Perfusionist Pioneer Interview: Jay Briscoe (J.B.) Denman

Mark Kurusz: Today is January 20th, 2012. We are in Lewisville, Texas. My name is Mark Kurusz, and I'm here to interview J.B. Denman, one of the true pioneers in perfusion. Well, welcome, J.B.

J.B. Denman: Well, thank you.

Mark Kurusz: It's great to see you after all these years. As you know, we're doing an interview today with perfusion pioneers on behalf of AmSECT. A couple months ago, they sent me a list of some of the Perfusion Pioneers who had not been interviewed. And I saw your name, and I saw Guy Prater and Calvin Scott, and I said, "I'm in Texas. I can go visit these folks and do the interviews." So, they were happy that I volunteered.

J.B. Denman: It's nice for both parties.

Mark Kurusz: And I'm happy to be here to do that today. I think the first thing everybody would like to hear is how you got into perfusion, because we know it was a long, long time ago. Tell me how many years you practiced and how you first got into it.

J.B. Denman: Well, I started in December of 1959. And I've been active, clinically, the whole time up until the present, got a case this week, one Monday. So, I'm still working, doing about 100 cases a year now, but we did as much as 350, 400 a year in the years' past. So, I've done quite a few, enjoyed every minute of it. I laugh…say that I ran away from home. I had gone to the Marines and came back and then I went back to Stillwater, to Oklahoma A&M, which is OSU now. But, I kind of just got tired, and I came to Dallas, and I looked in the paper, and I saw an ad, and it said, "Two years of college and good at math." Well, I laugh about that now, because only changing pounds to kilos is about the only math we use anymore. So, I answered the ad, and they told me to go out to the medical school and ride the bus out to it. And so, I went in, and interviewed with Dr. Wilson. And so, when I filled out the form, it said, "Have you ever been arrested?" Well, being from Oklahoma and naive, I put, "Yes, stealing hubcaps." Well, he was reading my thing and introducing himself, and we were going over where you went to school and so forth. And he just stopped, looked up at me, and he said, "You're hired." And I said, "What?" And he said, "Anybody that honest, that's the person I want in this job. You're hired."

Mark Kurusz: Wonderful.

J.B. Denman: And so, stealing hubcaps paid off, I guess.

Mark Kurusz: Sure.

J.B. Denman: But that's how it was started. We worked in the research lab almost every day, too, plus doing the cases, and most of them were at Children's Hospital at that time. Then we

went on to do the adults at Parkland. And I was fortunate enough to be trained by Dr. Ernst, who had spent a year as a Fellow up in Mayo doing just the pump. And, of course, back then all of the surgeons had to run the pump when they went through training early.

Mark Kurusz: Is that right?

J.B. Denman: Yeah. Nearly every one of them had spent the time, so they were very knowledgeable. And so, I feel like it was good that I was trained well, I think, but it was on-the-job, and there's goods and bad with that. And that's how I got started. And I've stayed in the Dallas-Fort Worth area the whole time, a few three years stint with Psicor that managed Texas, Oklahoma, and Louisiana. But, basically been in the Dallas-Fort Worth area, all the hospitals, all the surgeons, and enjoyed it.

Mark Kurusz: I can imagine. I'm sure in the early days, 1959, 1960, you weren't doing a tremendous number of cases every week.

J.B. Denman: No, it was about four. I think we did about 50 or 60 the first year. So, it was about four a month, and most of them were all congenital children, nearly all of them. But then the adults were usually VSDs, aortic valves. And aortic valves is…there weren't really very many valves, so they were sewing the Bronson cusp in, which are individual cusps. And so, if one of them was prolapsed, they would just cut that out and sew one cusp in, and you'd leave the other two natural ones. So, that took a long time, and the cases were long over there. And, as I say, the first adult case I ever did, it was over six hours on the pump, and the patient died on the table. I was ready to quit. I said, "I've had enough of this." And Dr. Ernst said, "You have just done your hardest and longest case that you will ever do." Well, that held up for 30 years. And then I got those dissection aneurysms that go on forever, but it really did hold up for the longest and the hardest case that I ever did. But it's rewarding. I wouldn't trade it.

Mark Kurusz: And then in the late 1960s, early 1970s, the CABG operation came into being, and then the business must have really taken off.

J.B. Denman: Well, we had the Vineberg's before that.

Mark Kurusz: You did Vineberg's?

J.B. Denman: Yeah. And they always cannulated the heart and everything, and they didn't do it off the pump or anything. They cannulated, ready to go on the pump, and then did take the mammary tunnel and put the Vineberg in, and then decannulated. And so, unless they crashed, we'd go on for a minute, and they'd resuscitate. But, we basically set up the pump for all of them. And I did a case in 1963 in Amarillo for a friend of mine, a doctor. And it was an aortic valve. As they were taking the cannula out of the coronary, the perfusion cannula, the assistant tore the coronary. I don't know what it is, but I've got photographs, and I'll submit them someday—they're black and white. The doctor said, "Oh, prep his hand," they prepped his hand, took the vein out of it, and did the first, I think, the first probably vein graft ever done.

Mark Kurusz: And this was in 1960?

J.B. Denman: 1963.

Mark Kurusz: 1963, that's really early.

