Case No. _____

IN THE SUPREME COURT OF NEVADA

HARVEST MANAGEMENT SUB LLC,
Petitioner,

vs.

EIGHTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA, IN AND FOR THE COUNTY OF CLARK, THE HONORABLE LINDA MARIE BELL, DISTRICT COURT CHIEF JUDGE,
Respondent,

- and -

AARON M. MORGAN and DAVID E. LUJAN,
Real Parties in Interest.

District Court Case No. A-15-718679-C, Department VII

APPENDIX TO PETITION FOR EXTRAORDINARY WRIT RELIEF VOLUME 8 OF 14

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APPENDIX TO PETITION FOR EXTRAORDINARY WRIT RELIEF
VOLUME 8 OF 14

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TAB 12

TAB 12

RTRAN

DISTRICT COURT

CLARK COUNTY, NEVADA

AARON MORGAN, Plaintiff, vs. DAVID LUJAN Defendant.	CASE#: A-15-718679-C DEPT. VII

BEFORE THE HONORABLE **LINDA MARIE BELL**, DISTRICT COURT JUDGE

THURSDAY, APRIL 5, 2018

RECORDER'S TRANSCRIPT OF HEARING
CIVIL JURY TRIAL

APPEARANCES:

For the Plaintiff: DOUGLAS GARDNER, ESQ.
DOUGLAS RANDS, ESQ.

For the Defendant: BRYAN BOYACK, ESQ.
BENJAMIN CLOWARD, ESQ.

RECORDED BY: RENEE VINCENT, COURT RECORDER

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FOR THE DEFENDANT:

None

Las Vegas, Nevada, Thursday, April 5, 2018

THE MARSHAL: Please rise for the jury.

[Jury in at 11:15 a.m.]

THE MARSHAL: Please be seated.

THE COURT: Back on the record in Case Number A718679, Morgan vs. Lujan. Let the record reflect the present of all of our jurors, parties, and counsel.

I am sorry, people. I am having a really bad week. So it has just been not coming together like I would hope. So I apologize for you waiting this morning.

All right. Mr. Cloward, please call your next witness.

We're going to take -- so I know we were in the middle of Mr. Morgan, but we have some doctors who are scheduled to testify today, so we're just going to hold that for a minute and proceed with some other witnesses.

MR. CLOWARD: Yes, Your Honor. We would call Dr. Kittusamy.

THE MARSHAL: If you would remain standing, raise your right hand, face the Clerk to be sworn in, please.

BHUVANA KITTUSAMY

[having been called as a witness and being first duly sworn testified as follows:]

THE COURT: Good morning, ma'am. Go ahead and have a seat.

THE WITNESS: Good morning. Thank you.

THE COURT: Could you please state your name and spell it for the record?

THE WITNESS: Yes, ma'am. It's -- my last name is Dr. Kittusamy, K-I-T-T-U-S-A-M-Y. First name is Bhuvana, B as in boy, H-U-V as in Victor, A-N-A.

THE COURT: Thank you.

Mr. Cloward, whenever you are ready.

MR. CLOWARD: Thank you.

DIRECT EXAMINATION

BY MR. CLOWARD:

Q Good morning, Dr. Kittusamy. How are you?

A Good. How are you?

Q Good. So we've called you here to kind of help the jurors understand some of the injuries in the case and wanted to just go over, I guess, some of your qualifications and first off find out a little bit about you. Can you tell the jurors a little bit of your background and where you received your training and so forth and what your position is?

A Sure. I'm a radiologist. I've been to medical school in India. In 1998, I came over here, started my radiology residency at Hahnemann University Hospital. That's in Philadelphia. And after four years of radiology training, I did a year of MRA fellowship at Thomas Jefferson University Hospital. That's also in Philadelphia. And then we moved here in 2004. From 2004 to 2008, I worked at Nellis Air Force Base as a radiologist. And then 2008 to current, I'm working as a radiologist at Las Vegas Radiology.

Q Okay. And the jurors may have heard, I believe, your husband

is also -- he's a physician; is that fair?

A Yes.

Q And what is -- what area does he practice?

A He's a cardiologist.

Q So if they've heard of Las Vegas Cardiology, that's your husband's practice, right?

A Yes, sir.

Q Okay. Are there any other physicians in the family?

A No, sir.

Q Okay. So Dr. Kittusamy, can you tell us a little bit about, I guess, what you do, what you did when you worked for the VA, say, for instance? Give us an -- a flavor of what your day was like when you were working for the VA.

A You know, at the VA hospital or Air Force base hospital, I --

Q Or, I'm sorry, the Air Force --

A Yes. Mainly, there are, you know, wide variety of patients came through the door, anywhere from pediatrics, infant to adults over 60, 70 years old. You know, it's -- they have an emergency department, so we did do emergency radiology to elective procedures, from x-rays to CAT scans to ultrasounds to MRI, you know. When the technologists do those studies, then the radiologists interpret the images and produce a report for the ordering doctor.

Q So it's fair to say you've had training from the head to the toe as far as different types of radiology images?

A Yes, sir.

Q Okay. Now, in this case, it sounds like there were several types of scans that were done. There were some CT scans, some MRI scans of various parts of the body. Is that what you recall?

A Yes, sir.

Q Okay. So just in case you need to reference some of them, I'm going to grab your chart.

MR. CLOWARD: If that's okay, Your Honor? May I approach and get the binder --

THE COURT: Go ahead.

MR. CLOWARD: -- for the doctor? Okay.

BY MR. CLOWARD:

Q Okay. If you need to reference, those are all of the different images. Could you give us maybe just a brief description of what, say, the difference between an x-ray versus say like a -- an MRI? What are the differences between those two things?

A To make it simple, let's say, you know, somebody fall down and the -- their doctors are going to start with a simple exam, which is going to be an x-ray, to see whether the bone is broken or not. You know? But the x-rays can be normal up to two weeks even if there is a fracture. So if the person persistently have swelling and if the doctor continue to worry about a underlying fracture, then they can go on to get a CAT scan or a MRI scan. And both of those start -- both of those imaging modalities are highly sensitive and specific to identify pathologies. So they are much more faster in identifying the abnormal -- or all the problems going on much earlier than an x-ray can detect.

Now, in a CT scan, let's say if the bone is fractured, it shows it right away. You know, let's say in a MRI scan, the bone details are -- bone details and soft tissue details are much better in MRI scan, whereas CT scan shows you the bone details. The soft tissue details are not as good as the MRI scan.

Q Okay. So fair to say that some tests are better if you want to look for certain things, other tests are better if you want to look for other things?

A Yes, sir.

Q Okay. And the CT scans are good to look for bone -- the boney structures, whereas the MRIs are good for, say, soft tissues?

A Yes, sir.

Q Okay. And my understanding is that Aaron had both MRIs of the cervical spine, MRI of the thoracic or the mid-back, and MRI of the low back; is that correct?

A Yes.

Q And also -- excuse me. Aaron also a discography test with what's called post-discography CT scan?

A Yes.

Q Okay. So what we want to do is kind of talk -- we've talked a little bit with the jurors about that. We want to have you explain what exactly a post-discography CT scan is and what you're looking for when somebody requests that exam.

A Can I start?

Q Yeah. Please do.

A Okay.

Q Uh-huh.

A It is a CT scan after -- I'm sorry. Let me start like this. The pain management doctor or the surgeon, whoever is going to be doing the procedure, first have this patient in their surgical suite under anesthesia. They are going to inject contrast in the intervertebral disc. Usually, they do from in the back lumbar spine at L3/4, L4/5, and L5/S1, at the three lower intervertebral discs in the back. Once the patient has the injection done at the outpatient surgical center, then they are sent over to the radiology imaging centers to get a CAT scan after the injection. So once the patient arrives at the radiology imaging center, the technologist takes them to the CT suite and they are placed in the CT scanner and images are done after the injection. So once the images are done by the technologist, they are sent over electronically for the radiologist to read. Then we interpret the images and make a report for the ordering doctor.

MR. CLOWARD: Okay. And we've already admitted into evidence the report and the -- excuse me, the images. What I'd like to do now is move into evidence the reports, which are Exhibit 11, Your Honor.

MR. RANDS: No objection.

THE COURT: 11 will be admitted.

[PLAINTIFF'S EXHIBIT 11 ADMITTED]

MR. CLOWARD: Okay.

BY MR. CLOWARD:

Q So Dr. Kittusamy, if I may, I have a couple of poster boards.

A Sure.

Q And also, you were kind enough to bring with you this morning this color diagram. We'll put this on the -- this machine here. And if you can help us kind of understand, I guess, disc tears or disc fissures and what the results in the testing that Aaron had was. Maybe why don't we start off with just explaining first off what is a Modified Dallas Discogram. What does that mean? And here's the -- if you need to see that just -- I can turn --

MR. CLOWARD: Can everyone see that okay?

THE WITNESS: So in radiology, there are a lot of research that's going on. So the majority of reports are based on the researchers and guidelines by reputable institutions and societies. And for example, when we interpret a lumbar spine MRI, there is a nomenclature recommended by five reputable societies, for example, American Spine Society, American Society of Neuroradiology, and American Journal of Spine Radiology and two others. All five of them, you know, recommended a nomenclature for radiologists to follow.

BY MR. CLOWARD:

Q Okay. So that's so that when one doctor says something, another doctor knows exactly what they mean?

A Exactly.

Q Okay.

A Exactly. It's like a standardized phrases that radiologists use. That's for spine imaging.

Q Okay.

A For a discogram, a group of researchers in Texas started this Modified -- started this Dallas Discogram Scale back in '99. And then

Dr. Bogduk and Doctor -- I'm sorry, I have hard time pronouncing his name -- they modified and came up with this description and named this as Modified Dallas Discogram Scale.

Q Okay.

A And that's what all of us follow even if the report doesn't say that based on Modified Dallas Discogram Scale, but that's what we use to interpret the discogram images.

Q Okay. And you mentioned Dr. Bogduk. My understanding is Dr. Bogduk is the president of a society called the Interventional Spine something Society that all of the pain management doctors belong to. Is that --

A Yes, sir.

Q Okay. If you -- this is actually kind of important. Can you hang tight for one second?

A No problem.

Q Okay. I'm going to grab a couple of books. There are actually some books that Dr. Bogduk is the author of, one *Management of Acute and Chronic Neck Pain*. Would that be a reliable source of information?

A Absolutely.

Q And then another one, Clinical and Radiological Anatomy of the Lumbar Spine. Would that be a reputable source?

A Yes, sir.

Q And then the third would be *Biomechanics of Back Pain*. Would that be a reputable source of information?

A Yes, sir.

Q Okay. So if you can continue and talk about the modified scale, that would be great.

A Sure. What you're seeing is transection imaging of the intervertebral disc in the lumbar spine. What transection imaging means, if I stand right here, we take images like this in a transverse plane through the intervertebral disc. And that's what is called as transectional imaging.

Now, if you look at the -- and the Modified Dallas Discogram Scale talks about six grades, you know, in terms of annular fissures. First, let me back up and explain to you what annular fissure that I'm going to explain to you is. An intervertebral disc -- you know, if you take the intervertebral disc, it has two components. One is a nucleus pulposus and the other part is called as the annulus fibrosus.

Q And I -- if you -- if this would help to --

A [Indiscernible[.

Q -- [indiscernible].

A See, this is the annulus fibrosus, which is the outer margin. And this is the nucleus pulposus. If you think about a jelly donut, and that's what the intervertebral disc is. The jelly inside of it is the nucleus pulposus. The outer part is -- outer part of the donut is the annulus fibrosus. So, you know, if you make it upside down, they can see the same picture --

Q Oh. Thank you.

A Yeah. See, that's kind of the same picture --

Q Got you.

A -- that you're seeing over there.

Q Okay. Got you.

A Right. Now, you know, if --
Q One thing I wanted to point out --
A Sure.
Q -- really fast, this says annular tears. Is it fair to say that the current nomenclature that is used is fissure?
A Yes.
Q But over time, folks have said tears. So when people say annular tear, they mean annular fissure; when they say annular fissure, it kind of means the same thing?
A Yes.
Q Okay.
A Going back to what I have told you initially, that the five institutions which started the nomenclature for spine imaging --
Q Uh-huh.
A -- they have came up with a second version. In the second version, they are clearly saying don't use the term tear, use the term fissure.
Q Okay.
A So a lot of us started saying annular fissure versus tear.
Q Okay.
A The reason why they are saying stay away from tear is because it's a misnomer. You know, people start to, you know, misinterpret as, oh, something is torn.
Q Okay.
A So that's why. It is actually a physiological thing, so that's why they came up with the term fissure more than tear.

Q Okay.

A But if you look at all the radiology reports, the radiologists use the term interchangeably. In my reports, I usually say fissure/tear.

Q Okay. So it kind of points both of them out --

A Both of them, yeah.

Q Got you.

A Yeah.

Q Okay.

A Now, if you -- no, we can look at that --

Q Okay.

A -- use this image. If you look at the top part, again this is the nucleus pulposus and the outer part is the annulus fibrosis. And that's the jelly right there up in the top. And if you look at the grade zero, usually they inject the contrast up into the nucleus pulposus. And at grade zero, you know, the contrast did not come out of the nucleus pulposus at all. It stayed inside. That means there is no fissure or tear.

If you look at this one, it just came out a little bit in grade one. Maybe half on grade three -- on grade two. I'm sorry. On grade three, it came out through the margin, but it did not involve the outer one-third. On grade four, it just traveled to -- it traveled up and down of where it started the fissure. On grade five, it completely -- the contrast came outside and it went to the spinal canal, the neural foraminal. And we call this region a subarticular recess. So the -- it is important in here because this is the nerve roots all [indiscernible] and goes -- from the spinal canal, they go outside to the body.

Q Okay.

A So --

Q Mr. Boyack is getting another poster board. I wanted to talk about what you mentioned, the outer third of the annulus, and why that, I guess, is important.

A It is important because that's where all the sensitive neural fibers are, motor fibers, that's where they stay. And if the outer one-third of the annulus fibrosis is involved, then [indiscernible]. That's great. So this is where I showed you guys, see these are the nerve roots and this is the spinal canal. We call this the thecal sac. This where the nerve roots stay. And at different levels, each of the nerve roots go through the subarticular recess, the foraminal, and then goes to the rest of the body. So if the outer, you know, one-third of the annular fibrosis where I'm talking about, which is in the grade four and grade five fissures, see, it's going to affect the nerve roots right there.

Q Okay. Okay.

A So again --

Q And those nerve roots don't grow all the way in? They just --

A They just stay in the outer one.

Q All right.

A They don't go all the way in.

Q Okay.

A But you can see that right here.

Q Okay.

A So, you know, at -- and it's important both on the anterior and

posterior aspects.

Q Okay.

A Because in the posterior -- you know, people can argue that only the posterior nerve roots are going to cause pain. No. There are anterior nerve roots, too. So if there is an annular fissure in the anterior aspect, that can be symptomatic, too.

Q Okay. Thank you. Okay. So you've done a nice job. We appreciated that -- explaining that. Now I have kind of the board for the evidence. And this will be Exhibit, I believe, 31 -- we'll find that out -- the CD -- or the CT scan. But can you just go through this? And maybe I can -- well, I'll just hold it.

MR. BOYACK: Exhibit 30, Ben.

MR. CLOWARD: 30. Exhibit 30.

BY MR. CLOWARD:

Q These images are in -- can you explain what all of this is?

A Sure. Sure. So what you're seeing here is sagittal views, which is the side view of the body. And this is the transaxial view, which I was showing you guys in this picture, which we take like in this plane. Sagittal is like this.

Q Okay.

A Okay? Which is side view of the spine. And the dark structure that you guys have seen, these are the vertebral bodies.

Q So that's the bone?

A That's the bone.

Q Okay.

A Okay. And this is the intervertebral disc right here.
Q So that's the jelly donut?
A Yes.
Q Okay.
A Yes. And the white part is the contrast which was injected by the doctor.
Q So that's the dye?
A That's the dye.
Q Okay.
A Yes. So when we do the post-discogram images, we do them in both sagittal and the axial plane.
Q Okay.
A Okay. Now, if you look at --
Q Do you want me to lower it or change spots?
A Lower it. It's okay. If you can lower it a little bit, I can reach up to the top image.
Q Or we can switch spots. How's that?
A Okay.
Q That might be easier [indiscernible].
A So as you see, that this last space is the L5/S1, the L4/L3, the L2/L3. I'm sorry. Let me start from the top. The L1/L2, L2/L3, L3/L4, L4/L5, L5/S1 intervertebral discs.
Q Okay.
A So discogram was done in all the five lumbar intervertebral discs.

Q Okay.

A Okay? So if you look at L3/4 and L4/L5 first, let me start with those. These are the sagittal images. And what you're seeing here is the axial images. If you look at the contrast, which is the dye, it stays just inside the jelly donut. It did not come out at all.

Q Okay.

A And if you can -- yeah. If you can see that, it stays inside. It stays inside. But if you look at the L1/L2 intervertebral disc, see it comes outside to the 12:00 position. We look at this in a clockwise, so this is 12:00, 3:00, 6:00, 9:00, and 12:00 again. So at the 12:00 position, not only the dye came to the outer one-third of the donut or the annulus fibrosis, it even leaked out to the soft tissues.

Q Okay.

A So the nerve roots are going to get really inflamed when the inflammation from the fissure comes out to the soft tissues.

Q Okay.

A Okay. And if you look at the L2/L3, same thing, grade five fissure or tear at the 12:00 position.

Q Okay.

A It stays inside. It stays inside. And if you look at it here, it reaches the lower margin --

Q So it's --

A -- at the 7:00 position.

