying to get into blood science?

Justin: A lot of vampires. It's, like, number one.

Sydnee: [laughs quietly]

Justin: Number one interest. "[Dracula impression] I don't know what draws me to it."

Sydnee: I don't know if you'd wanna—I mean, well, I guess vampires are kinda arrogant. 'Cause I would say, like, why wouldn't you just wanna, like— something that wouldn't be too high profile. Just, like, volunteer at a blood bank or something, where, like—

Justin: No, no, no. See, [crosstalk]-

Sydnee: You know what I mean? Where you could kind of, like-

Justin: If you volunteer at a blood bank—

Sydnee: -fly under the radar.

Justin: If you volunteer at a blood bank, someone's taking inventory of that, right?

Sydnee: Mm-hmm.

Justin: So if you're sipping off a pint, replace it with Kool-Aid or whatever... you do, your—people are gonna notice that.

Sydnee: Mm-hmm.

Justin: Pretty quickly. But if they're giving it to you—if you're like, "[Dracula impression] I need all this for research! Trust me!" Then...

Sydnee: [laughs quietly]

Justin: No one's gonna check up on you.

Sydnee: I guess that's true. And you could—

Justin: "[nasally voice] I need all this for research!"

Sydnee: And I guess you could just say, like, "Well, it didn't work. I don't have anything to publish."

Justin: "[Dracula impression] I tried. This is science."

Sydnee: [laughs] Sometimes it doesn't work.

Justin: "[Dracula impression] I'm standing on the shoulders of giants."

Sydnee: He—so, okay. So anyway... [laughs quietly] he took all of his knowledge, he earned his doctorate, and his dissertation was titled "Banked Blood: A Study in Blood Preservation." So basically he took a lot of the—sort of the basic science that was being done on these areas of separating blood, and storing blood, and preserving blood, and what he figured out from all this and what he developed on his own was a method of separating out the components of blood.

So, what we think of as whole blood, which is, like, I just took some blood from your arm, there's the blood, the whole thing, all the blood, um, it can only be kept for so long. But if you take out the cells, and then you've got the plasma, everything else, separate, that, if dried or nowadays frozen appropriately, can be kept a lot longer. So all of a sudden you go from a couple days to a few months.

Justin: Hmm!

Sydnee: That you can store this stuff, right? And you can reconstitute it when you need it, so you keep it in storage and when you need to, you know... re-liquefy it, you can do that. Um, you can combine it with cells if you need whole blood again, or you can just give people plasma. Sometimes... I don't want to get into all the particulars, but [through laughter] sometimes you can just give people—

Justin: Gets a little grody.

Sydnee: --plasma.

Justin: Yeah, yeah, yeah, yeah, sure.

Sydnee: Well, I mean, there's—so, nowadays, just to flash forward a little bit, nowadays we have lots of options for—do people need, like, packed red blood cells right now? Do they need, um, fresh frozen plasma? Do they need cryoprecipitate? Like, there are lots of different sort of—

Justin: You can do-

Sydnee: —and it depends on what's going on with the patient.

Justin: You can do-they have, like, different, like...

Sydnee: Platelets.

Justin: They have one called, um... Power Red. Which is, uh, that you can do when you sign up—I didn't go this route, but it's, uh—they—a special machine is used to allow you to safely donate two units of red blood cells during one donation, and then they give you the plasma and platelets back.

Sydnee: Yes.

Justin: It's like a—it's like if you want to get real—if you wanna level up [through laughter] your blood donation you go Power Red.

Sydnee: So—and what we're talking about right now with Dr. Drew is, like, the beginning of that. This is where all this idea started, and which really allows us to best utilize the blood that's donated, right? So that we can get people the parts they really need, save it for as long as is safe, you know, make sure it's all screened properly, make sure it's matched properly.

I mean, like, this is the beginning of all that sort of thought process. Um, so this was his dissertation. This is the science that he was sort of spearheading. What did he do with it? I will tell you... but first we gotta go to the billing department.

Justin: Let's go!

[ad break]

Justin: So he has all this knowledge. What's he doing with it, Syd?