J.B. Denman: October, November, somewhere right in there. And it was hooked to it, he had to put a graft in the aortic valve. And so, I have some black and white pictures, and I'm going to scan all of them, I'm in that process. And I think that's what we ought to do. Everybody in every region should do their history, send it in to AmSECT to a central location, or we lose our history.

Mark Kurusz: Sure. I can't agree with you more J.B. That very well could have been one of the first cases.

J.B. Denman: But then, on the second case, Dr. Ellis, which was here in Dallas, that actually did one of the first coronaries. And he did the first one, and the photographer had a twin-lens reflex. And he took the pictures of basically the chest wall, because he was looking through here and the twin-lens reflex didn't get any pictures. And so, Joe [Guzman] called me, I was in Fort Worth at that time doing perfusion, and I also ran the medical photography department. And so, they postponed the case till about three in the afternoon so I could come over. And so, I took pictures of the second jump graft, which is around. And so, it's been seeing a lot of new things.

Mark Kurusz: Sure. You mentioned the research lab, when you were only doing four cases a month. Did you also work with dogs and other animals?

J.B. Denman: Yeah, we did. We did the animals, and we did the dogs at that time, and we would do one to two a day, and different procedures. The interesting thing that I think about doing the cases, that all the young people won't relate to, is back when we'd go on the pump, we had a fixed rate Sigmamotor [pump], and we'd figure out the flow rate. and they say, "Pump on," boom, whatever it was three liters a minute, there was no up and down. When they got ready to come off, "Pump off," boom, off. Then we'd draw blood gases, put them in ice, took them to the medical school, the next day they ran them on the van Slyke, which people probably don't know what that is. But anyway, and then we'd get the results the next day. And we'd say, "Oh, about halfway through the operation we ought to turn up the oxygen on this next case." And so, all this CDI instant stuff, it was the next day for us.

Mark Kurusz: That's amazing. So, it was very empirical.

J.B. Denman: Yeah.

Mark Kurusz: You would learn from the previous day's case.

J.B. Denman: And apply it to the next one. And, of course, the tubing we had, there was no prepackaged tubing like Cobe and Bentley and all this stuff. And we actually took the lines, cut them, and we actually went to Frito-Lay and got their big potato chip cans and put stocking net on it, and wrapped the tubing around that for the different lengths, and then sterilized them. And, of course, then it turned cloudy, and then we had to put it in a dryer for a bunch of hours to dry out, clear up. And sometimes they'd turn brown and hard to see through it. So, we made our own tubing packs, per se, and then we came in usually the night before to set up, because that was a helix coil inside the water baths. And then we finally got fancy and went to the disc oxygenator, and we thought that was a most wonderful thing that there was.

Mark Kurusz: Except when you had to clean it.

J.B. Denman: Well, that was one problem. You had all those little discs, and if you got them together, not separated, and sometimes they just weren't quite as efficient. But no, we really innovated. And we had a perfusionist over in Fort Worth that helped Dr. Claude or Clyde Johnson, that was a blacksmith, and he didn't really make the pump, but he did a lot of stuff for instruments, where they would almost during the surgery, "I need a clamp," and he'd go over there and bend it and heat it and that stuff.

Mark Kurusz: Is that right?

J.B. Denman: The things that we've done that are routine now, we actually did. And that's what makes it fun.

Mark Kurusz: Sure, sure.

J.B. Denman: It's real easy to open that tubing pack now.

Mark Kurusz: Oh, sure. Well, I don't think, as somebody who entered the field just after the disposable era started, I don't think I can appreciate having to clean discs and dealing with making your own tubing pack. That's just how it had been...Well you didn't know any better, did you?

J.B. Denman: Well, no, that was the only thing, we had to do it. I mean, there wasn't a choice on that thing. And, of course, I was single when I first started, for the first four years. So, I didn't mind working late and doing…and I was excited about. So, it wasn't like you're married and kids to school and that stuff. So that made it a lot easier too.

Mark Kurusz: Sure. You've worked with several surgeons over the years, J.B.?

J.B. Denman: Yes. Worked at the medical school, and I went with Dr. Wilson when he left private practice, then I went to Fort Worth and worked for about four or five years with Dr. Ernst, and then I came back and worked with Drs. Mitchell and Adam, there at Baylor. And then it grew from just Joe Guzman and I, up to four perfusionists, David Carroll and Tom Rawles and

Michael Joubran. And then I left and went with Psicor for three years and enjoyed that. Mike [Dunaway] was a good motivator, and I really did like going with Psicor. But then I had an opportunity to come back and stay at home and work with Dr. Geisler, he called. And so, I took that, stayed and worked with him, and then he retired. And so, then we went with Dr. Chris Moncrief, and so, I've been working with him just exclusive for 15 years. And I do [work with] one or two other doctors out at Presbyterian, but you just, how many years, there's so many stories, there's so many things, you couldn't do in 10 days, but it's fun the little things that trigger, that you remind you of things.

Mark Kurusz: Sure. Well, I imagine when there were just one or two of you, you had to have been on call every night?