Q So it's leaked out and migrated down? Or did it -- is the tear at the 7:00 --

A Right there.
Q Okay.
A Yeah. Yeah.
Q Okay. Thank you, ma'am.
A Sure.
Q Now, if you want, you can take the stand again.
A Sure.
Q And we have a couple of other doctors that we are going to try and get on and off the stand today, so we're going to kind of move quickly. I wanted to just have you very briefly -- there were other tests that were performed. There was an MRI of the wrists. You have the findings up there. I think it's on page LVR00012 and then LVR00014. Do you have those in front of you?

MR. CLOWARD: May I approach --

THE COURT: Go ahead.

MR. CLOWARD: -- Your Honor?

THE WITNESS: Yeah. At --

BY MR. CLOWARD:

Q Do you --
A This is the cervical spine.
Q No. The -- we'll go with the wrist.
A Wrist? Okay.
Q These numbers here are the --
A Oh, okay.
Q -- what we call the Bate [sic] numbers.

A Okay.

Q So we have LVR00 -- well, actually, if you want to just start from the front, we can just start at the cervical and then go through the whole list and just --

A You want to start with the cervical?

Q Yeah. Let's --

A Sure.

Q Let's do that. What were the findings -- the MRI findings in the cervical spine?

A At C4/C5 intervertebral disc, there is disc protrusion against the thecal sac that measures about 1.4 millimeters. And then at C3/C4, disc protrusion against the thecal sac I show as 1.4 millimeters.

Q Okay. So what is the difference between, say, a protrusion and an annular fissure or an annular tear? What is the difference there?

A So when the abnormality starts, the first one to happens is the annular fissure or annular tear. So that's the outer part of the intervertebral disc. So that -- then what happens is the inside part, that's the nucleus pulposus, starts to coming out through that fissure. And it -- depending on where the position of the nucleus, where it comes out, we grade that to disc bulge, protrusion versus extrusion.

Q Okay.

A The broad term is called disc herniation. So what the protrusion means, if you look -- if -- in your images, if you -- in the -- if you can show me the poster, I can explain.

Q This one?

A Yeah.

Q Okay.

A So what the -- this area right here is called the posterior longitudinal ligament. You don't see that, but in imaging we can see the posterior longitudinal ligament. So what happens is when there is a fissure occurs right here, the disc -- the central part, which is the nucleus pulposus, goes through that fissure and comes out here to this area. So if it is limited by the posterior longitudinal ligament, we call that as a protrusion. If it goes beyond the posterior longitudinal ligament either this way in this -- cranially and caudally -- that means towards the head or towards the foot -- then we call that as an extrusion.

Q Okay. And one other question. Is the MRI a good tool to see annular tears compared to the CT scan? Which one is better?

A Depending on the stage of the trauma or the fall or -- you know, in the initial stages, the MRI is the best way to go to look at any acute abnormalities because what you immediately would start seeing is edema.

Q Okay.

A That means fluid in the soft tissues.

Q Uh-huh.

A That's more -- it -- that's clearly seen in the MRI than CT scan.

Q Okay.

A So the initial imaging modality of choice for any acute posttraumatic event is an MRI.

Q Okay. Do you always see, say, for an instance, a annular fissure in an MRI?

A If it's there, absolutely. Yes.

Q Okay. So let's go through, Doctor, and we'll kind of move along. That was the cervical spine. That's page 3. Now, the next one is LVR0005. Can we talk about that, the thoracic spine?

A Yeah. The thoracic spine is the mid-back.

Q Okay.

A There is 2-millimeter left paracentral T3/T4 disc protrusion --

Q Okay.

A -- in the thoracic spine.

Q And that's kind of the same thing that you described about the cervical. It's just in a different part of the spine?

A Yes.

Q Okay. Now, if you'll continue through to page 8, LVR0008, this is a x-ray arthrogram left wrist. Tell us about that, doctor. And I believe the images for the -- or the MRI for the arthrogram is on page 12.

A Yes.

Q So it's page 8 and 12. Can you tell us what those were, what the findings of that were?

A What's an arthrogram is under x-ray guidance, the radiologist is going to inject dye into the joint.

Q Okay.

A And once the dye is in the joint, the patient is taken to the MRI suite and then the MRI images are taken. So the first part on page 8 is the x-ray portion of the report.

Q Okay.

A And then on page 12 is the MRI portion of the arthrogram report.

Q All right. And what were the findings there? Was there anything abnormal about that?

A Yes. The -- in the wrist, there are three ligaments which are very important stabilizers.

Q Okay.

A The scapholunate ligament, lunotriquetral ligament, and the triangular fibrocartilage complex. In this particular MRI, the triangular fibrocartilage complex is torn. So that's the most important stabilizer of the wrist.

Q Where would that be in the wrist?

A That would be right here.

Q Okay.

A Yeah.

Q And that was the left wrist. What about the right wrist? And was there a measurement of that tear? Did you -- were you able to measure that?

A In the right wrist also, the triangular fibrocartilage complex is torn.

Q And were there -- did -- when you -- did you do the -- you said in the neck there were like -- you measured the protrusion. What about the wrist? Did you measure the tears there?

A Yeah. It's -- you know, we go by the vertical and horizontal components.

Q Okay.

A That's 5 millimeter vertical and 4.5 millimeter -- I'm sorry. It's the other way. The horizontal component was 5 millimeters and the vertical component was 4.5 millimeters.

Q Okay. And that was for the left -- or the right wrist?

A That's the right wrist.

Q What about the left wrist? Did you measure those as well?

A Again, in the left wrist, the triangular fibrocartilage complex is torn. The horizontal component of the tear is 3 millimeters and the vertical component is 5 millimeters.

Q Okay. Doctor, we certainly appreciate your assistance in this matter. Have all of your opinions been to a reasonable degree of medical probability on a more likely than not basis?

A Yes, sir.

MR. CLOWARD: Okay. Your Honor, at this time we would pass.

THE COURT: All right.

CROSS-EXAMINATION

BY MR. GARDNER:

Q Hello, Doctor.

A Hello, sir.

Q I've always thought that people that could speak more than one language were brilliant. What's your original language?

A Sir?

Q What is your first language?

A Tamil, sir.
Q What is it?
A Tamil.
Q Tamil?
A Yeah.
Q Oh. I've never heard of that. You do --
A It's one of the southern Indian languages, sir.
Q Oh, okay. Now, I need to ask you a couple of questions that are just mainly for the record, but how many times have you worked with these lawyers? Have you done any other projects with these lawyers?
A Once.
Q Once? How long ago?
A About six months ago.
Q Okay. Let's just -- let's make sure we're clear on a couple things first of all. Did you treat the Plaintiff? Did you work on him or just look at his records?
A No. Just read the images.
Q Okay.
A Yeah.
Q What are you charging today for being here?
A $4,000, sir.
Q Okay. Have you been paid by the Plaintiff? I mean -- never mind. Let me start over. Can you tell me -- I've been told before that if you were to take an MRI of just a random back, that you'd probably see some leakage or some slight herniation. Does that sound right to you?

A Yes, we may. Yes.

Q So in other words, we don't all walk around with perfect jelly donuts, right?

A Yes.

Q Okay. We don't do that. But we might have some type of a herniation and not know it? Or would you feel any kind of a herniation?

A Can you ask that question again, sir?

Q If somebody's got a slight herniated disc, would that be causing some type of pain?

A Depending on the patient's symptoms. You know, if it's -- if the disc herniation is going to impinge the nerve roots, it's going to cause radiating pain and symptoms. But if the disc herniation like in the images that I pointed out, limited by the posterior longitudinal ligament, it doesn't need to cause pain. But not everybody follows the same rules. Different patients have different symptomatology depending on their body position or depending on their pain tolerance and things like that.

Q Okay. Now, is -- so it -- are you saying it's normal for someone to have a herniation and they might feel pain or they might not feel pain?

A That's correct.

Q Did I get that right?

A That's correct.

Q Okay. Why does it take -- and I was writing notes as quickly as I could. But why does it take two weeks for an x-ray to show a break, a bone break? Is that what you said?

A That's because the bones have two structures. One is called

the cortex. The other one is called the medulla.

Q Okay.

A You know, the cortex is a very tough part of the bone. And if the cortex is not given away, you know, and -- it's very difficult for x-rays because x-rays are not the most strongest imaging modality. They don't penetrate through the bone to show you the fracture. That's why it can be normal up to two weeks. If you look at the radiology reports, majority of the radiologists always say that there's no acute fracture at this time, but follow up imaging is suggested in two weeks to assess interval changes. Because x-ray is not the strongest modality to penetrate through the bone to see the fracture.

Q In fact, I've been led to understand that x-ray doesn't do near enough to diagnose some type of a problem, does it? That's more for the CT or the MRI?

A Yes, sir.

Q Okay. When you say soft tissue, what do you mean by that?

A Soft tissues are the part of -- surrounding the bones. They are the soft tissues. The muscles, the fat, and all those structures surrounding the bone are called the soft tissues.

Q Okay. And the MRI shows soft tissue; is that correct?

A Yes.

Q Okay. And in this case -- again, I hope I don't keep you too long here. But in this case, what was the result of the MRI of the Plaintiff's back?

A He had protrusions in his cervical spine and thoracic spine

and -- I don't have the lumbar spine.

Q Now, I'm going to ask you, is there a -- is there like a normal limit that a person would need to be within in order to have a -- let's say a perfect back structure? Is that -- do you know what I mean? Is there -- are there normal limits? For example, if you were to take an MRI of me, would there be a normal limit that is acceptable for any type of herniation? Do you understand that? I'm not sure I do. But do you understand it?

A I guess I do and I don't, so can you ask that question again so that I can answer it better?

Q Oh, yeah. Well, let me -- what I'm so awkwardly asking is does a typical spine have any type of herniation in it initially anyway if it's not a perfect spine and you would see some soft tissues injuries -- or not injuries, but on the MRI you'd see evidence of soft tissue problems?

A We can.

Q Okay.

A We can.

Q And same thing with the CT, correct?

A CT doesn't show you the soft tissue details as well as the MRI scan.

Q Okay.

A CT shows you the bones' details much better than other modalities.

Q Okay. So getting back to the question that was so awkwardly asked, does a typical back have some type of protrusion or tear in it? If -- just because I've heard that said by other doctors, that I could take an MRI

of anyone in here and they would have some kind of lesions or leakage in their back. Does that make sense? Is that true?

A That depends on the age. If you were to take a normal young adult, hardly we see any disc herniations or protrusions or anything of that nature. But if you talk about middle age to older age individuals, yes, there can be disc herniations to spondylotic changes to other abnormalities. But not typically on a young adult who is asymptomatic.

Q Say that again.

A Not on --

Q Not on --

A Not in a young adult, you know, who is otherwise asymptomatic. If you scan them, very rarely we see any abnormalities.

Q In looking at the scans of the Plaintiff, did you see any additional tears or anything else other than the ones you've testified to today?

A No, sir.

Q So is there a standard created somehow about what would be a reasonable range of herniation, so to speak, that would keep you in the normal range? For example, if there was -- let's see. If there was an MRI taken -- if there was an MRI taken of a certain area, let's say the lumbar spine, would you -- you'd be able to see more than just the lumbar spine, wouldn't you, on the MRI film?

A Yeah.

Q Okay. Did you look at the MRI films to determine whether he had other areas that were showing some leakage?

A In this --

Q Were there other areas --

A In this particular patient or --

Q In this patient?

A I did not read the study. Some other radiologist read it. So but do I usually look at other areas when I look at the MRI spine, yeah. When I read the MRI, yes, I do look at other areas to see whether there are any other abnormalities.

Q Okay. And you don't remember doing that in this case or --

A Sir, I did not read his MRIs.

Q Okay. Okay.

A I did not. The back, I did not read his. The wrist MRIs, I did, but not the cervical spine or the mid-back. I did not read his studies.

Q Let's take you to a scenario where you've got a young man, a weightlifter, fairly active. Would that increase the probability of having additional lesions in the back? Could that weightlifting cause lesions to appear in the back?

A You know, going back to the soft tissues, like if the soft tissues are strong enough -- the ligaments and muscles are really strong on weightlifters to hold the spine intact, to see tears or herniations or whatnot in those spines are less. But I'm not going to say, no, you don't see it at all. But it depends on the body build of that particular individual.

Q Would you see them on -- have you met the Plaintiff before today?

A No, sir.

Q Okay. Have you done any other additional work than the work that you've got with you here on --

A Other than the --

Q -- on this case?

A Other than the imaging? No, sir.

Q Okay. So just to clarify, you're here to talk about -- your expertise is the wrist only? Is that fair to say?

MR. CLOWARD: Objection.

THE WITNESS: The wrist? I'm sorry. Say it again.

THE COURT: The objection is sustained. If you could --

MR. GARDNER: Yeah.

THE COURT: -- rephrase the question, please, Mr. Gardner.

BY MR. GARDNER:

Q What was your assignment in this case? What were you asked to do?

A To talk about the imaging studies.

Q Okay. And are you -- I thought I heard you say earlier that the imaging studies of the back were not a part of your analysis. Did I get that wrong?

A No, I -- yeah, you're right.

Q Okay.

MR. CLOWARD: Which imaging?

THE COURT: So --

MR. CLOWARD: Can we just clarify which imaging?

MR. GARDNER: Yeah.

BY MR. GARDNER:

Q The imaging of the back?

THE COURT: Ma'am, what did you look at?

THE WITNESS: I'm sorry, ma'am?

THE COURT: What did you look at?

THE WITNESS: What --

THE COURT: What studies did you look at?

THE WITNESS: I read the wrist MRIs and then the discogram.

THE COURT: Okay. Great. Thank you.

MR. GARDNER: Thank you.

THE WITNESS: Thank you, ma'am.

BY MR. GARDNER:

Q I've been trying to take notes as quickly as I could. So thank you --

A That's okay, sir.

Q -- for bearing with me and my ignorance.

A It's okay, sir.

Q So your assignment or the request to you was to read all the MRI studies in the wrist and in the back, correct?

A Uh-huh. Yes, sir.

Q Okay. But you feel more comfortable testifying about the wrist than the back? Did I get that right?

A Yes, sir.

Q Okay. How long have you -- when was the first time you met the Plaintiff?

A Today, the first time. That's when I saw him, sir.
Q Okay. Do you know when he claims that this damage to his back occurred?
A I'm sorry, sir? Can you say it again?
Q When did he -- if he got hurt, if his wrist was hurt or his back was hurt, do you know when he is saying that that happened? What date?
A I don't know.
Q Does it matter? I mean, you're looking at studies?
A Yes.
Q Does it matter when those irregularities arose in anything you're testifying about?
A You mean the time of occurrence , is --
Q Yeah.
A -- is it important or not when we read the studies?
Q Yeah. Essentially, yes.
A Yes. Yes.
Q When you first read the studies, was there -- well, let me do -- let me ask it this way. What caused the Plaintiff's back and/or wrists to be irregular, for lack of a better term? What caused that? Do you know?
A It could be multifactorial. It can be caused by several factors. Like trauma can cause that, fall can cause that, and --
Q What caused it in this case? Do you know? Do you have an opinion on that?
A I don't know what caused it.
Q Okay. So just hypothetically, if these were films -- no, I'll just

leave that alone. Will you explain one more time what a discography is? Discography?

A So what discography is, the initial part of the procedure is done by another doctor in their outpatient surgical center or wherever they do their procedure. They inject the contrast or the dye into the intervertebral disc. Once that's done, the patients are sent over to the radiology imaging centers. And when they come, we scan them in the CAT -- in the CT scanner and we obtain the discogram images -- CT discogram images.

Q And the discogram images are useful how, once again? Why do you need to see those?

A It helps us to determine whether there is an annular fissure or tear in the intervertebral disc.

Q How many times have you testified in trial?

A I'm sorry, sir?

Q How many times have you come to trial to testify?

A Twice.

Q Okay. This time and the one six months ago?

A Yeah. Yes, sir.

MR. GARDNER: Just one moment, Your Honor. I'll pass. Thank you.

THE WITNESS: Thank you, sir.

REDIRECT EXAMINATION

BY MR. CLOWARD:

Q Okay. I have to go over a couple of things, Doctor. Fair to say that you have other physicians that work for you at Las Vegas Radiology?

A What -- say it again, sir.
Q Fair to say that you're the owner of Las Vegas Radiology, you and your husband, right?
A Yes, sir.
Q And you have other physicians, other doctors that actually work for you?
A Yes, sir.
Q Okay. So earlier when Mr. Gardner asked about tests that were done and whether you read those or not, at times if -- and if an MRI is -- comes into your facility, another doctor may actually read that or sometimes you will read that; is that fair?
A Yes, sir.
Q Okay. Like for instance, the wrist, you personally read the wrist?
A Yes.
Q So you would feel more comfortable going over the results of the wrist because you actually read that yourself?
A Yes, sir.
Q Versus going off of another doctor's interpretation, correct?
A Yes, sir.
Q It's kind of like the old saying, better to get it from the horse's mouth? Have you heard that?
A Yes.
Q Okay. And then the post-discography CT scan, you actually read those yourself?

A Yes, sir.
Q So you would feel more comfortable reading those yourself?
A Yes, sir.
Q Okay. I just wanted to clarify that. And there have been a multitude of scans. There's wrist scans. There's neck scans. There's thoracic scans. There's lumbar scans. You did not read all of those, correct?
A No.
Q Okay. And that's why we've asked you to kind of read -- to cover the material on the ones that you read because that's -- those are the ones that you would know the very best?
A Yes, sir.
Q Okay. Now, Mr. Gardner asked these questions about, you know, hypotheticals. Well, you know, is somebody that lifts weights, is he going to have these tears, or do -- does everybody walking around have herniations, and so forth. And you kind of explained the older you get, the more probability you'll have that you'll have abnormalities. Kind of like the older I got, the more my hair fell out. It's just part of aging, right?
A Yes, sir.
Q Is it -- you asked whether you -- he asked you a question about causation, whether you believed that the tears or the fissures were caused by the motor vehicle crash. What I want to ask you is, assuming -- you've never seen him, so you've never taken a history?
A No, sir.
Q Assume he had no history of back pain before the crash. He

had no history of neck pain before the crash. And at the time of the crash, he's 21, 22 years old. Is it more likely that the crash caused the abnormalities that he has or is it more likely that spontaneously he just had these tears that became symptomatic for no reason?