Sydnee: He publishes this, you know, thesis, this dissertation. He is, by the way, he was also the first Black American to receive a doctoral degree from Columbia. Um, so he does this, and it's groundbreaking. It's very exciting, what he has published. Um, and it drew the attention of a Dr. John Scudder, who had also been studying methods of preservation and the concept of, like, how can we better bank blood so that we don't—so that we can have a supply of it in a hospital for whoever comes in? A trauma, or, you know, whatever injuries, or what if we have a mass casualty event? Whatever it is. Like, how can we supply people with blood better? What can we do?

Um, and there was a ton of interest in this at this moment in history, because the year is 1940.

Justin: War. War drums are sounding across the planet.

[pause]

Sydnee: Yeah. [laughs quietly] That's-

Justin: War!

Sydnee: [laughs]

Justin: Our fighting men and women are gearing up to do war.

Sydnee: Yeah. Over there. Over there.

Justin: Over there.

Sydnee: Um, so it is—this is prior to the US entering the war, um, but obviously we were interested. [laughs quietly]

Justin: Yeah. What's that?

Sydnee: Keeping tabs.

Justin: Yeah.

Sydnee: On things.

Justin: Would love some blood.

Sydnee: Um, had, like, a side we were on? [laughs quietly] You might say? Um, not so much so that we had entered the war, but, uh—but definitely had one—one side we were sort of, you know, ready to support.

And so, uh, it's 1940 and the idea of having plentiful blood stores for transfusions is very appealing to us, depending on what the future would indeed bring. And to the people of Great Britain, who very much needed blood banking at this time.

Justin: Our former overlords, you mean.

Sydnee: [laughs] Well, at—I mean, like, by—by—we're in—it's 1940.

Justin: I'm not gonna let go of the grudge. A lot of people are just gonna sail on past and keep on drinking tea or whatever over here, but I won't let it go.

Sydnee: I would hope by even 1940, people were kind of over that.

Justin: Nope. Never.

Sydnee: No? Still not? [laughs quietly]

Justin: I'll never let it go.

Sydnee: Uh, so Scudder reached out to Drew and said, "Hey, I would love [laughs quietly] if we could develop—"

Justin: [laughs] "I would lo-o-ove... "

Sydnee: [laughs] "A program for banking blood. Um, and we can ship it to Great Britain. We can ship it to the UK. Wouldn't that be great? Like, the US can do it. You're the genius who came up with all this. Let's get together."

Justin: "Let's do it."

Sydnee: "Let's make it happen." Um, so Dr. Drew spearheaded what would be called the Blood for Britain program.

Justin: That's fun.

Sydnee: Yeah. And the-

Justin: Love the alliteration, for sure.

Sydnee: Yeah! And basi—and that's exactly what he was doing. He was collecting, processing, testing, making sure it wasn't contaminated, you know, safe collection and storage of blood from... initially, like, New York hospitals.

Justin: Hm!

Sydnee: So they were taking blood from kind New Yorkers who were willing to donate and have it preserved and shipped overseas to support the British military. Uh, he collected over 14,500 pints of blood with this process. Um, donated a ton of blood to the British military, and he also developed, during this, the concept of, like, well, what if we could take—instead of having to go to a hospital to donate blood, what if we could find a way to do it out in communities, or to set up shop at other medical facilities where they don't necessarily do this. Um, so he developed the concept of what would be called a bloodmobile.

Justin: Oh!

Sydnee: Or a blood bus.

Justin: Blood bus.

Sydnee: Bloodmobile. Blood bus. And you would send this blood bus out to wherever, and it had, like, a refrigeration unit and everything, so you could go, have people come in, donate blood, you store their blood, and you can get it back to the hospital or wherever you're—you know. You need a bigger facility. But, like, he developed all this—all this sort of science so that we could increase our supply. Um, and this was really, like, the first blood banking effort.

Justin: Hm.

Sydnee: Dr. Charles Drew came up with all these ideas, strategized. Not just, like, the science behind it, but the logistics. How will we do this? He was the one who figured it all out. And like I said, this was before the US had entered World War II. Well, [sighs] once we did enter the war...

Justin: Spoilers!

Sydnee: You think people don't know?

Justin: Yeah.

Sydnee: [laughs] But once we did enter the war, um, it became all the more apparent why we need Drew's skills, why we needed to, you know, to take those same techniques that he was using to bank blood, ship it overseas, we need to start doing to support the US military at this point as well.

Justin: That's when we'll go to Britain and we're like, "Listen. Can we have some of that blood back."

Sydnee: [laughs] "Listen."