J.B. Denman: Well, it was. And if we went to a meeting, we called and told them which hotel we were in, when we were going, this and that. And now if I'm going to New York, I tell them I'll be in California. [laughter] Nah. The people here, being working as a single perfusionist now, the groups here, both of them have really been nice and supported me if I want to go out of town, or when I had my operation or something, they've chipped in. So, the Dallas perfusionists really worked well, in fact, one of them even called from the medical school, called and said, "J.B., can I mow your grass?" When I had a little sigmoid tumor removed, and I was out for a little while. And he said, "J.B., I can come over and mow your grass," so, that's the kind of people we have here in Texas.

Mark Kurusz: That's wonderful to hear. Are there any surgeons who really stand out in your mind as having an impact on your career or somebody who taught you a lot about perfusion?

J.B. Denman: I think the person that I give a lot of credit to was an anesthesiologist, Dr. John Melvin. And when I would go on the pump, a lot of the anesthesiologists used to leave the room. So, he came over and sat down beside us. I knew more about drugs then, because when we did our grandfather test, I made flying colors in the drugs, because he had sat there and explained the drugs and the names, and where old perfusionists, and anesthesia gave them, so they never didn't know what. So, he explained, then he went to, in fact, I think he went to Galveston to take the test, the CCP test. He actually took the test, came back, had passed it. Came back and everybody said, "Who's that guy from Dallas that got through in two hours instead of four?" Or whatever. Well, he came home, but what he did was he told all the physicians, the medical staff, "That test was equal to any I had in my training for my boards," and immediately perfusion CCP went right straight up.

Mark Kurusz: Is that right?

J.B. Denman: I meant he helped, just that one comment, by taking the test, coming, and that he promoted and then we were on a different level. We weren't just somebody that happened to take the test, so that made us all feel good. And it really did help us here in the Dallas area.

Mark Kurusz: So, did you end up taking the grandfather [examination]?

J.B. Denman: I took the grandfather, yes.

Mark Kurusz: And let's see, 1972, the meeting was in New York.

J.B. Denman: New York, uh-huh.

Mark Kurusz: 1973 was Los Angeles.

J.B. Denman: Yeah, we went to the first one in New York.

Mark Kurusz: Did you really?

J.B. Denman: Uh-huh. We were all sitting there wondering, and we laugh at some of the things that went on. Forget the little girl down in San Antonio, she'd had to translate it from English to Spanish to back, to answer the questions. We laughed about, I forgot who it was that would put an answer and erase it, put an answer, erase it. We were all nervous, but I guess I have to look and say, thankfully, that it wasn't a pass-fail, but I think we all did exceptionally well, because we had learned stuff. Most everybody on the drugs was [scored] the lowest, and that was probably one of the highest ones [for me], just because of Dr. Melvin. So, I give a lot of credit for him, and he supported us for a long time.

Mark Kurusz: That meeting was at the Waldorf-Astoria.

J.B. Denman: Waldorf, yeah.

Mark Kurusz: Do you remember how many were in the room taking the exam?

J.B. Denman: I don't. There were big round tables with about eight people at each of them. And I can't even remember who was at my table.

Mark Kurusz: And there was no oral exam at that time?

J.B. Denman: No, no. That was just, you had to be, I don't even remember how many years you had to be in perfusion prior to sign up for it.

Mark Kurusz: Did you participate as an oral examiner in years to come?

J.B. Denman: I never did do that.

Mark Kurusz: Never did?

J.B. Denman: Maybe I wasn't smart enough. Nah, it didn't work out with my schedule, and here and there, and I never did have the opportunity to do that.

Mark Kurusz: I'd like to move now into some of your career highlights. The first question I'd like to ask you, J.B., is as you look back on the evolution of the technology over the last 50-plus years now, what stands out in terms of innovations or techniques, equipment—what do you think were some of the major technological advances in perfusion?

J.B. Denman: Well, I say the disposables really did change. We got rid of that so-called pump fever that everybody got.

Mark Kurusz: Tell me a little bit more about pump fever.

J.B. Denman: Pump fever was just, I'm sure it was, we didn't get everything cleaned well, that I don't know whether it was infection, whether it was just what it was, but it was everybody had the rash, and it was called pump fever, and everybody got it. And whether it was not the blood crossmatched well, whether it was the turbulence of that, but that was a standard pump fever.

Mark Kurusz: And that would be manifested postop?

J.B. Denman: Yes, postop. And so, the disposables eliminated most of that, because I'm sure it was clean, sterilized, different, because like I say, tubing, it was sterile in the autoclave, here with maybe for instruments not dried well, there's a whole lot thing. I think the disposables then, disposable oxygenator, and then the tubing pack. I think that's the two real advancements that's helped perfusion, we're able to set up quickly. Of course, now if you go machinery, I think there's three highlighted machines that are the cell savers, and the CDI, and the intra-aortic balloon. And it's interesting that I got to run the very first cell saver over on a clinical, that Coin was her last name I guess she was from up there, Boston, and she called, "J.B. I have this new machine." Came down to St. Paul's, we hooked it up, and I was on the brochure for a while, for a bunch of years of Haemonetics. And so, we used the first cell saver there. And in the CDI, they came from California, and we hooked it up and they said, "Well, it's only good for about an hour-and-a-half." Well, the one we set it up on was a redo, so it was about four hours before we got on the pump, but it ran perfectly, and I did that. And so, we got to do that. And then, of course, the Smec balloon, Dr. Lambert worked with Peter Schiff. And so, we really got a lot of that, and I worked with Peter, and at nights when he'd come in and work on it. And so that was three things that I think really has helped perfusion more. Yes, there's fancier pumps. Yes, there's some other things, but if you had to just sum it down, I think those three machines, and the disposable oxygenator and tubing pack, are the things that really have made medicine.