A You know, in a 21, 22 years old, you know, the trauma can be a big causative factor for the symptoms.

Q Okay. Would that on a more likely than not basis be your opinion to a reasonable degree of medical probability?

A Yes, sir.

MR. CLOWARD: Okay. Thank you.

MR. GARDNER: Just briefly.

RECROSS-EXAMINATION

BY MR. GARDNER:

Q Do you know whether the Plaintiff has been involved in any other accidents that could have caused his back to appear to be irregular? Do you know his past or anything of that nature?

A I don't know.

Q You don't know anything that -- is it possible those tears could have shown up before this accident and then they were just read when you read them for this accident? In other words, could these conditions of his spine have been caused by something other than the accident we're here talking about?

A In a 21, 22 year old, sir, unless there is a predisposing factor, to see a tear or a herniation is rare, in my opinion.

Q Okay. And that applies to anybody regardless of their activities

and interests? I mean, if they're a weightlifter or a wrestler or something like that, would you expect to see more damage to the spine?

A Again, like I told you before, if the soft tissue structures like the muscles and ligaments are strong enough in weightlifters, you know, that support structures will support the spine and the disc. So it's rare to see annular tears or fissures or disc herniations.

Q Okay. Now, I know we're going to have other doctors testify. But from what I understand, you are not here to render opinions about the back. You're here talking more about the wrist; is that correct or --

MR. CLOWARD: Your Honor, objection. Misstates testimony.

THE COURT: Sustained.

MR. GARDNER: Okay.

BY MR. GARDNER:

Q One more time. What was your specific assignment in this case?

A The discogram images of the back.

Q Okay. And I think that I asked you about whether the condition of his back when you saw these films, could that have arisen before this accident?

A Without a baseline, I don't know, sir, whether it was there or not. I don't know.

Q Okay. So you're not here to testify about causation, are you?

MR. CLOWARD: Object to form.

THE WITNESS: No, sir, I'm not.

MR. CLOWARD: Asked and answered. Misstates prior

testimony, Your Honor.

THE WITNESS: I'm --

MR. CLOWARD: Move to strike.

THE COURT: All right. The jury is to rely on their own recollection of what the testimony was.

Mr. Gardner, if you could ask a new question, please? Objection sustained.

BY MR. GARDNER:

Q Was your assignment --

MR. GARDNER: That's all.

THE COURT: All right.

MR. GARDNER: I'm done. Thank you.

THE COURT: Do I have any questions from the jury?

Counsel, approach, please.

[Bench conference begins 12:15 p.m.]

MR. GARDNER: Hey, if one of them says --

MR. CLOWARD: I don't want to talk --

MR. GARDNER: -- why is --

MR. CLOWARD: Don't talk to me.

MR. GARDNER: -- why is --

MR. CLOWARD: Don't talk to me.

MR. GARDNER: -- counsel so stupid, then --

MR. CLOWARD: Don't talk to me.

MR. GARDNER: -- [indiscernible].

THE COURT: [Indiscernible].this is [indiscernible].

UNIDENTIFIED SPEAKER: [Indiscernible].

MR. CLOWARD: I'm fine.

MR. GARDNER: That one's okay. Let me see this one.

THE COURT: You're all right with these?

MR. CLOWARD: Yeah, I'm okay with those.

THE COURT: Okay.

MR. CLOWARD: That's fine.

MR. GARDNER: Yeah, it looks good.

THE COURT: All right. So, hey, guys, I'm going to ask these questions and then we're going to break for lunch until just a little bit -- I'm going to say 1:00.

MR. CLOWARD: That's fine.

MR. GARDNER: 1:00?

THE COURT: Yeah.

MR. GARDNER: Yeah. Thank you.

THE COURT: And we'll have lunch for the jury and then we'll start back up at 1:00.

MR. CLOWARD: Okay. Thanks.

[Bench conference ends 12:17 p.m.]

THE COURT: Okay. Ma'am, I'm going to ask you a couple questions. I'm going to ask you to look at the jury when you answer so they can hear you. Can an annular tear or tears -- fissure or tears be prevented from increasing in grade?

THE WITNESS: Can you ask that question again, ma'am?

THE COURT: Can an annular fissure or tears be prevented

from increasing in grade?

THE WITNESS: Increasing in grade?

THE COURT: For example, preventing a grade two into -- become a grade three?

THE WITNESS: Can it be prevented? To be honest with you, I don't know the answer to that question.

THE COURT: Would an earlier MRI benefit in preventing the severity of the fissure?

THE WITNESS: Yes, if the patient has a baseline. That's what I mentioned by baseline. If the patient had an MRI before the trauma or before anything which provoked all this, if the doctor already documented that the particular person has that, they should be careful enough or the doctors can, you know, send them for treatment and things to prevent the progress of the tear. Yes. But even with preventive measures, sometimes if there is a provocative factor of trauma or fall or whatnot, it can still proceed to higher degrees of annular fissures or tears.

THE COURT: Can MRIs show how long the injury of an organ is, if it's been there for a while or chronic or acute?

THE WITNESS: That's the best part of MRI. It shows the acute and subacute injuries much better than any other imaging modality. If it's chronic, we don't see the bright signal that we see in the acute and subacute conditions. So it can very well show the acute or subacute. What we are talking about is acute is about four weeks, subacute is four to eight weeks. So the initial two months of any trauma, MRI is the way to go --

THE COURT: Thank you.

THE WITNESS: -- and say whether it's acute or not.

THE COURT: Any follow-up?

MR. GARDNER: No, Your Honor.

THE COURT: It's --

MR. CLOWARD: Yeah, I --

THE COURT: Mr. Cloward gets to go first. It's his witness.

MR. CLOWARD: I do. Those are some great questions.

FURTHER REDIRECT EXAMINATION

BY MR. CLOWARD:

Q Dr. Kittusamy, one of the, I guess, things that we wanted to have you look at was the MRI of the lumbar spine. It's on page -- let me see.

MR. CLOWARD: I'm sorry, Your Honor. If I can have just one moment.

BY MR. CLOWARD:

Q It's LVR00017 and LVR00018. And that was an MRI back in -- on July of 2014.

A Yeah. Sure. I have --

Q Do you have that in front of you?

A Yes.

Q Did you read that MRI?

A I did.

Q Okay. Can you just tell us what findings there were on that MRI?

A At the L1/L2 intervertebral disc, there are no disc herniations.

The L2/L3, there is a 2-millimeter disc bulge. And the Ls/L4, there is a 2.2-millimeter disc bulge. The L4/L5, there are endplate changes, Schmorl's nodes, and a 2.3-millimeter disc bulge. At L5/S1, 2.2-millimeter disc bulge with facet joint hypertrophic changes causing narrowing of the right neural foraminal and left lateral recess.

Q Okay. And facet joint hypertrophic changes, what would that be?

A The face joints are right next to the intervertebral discs. They are the support joints. When they are normal, they are not symptomatic, but when they become bigger, that can also impinge the nerve root to cause symptoms.

Q Okay. Could those hypertrophic changes be what we call inflammation?

A Yes.

MR. CLOWARD: Okay. Thank you, Doctor. Or, I mean --

MR. GARDNER: One follow-up.

MR. CLOWARD: -- thank you, Judge.

THE COURT: Okay. Mr. Gardner?

FURTHER RECROSS-EXAMINATION

BY MR. GARDNER:

Q Can you tell us what a Schmorl's node is?

A What it is, is a -- the intervertebral disc is between two vertebral bodies. So when part of the intervertebral disc herniating into the vertebral body, that's called as a Schmorl's node.

Q Okay. And what causes that? Is that a natural process?

A No. Usually there is a provocating factor. But in some patients, there is an entity called Scheuermann's Disease. In that one, it can be developmental. Some patients are predisposed to developing the endplate changes and Schmorl's nodes at four contiguous levels. Besides that, I have not come across anything else causing the Schmorl's nodes in an [indiscernible] individual.

Q Other than trauma? Is that what you just said? Is --

A Yeah. Other than trauma. Yes, sir.

MR. GARDNER: Okay. All right. We're good. Thank you.

THE COURT: Anybody have a question?

Counsel, approach for a second.

[Bench conference begins 12:24 p.m.]

MR. GARDNER: Yeah.

MR. CLOWARD: Good. Yeah.

THE COURT: All right.

MR. GARDNER: Looks good.

[Bench conference ends 12:24 p.m.]

THE COURT: Ma'am, when did you first read the wrist MRIs?

THE WITNESS: When?

THE COURT: Did you first read the wrist MRIs?

THE WITNESS: Yes, ma'am. Yes, ma'am, I did.

THE COURT: When?

THE WITNESS: When?

THE COURT: What date?

THE WITNESS: August 4, 2014.

THE COURT: Any follow-up, Mr. Cloward?

MR. CLOWARD: No, Your Honor.

MR. GARDNER: No, Your Honor.

THE COURT: All right. Folks, we're going to go ahead and break for lunch. As I said, we have lunch for you. So we're going to break until just a little bit after 1:00. I'm going to say 1:10.

During this break, you are admonished not to talk or converse among yourselves or with anyone else on any subject connected with this trial or read, watch, or listen to any report or commentary on the trial, any person connected with this trial by any medium of information, including without limitation newspapers, television, internet, radio, or form or express any opinion on any subject connected with the trial until the case is finally submitted to you. And you're not to do any independent research.

THE MARSHAL: All right, guys. Please rise for the jury.

[Jury out at 12:26 p.m.]

THE COURT: All right. Ten after 1:00.

MR. CLOWARD: Okay.

[Recess taken at 12:26 p.m.]

[Court confer]

THE MARSHAL: Rise for the jury.

THE COURT: Never mind. Never mind. It was a good try.

[Jury in at 1:18 p.m.]

THE MARSHAL: Please be seated.

THE COURT: Back on the record in Case Number A718679, Morgan vs. Lujan. Let the record reflect the presence of all of our jurors,

counsel --

MR. BOYACK: Yes. And we're missing our co-counsel, but he's coming in right now.

THE COURT: He's coming in. All right.

Mr. Boyack, who's your next witness?

MR. CLOWARD: Sorry about that.

THE COURT: All right. Who's your next witness?

MR. BOYACK: We're going to call Andrew Cash.

THE COURT: Okay.

[Court confer]

THE MARSHAL: If you would remain standing, raise your right hand, face the Clerk to be sworn in, please.

ANDREW CASH

[having been called as a witness and being first duly sworn testified as follows:]

: Doctor, all right, sir, go ahead and have a seat. If you could please state your name and spell it for the record?

THE WITNESS: Afternoon, Your Honor. My name is Dr. Andrew Cash, C-A-S-H.

THE MARSHAL: Would you like some water, Doctor?

THE WITNESS: Yes, please. Thank you.

THE COURT: Whenever you're ready, Mr. Cloward.

MR. CLOWARD: Thank you, Your Honor.

DIRECT EXAMINATION

BY MR. CLOWARD:

Q Good afternoon, Dr. Cash. How are you doing today?

A Good afternoon. Doing great. Thank you.

Q So Dr. Cash, we'll kind of start with, I guess, how we've started with a lot of the other witnesses. Just talk about what is your educational background and what do you do for a living. I see you've got some scrubs on. Tell me a little bit about what you do.

A So I'm an orthopedic spinal surgeon. I started my training back in the late '80s in college where I was a pre-medical student. I went to the University of North Carolina at Chapel Hill in the state where I grew up. And I continued at that campus through medical school and completed my medical school training and decided to go into orthopedic surgery, which is pretty much involved with all the bones in the bodies from the neck down to the tailbone, arms and legs, including the pelvis, neck, back, disc replacements, joint replacements, trauma, broken bones.

And I did five years of orthopedic surgery residency in Atlanta, Georgia. So the focus was primarily on orthopedics. The first years involved some general surgery techniques, even some plastic surgery techniques, and some -- a little more medical training. But the last four years was exclusively dedicated to orthopedic and a lot of it's trauma and a lot of it's elective surgeries. Some of its emergency surgeries.

Then I decided to go into spine surgery because I felt like it was what I was most interested in. But after an orthopedic surgery residence, you can be invited to a one-year fellowship. I was very humbled to be accepted to Bob Watkins' program in Los Angeles. He treats, amongst many things, a lot of professional athletes like Payton Manning. And I was

just very honored to be able to work with him and the USC football team for a year.

And then I decided I wanted to go into private practice, so I came out here to Nevada in 2006. I've remained here for 12 years straight as a senior solo spine surgeon and orthopedic surgeon. When I first came out here, I still needed to get my practice up and running and make a name for myself, so I took Level 1 Trauma at UMC and I took trauma call to all the other hospitals, too, and kind of whittled it down to the west side practice where I maintain a practice now. I whittled the practice down from mainly orthopedics into spine. So I still evaluate orthopedics; I just don't do shoulder or knee surgeries at all anymore. I just do neck and back surgeries, sacroiliac joint surgeries, thoracic, cervical, lumbar spine surgeries.

And most of my practice involves seeing patients three times a week in the office and then surgery one day and then an extra day for any leftover surgeries or clinical evaluations. Most of my patients get better without the surgery, so when they come to see me, unless they've tried everything and they're debilitated and surgery is the last option, I send them out for those other things like physical therapy, chiropractic, pain management, neurology, MRIs, that kind of stuff, and work them up. Most patients get better without surgery.

Unfortunately, some people need surgery. When they do need surgery, I'm happy to provide that for them in the most minimally-invasive way possible. I treat all the surgeries the most minimally way that you can in the world today. I traveled the world to learn how to do these techniques. I

teach these internationally as well. And so that's how I maintain my practice at this current time.

Q Okay. So my understanding is you treat patients now mainly focusing on the spine, but you have -- at UMC, it sounded like, you treated other body parts?

A Yeah. So part of the training in orthopedics in Atlanta was heavily weighted with orthopedic trauma, open book pelvic fractures, things that kill people a lot of times, spine fractures, dislocations. I mean, Level 1 gruesome -- if you could -- just mangled extremities. If you can do it to a human body, I was taking care of it for five years in Atlanta. Did some of that in L.A. and L.A. County for the year. And that was exclusively spine, though. And then when I came out here, I worked in UMC Hospital, which is Level 1, and I did the same thing. I was one of two people that I'm even aware has ever done orthopedic spine and pelvis column all at the same time. So I was doing that for three years. And so that was the Level 1 trauma experience that I've had.

Q Okay. Now, are you familiar with Dr. Sanders, the doctor who has been retained by the Defense in the case?

A Of course.

Q And does Dr. Sanders also treat trauma at UMC?

A You know, I don't know if he currently treats trauma at UMC or where he has his credentials or where he does trauma call. I think he was doing some Level 1 trauma call at UMC before when I was there.

Q Okay. Was he also doing spine trauma?

A No. As I was saying earlier, most orthopedic surgeons that do

Level 1 trauma do orthopedic trauma. That, for UMC's purposes, excludes pelvis and excludes spine. So I think he was just doing orthopedics. I don't even think he was doing the pelvis. I don't think he was doing the spine.

Q Okay. So let's go into the treatment of patients. What do you do on a day-to-day basis? Say, for instance, what do you got? What did you do before you came here?

MR. CLOWARD: Is somebody knocking?

UNIDENTIFIED SPEAKER: I think that was out there in the hallway.

MR. CLOWARD: Okay.

THE MARSHAL: They're working on [indiscernible].

THE WITNESS: Yeah. So on a day-to-day basis, I'm either forming evaluations in the office -- first-time evaluations, follow-up evaluations, post-operative evaluations, second opinions -- or I'm performing surgeries or I'm rounding on patients in the hospital or maybe I'm going to the hospital to see consults. And sometimes I do forensics work where either a plaintiff's counsel or defendant's counsel, either one, will ask me to look at records and I'll review a complete set of records and provide an opinion on it.

BY MR. CLOWARD:

Q Okay. And do you do that for both --

MR. CLOWARD: Am I -- is that just in my head, or?

THE COURT: It's --

THE MARSHAL: Somebody's working on --

THE COURT: -- some -- I think they're replacing the JAVS

system, so it might be that.

MR. CLOWARD: Okay.

THE COURT: I don't know. There's --

MR. CLOWARD: As long as it's something --

UNIDENTIFIED SPEAKER: They're in the attic.

MR. CLOWARD: -- and not in my head that I'm imagining. That's the main thing I'm concerned about is like am I hearing this and nobody else is?

THE COURT: No, you are actually hearing it. It's just not right here.

MR. CLOWARD: Okay. I can --

UNIDENTIFIED SPEAKER: Rats in the attic, is what it is.

MR. CLOWARD: I can deal with that, Judge.

THE WITNESS: It's outside your head.

MR. CLOWARD: As long as it's not just, you know -- other people can hear it, I'm cool with that. Okay.

BY MR. CLOWARD:

Q So when you're hired, I guess, as a forensic -- to do a forensic review, do you do that both for the plaintiffs as well as the defense?

A Yes.

Q And what is like the percentage of work that -- say if you were to break it up, just the forensic? So when you're hired by somebody to do the review, what's the percentage that's there?

A So just for forensics, I'd say probably about 75, 80 percent is for defendant's counsels and then the remainder would be for the -- the minority

would be for plaintiff's counsel.

Q Okay. In addition to the forensics work, do you also come and testify on behalf of patients that you see, that you treat?

A That's correct.

Q And is that what you're here for today in that capacity?

A No. I'm not as a treater today. Well, I treated the patient one time because it was a second opinion. So I -- my treatment's not ongoing, so -- but I was a treater.