Justin: "Do you have any of it le—I know we got all, like... willy nilly started throwing blood [wheezes] blood around, 'cause we got a little cocky, but we would actually like some of that back. That's American blood."

Sydnee: [laughs] "That's, uh—that's, uh, New York blood? And, uh... not UK, blood, so... "

Justin: "So give it to us."

Sydnee: No, we didn't do that. We, uh—Dr. Drew was named director of the first American Red Cross Blood Bank, the very first effort of this, in February of 1941. And basically his job at this point is everything you did for Blood for Britain, we wanna do it here. We want to create a second blood—his second blood bank, and this would be specifically to supply the US military personnel, especially, like, the Army and Navy is where this was focused.

So, um, unfortunately... as he began this part of his career, it would be cut short by racism. Uh, so he began to collect blood, explicitly, again, using a lot of the same, like, science and logistics. All these techniques that he had developed that were his—like, he had done all this. Um, for members of the US Army and Navy. And the military, uh, came to him, the Army and Navy, and said, "Um, we—this is great, except we don't want blood from any Black Americans, please."

[pause] And obviously this is... ridiculous. It's—besides being racist and, um, ignorant, it's devoid of science. Like, there's no reason to, you know, limit

blood donation by race. There's no scientific basis for that idea. Um, and he pointed all that out, and was very upset about it.

And they were like, "Okay, well, listen. Fine, fine, we get your point. How about instead we just sort of, um, store separately? Maybe, like, segregate, you could say, the blood supply from Black donors and white donors." So that they would only use the blood supply from white donors, right?

Uh, and at this point, because again, this is racist and unscientific and unnecessary and—and dangerous, because it's a—it's a war effort. You need all the blood you can get, from any kind, willing donor. Um, at that point Dr. Charles Drew said, "You know what? I'm actually done."

Uh, and so he resigned his post in 1942 in protest of the racist policies, uh, from the US military.

Justin: What a shame.

Sydnee: I know. It's a—it's a complete shame. Now, the—the work he had done, the methods he had spearheaded, his dissertation, all of his research, all of his science, uh, people were still benefiting from, you know? All of that good that he had done and put out into the world was still there. I mean, the first blood banks, he created.

These first logistics and methods, he was the one who came up with this, who problem solved all of this. Um, and provided—who knows at the end of the day, stemming from all this research and stuff, how many people's lives were saved from these methods. I mean, it would be impossible to quantify the number of people who benefited from this.

Um, he did continue his medical career for a while, uh, at Howard and Freedmen's Hospital. He was a professor, he was a surgeon, um, he was honored in his lifetime. It's always nice, 'cause I feel like a lot of, um, these famous figures from medical history are not—

Justin: Didn't get—yeah.

Sydnee: -recognized until after they-

Justin: Well, that's all history, a lot of history, right? [crosstalk]

Sydnee: That's true, that's true. But the NAACP gave him an award, um, in 1944 for his just outstanding efforts and achievements that changed mankind, essentially. And to this day, there are a number of medical facilities, schools, he was on a stamp in, like, 1981—he has been honored since then for his contributions to medical science and for being the father of blood banking.

I know you always give me a hard time when I mention the end of someone's life on this show, but I think that it is relevant, because the first time I heard about Dr. Charles Drew was on an episode of $M^*A^*S^*H$. And they talk about him, and they actually repeat a myth that I did not know was a myth for many, many years after watching that episode. So, if you've seen that episode of $M^*A^*S^*H$, what I'm about to tell you is that... uh, Hawkeye lied to you. I'm sorry. Um... [laughs quietly]

Uh, but the—he died in a car accident, since about the year 1939 he would go to an annual free clinic that was held in Tuskegee and volunteer his medical services, his surgical services, during this free clinic. Um, and so he did the same, and was headed back. This was 1950. And was headed back from this the next morning, and unfortunately died in a fatal car accident on his way home.

There is a story, and if you've seen the M*A*S*H episode you've heard it, that he, uh, was taken to a hospital and desperately needed a blood transfusion, and was denied it because he was Black. This is actually not true. Um, but that was the myth that I had heard on M*A*S*H and thought was true.

Justin: Well, this is shocking. Sydnee Smirl McElroy, popular podcaster, uh, and candidate for House of Delegates says racism a myth?

Sydnee: No! [laughs]

Justin: I don't believe this, Sydnee!