Mark Kurusz: Sure. Well, I remember the days before cardioplegia and before intra-aortic balloons, where sometimes after six hours, there was just no hope of ever weaning, and we'd have to turn it off. But when the balloon pump came in, at least you had a fighting chance. You could, a lot of times wean them to the balloon and get them over to the ICU.

J.B. Denman: Yes. And our doctors had worked with it so much, we didn't think that it was a lifesaving machine. We were more aggressive earlier, because I remember the first time Dr.

Mitchell, we saw this patient, called into ICU, we all run in at night and he said, “This is too late for this balloon,” and I said, “You better call us earlier next time,” and walked out. Well, whether you can do that today or not, I don’t know. But it made us where the cardiologist learned that, yes, you’re going to get better results. And I gave the talk years ago up in Michigan. And I know Charlie Reed followed me, because I made the talk about the intra-aortic balloon. And then the first thing he put up on the slide to follow me was, “If you have a bow tie around a coronary, what is this machine going to do to push the blood past it?” But that’s Charlie. But, in a point that was right, it didn’t really put blood past the obstruction, but it did support the heart. And the unloading, we finally realized, unloading was what, it wasn’t the pushing of the blood, it was the unloading of the muscle. So, we were a lot more aggressive, we’re using it quicker. And so, our results went from up real high in just couple of years, from almost all of them dying to 25%, 50%, 80%. So, within three or four years, we were higher than anybody.

Mark Kurusz: Really? I think that certainly in my experience and really to echo what you just said, there was an evolution in the understanding of how the balloon pump worked. I remember them coming in as sales people from Datascope, well, Avco actually, saying it’s going to increase coronary flow, but it was really the unloading that was the main benefit there.

J.B. Denman: That’s what really helped the patient, it wasn’t the pressing of the blood.

Mark Kurusz: Have you worked much with the cardiopulmonary industry over the years, or what are your views of the devices they’ve brought to market? I want you to tell me whether you think that’s generally been favorable or unfavorable.

J.B. Denman: I think it was really good in the early days. And the reason was the companies were learning, too. They may still have some more focus groups, and they just hadn’t called me, I don’t know, but we used to always have focus groups. We went to Colorado with Cobe, we’ve gone to California with Bentley and Edwards, and all the other people. And so, they brought in perfusionists around, we met new friends, we were able to pick up the phones and called somebody in Tennessee and asked them, “Oh, I saw that and made that.” They paid our way, back then we weren’t making that much, so they paid our way. They didn’t ask that we had to use their product. And so, they gave us educational material, money, research money, I think that they sometimes feel like they’re a bank account that we’re just supposed to call up when we want money, but they’ve really helped our society, and they show up every time.

Mark Kurusz: That differs a bit today.

J.B. Denman: It is, and part of it is the tax structure that you can only deduct so much to help somebody, or a gift and one thing, and not that we were paid money, kickbacks or stuff, but we did research for them, and it was really research. I mean, you down there did a lot of research in the lab, we took some new equipment to the lab. And so, we were a big enough group, and aggressive enough with our doctors, that a lot of the companies came to us to, “Would you look at this? Try this.” And so, that we’d sit down with all the doctors and stuff and say, “Shall we

give it a whirl?" And there were some of them that just didn't turn out. And probably the funniest story was, I won't say which oxygenator, was a membrane oxygenator. We hooked it up and it didn't oxygenate. We'd ask the doctor, he said, "Sure," he thinks it works. And so, we started the case and they saw us scrambling around and the scrub nurse, I said, "Shh…" And so, that you couldn't do this now, but that Joe [Guzman] and I switched the oxygenator out, went through, surgeon stops, turned around, saw one of the cases over and said, "Well, how'd it work?" Well, we told him then that we, "Oh my gosh, you all are pretty good. I didn't even know it happened." So yes, there were some that just flat didn't work. And we had the oxygenators that foamed and bubbled, and some of that was manufacturing, leaving out a defoamer or something like that and by us contacting them. Harvey oxygenators, years ago, we had that one that foamed up, and we called Bob Jacobs and said, "You better get over and look at this and you better call the company." Well, immediately they got on it, and then they saw that somebody had left out a defoamer in the design. And so, it was quickly fixed. So, it's between the two companies and perfusionists, things have really improved.

Mark Kurusz: Those were back in the 1970s and 1980s?

J.B. Denman: That was the 1970s.

Mark Kurusz: How would you contrast the reliability of the equipment that you use today?

J.B. Denman: Well, unfortunately, we've had two or three recalls on some things lately, and from pumpheads, to oxygenator, to cardioplegia sets. And I'm sure when you're making a thousand, it's a little easier than when you're making 10,000 or 50,000, that you're going to have some manufacturing errors. But, I think we still check them out, we run the water through, we turn on the oxygen, and the heater just to make sure it's warming, make sure everything's working, prior to going on so that it doesn't stop something from happening. But it's usually something else—that line blown off, or kinked, or clamped, or something there, that's why it doesn't work. They do a good job, they really are reliable. And you feel comfortable every day of opening that package and just setting it up.