Q Okay. So let's talk a little bit about the treatment of the spine in general. If someone walks into your office and they say, hey, you know, Doctor, my neck hurts or my back hurts, what's kind of the process that you go through to figure out what's going on?

A So I try to get a chronology of events starting from the first time the patient had any symptoms, let's say in the neck or back, and then what led to those symptoms. Was there anything historically, either remotely or close in time to -- an accident? Was there any accidents that happened since then? How has the pain developed over time? What have they done diagnostically to figure out with other providers where the pain is coming from? Have they had x-rays, MRIs, CT scans, even diagnostic injections or discogram? Also find out what therapeutic modalities they've employed to get to this level of care to be in my office. Have they seen a physical therapist, a chiropractor, a neurologist, a pain doctor, received injections, medications?

So I get a historical account. I like to do it in a chronologic fashion. And if it's involving an accident, with either worker's comp or

personal injury case, I try to identify if there's any one particular event that caused these symptoms or some or none of these symptoms or if there's any other events to which those symptoms could be contributed to. So I'm trying to identify what is the patient's source of pain or symptoms, what treatments have they tried, what treatments might they -- might benefit from next, and then in injury cases I try to figure out the causation, if any.

MR. CLOWARD: Okay. And, Your Honor, I'm sorry to do this. Can I approach?

THE COURT: Sure.

MR. CLOWARD: I've got a bit of a stomach issue.

THE COURT: Yeah, that's fine.

MR. CLOWARD: I'm sorry, Judge. Could we take five-minute recess, Judge? I'm sorry.

THE COURT: That's fine.

We just need to take a really short break. During this break you are admonished not to talk or converse among yourselves or with anyone else on any subject connected with this trial; or to read, watch, or listen to any report of, or commentary on, the trial or any person connected with this trial by any medium of information including, without limitation, newspapers, television, internet and radio; or form or express any opinion on any subject connected with this trial until the case is finally submitted to you. I remind you not to do any individual research. And we'll just be back in a minute.

THE MARSHAL: Please rise for the jury.

[Jury exits at 1:29 p.m.]

[Break taken from 1:29 p.m. to 1:32 p.m.]

[Outside the presence of the jury.]

MR. CLOWARD: Thank you, Your Honor.

THE COURT: You all right, Mr. Cloward?

MR. CLOWARD: Yeah. That's why I don't eat during trial. One of the thing -- while we've got the jurors outside that I had written down here that I wanted to mention and I didn't get an opportunity. With Dr. Kittusamy, I specifically told Mr. Gardner before she took the stand, I said, look. She is not treated on a lien. So if you intend to ask her any questions about that, would -- can we sidebar and confer. And he went ahead and asked anyway whether she'd been paid. I didn't think that was fair. Dr. Cash did not treat on a lien. He billed health insurance. That's not an issue. I don't want there to be any questions about, you know, have you been paid? Have you this, have you that.

THE COURT: All right.

MR. CLOWARD: And then --

MR. GARDNER: I'll ask amounts is all.

MR. CLOWARD: But it -- whether he's been --

THE COURT: Well, yeah, I mean, he's entitled to ask whatever Cash is getting paid for his time today.

MR. CLOWARD: Today, but not billing as far --

THE COURT: Yeah.

MR. CLOWARD: -- hey, did you get paid for the bill.

MR. GARDNER: Oh, that's a collateral source. I wouldn't ask.

MR. RANDS: Well, I took Mr. Gardner's question do you get paid for being in court today.

THE COURT: I did as well, Mr. Cloward, but obviously, there's no problem with clarifying that. So let's make sure that everybody's on the same page.

MR. CLOWARD: Thank you. And then another issue, I wanted to just make sure that the witness was clear on the subsequent crash. You know, any other crashes are not relevant to discuss.

THE COURT: All right.

MR. CLOWARD: I just want to make sure that we're on the same page there talking about that outside the presence so that I don't have to object and sidebar and do all that whole thing.

THE COURT: We're trying the case we have.

MR. CLOWARD: Okay. Thank you.

THE COURT: All right.

THE MARSHAL: Please rise for the jury.

[Jury enters at 1:35 p.m.]

THE MARSHALL: Be seated.

THE COURT: Back on the record in case number A718679 Morgan vs. Lujan. Let the record reflect the presence of all of our jurors, parties and counsel.

Mr. Cloward, go ahead.

MR. CLOWARD: Okay. Thank you, Your Honor, for the brief break there.

DIRECT EXAMINATION

BY MR. CLOWARD:

Q So, Dr. Cash, do you remember the last question that I asked you?

A No.

Q Okay. I was hoping you could give me it. I think we were talking about when patients come into your office asking about -- telling you they have pain and so forth. You're trying to figure that out. Are there tests that you could perform to help you with that evaluation?

A So the customary routine is to get the history from the patient and kind of have them tell you what's wrong with them as far as their symptoms go; what makes it worse, maybe what makes it better.

As far as actual test goes, the first test that would be administered would be physical examination and that's just any number of tests that you would perform physically on the patient to find objective evidence of any kind of injury or discomfort, or help you find your diagnosis. The next set that's most common as far as tests goes would be an x-ray. Either the patient comes in with the report and the films themselves, or I perform them in my office, and I review the x-rays.

The next most likely test would be an MRI in most cases. Subsequent tests are often either diagnostic injections, which they're therapeutic injections, but there are also a diagnostic component that we look at, so it's a diagnostic test. Also, CT scans, perhaps in conjunction with a discography procedure and looking at those x-rays and CT scans, as well as discography responses. Those are all tests. And then there's many other tests that you could potentially use, but those would be the

most common in any kind of like spine condition.

Q Okay. And so that I understand, the subjective complaints, that's where the patient's telling you where they hurt.

A Yep.

Q And objective would be either a test that you perform on them that elicits a certain response or say, for instance, the MRI or the CT scan and those types of things. Is that fair?

A That's correct, yeah.

Q Now, what are the -- I guess if you can help us understand some of the pain -- sources of pain that might cause someone a problem in their neck, their mid-back or their low back.

What are things that can cause people to have some issues?

A So you first have to think if maybe they just sprained their muscles or tendons, soft-tissue is what we usually call that. That's probably the most common thing that happens. A lot of times it happens in conjunction with a structural injury to the spine, and those are to include the disks that separate the bones, the facet joints that also separate each bone, sometimes the sacroiliac joint.

You have to rule out if there's a shoulder pathology, something coming from inside the shoulder itself that's looking like a neck condition. You also have to look at anything down the arm as far as nerve entrapments go that could mimic a spine condition. And we usually start the investigation in these structures with a physical examination to kind of give us an idea of which structures it might be. That's later confirmed with objective x-rays, CT scans, MRIs. And then

usually the last confirmatory test would be a diagnostic injection with an anesthetic.

Q Okay. What is the purpose of the diagnostic injection with anesthetic?

A So when patients come in to be evaluated, they're really looking for you to solve their pain or their symptoms. So the real purpose behind the injection is therapeutic primarily. But because we have the technology to administer an anesthetic, like, you know, novocaine for your teeth when you're getting it numbed up, we can administer the same medications to a specific structure in the spine. And if the pain is reduced by a certain percent, we kind of estimate that may be where that percent of pain might be coming from. So it helps us confirm diagnoses.

Usually they don't make the diagnosis. Usually a doctor will say this seems like a facet irritation, and so you'll have the injection so towards the facets and those would be a confirmatory diagnostic injection because of the novocaine marking was put in.

Q Okay. So Mr. Morgan sees you in looks like October of 2016 and what was the primary, I guess, reason for him being there that day?

A So he came to me for an evaluation for a second opinion. He had been injured in 2014 from a vehicular collision. He had undergone conservative care, and now he was facing the option of an invasive surgery that Dr. Muir, another well-trained orthopedic spine surgeon in town. So the patient is very young and wanted to see -- and he's also facing a potentially a very risky and invasive surgery that's not likely to cure his pain, but maybe diminish it to some extent. He also had neck

pain, but he was primarily coming in at that point just for a lumbar evaluation.

Q Okay. And first off, is it uncommon for a patient to get a second opinion after they've been told that they need a serious surgery?

A No. It's not uncommon at all. Patients at any age are recommended. You know, I literally just tell patients go get a second opinion. It's a spine surgery. You know what I mean? So you get a second or third or as many as you want until you're comfortable with the plan, and you want to go through with it.

But particularly, if somebody in their early 20s, I almost mandate it for them to get a second opinion because it's a very big procedure to undergo for anybody. There's going to be consequences down the road. And it doesn't cure the problem. It just makes it better, and the subsequently adjacent levels will start wearing down. There's going to be a lifetime of pain and treatment. So I want them to really be sure and maybe just get a second pair of eyes on it especially in the low 20s. So it's pretty common.

Q Okay. Would you anticipate that a 20-something-year-old would want to rush into a surgery like that?

A So rarely do you find anybody that really wants to rush into surgery. They usually come to my office kicking and screaming and based on a referral to a surgeon's office, so not many people really jump into surgery. Even when it's a last resort, some people are hesitant, either fearful or just want to put it off as long as they can. But particularly for somebody in their early 20s, I would anticipate that they would really

put it off as long as they can and all the physicians that have taken care of the patient would probably advise the same.

Q Okay. What was your understanding of the work up that Mr. Morgan had prior to reaching you for the second opinion other than seeing Dr. Muir. Were you aware that he had seen Dr. Coppell?

A Well, I was aware the patient had already been treated with the chiropractic. I was aware that he'd been treated with the pain management physician and I had been treated with a spine surgeon. They had diagnostic work done including x-rays, MRI, diagnostic -- multiple diagnostic injections, and so the patient came to me for a re-evaluation of those procedures already having been performed to help formulate a diagnostic.

Q Okay. Now were those diagnostic tests, did they provide some level of benefit for Mr. Morgan? Did they provide some insight as to what was going on?

A So it looked like the lumbar spine was investigated as far as the facets. Only 10 or 15 to 20 percent of the pain was reduced. That's not a very strong -- it didn't really indicate that was the primary pain generator; maybe just a subsequent secondary pain generator. So the goal was to find out if the disk were likely and an injection provided significant relief for the disk around 4/5, and so it looked like there was a disk component for the problem. The workup had not been completed to include a discography. Sometimes that's included to see which particular disk trying to confirm the diagnosis. So that was the only thing I felt was missing to sense the diagnosis for which disk were injured.

Q And can you -- we've talked a lot about it with Dr. Muir and Dr. Kittusamy actually was here this morning. We talked about the discography test.

Why don't you give the jurors, I guess your belief as to why a discography would be helpful and why would you use something like that?

A So we don't always use a discography. If we think we can conclusively identify which disk is the problem without it -- it's an invasive procedure. It's going to cause some pain, discomfort for the patient. When you have a painful disk, it's going to provoke -- it's called provocative -- discography's going to provoke pain. So you don't want to subject them to that unnecessarily. Also there's a risk of infection or hitting a nerve with a needle. There's risk inherently with the test.

But when you do need to identify which disk it might be or which multiple disks, it's a good study to try to capture the correct disk, the correct levels of the disk, so that when you're planning surgery you operate on just the disk you need to. You don't leave one behind; you don't do too many. So I think it's a good procedure in many cases, particularly this one.

Q Okay. And I'd like to show the board that we had with Dr. Kittusamy. And if you'd just kind of come down and explain the, I guess, the -- what the significance of these findings would be?

A So I brought a model to kind of give you a three-dimensional image of what the spine looks like. You can get a better sense of this [indiscernible] test over here. Okay? So the bones are the white hard

structure here. These are represented by these squares right here; all the bones. Now if it was one long bone you couldn't move, you have disks in-between and they allow movement. And that's represented by these kind of yellow structures right here.

Also, accompanying the disk are the nerves right here on the sides. So the way they do this procedure is they take an injection with an x-ray image and they put it past the nerve, and they put the needle actually into the disk itself. Okay? Whereas an epidural injection would stop out here where the nerve is going and the therapeutically administer the steroid right there for pain relief, this bypasses the nerve. It's a test. It's not a therapeutic injury injection. So you put this needle right inside the disk.

You inject a couple CCs of fluid that has a contract medium that can be detected on x-rays. So that way you can see that you're in the right spot, and then you inject it and you see if it stays there. You can see if it stays here it's contained in the disk, if it's kind of tearing towards the disk here. This one is well-contained up in here. And then you can also see the disk and how it, you know, tears out there straight.

So lumbar discography is really the gold standard to see if somebody has an annular tear. X-rays never show it. CT scans never show it unless they have a discography. And MRIs sometimes they catch it. Sometimes they don't just because of technical considerations. They do slices through. If -- the slice might jump over a tear. This is the gold standard.

So if you've got to identify if somebody has a tear, the best

way to do it is with this procedure. And then, also, that's the objective component. And the subjective part is just the patient experiencing pain that's concorded meaning it's the exact pain they're coming in for. And it -- which levels they have that and which -- where they don't, so it's a subjective and objective study.

Q Okay. Now this is the discography study that Aaron had on 3/13/18.

Would you anticipate that a 25, 26-year-old would have these - - this level of finding without a traumatic event?

MR. GARDNER: Objection, Your Honor. It's leading.

THE COURT: Sustained. You can rephrase the question.

BY MR. CLOWARD:

Q Is it -- guess what causes these types of -- this type of finding?

A So the most common causes for a tear in the disk would be degeneration, wear and tear over time or a trauma. You can have a combination even. Now if you're talking about somebody that's 60, 50, a lot of times that's degeneration. It's very rare for somebody in their early 20s to have a degenerated spine. It's very rare for them to have a tear on an MRI. It is very rare for them to be in my office at all. So the fact that he has tears at multiple levels, indicates it's most likely the trauma.

Q And --

A Highly most likely a trauma, and particularly at L2/3. Less than one percent in my office evaluations, I mean, --

Q Which level is that at?

A This is five, four, three, two, 2/3. So my practice, most of it's

involved around 5/1 and 4/5 in the lower lumbar because that wears out with degeneration or gets injured most commonly more than anything else. Every once in a while I get a 3/4 injury. But I almost never see anything up here. Almost never. So I'd say like one in hundreds you can have a finding here.

For somebody in their early 20s with a tear at L2/3 with a traumatic event, must be from a trauma and same thing for 5/1. This is highly likely to ever even have an injury that's going to need a surgery. This is more common, but hardly ever in a 23-year-old. So the whole clinical correlation of the patient's so young, have no pre-existing history of these conditions and then to have the traumatic event, these have to be from the trauma, not degeneration.

Q And I guess, how confident are you about that?

A Ninety-nine percent.

Q Okay. Thank you, Dr. Cash. Now what are -- Dr. Muir talked a little bit about the -- I guess the surgical considerations for a younger patient, younger individual. And he indicated that, you know, plasma disc decompression is used in certain population such as a younger individual.

What are your views on plasma disc decompression? Do you use it and so forth?

A So plasma disc decompression is not as common as lumbar fusions. There's a handful of doctors in town that do plasma disc decompressions. Dr. Muir probably does the most of any of us. I've done them myself. I usually recommend a patient go in for a surgical

reconstruction, but there are special considerations. If a patient is very young you don't want to subject them to a fusion that early. You might try plasma disc decompression.

Q Why not? Why not rush in and just do the fusion if that's what, you know, why not?

A Yeah. So if it were a cure, we'd probably just jump to it first. But the reason we do it last is because you're biomechanically altering somebody's spine. Whereas they had multiple motion segments before, by putting rods and screws in there and fusing an area, it can no longer move, so all the motion and all the stresses must be adapted by the other levels. So that's immediate from the time of the surgery even before it's fused. There are levels that start getting stressed more than they're physiologically built for. And so they're going to start wearing down over time. They're going to need -- you're going to need medications for the pain. It's going to be mechanical. You can't stand or sit too long. It's very debilitating.

And it's going to lead to a wear and tear of the disks and even maybe the facets at the level above and/or below such that you're going to require the same chiropractic care you had before for a different level now, injections, the whole diagnostic workup again, maybe a discography. You have to repeat the whole process at a certain amount of time down the road.

So we don't want to jump into that any sooner than we want to. So when this is debilitating enough that the patient's willing to undergo a risky surgery, then we do it knowing their levels will wear down

in the future. And that's why you can't just jump into a surgery like this. It's not a cure. You're not going to be pain free. If you're lucky enough to become pain free, it's only going to last so long because other levels will break down.

Q Okay. Is there any sort of a medical term to have those other levels break down? Is that something that's actually documented in the literature?

A Yeah, absolutely. It's been documented and quantified in studies. So adjacent level breakdown or degeneration is what it's usually called. And it breaks down at a rate, through multiple studies, of about 3 percent per year. So when you have a fusion at one level, the next level's going to see the stresses immediately and over time it's going to start requiring physical therapy or chiropractic, medications, injections.

But it will be so bad that it will require surgery 3 percent of the time the first year out. And in 6 percent of the people will need it within two years meaning 9 percent of the people need it within three years. So it's linear that three more percent are going to need another surgery right after. So after you get 17 years out, you've got 51 percent of the people. Most of the people are having a subsequent surgery, so you don't want to start that with somebody young.

Q I mean, if Aaron's life expectancy is, you know, 78 years old, and he rushes in and has this surgery, you know, at 24 years, then due to the statistics or based on the statistics he would need another surgery at 41?

MR. GARDNER: Object. Leading.

MR. CLOWARD: I'll rephrase.

THE COURT: Go ahead.

BY MR. CLOWARD:

Q Let's -- if Aaron would have had the surgery at 24, Dr. Cash, based on the literature, when would he require another surgery?

A So you have to reach a level 50 -- more than 50 percent to be more likely than not. And that would be reached at 17 years. Statistically it would be 51 percent. So if he had the surgery at 24, the next one would be 17 years later 41. Two fusions by the time he's 41. And then when he becomes 58, that would be a third fusion surgery. You would have to reach 75 for the additional one, but most likely he would at least have one, probably two at that young age in his lifetime. Maybe not the third one because it's so close to 75.