Sydnee: Why would you even say that with that in there? Don't—don't give a sound byte. No!

Justin: [wheezy laughter] [unintelligible] racism is not, is not [crosstalk].

Sydnee: No, I just—yes, that was not—that was not—I mean, it is—he was absolutely—

Justin: I mean, worse stuff probably happened that day, so it's not like—yeah, right.

Sydnee: Yeah, no. I just mean that that—I—I had heard that story on $M^*A^*S^*H$ and I thought it was true for the longest time. Um, but it's still—it's still sad and tragic, 'cause his life was cut short and he obviously had done so much in such a short time.

Justin: His work was cut short by racism, and his life was short by car accidents. It's a tragedy.

Sydnee: Yeah. But, um-

Justin: But a wonderful contribution, nonetheless.

Sydnee: Yes, yeah. I mean, that—blood banking as we know it, it came from him. He is the one who spearheaded that and came up with that science. Um, and it is especially relevant, again, to celebrate Dr. Charles Drew as an outstanding Black American physician, surgeon, scientist, doctor who made these great contributions. But also because, as I said, right now we are in dire need of blood donations. Um, if you can, this is a great time to consider donating blood.

Justin: I would especially raise that charge to my fellow notaries. Um, we are, as you know, held to a higher standard, and this is your chance to step up and do the right thing for all notaries.

Sydnee: Yeah. But I—and I can tell you, it's very real, and it's being felt. I have, uh, in medical facilities where I've worked in recent weeks, we have had, you know, variously no blood product in the hospital at various times.

Justin: It's also not that bad, for the record.

Sydnee: I shouldn't say no blood pro—I mean of specific blood products we needed.

Justin: I'm a bit of a wimp, and it's really—like, it didn't hurt that bad, it didn't take that long, didn't wait around that long, did get free snacks at the end. That's not a—

Sydnee: I was gonna say, did you get snacks?

Justin: Oh, I got snacks.

Sydnee: Yeah.

Justin: Yeah, they'll let you have another one if you ask. If you're like—if you want a second one you can totally get another one. And they got juice, too. Like, it's not even—they have brownie brittle, like, and chips. Like, it was pretty good. And free, so.

Sydnee: And I wanted to just as a kind of brief addendum—

Justin: [quietly] Should've taken a picture of the snacks.

Sydnee: [laughs] Uh, a lot of people have asked about, um—or a lot of people still continue to bring up the fact that, uh, at this point still have limitations on who can donate blood based on sexual behavior.

Justin: Yes.

Sydnee: So, specifically the guidelines—and these come from the FDA. I thought they were Red Cross, but they—they are Red Cross, but they're via FDA recommendations, so any blood collection facility in the US would be, um, subject to these same guidelines.

If, uh, you are a man who has had sex with another man within the last three months, you are not allowed to donate blood. This is vastly different from even just a couple years ago, in response to the pandemic. Um, that has changed through the years from "you can never donate blood" to "if you've had sex with another man within the last year, you can't donate blood," to six months, to now three months, um, in response to an increased need, which I think a lot of people have pointed out is lousy.

We didn't let you donate blood, but now we will because we really need it, and because we knew it was safe, and we knew that this was unne—this policy at this point was unnecessary, because we have such great methods of testing blood product for things like HIV or hepatitis or whatever the concern is.

Specifically what this stems from is the beginnings of HIV and the AIDS epidemic. That is where all of this comes from. Um, there is a study going on currently that hopefully will change this completely. It's called the ADVANCE Study, and there are sites all over the country where they are... [sighs] trying to see if this is, well, what many expect, is that this is not necessary.

That certainly it's always important to ask people who are donating blood, screening questions to assess their risk for something like HIV, but that the time frame in which they may have had sex with a member of the same sex is not the best question to ask, is not the best data point, so to speak, to collect.

Um, so hopefully we should have results from this study later this year. This will change that. Um, because it's always, you know, been discriminatory in a lot of ways, it is. And it's not the best science. It's not the best way to screen donors, and we can do better. And so hopefully from this study we'll see a change in that this year. Um, I hope so.

Justin: Uh, well, thank you, Sydnee, for that, and thanks Dr. Drew for that incredible contribution.

Sydnee: Dr. Charles Drew.

Justin: Dr. Charles Drew. Well, all Dr. Drews are—are pretty—

Sydnee: No.