Mark Kurusz: When did you start using a perfusion checklist, J.B.?

J.B. Denman: Probably with Psicor, which was years later. And that's one thing that they really did. And I related to it when Mike came in and said, "We're going to do it like an airplane pilot," because I had been flying before then. And that was the first thing we did, and gasoline and wheels and tires, and all the other stuff, so I felt comfortable using it. I didn't mind it. A lot of people didn't. Some of it was just like nurses counting instruments, on emergency you couldn't do everything. And then they finally developed one that had a quick checklist, you had the oxygen, and one and that stuff, so that you didn't have to go down through to have tubing clamps and tape measures and all that. So, it was a quick response.

Mark Kurusz: That's the so-called killer list. You make sure the oxygen's hooked up, and all the things that could really hurt the patient as opposed to, as you said, looking for adhesive tape or having the right number of tubing clamps.

J.B. Denman: And that's what I think the airplane instructor told me, he said, "J.B., you are an exception because you're always scanning the instruments and you're looking." And I said, "Well, I'm sure that was my job." My job is to look at the monitor, and look at here, and look at the urine, and look at the pump and the flow. And I do that every few seconds, everywhere. And so, flying the airplane, that was a natural thing for me to check this and check that and so they both paid off.

Mark Kurusz: Did you ever get involved, here in Dallas, mentoring other perfusionists, or did you have visitors come to your center to learn the latest techniques?

J.B. Denman: Well, we did have a lot of visitors that came through. The companies would bring, because we had a big enough volume that it was like Texas Heart, and some of the other big volume places that there were always cases every day. So, no matter what day they came in, they could see work, the same group worked at three different, Children's Hospital, St. Paul's, and Baylor, so that we could show them the children, adult and that. The first one that Joe [Guzman] and I took was Tom Rawles, which was a lab tech over at Fort Worth, that came and said, "Can I learn to run the pump?" So, we OJT'd him, and he's turned out a very good perfusionist and done well here, and he retired now. And then the next one was that guy named Scutter Newton, and he was a scrub tech, and he wanted to learn. And so, he came in on his days off, or come in early when we were setting up, before he went to work. And then we even had signed a paper, because they were going to say, since he worked for the hospital, they were going to have to pay him overtime if he came in and watched us. So, we signed a paper, and he signed a paper that he would not do any hospital job, he was there to learn perfusion. And so, we got that. And then the other one was Bill Watson, actually dated my daughter, and went to the high school there. And he said, "J.B., I'd like to be a perfusionist." I said, "Well go down there and apply at Texas Heart. Now you're not going to get in this year, but go apply. And then if they happen to call you, tell them, well, during your interview, if it's on Friday, and it starts on Monday, that somebody didn't show up, you will be down there in two hours." He called me Friday night, "J.B., you won't believe it. They told me to report Monday morning, ask if I could," and off he went.

Mark Kurusz: Is that right?

J.B. Denman: And so that's how Bill got in down there. And, of course, he was the youngest one, he was under 21. And so, he's done well, too. Oh, that's the three that we really worked with the pump, we had a lot of people come through. But the thing that I'm kind of proud of is helping other people. I've helped a little Vietnamese girl that's graduating from x-ray school out in California now. There's a little Brazilian girl that started in Presbyterian as cleaning, emptying the trash. And so, I said, "You ought to start going to school," she went to school and then Presbyterian had the nurse's program to become a nurse, and they'd worked with her

schedule. And so, she applied for that and one day that she couldn't get a transcript. And she, and I said, "Come on," we drove over to the college, and I said, "We want her transcript." "Well, we'll mail it to you." I said, "We're going to sit here in this building, right here. You lock the doors, we'll be here in the morning. She wants her transcript." So immediately they went and got it, so she got in the nurse's program. She graduated two years ago. And she just, last month, got her BSN. And so, those are the type of people that I like to help that, yes, perfusion come in. But now, they're mostly going to the schools, which is good. And it's a regular curriculum, so that we know that when a person comes out of a school, he's been taught everything. There's good OJTs, and there's bad ones. So, I think that it made it a standard routine curriculum so that everybody knows that's graduated from the school, what training they had, was like a college education.

Mark Kurusz: Sure. Well, going back to the case of Scutter and Tom Rawles that you trained on-the-job, how long was the training period? In other words, when did you cut them loose to solo, J.B.?

J.B. Denman: Well Tom's was probably, I bet you, it was close to a year, and he actually set up, helped do other things before. And even if he ran the pump, we kind of were there with him. So, his was a little longer. Scutter being familiar with [being a] scrub tech, all the blood gases, so forth and so on, it was a lot quicker. And his very first case, Joe and I were doing a case in the other rooms, and they had emergency came in. So, his very first case he ever did by himself was down the hall, in a room that wasn't even a heart room. He had to pull oxygen tanks in, the pump, and he'd come out of there, and he looked like they'd poured a bottle of water over him, because he was sweating, so nervous. And I said, "Scutter you made it now. Congratulations."

Mark Kurusz: Oh, that's great. What a great story. And Scutter remains a friend to this day?