Q So is that a reason that maybe you try and hold off on doing procedures to the lumbar spine as long as you can on young patients?

A Yeah. That's one of the reasons. I mean, if the patient can tolerate the pain, that's great. Because after the fusion they're going to have pain and they're going to have to tolerate that pain. So if it's tolerable, operating on something to make it tolerable is not going to be very -- you know, it doesn't meet good purpose. So if it's intolerable, then we do the surgeries until it becomes tolerable.

They're still going to have diminished activities or daily living, pain, limitations in how long they can sit, how long they can stand, picking up kids, grandkids, enjoyment, recreation, sports, work; all those things. And the next level's going to wear down. And every time you

fuse a level, more and more of your back is going to be stiff and other levels are going to break down.

Q What type of, you know, Aaron has kind of a weird problem in that he's got an issue up at L2/3, but then he's also got one down at L5/S1. If you were to do the fusion surgery, what would you do? Would you do the whole thing? Would you do just one level? Two levels?

A Yeah. Can I approach that composite or you want me to just talk to you -- I can speak with this spine up here.

Q Either way. Whatever you would like.

A So this is a very precarious situation he has. Not only does he have a level that needs to be fused, and the other level will break down within, you know, 15-17 years, he has a second level that needs to be performed. Now most commonly this is the -- these two levels are beside each other. So putting stress on the third-level up. His is unusual, and it's traumatic that you do a fusion here and then up at the top.

Now at the -- over the same 17 years, this level above is going to be worn down from the erosion from the fusion here, but this level below, this fusion's going to be wearing out at the same time. So you've got two forces in the back that are stressed to the adjacent levels. So he'll probably need to have those in-between surgeries done at the same time in 17 years. So he's going to start off with two surgeries that aren't side-by-side that are spaced apart from the top of his lower back to the bottom of his lower back. There's going to be pain all the way between there, and in 17 years he'll have to have the remainder fused.

So it's very unfortunate because the pain generation spans his

entire -- injury and pain generation spans the entire spine. So -- but there's only way -- you can't fuse all four of them at the same time. You can, but then you've jumped ahead 17 years on the middle ones. So he's definitely going to have pain after surgery. So we wait until it's really intolerable and debilitating trying to bring it back down as best we can with a fusion. This is a very unfortunate situation since he's traumatically injured two disks that are relatively far apart spanning the whole lumbar spine.

Q Okay. Let me -- what -- have you treated patients that have had their whole lumbar spine fused?

A Yeah. Absolutely. So most of the time it's with a scoliotic deformity, so you have to bring the patient's curvature, tremendous curvature back over and straighten it up and lock it in position. Some spine surgeons used to fuse four or five levels of the lumbar spine. Those are just met with horrible results. Your entire spine is rigid. It's difficult to hygiene. It's difficult to, you know, when you go to the bathroom to even wipe yourself.

It's a lot of consequences that that, and you have no motion in your back and you really start wearing out the other levels much faster. So I can't say I've heard of anybody doing or very, very seldom four levels at one time especially somebody in their mid-20s. I've never heard of that.

Q Is that another reason why you'd kind of push that -- kick that can down the road for as long as you can?

A Yeah. Absolutely. You got to.

Q Okay. The decision-making process, would that be different say if Aaron were older? Maybe if he were 50 or 60 years old?

A So the difference between him and a 50-year-old would be still to put it off as long as you can because there are risks. I mean, some people die from these surgeries. It's not very common that there's a risk like that. And then there's other people that can like bleed out, require ICU stays, you could perforate bowels, have infections. I mean, there's a lot of nasty things can happen; you know, spinal leaks, nerve damage. So you want to avoid surgery as long as possible because of the risk alone.

But when you're ready to -- when your pain is so bad it outweighs the risk, then you proceed with the surgery. Always a second opinion is advisable, but the same kind of things fall in line. But it's just more sensitive and much more in the front of your mind when somebody 23 as opposed to 55 and have the problem.

But when you do the fusions, you have to do the same, the top and the bottom, and you have to realize the adjacent level's going to start wearing it down you're going to have to have pain throughout their life.

Q Okay. Dr. Muir indicated that the cost of, say, a lumbar fusion is about well, let me just ask. What is your experience? What does a lumbar surgery cost?

A So we're talking about a two-level lumbar surgery. It's going to require a hospital stay of probably at least three nights, maybe up to a few more. Could include a rehabilitation, include physical therapy,

occupational therapy, all the nursing, all the medications, the anesthesia, the operative time, the surgeons, the assistants, the neuromonitoring, the devices themselves. We're talking probably no less than probably a quarter of a million dollars, maybe in the 300,000s.

Q Okay. And that's what is a usual and customary charge that would be charged here in the Las Vegas community?

A That's absolutely 2018 data required from hospitals when I call them and say what their charges are going to be and the other vendors that would be involved in a case like this.

Q Okay. Dr. Cash, I've asked you questions today. Have all of your opinions been stated to a reasonable degree of medical probability on a more likely than not basis?

A Absolutely.

Q Okay. And it's your understanding or it's your opinion that the automobile accident on April 1, 2014 --

MR. GARDNER: Object. Leading.

MR. CLOWARD: This is a foundational question.

THE COURT: Overruled.

BY MR. CLOWARD:

Q Fair to say, doctor, that your opinion is that the automobile crash on April 1st, 2014 was the cause of the lumbar tears that we just discussed that would necessitate the treatment that you've described?

A Yes, sir. By looking at the patient's entire collection of records that are available to me including historical accounts made by the patient and those providers -- other providers, looking at all the diagnostic

information, considering his age and lack of degeneration and the traumatic even that subsequently led to a chronology of escalating problems, diagnostic workup and treatment and nothing to the pre-existing, to say it otherwise, it's absolutely from the traumatic event subject date.

Q Is that a -- is it questionable for you or are you pretty sure about that?

A No question.

Q Thank you, Dr. Cash.

CROSS-EXAMINATION

BY MR. GARDNER:

Q Hello, doctor.

A Good morning or afternoon.

Q First off, I got to do this. For -- how much -- well, let me --

[Counsel confer]

BY MR. GARDNER:

Q How much are you being paid to be in here today?

A So being absent from my clinic, I'm being reimbursed $6,000 today.

Q Okay. You said something about percentages of the type of surgery you -- and you indicated that there was some elective surgery that you do? Did I hear that right?

A Yeah. There is elective surgery.

Q What kind of elective surgery?

A So the elective surgery that I most do is spinal surgery.

Q Then what -- just explain to me what elective surgery is, will you?

A Yeah. So I pretty much -- that's an adjective that means it's not emergent. Like if somebody came in their spinal cord was crushed and fractured, dislocation and you needed to take them immediately into surgery, no questions asked, whether conscious or not, I mean, you got to take them in to save their life and just keep them from being paralyzed. Even if you can do that with surgery, you got to try. That's an emergency. That must be done now.

And an urgent surgery would be something if somebody has a foot drop, is developing over time, it's not an emergency, but it's -- you should really get this looked at. It's elective, just more urgent. But what I mainly do 99 percent of the time is patients come in with symptoms and when they do need surgery it's elective. They can put it off as long as they want to, and that will probably always be the case. And then they decide to undergo the surgery. They elect to do so, so it's an elective surgery. It's not emergent. They elect to do it.

Q Thank you. I had conjured up ideas of like plastic surgery and things like that, but that's not what we're talking about.

A No, that's not what we're talking about.

Q Now you said that you do about 85 percent defense IME work and 15 percent plaintiff?

A Well, I say when I'm asked to do expert work where I'm not treating a patient, just looking at documents and records, maybe perform an IME, that's 75 to 80 percent defense which would leave 20-25 percent

plaintiff.

Q You also said that you're a teacher. Who do you teach?

A So I teach neurosurgeons and orthopedic surgeons, orthopedic spine surgeons. I teach the internationally, they come to conferences and I teach them on cadavers. Sometimes I invite them to a local facility here. I've had them come as far away as five academic admission professors from Japan. I've developed many courses for sacroiliac fusions, lumbar fusions, and cervical fusions to people world-wide that usually go to conferences or come in for special training. I've also taught residents at UMC. I teach medical students. I taught them at Touro.

I'm applying to work at UNLV where I've been granted a four-year scholarship to an entering medical student and I'm trying to teach them. I'll soon be on their course as well, and then my ORs often -- I have an invitation to any physical therapists or other kind of doctors that want to come in and see surgeries and learn what's going on.

Q Okay. Thank you. You're a busy man it sounds like.

A Relatively speaking.

Q Why don't you write the percentages down for the amount of I'll call it private work versus litigation work? How do you get those cases that end up in litigation?

A As opposed to non-litigated cases?

Q So injury cases either come from a personal injury claim or a worker's comp claim. So we get worker's comp side, we either get them from third-party administrators or we get them from other physicians that

are in the work/comp industry and taking care of those kind of patients or patients can elect, within a certain amount of time, to come themselves. A lot of it's mostly referral based.

As far as personal injury, it'd be much of the same. Oftentimes patients don't come to see me first because I'm the surgeon. They come to see me last if they have to. So usually a chiropractor, physical therapist, some other medical doctor; most likely it will be a referral like that where they could walk in.

Q Do you ever get referrals from attorneys?

A So I often -- I know sometimes attorneys are representing a client when they come in and they've been retained. But I don't know how many times they've been referred. It wouldn't surprise me if attorneys did refer patients over. You know, attorneys themselves have come in as patients before. A lot of attorneys in town, because I do a lot of work for worker's comp defense and plaintiffs, they know my work and if they feel comfortable with me, sure they can send a patient over.

Q Okay. Now when you talk about the percentages, are you limiting that to just the worker's comp work or the private work that you do?

A I'm not sure I understand that.

Q What are you 80 percent you said was defense. And the other is for plaintiffs; is that right?

A So are we talking about just forensics where I'm not a treater, and I'm just looking at files or maybe an IME?

Q That's the best way to put it, yeah.

A Then I would say, yeah, you know, three-quarters is defense and one-quarter is for plaintiff. That's what I was talking about.

Q How long after this accident was it that he came in to see you?

A I think it was about two-and-a-half years.

Q Now is that a -- well, let me put it this way. What do you think held him back from coming to you sooner than two-and-a-half years?

A Well --

Q Do you know?

A Well, I do know he was treated already by the chiropractor. He'd been getting injections with pain management. He required multiple injections. Those take times, follow-ups, evaluation to see how the patient is doing, all the diagnostic studies that were undergone. He was treated by a spine surgeon. There's really no reason to come see me until he decided he wanted a second opinion.

Q Okay. And when he came in for the second opinion, was that just -- what did you have in front of you before you read your opinions on him? Had you seen any other doctor reports to base any of your --

A Yeah. I could tell you. Well, if I can look at my records --

Q Yeah.

A -- I can tell you specifically. Do you know where I could find it in the notebook in the binder here?

Q That'd be great. You can --

MR. CLOWARD: Exhibit 19.

MR. RANDS: 19.

BY MR. GARDNER:

Q 19.

A I brought my own record in. Can I look at that?

THE COURT: If you would not mind looking at the exhibit --

THE WITNESS: An exhibit?

THE COURT: That way we can refer to the exhibit page numbers?

THE WITNESS: Okay.

You say 19?

BY MR. GARDNER:

Q Nineteen, I believe. Yeah. 19.

A Okay.

THE COURT: Which has not been admitted.

Mr. Gardner, that has not been admitted.

MR. GARDNER: I'm probably not going to even request it. I just want him to look at it.

THE COURT: Okay.

THE WITNESS: So on the evaluation on October 12th, 2016, we had the patient's imaging studies, so the -- this would be likely the MRIs. I reviewed the 2014 MRIs. I reviewed x-rays, and I think those were the outside records that were available at the time.

BY MR. GARDNER:

Q Okay. Thank you. Leave those open. Does -- do your records say who you got this case through or how is it that the plaintiff got to your office?

A Oh, I'm sorry. At the very bottom of the page, it also reads "I reviewed Dr. Coppell's records, Dr. Muir's records, and those from Las Vegas Radiology. That was at the very bottom of the page. As far as the patient being referred to my office, I don't recall.

Q Say that again?

A I don't recall.

Q Okay. Based upon your examination and your work with the Plaintiff, what caused his neck and back to be in the condition it was that he was seeing you for? What caused it?

A So he identified a motor vehicle accident on April 1st, 2014. I reviewed all the records. That seemed consistent with his representation. He discussed his historical account, and I saw nothing to the contrary. I was provided no pre-existing records that would dispute his claim. He indicated that he had a motor vehicle accident before with no residuals, and had had one in the interval which did not aggravate his symptoms. I saw nothing to contradict that in the medical records. So as far as the causation, it was pretty clear. It was completely one-sided that the subject actually responsible for the patient's conditions which were evaluate in my office.

Q Thank you. That was a great question I asked, wasn't it?

A All your questions have been excellent.

Q Are you saying that you can look at records and then make determinations about the proper techniques used and things of that nature? You can do that -- can you do that by just looking at records?

A I don't know what you mean by proper technique. You're a

little vague.

Q Well, that was nonsensical. But what I'm saying is if you look at some records, are you then able to render opinions about what those records represent?

A Yeah. Absolutely. We all do that.

Q That's not anything abnormal, is it?

A No. We oftentimes look at records and render opinions and if we don't have sufficient records to render an opinion, you ask for those records until you have sufficient records to render an opinion.

Q Okay. But if you've got all the records, is it absolutely necessary that you see the patient first or not?

A Well, so oftentimes many experts both for plaintiff and defense will look at records only and provide an opinion. And so if you're able to render one of those confidently on the records you reviewed, sure you don't have to see the patient first or even at all necessarily.

Q Okay. Thank you. Now I'm assuming that a person doesn't just jump into getting surgery, but there's probably a time period or a work up so to speak. Would you agree with that?

A So diagnostic workup is mandatory before even undergoing surgery or even recommending it. You don't know what the diagnostic workup shows you as causing the pain. You have a structural target. For your surgery, the patient wouldn't even be offered the surgery, so yeah, you'd definitely have to go through whatever course of time to diagnostically work up the correct injury and come up with a -- formulate a proper plan for it. And oftentimes, even though you have a diagnostic

work up for such, you have to undergo some time to see if the patient's pain was tolerable or resolved. So you wouldn't jump into surgery. Doctor's wouldn't recommend it right away.

Q Okay. Thank you. what process did you go through what -- before determining that he would need surgery?

A Okay. So the diagnostic workup was such that he had severe debilitation as far as his functional activities. He had high levels of pain score. He had been suffering this for over two-and-a-half years. He met the criteria as far as duration and intensity of his symptoms.

As far as diagnostic workup as to which structures to properly perform surgery, he had undergone facet injections indicating they were at least a secondary at most generator of pain. It's most likely a discogenic source of pain. The diagnostic workup was not conclusive from my standpoint definitively to see which discs were at play would need surgery. So I was not recommending a future surgery for him at that time. I'd actually recommended epidural injection at L4/5 to see what the outcome would be.

Q Have you seen Dr. Sanders's IME report in this case? Steven Sanders?

A It wasn't in my file when I looked through this earlier this week, so I don't think so.

Q Okay. I was just wondering if you had comments on it. So when he came in the first time, describe the exam process you put him through.

A You -- just the physical examination?

Q Excuse me?

A Did you mean just the physical examination portion?

Q Yes. Yeah. What did you do?

A So the musculoskeletal examination was primarily focused on the lumbar spine. The cervical spine was excluded because he was really in there for his low back and wanted a second opinion. So I had the patient go through a range of motion going forward and backward. Usually if a patient has a facet disorder or maybe an SI disorder extension of the lumbar spine will produce pain and so it did. And it's vague, but it's a finding.

I did the same for forward flexion. That would be indicative most likely a disc component. So right now, I'm not sure at that point of physical examination it were more a disc or a facet or an SI problem. So I examined the musculature. He had spasms. Those are objective findings of tight muscles. There was pain and tenderness. So those are subjective -- an objective findings.

I checked the muscle strength on all the distributions that would be responsible for the L1/L2, 3, 4, 5 and S1 nerves to see if there was any particular focal neurologic weakness that would identify a nerve and thereby a disc level where the source was coming from. But he had full strength, so that was not helpful in identifying the level.

I next checked the reflexes, and accordingly it was not definitive to tell me a certain level in the lumbar spine. I looked at the sensation and it was his right lateral thigh. That makes me think probably the L4 or 5 nerve route, so that gives me a little bit of a lead on

where the patient's disc might be a problem.

The hip examination, looking for a pathology inside the hip itself, to see if it was a labral tear, or something like that was negative. So I ruled that out. And then I did an SI joint examination specifically to see if that was an issue and it was not. So at this point, it seems like probably some of the pain could have been facet mediated, but more likely it was discogenic and had features that were associated with probably an L4/L5 nerve route distribution.

Q What's the cut off in your mind about whether someone's young or old as related to their back condition?

A It goes up every year.

Q Does it really?

A Yeah.

Q What's it at right now?

A 47 and below is young right now. A little change in June 17th.

Q Okay. That makes me feel really bad.

A I'm just making -- just talking about my own age here. So there's no cut off on young and old. It's really a spectrum right? So I mean, a patient comes in in their early 20s, I mean, they're very young for spine surgery. Too young for injections? No. I don't think so. Physical therapy, absolutely not. So it's just -- it's not really a relative term. It's not binary whether either you're young or you're old. It's really a spectrum more or less.

Q Now in -- when you got the Plaintiff in your office, did you understand and know that he was there for a second opinion?