Justin: —worthy of celebration.

Sydnee: No, I wouldn't—mm-mm. No.

Justin: Okay, Syd, before we actually let past us close the show with some announcements that I'm sure are no longer timely, what... what has changed since this episode came out?

Sydnee: So, Justin, people have been calling for a long time for an update to the sort of protocol we have in place to screen people who want to donate blood.

And when I say people have been calling for an update, I mean both, you know, lay people within the blood donation community, people who are constant—you know, there are people who are just good, reliable donors. People in the scientific community, the medical community, as well as people within the LGBTQ+ community. Because the guidelines were very targeted at eliminating... Not necessarily for the purpose of eliminating men who have sex with men from the donor pool, but that was really how they screened people.

If you were a man who has sex with men and you had had sex within the last three months, you could not donate blood, period.

And so that would... The result of that is that, aside from people who were engaged in safe sexual practices, and aside from the fact that it was specifically aimed at men who have sex with men, even two people who were in a long-term monogamous relationship and wanted to donate blood, if they were both men, would have to not have sex for three months with each other in order to donate blood.

Which you can see how discriminatory-

Justin: Yes. Absolutely.

Sydnee: ... a guideline like this would be.

So they have been doing studies and the advanced study, I believe we've referenced in past episodes, not necessarily the one you just listened to, but we've referenced that in other episodes.

Looking to see, is there a better way where we can screen our blood donation pool so that we do not transmit HIV unintentionally.

Justin: Important, of course.

Sydnee: Of course. But we allow everyone who would like to donate blood and can safely do so to enter into that donor base. And that we don't base our guidelines strictly on your sexual orientation, because we can see why that would be discriminatory.

So a lot of time and research and thought and looking at how other countries screen their donor pool went into these new, updated guidelines that were just released by the FDA, May 11th, I believe. So these are brand new. So now what they're going to do is an individual risk-based assessment questionnaire that every donor will receive.

So this is regardless of your gender, of your sex, of your sexual orientation, of who you have had sex with in the past.

Justin: Mm-hmm.

Sydnee: Everyone will receive the same questionnaire—

Justin: If you—

Sydnee: ... to screen them for their risk.

Justin: If you've never donated before, which I mean I do all the time, so...

If you... This is... If you never donated before, there's like a fairly lengthy questionnaire that has a lot of these things that are... That start to feel like, completely random.

Like, have you been... Were you in like this part of the world at this certain time? So these questionnaires are already happening for a lot of blood donors.

Sydnee: And previously it would include on there, "Are you a man who has sex with men?" Very specifically that.

Justin: Right.

Sydnee: Instead, what they're going to focus on now are behaviors. Not what your sexual orientation is, but behaviors that anyone may have engaged in that we know put you at higher risk for contracting HIV.

And these time frames, by the way, you're going to hear three months a lot. The reason is because we know that within three months, that the best tests we have to detect HIV are the best three months after that sexual contact or whatever contact may have transmitted HIV.

Does that make sense?

Justin: Yeah.

Sydnee: That's the window where you could have contracted HIV, and a test would not necessarily pick it up.

It's usually, in practice, smaller than that, but three months is what we can guarantee.

Justin: Okay.

Sydnee: So, that's where that comes from. So anyway. It will continue to... Basically, people who will be asked to defer blood donation, meaning because of your risk, we're asking you not to donate. We'll still include people who have had a positive test for HIV or people who are on medications for HIV. Because even though we know that taking medications for HIV can make your viral load undetectable, which means you can't transmit it through sex, it's a much larger volume of blood and we don't have data that says we couldn't then take blood from you and give it to another person and not give them HIV.

There's a difference between that and sexual contact.

Justin: Okay.

Sydnee: Same thing with people who have taken HIV preventative medicines. So if you are on pre-exposure prophylaxis for HIV, which we've talked about before.

Or if you've had an exposure that you worry about for HIV and you had to take post-exposure prophylaxis within the last three months.

Those people will be asked to defer until after that time period. Same thing for a history of people who take injection medicines to prevent HIV.

Justin: Mm. Okay.

Sydnee: That's... The time frame for that is two years, actually. The sexbased questionnaires is the real—

Justin: Yes, please!

Sydnee: ... switch. [laughs] [click-click noise] Good one.

Justin: Remember from Austin Powers?