J.B. Denman: Oh, he's like a brother.

Mark Kurusz: As you think back over all the cases you've done, do any of them stand out as particularly memorable? And we don't need to necessarily name names, but just in a brief overview, whether it was a pediatric case, or a trauma case, or an aneurysm case, do any of these cases stand out that you'd like to tell a story about?

J.B. Denman: Well, we've all had our disasters. We've all had our emergencies, and I think everybody's performed well. I don't put one, that very first case I did that died, stands out. It will always in my mind, because I'm going to do my darnedest never to have that happen again. Not that I have complete control over it, but I want to do my best. We've done some children, there was a little eight-year-old boy, got shot with a BB gun in the heart, at an adult hospital, came in. Well, we didn't have any pediatric oxygenators, and so we tilted it down, just so that it was just barely enough down in there and wouldn't suck air. And so, there's a whole lot of things that were done, late nights, weekend, but I wouldn't say this one's the greatest or that one's the greatest. I don't want to go back to any of those old bad ones, but I like the single jump, off-pump. They can't get them all there.

Mark Kurusz: Sure. Those are far and few.

J.B. Denman: I wouldn't, in 52 years, you've seen everything at least twice. And so, I don't think there's one case that really jumps out more than the others.

Mark Kurusz: Having practiced for 52 years, going on 53 now, what is your individual approach to a case? Let's say you got a case tomorrow morning, how do you prepare for that case, J.B.?

J.B. Denman: Well, what I've told everybody, I think it's like a professional golfer. You look at the case, like he does the course, you picture it in your mind from the first shot, every shot all the way through, what you're going to do. So, then when you start, you've already had that picture in your mind of each shot. When you go on the pump, when you're warming, when you're cooling, so forth. And so, I think that, that's the thing you do. You don't just walk in there and just catch up. I think, "I know it's a four-jump with an aortic valve. Okay, I'm going to do the valve first, I going to do the jump here," and have everything in your mind before you ever start.

Mark Kurusz: That's a great way to express it.

J.B. Denman: But the funny story is, that as one of the surgery techs said, "J.B., you know what I noticed?" I used to have a mood ring, when the mood rings first come out.

Mark Kurusz: Yes.

J.B. Denman: Cost $100. Now, they're a $1.50 or something. Anyway, he said, "Before you go on the pump that thing's black, and once you get on the pump and going on, it turns blue." I mean, it just showed how nervous and restricted I was, anticipating going on the pump. And then once it got smooth, then it turns blue.

Mark Kurusz: What a story, that's terrific. Do you still wear that mood ring?

J.B. Denman: No, but I wore it playing poker one night, and all my friends didn't know it, at the end of the night, I said, "Well, you could have told whether I had any cards or not, if you'd have just looked at my ring, it would've turned," but they, "Wear it next time." "No, I'm not going to wear it next time."

Mark Kurusz: Oh, boy. Well, I'm sure you've worked as a solo perfusionist quite often during your cases, that is one perfusionist per case. But could you tell us a little bit about what you think about the word teamwork? And by teamwork, I mean, not only other perfusionists, but the other team members, like the anesthesiologist, the surgeon, the nurse, who are all there on one case. What do you think of teamwork?

J.B. Denman: Well, teamwork years ago, when we thought we had teamwork, the surgeon was the only one that was allowed to speak in the OR.

Mark Kurusz: Oh, boy.

J.B. Denman: You spoke to him, he spoke to you. Most of them had all run the pump, so you said, “I’m turning up the flow.” “Okay. I’m turning down the flow.” And you turn around, draw a blood gas. So, he basically ran it from there, we just did the part. After he got familiar, and he was busy, and we had shown that we could do our job, then it got to be communication. But a lot of the surgeons were just, he and I were the only people, and the anesthesiologist, were allowed to talk. The nurses weren’t allowed to really communicate, and they had to speak through him. They couldn’t come up to me to say something to J.B. That was good, in a point. But now you need to communicate with the circulators, but you should not demand, “Hand me a syringe or something.” “Would you please give me a syringe?” I think the word “please” makes that teamwork a lot better. The other thing is, that a lot of perfusionists do, and I’ve seen and heard over the years, is they wait till the problem happens and then they say, “Oh, my God, something happened, pumped air, one thing, or whatever, ran dry, or fell off the holder.” You know it’s going to happen a few, little bit before, you communicate that to the team, because they all have a response to what they do. Whether they get instruments, get blood, get anesthesia, starts breathing, one thing and the other. So, you anticipate it, then everybody goes in not an emergency situation, but anyway, they’re all on the same wavelength. Because I have a good friend that they kinked the tubing, and the level went down, and he said, “Oh, my God, this is going dry.” Oh, no, I'll start, cancel that part. What actually happened was that he bent over to take the clamp off, and one of these lenses fell out of these glasses. He caught it, the nurse started laughing, the surgeon turned around and kinked the venous line and it ran dry. Well, instead of everybody responding, as we learned in perfusion over the years, that when there is an event in the room, whether it’s a nurse falls down, whether it’s ceiling light or whatever, everybody should pay attention to their job right then. And so, they didn’t do it that day, and that was a disaster. So, you have to communicate. Unfortunately, now we go to so many hospitals, or a lot of them do, a lot of different nurses every day, anesthesia’s a different person, that’s tough. Residents, new doctors, so, I think the word of being humble and honest and asking questions and saying, “Please” and “Thank you,” is the best communication that we can have in the OR.