A Yes.
Q How did you know that?
A Because his first opinion was Dr. Muir's records who I'd already evaluated.
Q Okay. In relation to when you saw him, when did you look at those records from Muir?
A The day -- during the evaluation.
Q Okay. Is it offensive to have one of your patients go to another doctor for a second opinion?
A No.
Q Is that?
A It's encouraged.
Q Okay. So if I heard it right, he had objective tears in his spine? Is that what you said, objective tears?
A Yeah. So the way you know that he has a tear in his spine is through a technology called the CT discography. You're able to identify where the contrast has leaked. It's objective and there were tears. It's the gold standard. And they were -- not just in the spine, they were specifically in his discs.
Q What -- you probably answered this already, but will you just describe for me one more time for me what kind of testing you put him through before you prepared your evaluation?
A You mean physical examination testing?
Q Yes. Yes.
Q So we palpate to see if the patient's having pain and

tenderness in the lumbar spine. It's vague, but it's indicative of pain. That has a subjective and objective component. I put him through a range of motion identify if it's more likely a disk or a facet or maybe an SI joint. I specifically tested the SI joint with provocative maneuvers and ruled that out. I looked at the hips to identify that maybe it wasn't a ideology of pain coming from the hips as well. Ruled that out. So now we now have a structural component from a patient that's two-and-a-half years out from an injury and it's either going to be the disc and/or the facets.

So the examination identified mostly that it was a disc component with a radicular finding of numbness and tingling most likely associated with 4/5, but there could be other discs that are causing back pain exclusively. That's why I was recommending the discography was performed later. But I wanted to, on a therapeutic basis do a diagnostic with the epidural at 4/5.

Q Okay. Thank you. The -- if you can answer, just answer. If not, just tell me you can't. How many of those spine surgeries do you estimate that go on every day in Las Vegas to fix the facet joints and the discs?

A So there's rarely, if any, a spine surgery for a facet joint. That's usually a pain management procedure where they're going to do an -- I mean a facet injection, needle-branch block or [indiscernible] ablation. If you're talking about open spine surgeries where you're doing a discog -- sorry -- a discectomy or a fusion, I don't know if you're asking about --

Q Yes. I -- you're on the right tact, yes.

A On a daily basis in Las Vegas Valley you've got about 25 to 30 spine surgeons in town. You have 80 to 100 pain management doctors I'm aware of. That number is growing. There are hundreds of procedures related to the spine going on every day, hundreds for sure.

Q Now there's hundreds done in here in Nevada a month, but should we just extrapolate that out for every state and then we can come up with the number of how many of these surgeries are performed for the discs and the facet joints?

A No.

MR. CLOWARD: I'm going to object, Your Honor. This is not relevant.

THE COURT: Sustained.

BY MR. GARDNER:

Q I was curious about what you said that this back surgery never takes the pain away.

Did I hear that right?

A So a lumbar fusion is unlikely to cause a pain-free outcome. And if you do it's likely to be limited in duration be the adjacent level structures will break down causing symptoms.

Q Okay. Now is this something that a treating doctor would tell the patient before having them undergo the surgery?

A I do.

Q Do you have them sign anything?

A Yeah. Well, yeah.

Q I mean at later.

A So before surgery. Oh, yeah. So there's informed consent. So the informed consent is a consent that the patient is going to undergo the procedure, having been informed of the diagnosis, the prognosis with or without surgery, the alternatives including surgeries, what kind of surgeries and non-surgical interventions, the risks and the benefits. And so amongst other things -- so they sign that every time.

Q Okay. And do you typically talk to them about the contents of what's in that release form or the form that you just described?

A Yeah. So any of the doctors, I think pain management does the same thing. Any kind of procedure that's done on a patient usually has informed consent, and the doctors inform the patient before they consent.

Q Okay. And the reason I was asking you about the number of surgeries say in Las Vegas or Nevada whatever is if the patient goes in knowing that it's not going to fix the pain, it will just reduce it, why would someone want to do that? Do you have any opinions on that? I mean, if you're going to risk dying on the table, and you're not going to get rid of your pain, what -- is there some psychology there that I'm missing?

A Yeah. So it's not likely that they're going to be completely pain free. But if you look at somebody that has an eight to nine to ten over a ten pain, that is excruciating for a long time and affects their daily activities, being able to diminish that to a four or a five is substantial. Patient's able to probably go back to some kind of meaningful work, feel good about himself, feel like he has a life, maybe be in a relationship

again, maybe pick up his kids, maybe have recreation. I mean, you can fulfill people's lives significantly within the absence of complete pain reduction.

Q Thank you. So the relief in pain outweighs the risk of surgery then; is that basically right?

A So the patient has to determine if the potential reduction in pain to whatever extent it might be would outweigh their fears and the risk of the surgery itself.

Q In your experience, after this surgery is performed, does the -- you do follow up with the patients that you?

A Of course, yeah.

Q Yeah. Okay. Now how normal or abnormal is it that the person you perform the surgery on would be taking medication for the rest of their life? Would they?

A So there's so many variables that you're not identifying in a vague question like that. It's very common because of a lumbar fusion, particularly at two levels that are separated across the whole lumbar spine that they're going to have -- it's 100 percent sure they're going to have immediate stress at the next levels at both the top and bottom of the lumbar spine and that's physics. And that's been demonstrated in the literature.

And they're going to require pain meds, muscle relaxers, anti-inflammatories, maybe a steroid pack, maybe inhibitory like Lyrica and Gabapentin, through their whole life. Now there may be interludes where they have some pain reduction maybe through inactivity or just variable

waxing and waning or injections or some kind of treatment that there may be some reduction or absence of medications. But looked at through the entirety of their life, yes, they will be continuously getting meds.

Q Thank you. Now did the Plaintiff sign anything in your office to recognize that he knew the risks of surgery and things of that nature and the waiver form you were talking about? Is there anything in your file about him signing that waiver?

A Well, patients do sign forms when they come in. You know, usually it pertains to HIPPA and documents like that. I wasn't recommending a surgery. I wasn't informing him about a surgery. So I would not have had him sign a surgical consent on that initial evaluation.

Q Okay. How many times have you worked with this law firm that represents the Plaintiff?

A So I've been in town for 12 years, and I would say anywhere from a few to several dozen in the last 12 years.

Q Several dozens is that 24 or 36 or what number are you thinking of?

A Yes, yes. Maybe 48. I don't know. It's just -- it's -- I don't think it's been 100. I know it's been more than a dozen, so probably three -- several dozen.

Q Do you have enough interest in one of these second opinions that you'll contact the lawyers after the case is over and ask about what happened and things like that?

A So --

Q You follow up, that's what I'm asking.

A Well, it depends on the case. Like if a patient stops treating with me and they've gotten out of pain and they're discharged I usually don't follow up very often if a patient's been discharged from a medical standpoint. In a case like this where I'm actually testifying, I realize we're in court. There'll be a finality to this next week. I'll probably hear about it, I don't know, one way or the other.

Q Okay. But you won't do anything affirmative to find out? You'll just hear it through the grapevine?

A Probably not, no.

Q Okay. Now you and -- I think you and Counsel ate lunch together today, didn't you?

A Yes.

Q Okay. What'd you talk about?

A So I looked at some records from Dr. Muir's office and some of my own records.

Q Okay. Which records?

A The 2000 -- Dr. Muir's records from 2017, and 2018, the plasma disc decompression and the discography.

Q Okay. Were those your documents or were they provided to you? How did you get in contact with those papers?

A So I had some documents in my files from -- you've enumerated which ones they were. And then he showed me some of the other ones today that were not in my documents.

Q Okay. And that -- and today's the first day you've seen those other documents that weren't in your file?

A For Dr. Muir's 2017, yes.

Q Thank you, doctor.

A Thank you.

THE COURT: Mr. Cloward?

REDIRECT EXAMINATION

BY MR. CLOWARD:

Q Dr. Cash, why did you want to see those records? Why was that important for you to see those records?

A Well, as a custom and practice, I like to have all available records to see if it can change my opinion one way or the other, bolster, it, or has a neutral effect. So I realized that the patient was recommended, you know, procedures for the facets and the discs in the past. And then it was represented to me that the patient actually had undergone a discography. And we have the films up here, and the plasma disc decompression. So I wanted to see what the records showed. I wanted to see if I agreed with the treatment that was rendered. I wanted to see if it was consistent with the treatment that had been recommended in the past.

From Dr. Muir's records I had in 2016, they were essentially not significantly different, and the patient was recommended the plasma disc decompression, and discography. 2017 was no different from that. patient was putting off surgery as recommended. And then finally he succumbed to his symptoms, had the discography. I reviewed that. I felt that the plasma disc decompression was reasonable and should have been performed. And so I wanted to see if I agreed with the records that

were there.

Q Okay. Now you've worked with our firm before?

A Yes.

Q How many -- you got a number of other firms that you've worked with as far as both plaintiff and defense?

A Yeah. I have worked with a number of plaintiff firms, and I work with a number of defense firms.

Q Is the number of times that you've worked with my firm higher than the other firms that you work with?

A No. No. You're not the highest; probably somewhere in the middle. Not the lowest. I mean, I don't keep kind of a tabulation of that kind of stuff.

Q Okay. Are there defense firms that you also work with coming to court and working with them?

A So I've worked with defense firms, some of them more than I've worked with your firm; some of them less than I've worked with your firm, like I say, there's probably a spectrum of those. There's a lot of plaintiff's firms and a lot of defense firms in town.

Q Okay. Now a couple questions. Mr. Gardner asked you whether you'd read Dr. Sanders's report.

Have you ever heard of anything called symptom creep?

A No.

Q Okay.

A Not by that name. I don't know what that refers to.

Q Okay. And Dr. Kittusamy testified a little earlier this morning

about Schmorl's node and indicated that when a Schmorl's node is in the lumbar spine one level, young patient, that's generally traumatic versus maybe another presentation. I think she said something about Sherman's Disease.

MR. GARDNER: Object. Leading.

MR. CLOWARD: I'm asking him if he agrees with that.

THE COURT: Overruled. He's not --

MR. CLOWARD: It's foundational.

MR. RANDS: He's not an expert.

THE COURT: -- finished the question yet.

MR. CLOWARD: It's foundational.

MR. RANDS: He's not an expert.

BY MR. CLOWARD:

Q Do you agree with that representation?

A So in a young patient with a Schmorl's nodes, I'd say it's most likely a traumatic event particularly in a case where a clinically correlated -- where it can be clinically correlated. In a young patient with a Schmorl node absent facet high-perch at multiple levels, disc tears, disc bulges, there's a whole cascade of ligament hypertrophy, facet hypertrophy. In the absence of a severely degenerative condition, in a young patient that has a Schmorl nodes, it's most likely traumatic especially when you think you can clinically correlate it.

Q And the clinical correlation is basically the pain that the patient is experiencing?

A Yeah. Clinical correlation would be when did this pain start?

Does it make sense with the other records that we've looked at, and does it match up with the traumatic event?

Q Okay. And would those things match up in your opinion to the April 1, 2014, traumatic event?

A Yes.

Q And Dr. Cash, have your opinions been stated today to a reasonable degree of medical probability on a more likely than not standard?

A That's correct.

Q Okay. Thank you.

MR. CLOWARD: No further questions.

MR. GARDNER: No further questions.

THE COURT: Any questions from the jury?

Counsel, approach, please.

[Bench conference begins at 2:35 p.m.]

MR. RANDS: Going to have them start when the jurors ask questions.

THE COURT: It wasn’t my idea.

MR. CLOWARD: Yeah. I'm fine.

THE COURT: All right.

[Bench conference ends at 2:35 p.m.]

THE COURT: Sir, I'm going to ask you a couple of questions. I'm going to ask you look at the jury so they can hear you when you answer.

THE WITNESS: Okay.

THE COURT: How long will relief from plasma disc decompression last? Is it a source for permanent relief?

THE WITNESS: That's a good question. It's in two parts. So I tell patients that it's most likely, well, it all depends on how many levels and stuff they have, too, but it's mostly likely that they're going to get about 50 percent reduction after a year. Maybe a third, you know, 33 percent reduction after about two years. That's just a guesstimate a little bit. I mean, there's no for sure. There could be a lot of relief and it could wear out later or sooner. I would just say around 50, tapering down a third after two years. After three or four years, you may not notice any benefit any more.

It is never curative. So the injury is there. It doesn't restore it to its natural pre-injury young state. Injury is there. It's just a -- it's kind of like a temporizing pain relief like a medication may give you pain relief for four to six hours. Epidural injection may last several weeks to months. Plasma disc decompression may last a couple years, but no, you're definitely going to need the fusion surgery afterwards.

THE COURT: Are there ways to strengthen or possibly weaken one's spine specifically the disks through fitness, diet, and nutrition?

THE WITNESS: Okay. You can't really strengthen the discs. It's not a muscle. You can condition the muscles around it. That's your core, core stabilization exercises like Pilates and yoga. So you can protect and support the discs by protecting it by strengthening of the muscles, but you can't make the discs stronger. A disc that's been

injured is less competent. There -- its structure, its integrity has been compromised so you can't do that. You have to strengthen around it.

As far as a fitness goes, well, if you're doing the core stabilization exercises you probably enhance your -- the ability for your discs to deal with its injury. But if you're doing fitness like running and jumping and unsupervised activities, you could probably injure yourself more. I mean you could tear the disc more.

As far as nutrition goes, I would say not a lot of support that a nutrition is going to help the disc heal. His disc has been torn for several years now. There's very little, if any, blood supply to most of the discs, so nutrition can't even get there. So as far as treating this particular injury with nutrition, it's futile. As far as fitness, I would say try stick with the core stabilization, yoga, Pilates, and avoid impact, maybe you can do an elliptical or stationary bike or walk.

THE COURT: Would a healthier young adult versus an average or below average health young adult have similar injuries if put in a similar traumatic situation?

THE WITNESS: So it's not really a condition of -- it's a very difficult question to answer. A very good question, but it's difficult. There's so many variables at play. A disc is going to heal itself or it's not. It's going to declare itself. After several years, we know it will not heal itself. If somebody had -- if somebody were a smoker, heavy smoker, maybe that would impair the healing; if somebody had diabetes, potentially. I can't remember a study that's related to severe diabetes and disc healing. You know, it's really mechanical. It's biomechanical. If

the disc is injured through forces, there's not much as far as a patient's general health is going to do to prevent that from happening.

THE COURT: Due to the nature of fusion operation surgeries, would degeneration be increased having two locations of the lumbar operated on without having done any strenuous activity after the operation?

THE WITNESS: So I think if I'm -- that's a good question. If I can -- anytime you have the fusion, you don't have to have a strenuous activity to a disc. You just have to wake up every day and stand up and sit down. And when you stand up your spine goes more curved. And when you sit down it goes more like this and it just repeats over and over every time you move any of this. Stresses that your disc is normally made for your own body size have more stress because the fusion is put on it. So taking all covers, 3 percent per year are going to get that surgery. 3 percent the next year. 3 percent the next year. So you don't have to have strenuous activity to wear the disc down. You just have to have life activity to wear this down and you can multiply that by two because you're going to have a fusion at the bottom and a fusion at the top.

THE COURT: All right. Any follow up, Mr. Cloward?

MR. CLOWARD: No. Those are great questions. No.

MR. GARDNER: I don't have any.

THE COURT: All right.

Thank you, sir. You're free to go.

THE WITNESS: Thank you.

THE COURT: Folks, we'll just take a real quick break here before the next witness. During the break you are admonished not to talk or converse among yourselves or with anyone else on any subject connected with this trial; or to read, watch, or listen to any report of, or commentary on, the trial or any person connected with this trial by any medium of information including, without limitation, newspapers, television, the Internet and radio; or form or express any opinion on any subject connected with this trial until the case is finally submitted to you. I remind you not to do any individual research and we'll just come back in ten minutes.

THE MARSHAL: Please rise for the jury.

[Jury exits at 2:42 p.m.]

[Outside the presence of the jury.]

THE COURT: Mr. Cloward, you doing all right?

MR. CLOWARD: Yeah. I just -- yeah. I'm okay.

THE COURT: Okay.

MR. CLOWARD: Just maybe something that I ate didn't quite agree with my body.

[Recess taken at 2:43 p.m.]

THE MARSHAL: Please rise for the jury.

[Jury in at 2:57 p.m.]

THE MARSHAL: Please be seated.

THE COURT: Back on the record in case number A718679, Morgan versus Lujan. Let the record reflect the presence of all of our jurors, parties, and counsel.

Mr. Cloward, please call your next witness.

MR. CLOWARD: Dr. Coppel.

THE MARSHAL: Please remain standing, raise your right hand, face the Clerk to swear you in.

ALAIN COPPEL

[having been called as a witness and being first duly sworn testified as follows:]

THE COURT: Good afternoon, sir. Go ahead and have a seat, if you would.

THE WITNESS: Okay.

THE COURT: Could you please state your name and spell it for the record?

THE WITNESS: Sure. First name is Alain, A-L-A-I-N. Last name is Coppel, C-O-P-P-E-L. Thank you.

MR. CLOWARD: Thank you --

THE COURT: Mr. Cloward?

MR. CLOWARD: -- Your Honor.

DIRECT EXAMINATION

BY MR. CLOWARD:

Q Good afternoon, Dr. Coppel, how are you doing today?

A Good. Thank you.

Q Good. We've kind of started off with the other medical witnesses by discussing their qualifications. Instead of doing that, to break it up, tell me who your favorite sports team is?

A The Patriots.

Q Okay. I'm sorry to hear that. Let's start off, and why don't you tell us a little bit about your practice and your education and so forth.

A Sure. So I am a pain management physician here in Las Vegas. I did my college education at University of Arizona. I was a chemical engineer. From there I went to medical school at the University of Arizona. After graduation went to do my residency in anesthesia with critical care at the University of Chicago. And then as I was finishing that I did my fellowship in interventional pain management at Johns Hopkins. After graduating from Johns Hopkins, I came out to Las Vegas and started practicing out here. So I've been out practicing pain management in Las Vegas for about ten years. I'm board certified in anesthesia with critical care. I'm also board certified in pain management. And then my practice is exclusively dedicated to the treatment of acute and chronic pain.