Sydnee: Yeah. No, I gotcha.

If you have a history in the past three months of sex with more than one partner, then at that point they're going to ask you a follow-up question, "Have you had anal sex in the past three months?"

And it's the same thing if you've had multiple partners within the last three months. Again, they will ask you a question about anal sex. And if you meet that criteria, they will ask you to defer for three months.

And this is for everyone. So they're not asking specifically about your sexual orientation. They're just asking about sexual practices.

This will be the same for a history in the past three months of exchanging sex for money or drugs or some other form of payment. Or a history in the past three months of injection drug use, non-prescription injection drug use, I should say.

Similarly to, if you've had some sort of transfusion in the last three months or there's actually specific guidelines for a tattoo, ear, or body piercing in the last three months.

Justin: Mm.

Sydnee: Now, I will say that the FDA says if these were at licensed, regulated facilities where we know that they're using single-use needles—

Justin: Right.

Sydnee: ... you know appropriately cleaned equipment and all that sort of thing. That doesn't necessarily exclude you.

Justin: Okay.

Sydnee: So it would depend on sort of the situation in which you received a tattoo or piercing.

Justin: Yeah.

Sydnee: Because I think for a lot of us we think... Well, I mean most of us these days, I think have... Not most, but a lot of us have. So anyway, what you see from this is one, we're not specifically asking you to tell us before you donate blood, "Are you gay?"

Justin: Right.

Sydnee: Which is very, very much what they were asking before, or bisexual.

Now they're asking about sexual practices. They're shortening that window. And it reintroduces... There may be people out there listening who, because of any of these other guidelines have been what you thought was permanently excluded from the blood donation pool?

Justin: Mm-hmm.

Sydnee: That's no longer true. You can be reevaluated. Now, there are some hard exclusion criteria. We talked about that. If you are a person who has had a positive test for HIV, that we don't reevaluate them. Those still remain, that we ask that you not donate blood.

But there are a lot of people who are going to be able to donate blood now. And in this episode you just listened to, I said we are in a situation where we desperately need blood donors.

That is something that hasn't changed.

Justin: Yep.

Sydnee: We are still in a situation where we very much need people who are eligible, who are capable, to donate blood.

So if in the past, especially members of the LGBTQ+ community, if you've been excluded from donating blood related to that, and you would like to, it... I would check out...

These guidelines are freely available. I found the PDF online, they've been widely published by the FDA. You can check it yourself and then if you think you'd be eligible, please reconsider donating blood.

This is a better way to do it. It's a less discriminatory way to do it and it's a way where we can safely expand the donor pool to more willing participants, which is good for everybody.

Justin: If you are able to, it's... and you never have, it's really not a big lift. You sign on to the Red Cross website. They'll have a huge list. They got an app too. A huge list of places where you can go donate.

You make- You schedule your appointment. There's probably one near you and not too far away time-wise. Just go to redcross.org, I'm pretty sure. Go to redcross.org and you can find a bunch of different opportunities.

It's not hard. I know some people are, you know, have stuff with needles, and obviously, you know, I'm not talking to you. But if you're able to, it's really like an hour out of your day that you just... you could feel really good about and do some good. So...

Sydnee: And if you're interested, fda.gov, you can look up the entire... It's a 19-page document with all the references, if you're the sort of person who wants to read that ahead of time, which I am, so we're alike. Check it out.

Justin: All right, let's wrap up the episode.

Justin: [laughs quietly] Thank you to you so much for listening. We very much appreciate it. Um, thanks to the Taxpayers for the use of their song, "Medicines," as the intro and outro of our program.

Um, oh, mcelroymerch.com, you can, for the rest of February, just a few more days to get the, uh... we're calling it the Bookstore Trouble pin, but it's a reference to bookstores—it's very clever. Our designer Sarah McKay did a wonderful job with that one.

And, um, a great quote from Sydnee, "I'm not ashamed of my clown husband." That is now a bumper sticker that you can buy that supports the Huntington Children's Museum, so please, uh, get some of those. That's designed by Jacob Bailey, so thank you, Jacob. That's gonna do it for us! Unless there's anything you got, Syd?

Sydnee: Nope, that'll do it.

Justin: That's gonna do it. Until next time, uh, my name is Justin McElroy.

Sydnee: I'm Sydnee McElroy.

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

[theme music plays]

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