Mark Kurusz: That, as well as working with a team consistently, instead of having different personnel every day.

J.B. Denman: That’s it. And I’ve been fortunate to have some, maybe just only one or two anesthesiologists, same surgeons, and that.

Mark Kurusz: We mentioned some of the slide collection that you have. And it looks to me, from what you’ve said, that you’re going to go through some of those. And if there’s any particularly historical slides, you’d be willing to donate those to AmSECT?

J.B. Denman: I would, and I would challenge everybody to go home, do their own area, because they know it. Maybe they’re new there, but they can start asking questions and start gathering together. They do need to come into a central location, and if AmSECT, and I’m sure a company

would sponsor to help do it, because a friend of mine and I are going through our hometown in Sulphur, Oklahoma, and my parents were photographers there. And so, we had thousands' worth of negatives and stuff, and he's been scanning them, and we've been labeling them for our hometown. Well, this is what should be done now, because it's almost getting where the perfusionists don't know what happened back past the 1980s.

Mark Kurusz: Well, I think that's a great idea, J.B. The last area I'd like to move into is something I've titled, "Perspectives, Philosophies, and Reflections." So, this last five set of questions have to do with your thoughts from all your experience. What do you think are the personal and professional attributes that contribute most to a person becoming a good perfusionist?

J.B. Denman: Well, this might sound wrong, but I think the word professional—I forgot how you worded it. Perfusionist professional.

Mark Kurusz: Professional attributes.

J.B. Denman: I think that doesn't mean a darn thing, if you want to know the truth. And why I say that is, I think a person should be a good father, a mother, a person. And once their children and family are proud of them, you've reached the top, and everybody does it differently. But I think that what will make the best perfusionist—a person that when their family is proud of them, then you've reached it. Sorry. That's from the heart.

Mark Kurusz: Well put. Well, I think that's very eloquent. Another tough question for you, what has it meant to you all these years, having been a perfusionist? Because you could have gone into almost any area coming out of the Marines, as you did. Tell me what you think about being a perfusionist?

J.B. Denman: Well, I was excited at first, then I thought there was too much work, maybe I wanted to go be a salesman. The only regret that I have in perfusion, is that I missed a lot of the children growing up, the football games, you have to drive two cars if you got called away. And a lot of events. Now, we did financially do well enough that we were able to make our family secure. We got to do a lot of things that a lot of other families didn't do, we had certain days off that other people didn't. So, I think it's been a great profession. My mother, when I first told her, she said, "Lookie, that is one of the best professions, medical." During the Depression, when she grew up, they were fed at the hospital. They were not paid, but, at least, they had food. And so, my family, I hope they're proud. I think they are, we've had a good life, we've had some ups and downs. And so, I look at it as a great big family, there's a lot of brothers and sisters, and we're going fight, and we're going to tear and call names and all that stuff. But if somebody out here calls a perfusionist, then all of us are going to jump on them. And so, I think that's what we are, I think we're a great big family.

Mark Kurusz: Well, another well put thought, and I really appreciate your eloquence in that regard. That last question feeds in somewhat to this next one. And it really is, what did you

enjoy the most out of perfusion? Obviously, you've enjoyed it, because you're still doing it. You probably could have retired 10 years ago, J.B…

J.B. Denman: Well, that's it, I really do. I do realize that there's a limit, age creates a limit on doing certain things. I work with a doctor that doesn't, as we call, chase ambulances, he schedules the case usually the next day or two, or three days ahead. So, I'm not running between hospitals, and I basically have 12 hours anyway, to plan for the next case. It's indoors, air conditioned, you get to sit down, what else? That's the best job you got.

Mark Kurusz: Sure. And you don't have to wear street clothes.

J.B. Denman: You don't have to wear street clothes, but I joke, my blue jeans are probably just as clean as those scrub suits they wear in from work. But no, I probably wouldn't have met [my wife,] Nancy if I hadn't have been a perfusionist, walking down the hall 47 years ago and saw that ER nurse, and still married.

Mark Kurusz: Wonderful.

J.B. Denman: So, perfusion really paid off.

Mark Kurusz: Wonderful. Can you share with us any specific memories of your AmSECT…And what I'd like to ask you, J.B. is, you did participate in some of the political processes in AmSECT and served on some of the committees.

J.B. Denman: Well, when we first started and heard about AmSECT, it was started two or three years before AmSECT really started. Our first meeting of the guy from Temple and Dallas-Fort Worth and that stuff, all met at a hotel. And they said the first meeting was, I believe was in Minnesota, nobody had any money to go. I can't remember his name down in Temple [Jim Burke], but the hospital would pay his way. So, he got to go and represent the Texas area and did that. And so, then yes, I did go to the AmSECT meetings, at first, because it was the only chance we could get to go to a vacation. We took the family, or they always had, that's kind of why most of them are set up where the family can come with them. And, so locally, I enjoyed working with the people. Then it got to where that somebody suggested or go to the Board. So yes, I went to the Board and enjoyed that for a few years. And so, then I thought, "Well, I'm not a person that wants to be on the top," but I thought, "Well, if you've got some ideas, and you need to do them, move on up the ladder." So, I decided to run for President-Elect, and I ran for President-Elect. Or no, I guess the first year, Scutter ran at the same time, and we both lost. And so, we came to our family and said, "Well, we lost." "Oh, really?" "Yeah." And then the next year I got to be President-Elect. I enjoyed that, because you got to guide the whole perfusion society in a direction and made some good friends. They kind of set them in rows, what Region you were in. I then got to President-Elect, and then politics, I guess, are really everywhere. I probably wanted to change too much.