Q Okay. Dr. Coppel, why don't you tell us a little bit about the fellowship training. What would -- what did you do at Johns Hopkins?

A So at Johns Hopkins we treated patients from basically -- well, actually all over the world not just the United States that had acute and chronic painful conditions. And we would basically treat them as sort as we do now, so we could treat them with medication management, with therapies, interventional procedures, and if needed coordinate care and refer out to different specialists whether it be neurologists, radiologists, spine surgeon, things like that.

Q Okay. Now my understanding is, is that you have an active practice here in Las Vegas?

A Yes, I do.

Q How many locations do you have?

A Currently we have five locations. We're the largest pain practice in the state of Nevada. We pretty much treat patients, basically all over the city.

Q And how many physicians do you have that work for you?

A Currently there's a total of five physicians in the practice and then there's ten mid-levels.

Q Okay. Why don't we go through and first off just talk in general principals how it is that you, in your practice determine what is causing someone's pain.

A Right. So it depends on the type of pain, because it could be headaches. It could be neurological conditions. It could be spinal conditions. But typically in the spine, there's typically only three things that can actually cause symptoms: The muscles and ligaments that are around the spine, the joints of the spine, or the disc of the spine. The symptoms can originate either from a variety of causes. From accidents from degenerative conditions, from traumatic conditions, and things like that. But in general the only four things that can ever be done for pain; and that's regardless of the type of pain or how long it's been going on for are: conservative therapies; medication management; injection therapies, which is a way to put liquid medication in a specific spot; and then surgeries. So that's the only treatment algorithm that's available, and it goes from the most conservative to the most aggressive. So when somebody comes in and sees us, we need to be able to determine sort of where on that treatment algorithm they're at and how they responded to previous other therapies,

medications, a variety of things; what the MRI shows, what other specialists have done. And then figure out what's the most likely cause of their symptoms and where they're at on the treatment algorithm; and then implement the treatment we think would provide the most efficacious benefit in terms of diminishing their pain levels.

Q Okay. Now does it always -- are you able to figure out in the first visit what is the cause of people's pain?

A No, I mean, it's difficult, to be honest with you, sometimes. But it depends on sort of what the presenting symptoms are, how long they've been present for, once again what's already been done and hasn't been done. If somebody hasn't had anything really done and they're complaining of symptoms; you -- you know, once again those three things can pop up as a possibility. But at the beginning it doesn't really matter much; because what you're going to do is just send him for conservative therapies, provide him with medications that hopefully get him to be more comfortable. And in a majority of people, I'd say about 70/80 percent of the people, with conservative therapies, medication and time those symptoms typically resolve. When they don't resolve then that's when you say: "All right. Well why isn't that getting better? It should have got better. Am I missing something?"

That's when we typically obtain MRI studies, try to correlate the patient's systems to the MRI findings and figure out if there's any interventional procedure that can be done. And those are more targeted towards either the joints or the disc, or the muscles and ligaments and then see how they respond to those.

Q Okay. Now earlier Dr. Kittusamy mentioned an individual by the name of Dr. Bogduk.

A Yes.

Q Who is Dr. Bogduk?

A So he's a pain management physician. He's actually retired now. He's practicing out of, I believe it's New Zealand.

Q Okay.

A So he's one of the -- I don't want to say "pioneers", but he's one of the first physicians that were starting to do studies on patients with chronic pain.

Q Has he authored a lot of journal articles and peer reviewed research?

A He has, yeah. He was one of the original founders of one of the pain societies. But he actually is having health issues, and he just retired I think two years ago.

Q Okay. Fair to say he's an authoritative source of information in the field of interventional spine therapy?

A Yes.

Q Okay. So what I'd like to, I guess, ask is about an article that he wrote. It's in *The Spine Journal*. It's called: "The prevalence of chronic surgical zygapophyseal joint pain after whiplash". And that's a -- zygapophyseal is a long way to say facet joint, if I'm not mistaken?

A Correct.

Q Okay. So I want to just show you -- this is from *The Spine Journal* and first off, is *The Spine Journal* a reputable source?

A It is. It's the one that spine surgeons use, primarily.

Q Is it an authoritative source?

A Yes.

Q Okay. So we've got a journal here. Here's the title of it. He's the coauthor, but in the article, he has this kind of pain diagram. This is an article that discusses the areas where folks can have pain from the facet joints.

A That's correct.

Q Is that pretty accurate based on your understanding?

A Yes. So basically what the joints are in layman's terms is the connection between the upper vertebral body and the lower vertebral body. And you have them on each side of that. And those joints occur from the neck all the way down to your tailbone. And that's what allows the spine to actually rotate and move side to side. Those can become injured in whiplash injuries because they move so quickly you can get microtears of the muscles, ligaments, and joint capsules. They can become inflamed from degeneration or from other traumatic events. And when they hurt, they can cause pain in a particular area and it can be referred to different areas. So when somebody comes in and says: "I have upper neck pain and headaches." That's typically, if you look at that, C2/C3 and C3/C4. If it's middle neck pain that goes into the trapezius area, it's a different area. If it goes into interscapular, it's a different area. And the way they get, actually, those diagrams is in normal volunteers that we put a needle into the joint and stimulate it and they would ask the person, like: Okay, well where are you feeling pain?

And they would say: "Okay, here and it comes up here."

Q Got you.

A So when we decide to do an injection and if we think an injection is appropriate, then we try to decide; depending on how the patient is describing their symptoms to match up the symptoms to the levels of where we were going to be doing the injection.

Q Okay. So it's kind of like you try and match up; here's the pain. Here's where normally we know that causes, and you try to find a match on that?

A Correct.

Q Okay. Now I want to show you another article from *The Spine Journal*. This is called: "Thoracic Zygapophyseal Joint Pain Patterns." And I'm going to show that. Is that kind of the, as what you understand is that, I guess, the pain patterns for the facets in the thoracic?

A Correct. And then the lumbar will have the same -- different distributions, but more low back; they can go into the legs.

Q Okay. Now it looks like there is somewhat of an overlap here on the upper portion there, and you can see the outline. And when you compare that to the distribution here, that there is some overlap. Is that fair?

A Yes.

Q Okay. So if there's overlap, how do you go about trying to match up where it is that you think the patient's having problems?

A By physical -- you can do by physical examination, by MRI findings, and also by the area maps and the tenderness. So a lot of times when you start to palpate the patient's neck they'll say: "I'm not that tender

up there. But, yeah, yeah, that's the spot right in the middle."

So once again, it's a combination of a lot of things and a lot of times you can't be 100 percent sure until you actually do the procedure. So when we do these injections they're diagnostic and therapeutic. The diagnostic portion of it being, is I'm going to inject the area with a local anesthetic. If you get benefit, whatever benefit that you get from that area, that means that's what's causing the pain. Whether it be 50 percent, 80 percent, 100 percent. The therapeutic aspect of it is we add a steroid to it in the hopes that if you do get benefit, hopefully that benefit will last. Right? But it's never 100 percent. I mean if we knew exactly what everybody -- how everybody would get better, like, Okay therapy's not going to work for you. It's going to be injections. And for you it's just surgery. I mean every -- it'd be great, but it's not the way it works. And that's why we always start conservatively and then work our way up that treatment ladder, because we don't know who's going to benefit from those conservative therapies.

Q Okay. SO for instance, is it -- does everybody that has like a C6 facet injury have the exact same presentation?

A Not necessarily, no.

Q Okay. And so based on someone's anatomy that also may change your approach to try and figure out what's going on.

A Typically, because there's also -- besides the joints that can overlap that; sometimes the disc issues can also overlap a joint issue.

Q Okay.

A So sometimes you -- that if somebody -- if you do an injection and you say: "I think it's the joints that are the issue"; you do the injection

they get no benefit. Then you're going to say: "Okay. It's not that, because they should have got some benefit, even if it was just temporary. It must be something else." And what is that something else? It may be a disc issue.

Q Okay. And the -- earlier we talked about, with one of the other witnesses, something called the dermatome pattern.

A Right.

Q Are dermatome patterns basically the disc distribution, if someone's having a disc problem that's where you could expect it that they'd have the pain there?

A The dermatome patterns is for the nerves themselves. So if a disc moves backwards and it irritates a nerve at a specific area, then you're -- not 100 percent of the time, but you can actually end up feeling it in the distribution wherever that nerve is going to go.

Q Okay. And is this kind of like the dermatome chart right here? Is this --

A Yeah, that's the classical dermatome chart, yes.

Q Okay. You maybe have a couple of these in your office?

A Yeah, I mean that's -- those are -- I mean have been around for like decades and decades, so --

Q Okay. So sounds like there are some patterns the way the pain general manifest but you still have to figure out what's going on.

A Correct, yeah. Because if not then basically a physician would just be a technician where, "Okay, draw me your pain." And now I know exactly what it is from what you drew and I'm just -- I'm irrelevant, I don't have to think about anything.

So there's a science and an art to medicine, and that's where we as physicians, because of our experience, our training, and specialization we can kind try to tease out some of the things that may not be so classical.

Q Okay. And how does the -- you talked about this at the very beginning, but can you talk about how the MRI plays into the decision-making process?

A All right. So what the MRI does, is it's a picture -- it's just a picture in time. And it tells you at that moment in time what is going on in the spine. And what we try to do is match up the symptomatology to what we see on the MRI, to what we see on the physical examination; and once again any pertinent history in terms of how they're responding to other things and the -- how long the symptoms have been present for. So if somebody, for instance, comes in and says: "I have backpain that's traveling down my leg." But the MRI is completely normal; then I'm not going to be thinking about a disc. I might be thinking of something else that's pressing up against that nerve. Whether it be a tumor, some type of lesion to the actual specific nerve itself. But sometimes if you say; somebody comes in and says: "I have backpain and it's coming down my leg into the right side of the leg", and just without looking at an MRI you can say that's a classical L5 or an L4 dermatome. You look at the MRI there's a bulging disc at L4/L5, L5/S1 that sort of matches up. You do a physical examination and if the pertinent things are positive, then a most likely or not basis you can assume that those MRI findings are causing the symptoms. But once again, you can never be 100 percent sure until you do these injections, which will actually give you benefit or not.

Q Okay. Why don't we do through and talk about the first visit -- well first off, how did the patient find his way to you?

A He was referred to use by Urgent Care.

Q Okay. And what is Urgent Care?

A It's like a step-down version of the emergency department. So -- they're all over the place now. So I think these Urgent Care Extras, there are about 19 of them in the city and they're now owned by -- I want to say United Healthcare or something like that. They were originally privately owned, and now United owns them. But essentially, it's one step down from going to the emergency department. So what physicians and economists now want you to do is, if -- unless you're basically quote unquote dying, they want you to technically go to an Urgent Care, because it can be a lot more cost effective and it can address things a lot easier than going into the emergency department like people used to do for like an asthma attack and things like that.

Q Okay.

A Or hypertensive episodes.

Q Now is Urgent Care kind of the same thing as you see like a UMC Quick Care?

A Yes, Quick Cares and Urgent Cares are the same, yes.

Q Okay. He's referred to you by the Urgent Care. And what is it that you end up -- I guess, when was the first visit that you saw him?

A So the first time we saw him was on 4/21 of '14. And at that point he came to see us because he was referred by Urgent Care for his ongoing pain symptoms. At that time there were neck pain with headaches,

mid-back pain, and wrist pain.

Q Okay.

A And then he had already been seen initially at the hospital right after the accident, and Urgent Care after discharging from the hospital because of the continued symptoms and then over to our clinic.

Q Okay. So, why don't we, I guess, walk through the first examination and then we'll kind of go through the progression of your notes and what ultimately -- where you ended up?

A Sure. At that initial visit he reported to us that he was involved in an accident where he was basically cut off by a transport -- a van and then he basically t-boned the van. He had immediate symptoms afterwards, that's why he was taken to the hospital. He was seen at the hospital, treated at the hospital with imaging studies and medications; which is pretty standard. Discharged home, and that typically happens whenever you don't have an acute fracture or don't require surgery. They basically will say just follow up with your primary care physician or somebody else.

When those symptoms continued, it went to Urgent Care, which is appropriate. It was a valuated, had some more x-ray studies there and then over to our office. When they come to see us we basically say: "Where's your pain? What's your current pain level? What have you done for it?"

He was on medications at that point. We try to figure out where the pain may be coming from and what the next treatment should be. Because the accident had just happened, and he hasn't tried any therapies, my opinion was I'm going to tweak your medications a little bit and I want you to start your therapies. In the hopes, once again, that the symptoms would

resolve on their own without having to resort to anything higher up on the treatment algorithm, which would be either injections or surgeries.

Q Okay. Now that was the 4/21 visit?

A Yes.

Q What is the next visit?

A The next visit was 6/26/14. When he came back to see us at that point, he continued to have neck pain, mid-back pain, wrist issues. He was evaluated by that point by a wrist specialist for the wrist symptoms and had undergone a cortisone injection on the left wrist, and was prescribed braces, which is a kind of conservative modality to treat wrist symptoms. He had undergone a cervical MRI, which those results weren't available to us, but either way because he was still relative within the two to three-month timeframe from the accident; what we did is we said to him, Look, just continue with your therapies. Hopefully you get better. I'm going to give you a refill of your medications. And then what I'll do is have you come back in a month and we'll reevaluate you at that point.

In regard to the wrist issues, typically once they see a specialist either for shoulder, knees, or wrists or like major joints, we typically leave that up to the specialist to treat. So we were kind of focusing more on the spinal issues at that point.

Q Okay. How does your office work with -- if, stay for instance, on an extremity you would leave that to those physicians, how would your office work with say a spinal surgeon or a neuro-spine -- orthopedic spine surgeon or a neuro-spine surgeon?

A So we'll work a little bit closer with them, because a lot of times

if they don't respond as anticipated to what we do; we will want the opinion of somebody else. Because obviously, you know, I'm specially trained, but I don't know everything. And sometimes I miss things. And it's always good to maybe, if you don't know what's going on with the symptoms to continue to get the opinion of somebody else. And for us, if it's a spinal issue, it'll be a spine surgeon. And when they see the spine surgeon, the spine surgeon evaluates the patients themselves and they may come up with other types of injections or other areas that we may want to further investigate.

Q Okay. So it sounds like you kind of work hand in hand with spine surgeons at times?

A Correct. So at Johns Hopkins they were internal, so we had them on the same floor and we could talk to them directly. In Las Vegas, because there's not a large academic center, unfortunately, and there's a lot more private centers we interact with each other through our notes, basically.

Q Okay. So what was the next visit after the 6/26 visit?

A All right. So at that point he came back on July 14th of 2014.

Q Okay.

A So this was about three and a half months after the accident. He reported that he was benefitting from the cortisone injection that he gotten in the wrist. He was starting to have -- he was continuing to have the neck pain, the mid-back pain, and some of the mid-back pain was starting to travel down into the lower area. At that point, because he's already done about three months of therapy, I recommended to him that he may benefit from the facet blocks.

Q Okay.

A Now originally the pain was on the left side and right side, the therapies helped out a lot with the left side pain, but not as much with the right-side pains. So when we recommended these injections they were just on the right side. They weren't on actually both sides.

Q Is that normal to do one side versus the other?

A Yeah, I mean you don't want to inject an area that's not painful. So if somebody comes in and says: "Look the left side is much better. It doesn't bother me that much, it's primarily the right." Then we just inject the right side.

Q Okay. Now this is on 7/14 of '14. Is that correct?

A Yes.

Q And that's fair to say in your documentation that's the first time that the lumbar spine is mentioned?

A Yes.

Q Okay. Are you aware that on April 25th -- so basically three or four days after he first saw you he was at the chiropractor and the chiropractor was treating his lumbar spine?

A No, I wasn't.

Q Okay.

MR. CLOWARD: Your Honor, may I approach the witness?

THE COURT: Go ahead.

THE WITNESS: Thank you.

MR. CLOWARD: And counsel this is Exhibit --

[Counsel confer]

MR. CLOWARD: Exhibit 10.

[Counsel confer]

BY MR. CLOWARD:

Q 1 through 5.

A Okay.

Q Okay. So based on your understanding, what was the treatment that he was receiving when he came to you from the chiropractor?

A So basically, he was receiving just the typical therapies. So what -- the most conservative therapies for the chiropractors would be manipulation therapy, ice and hot packs, massage therapies, muscle strengthening and massages and things like that.

Q Okay.

MR. CLOWARD: Your Honor, we'd move to admit Exhibit 10 into evidence.

MR. GARDNER: No objection.

THE COURT: 10 will be admitted.

[PLAINTIFF'S EXHIBIT 10 RECEIVED]

BY MR. CLOWARD:

Q Okay. So you see him 7/14. He's had an MRI from the -- that was recommended by the chiropractor. What are the results on the MRI? What does that tell you about Mr. Morgan's condition and does it give you an insight as to, you know, where you want to go next?

A Okay. So the MRIs of the neck, those were done on, once again, on 6/13/14 at C3/C4 and C4/C5 he was found to have two bulging discs of 1.4 mm. They were abutting up against the thecal sac, which is

where your spinal cord is at. He also had a thoracic MRI that had another disc protrusion at T3/T4 that was 2 mm.

Q Okay.

A Now in the neck itself, once again as I told you guys, so what happens in the neck, if a disc moves backwards, what's back there is the spinal cord and the nerves coming off the spinal cord. So the disc moves backwards pinching up against the spinal cord or a nerve, that nerve is going to get irritated. And wherever that nerve is going you're going to feel times pain down the arm, if it gets worse, it gets burning, numbness, tingling, pins and needles, which are the nerve symptoms. If it gets worse after that, it'll be the weakness. So for him, even though I did see two bulging discs in the neck, he wasn't having any issues traveling down the arm. So I didn't think were actually the main issue for the neck area itself. I thought it was still more of a joint issue, because of the mechanism of injury --

Q Okay.