Mark Kurusz: Oh.

J.B. Denman: I believe that we ought to do this, and ought to do this, and I was vocal about it. And whether that had anything to do with it, I don't know. And a few years before, though, in AmSECT, there were only 160 people who voted.

Mark Kurusz: Oh, my goodness.

J.B. Denman: I came, and we went to the Board meeting, and I said, "Next year, I'm going to be President." "What do you mean J.B.?" I said, "All I have to do is give 81 people $10 each to vote for me, and I can be President."

Mark Kurusz: Oh boy, I'm sure that ruffled some feathers.

J.B. Denman: But, then they kind of got talking, and I think it was a good thing that they brought up, is where you needed to go through the ranks per se. You got so many points for a local and this and that. That doesn't mean that there's not a super person down here that shouldn't circumvent it and have something. But I don't think, even if he's super, he wouldn't have done his good job unless he got to grow with, to know what the whole situation was.

Mark Kurusz: Sure.

J.B. Denman: But I enjoyed it. I really did. And then when I was President-Elect, I got to go to the regional meetings of different areas and meet the people. And I got a letter from Kenya or somewhere, a perfusionist wrote me, and said, "Oh, I like you very much," or something. Because I'd sent a mailing out and that stuff.

Mark Kurusz: Yes.

J.B. Denman: So, I don't know what we need to do now. It's gotten so big, we're so busy. We've cut it down to four regions. And if I said anything, and I think it's impolitical, whether it's the government or whether it's AmSECT, I really think we really ought to have a term limit.

Mark Kurusz: Yes.

J.B. Denman: I know that those people that have moved up the rank and got to be President have done a super job, but then starting over again, I think they would be better off promoting some of the younger people because someday we're not going to be able to do it. And if we don't bring up the young people with us, then it's just going to dissolve. But AmSECT's strong. We had our deals with the [American] Academy and that stuff, but the Academy came up right. AmSECT should have been doing that. We should have been talking about research. We should have been talking about perfusion instead of doing the things that…partying and that. So, each of them helped each other.

Mark Kurusz: That's a good way to look at it.

J.B. Denman: Yeah. I think the only thing that was wrong was the Academy is too restrictive to join.

Mark Kurusz: Yes.

J.B. Denman: But they had a lot of good…I think that they probably have helped perfusion a tremendous amount by doing the research, the papers, and getting the communication out to the world. Of course, we're lucky to have Jeff Riley and some of the people that have pushed their schools to…

Mark Kurusz: Sure. Well, you mentioned Jeff. In those days when you were active politically, are there any other people that you still remember in a real favorable way?

J.B. Denman: Well, Maddie will always, by everybody. Will always…You know Maddie.

Mark Kurusz: Yes.

J.B. Denman: Charlie and I, we were friends, but we battled our ideas together all the time. I don't think that I had anybody I didn't like, disliked, or anything. I think everybody had the same goals to push. So, I don't put the AmSECT…I think AmSECT's done well. I went to the meeting when we elected the first Executive Director. That was smart. Getting a man to run the business.

Mark Kurusz: Yes. Well, this is your last chance to speak to the young'uns of today. Are there any closing thoughts you might have, J.B., that you'd like to share that we didn't cover in our set of questions here?

J.B. Denman: Well, one thing I missed was an important thing that we all laugh about now, or don't think much about, is backup power. And I don't know how many people have cranked the pump, but it's not for the birds. So, that ranks there right up pretty high on perfusion, having the backup power. But what I really want to say is that I know that a lot of these young people that are listening to this have no idea who their grandfathers are, but we are a family, and I hope this video and the information helps. But I want to tell every one of them, every one of you all, that someday you're going to be the grandfather, and you're going to be sitting here saying, "Way back in 2012, we did it this way." Good luck.

Mark Kurusz: That's a great closing thought, J.B.

J.B. Denman: Good luck to all of you.

Mark Kurusz: This has been a wonderful interview. And, again, I want to thank you and your wife, Nancy, for taking time out of your day to let us come into your home and make this video. I think it's going to be part of the archival material that AmSECT is going to collect, for sure. I know that this will stimulate them to do even more interviews.

J.B. Denman: Well, all perfusionists are happy to have the opportunity to have somebody's life in their hands, do good with it, make the other team members not have to work harder or anything. So, perfusion is a wonderful profession, from the heart, to turning the knobs.

Mark Kurusz: Absolutely.

J.B. Denman: And they keep saying that they're going to come out with machines to replace us. And my answer is I'm going to take the knob home that turns it on and off, so they will still always need me.

Mark Kurusz: Well, that's a great closing thought, J.B. Thank you again.

J.B. Denman: Thank you very much.