A -- which was a whiplash injury; and the fact that he was having radicular symptoms. On the physical examination I wasn't able to elicit any radicular symptoms. So once again I thought it was more of a joint issue. Because he had already done therapies for three and a half months; my recommendation was because you're still having significant issues, you have the option of proceeding with these injections that may or may not help you.

Q Now you said you didn't reproduce any pain. How would a physician go about reproducing pain, say, you know, into the hands?

A Right so --

Q A radicular symptom --

A -- in the neck there's a special test called the Spurling Test. So you basically have the neck like this and you put your ear towards the shoulder. And what that does is, as the window that you have on your spine on each side, like this, where the nerves are coming out of; as you go like this you start to clench it down. So you may have the ability to pinch that nerve off. And then you -- because of the disc bulge, that area is smaller. And then you pinch it, and then patients will say: "Oh yeah, man. I just felt it right down my arm."

Q Got you. And so do -- you tried to reproduce the pain, you were not able to reproduce the pain and that suggests to you that there's probably not a disc issue?

A Correct.

Q And that's why you focused on the facet?

A Yes.

Q Okay. So that's on 6/13/14 that you do the procedure and then 6/26/14 and then 7/14/14, where do you go next?

A So he ended up having the -- that office visit was, once again, on 7/14/14. He had the injection done on 8/8/14.

Q Okay.

A The day of the injection when he came in he reported a pain score of seven out of ten. As he was being wheeled out he reported a pain score of three out of ten, right? He came -- we typically want to see people two weeks afterwards to see how they're doing with the injection. We he returned back to see us two weeks after that on August 14th, he basically

said I didn't have any significant long-term benefit from the procedure.

Q Okay.

A So he had a short-term benefit of about 50 percent or so, but nothing significant that was long-term. So what that indicates to us is that 50 percent of the pain is probably coming from the joints that we injected.

Q As far as your opinions and your clinical, I guess, trying to figure out what's going on; what is the reduction of pain from seven to a three tell you, if anything?

A That a portion of his symptoms were coming from the joints that we injected.

Q Okay. So that's -- you're getting close?

A Yeah, exact -- I mean I wish it would have been 100 percent and he said, This is it. But it's basically, let's say 50 percent. So that means 50 percent of the pain is coming from somewhere else. And as you showed before those patterns can overlap. So we said, you know, he ended up having later on injections at higher levels to try to see if those issues were part of the issue. He did get some benefit from those, so then it was probably a combination of several joints in the neck that were leading to his issues. I still don't think it's a disc issue, because nothing was traveling down his arms -- so that's probably a joint issue.

Q Okay. Now, you know, in opening I kind of gave the analogy that it's kind of like when you go to the dentist and the dentist blows the air on your tooth; and they put the medication there and come back five minutes later and blow it again and if it's -- there's no pain, then they know they've got where they want to go.

A Right.

Q But if they have to do another one, then that kind of lets them know what's going on. Is that the same kind of principal that's going on here?

A Yeah. Yeah. Because it's a local anesthetic. And what the local anesthetic does, it only effects the joint that you're numbing up. So basically, if you have a possibility of say seven joints that may be the issue, but we don't know which one it is. Let's say I numb one of them up and I ask you: "Hey how did you feel?"

"All my pain is gone."

Well that's the joint. But if you say: "No, only 40 percent of my pain is gone. I still feel an ache in the area." Well 40 percent of the pain is coming from this joint, because that's the only one that it effects. The other joints may be contributing to that. So we have to find those joints.

Q Okay. And he comes back on 8/14, let's you know that he has no real long-lasting benefit. Are there times when a patient might experience a long-lasting benefit from either a facet or a transforaminal --

A Yeah. Absolutely.

Q -- disc inject --

A So if you look at our patients, once again, about 70 to 80 percent get better with just medications and therapies and time. Of the ones that proceed to injections, probably another 80 percent of those end up getting better with injections or a satisfactory benefit. And then the rest of those may require surgery. So let's say 100 percent, 100 patients, 70/80 percent fall by the wayside conservatively. There's another 20 to 30 percent

of those; 80 percent of those get better with the injections. Of the remaining five, six, seven, eight patients -- those are the ones that may require surgeries. Not everybody gets up to the higher levels of the algorithm.

Q Okay. What is the next treatment that you provided to Mr. Morgan?

A So the next time he came in was September 30th of 2014. At that point he had undergone a recent MRI of the low back. He was pending a consultation with a spine specialist. He had -- it had been recommended to him that he may benefit from surgery from the wrist specialist. At that moment we basically gave him refills of the medications, as he was still pending his consultation with the spine surgeon. He came back two and a half months after that on January 19th of 2015 and basically said, I saw the spine surgeon. Surgery is still not scheduled for the wrist. He was still having ongoing symptoms in the neck, mid-back, low back and the wrist. And so we decided to try the injections in the neck, but at the three levels above where we had done the previous three levels, to see if those were actually contributing to some of those symptoms.

Q Okay. And before we fast-forward to that, I wanted to just mention, what were the medications that you were prescribing at the time?

A So he was receiving standard medications; which is an autoinflammatory, a muscle relaxer, and a pain medication. So each one of those does something different. The anti-inflammatories obviously bring down information. The muscle relaxers will bring any muscle tension you may be having in the area that may be contributing to your pain; and then the pain medication is simply just to reduce pain levels. It has no effect on

information and no effect on muscle spasms.

Q Is it good for a patient to be on narcotic pain medication for a long period of time?

A Well, I mean, the ideal is no. I mean, but it -- some patients require it if they need it to function. I mean, but hopefully we can get people off the medications with the other conservative modalities and the injections or surgeries.

Q Okay. Is that also another reason that up perform the injections to try and figure out if there's maybe a longer-term benefit than just the medication alone?

A Correct. I mean what we don't want to see is somebody to come in and say: "I have neck pain. I'm not willing to do therapy. I'm really not interested in the injections; can I just get my medications?" Because that's not really an optimal long-term treatment plan. What we try to do is, like a multimodal approach where we incorporate, once again, therapies, medications, and the procedures to hopefully diminish, if not significantly, alleviate their symptoms so they don't have to rely on taking oral medications daily.

Q Okay. And I forgot, at some point you did an examination of the lumbar spine. Is that true?

A Yes.

Q And you -- when was that?

A That was when he first reported it. So he ended up having tenderness over the facet column, tenderness over the muscle areas, and there was no neurological deficits at that point.

Q Okay.

A So that was pointing -- a lot of that was pointing more to like a joint issue, at that moment in time.

Q Okay. Does that change for patients from --

A It can. I mean, so typically if it's a joint issue you'll see that a lot earlier, because it's an acute joint injury. And so you'll see that. If it's a disc issue, sometimes you'll see it fairly quickly, or sometimes you'll see it progress over time. So if you have an acute trauma to a disc, that can start speeding up the degeneration process. And that disc could become symptomatic sometime later in time. So it's not like the first visit I see you is the only symptoms you'll ever have. Because sometimes people actually progressively worsen. Just like people can progressively get better. So just because somebody says: "I didn't have leg pain two months ago, I have it now." Doesn't mean that they're making it up. I'm not going to believe you. I mean the symptoms are the symptoms. And once again we try to correlate what they're describing to what we see on an MRI or what we see on the physical examination.

Q Okay. Now at some point did you receive the MRI results?

A We did, yes.

Q And were the MRI results suggestive of a pathological reason or, I guess, did the MRI -- that's a terrible question. Did the MRI results identify anything that would be causing Mr. Morgan's pain in the lumbar spine?

A There could have been two possibilities. It could have been a disc issue or a joint issue, actually. They saw both of those on the MRI.

Initially I thought it was more of a joint issue, because the pain wasn't really traveling down into his legs. That's why we recommended, initially, facet block for the low back. And so even though I did see multiple levels of disc bulges; he wasn't having any radicular symptoms down his legs initially. So that's why we did the joint block. If he would have said initially, no my pain is down the leg; I would have considered more of an epidural first, versus actually a facet block.

Q Okay. So the next time you see him, it looks like, is March 3, 2015.

A Let me go back, I'm sorry. Yes, that was March 3rd. Once again, that was when he was waiting to have the neck injections in the higher levels. He was reporting elevated low back pains, because he was working five days a week at that point. So when he initially came to see me I think he was unemployed. And then he started working during our course of treatment part-time, and then he was going to five days a week, and that was exacerbating his symptoms.

Q Okay. So let's shift now to the next visit after that. And well I guess, first off, is that normal for activities of daily living to aggravate or to cause a patient's pain to become worse?

A Yeah, I mean, basically. So you have an irritated area and you continue to use it; it could make the symptoms worse.

Q Okay. Now let's go on to the next treatment that was provided.

A Okay. So the next treatment that we saw him was for the actually neck injections in the upper levels. That was done on 3/20/15. He did come back for a follow up visit on April 23rd of '15. At that point he said

that he received about 40 percent overall benefit from that injection.

Q Okay.

A So right now we have the upper levels, that gave him 40 percent benefit. The lower levels where his pain level went from a seven to a three. So then most likely it's a combination of both the upper and -- the based on the combination of the two injections that we did; that probably would have given him a more global benefit.

Q Okay. So you're -- first off, you're kind of down here, he gets 50 percent relief, and then you're up here he gets 40 percent relief.

A Right.

Q You believe that if you kind of --

A If you meshed them together, he would have probably got better benefit.

Q Okay. Now when is the next time that you see Mr. Morgan?

A So at that visit he was still having mid-back pain. So we recommended the facet blocks kind of in the mid-back. He did -- he postponed those, and we didn't see him again for about four months. The next visit was on August 17 of 2015.

Q Okay.

A He said the reason he postponed those was because he wanted to see how he did with more therapies and more time. So he continued to have those issues at that point; so we once again recommended to him that he may benefit from proceeding with those thoracic facet blocks.

Q Okay.

A He did undergo those facet blocks in the mid-back thoracic area on 8/28/15. And then when he came back to see us on September 17th of 2015 he reported that he only received about 20 percent benefit for four to five days, but that when he did have that benefit he was able to sleep better for those couple of days.

Q So --

A And at that point the low back was the -- kind of, sort of diminished at that point.

Q Okay. So what did that tell you as far as the thoracic, I guess, those levels of the facet as being the pain generator? Did that let you know --

A Yeah, I mean provided him some benefit. Obviously, I wish it would have been higher.

Q Okay.

A But he did report better functionality with it, even though the pain reduction wasn't that large. So it's kind of a little bit of a win that we say, yes, some of those issues are coming from there; because he was able to be more functional during those four to five days; even though it was only a 20 percent benefit, that actually translated for him individually as benefit enough to be able to sleep better.

Q Okay. Now what was the next visit that you provided for the next day of treatment?

A Sure. The next visit we saw him was on 10/15 of 2015. At that visit he said he had recently seen Dr. Muir who had recommended plasma decompression discography combination possibility, if he didn't receive any

benefit in the low back from further injections. And at that point he was pending the facet blocks, only on the right side of his low back.

Q Okay.

A And he subsequently did those injections in the low back. Those were done on 10/16/15. Basically he said only a 15 percent benefit for two weeks. So you can kind of rule out the joints as being an issue at point, because it was only 15 percent benefit. And he didn't respond functionally to it. So the thoracic area was 20 percent, but he said I felt better --

Q Slept better.

A -- I slept better.

Q Okay.

A This is 15 percent, but he didn't say: "Hey, I slept better" for four or five days/six days or whatever it was. It just -- 50 percent, but it wasn't anything that was really significant at all.

Q Okay.

A So at that point we're left with in the low back somebody who has got back pain that's traveling down a leg. So I said the possibility maybe it's a disc issue at that point.

Q Okay. What was the plan at that time?

A So at that point we were planning to have him return back to see Mr. Muir some more. He did follow up with him on a couple occasions. And it was recommended to him, once again, that the possibility of the discogram with the plasma disc decompression. And that's typically -- you do that if you're thinking that the low back is an issue. And then basically, let

me see -- he saw us several more occasions, just for medication management as he was still doing therapies, because he had had the wrist surgery. And then there was a five-month break. And when he came back to see us on 8/4/16 he basically said -- at that point he had discontinued his therapies. He was still having issues, sort of, in the neck. He had to stop working, because he was unable to tolerate the work anymore because of the symptoms. And basically, I said at that point, well if the neck is still an issue; he saw Mr. Muir. He had recommended possibility of repeating the neck injections and facet blocks, but when we recommended these it wasn't at basically the higher/lower. It was kind of the middle section that we decided to do which was C5/C6 and C6/C7.

Q Okay. And so this is essentially 8/4/16, so we're talking two years plus three or four months after the collision?

A Yes.

Q Okay. And then were there visits after that?

A Yes, so she -- let's see -- he underwent the neck injections on 9/19/16. And he said about 30 to 40 percent benefit for five days, which is sort of consistent with what he had before.

Q Okay.

A So we know it's a combination of joints. It's not just going to be those two joints. He was able to sleep better, tolerate the pain better, by the fifth day the symptoms ended up returning. He was pending an updated MRI screens that were recommended by his surgeon at that point.

Q Okay.

A So we didn't recommend any type of procedure at that point. I

wanted to see what the updated imaging studies were, because the last ones were about two years old. He came back to see me three months later. There was another three-month gap. He saw me on 2/2/17, he said he had follow up with Dr. Muir. He had discussed the results of the MRIs. We also discussed the results of the updated MRIs with him. It was recommended to him that he may benefit -- according to Mr. Muir's note, an epidural injection in the neck and facet blocks in the low back. I didn't want to repeat the low back facets, because we already had done those, and they didn't work.

Q Okay.

A So I don't want to repeat something that we already did, and I can say, look, it wasn't that because we already did that. There's no point in repeating it. It's not worth the cost, the money, your transportation, all that. In terms of the neck he recommended the epidural injection in the neck, but the patient wasn't having any issues going down the arm. So I'm still not convinced that it's a joint -- disc issue in the neck. I think it's still a joint issue. Because he's had three joint injections in the neck and each of them gave him --

Q Gave him some relief.

A -- about a 40 to 50 percent benefit.

Q Okay.

A The low back was traveling into the leg and to the calf, so basically, I said you may want to try the epidural in the low back, not the actual neck. We decided to do the epidural only on the right side at one level, which was the level that looked the worst on the MRI, which is L4/L5.

Q Okay.

A It had the disc bulge moving backwards and it had the foraminal narrowing --

Q Okay.

A -- on the right side. So that was done. We did that on 3/10/17. He reported 50 percent benefit for one week at his follow up. Better sleep patterns, better functionality, was able to discontinue the Norco at that point, and then the symptoms slowly started to come back, but he was still getting a 20 percent benefit.

Q Okay. So the lumbar injection is a disc type of injection?

A So it's an epidural injection, and what the epidural space is that junction where the disc meets the actual nerve. And we can localize that medication to a variety of levels, but I chose the L4/L5, because to me that looked like the worst level. And his symptoms were consistent dermatomally with that level. So we injected there. Now the medication does travel up and down a little bit; so it doesn't just specially stay at L4/L5; but we decided to just do that one level. I could have done a two level or a three level, but I did just one. And he got basically the benefit that he got.

Q Okay. He didn't get complete benefit, but he got 50 percent --

A Right.

Q And it gave him some improvement?

A Yes.

Q Okay. now can you explain on the MRI the thing called foraminal --

A Narrowing?

Q -- narrowing?

A Yes. So once again the foramen is the window where the nerve is coming out of, so you have a central canal which is down the middle, and then you have foramen on each side where the nerves come out of. And that frame or that window is narrowed down, that nerve can be pinched. And that's when you can have that back pain that goes down your leg.

Q Okay. Now, are you aware that Mr. Morgan has -- I guess that was the last visit that you had, right?

A That was the last visit I saw him, yes.

Q Okay. And I believe Dr. Muir assumed care for the patient at that time?

A Yes.

Q And continued to treat him throughout '17 and into '18. Are you aware that Mr. Morgan had a CT -- or I mean a discography study?

A No, it wouldn't -- I mean, it wouldn't surprise me, because that was recommended already in multiple notes from Dr. Muir.

Q Okay.

A Yeah. And I would assume -- the CT scans usually are done after discography.

Q Okay. Can you give the jurors a little bit of an idea of what a -- say a grade four or a grade five annular fissure is?

A Right. So just in general on discography, so the way I explain it to my patients is; it's purely a diagnostic test. It has no therapeutic value to it. So it would not improve your symptoms whatsoever. What it does, it's an

extra piece of information a surgeon can use, if the patient is considering surgery. So if a patient says, Surgery was recommended, I don't even want to consider it. Then don't get the discogram. All right? Because it's not going to help you out in any decision-making process. But if you proceed with it, the theory is you're seen on a MRI multiple discs that look bad. What we're going to do is we're going to put a needle in each disc. You're not going -- and then we pressurize each disc with dye. When I pressurize the disc a couple things may happen; either nothing where you feel no pain, or you may feel pain. And what we're looking to do is try to find the disc that has the same pain -- that causes pain in the same levels that you normally describe were a six, seven, or eight out of ten and the same distribution that you normally have your pain in. So that's called the concordant test. So by doing that, if you're able to localize a disc, then you can say -- if you need surgery and if you want to proceed with surgery, the surgery would be limited to these disc levels, okay? So because you can't just simply look at an MRI and say, that's a painful disc. Because there are patients who have abnormal MRIs, but don't have any symptoms.

So what we need to try to do is tease out with the therapies and the injections and maybe the discography; which one is the painful disc. Once that painful disc is identified then there's a variety of different types of surgeries that can be done for it from microdiscectomy, laser discectomies, all the way to fusions. And that would be left up to the surgeon to decide, depending on what the pathology is.

Q Got you, okay. Now as you sit here right now what you do believe Aaron's problems are with regard to his neck? What do you think

after doing those injections in the cervical and the thoracic, kind of narrow it down, what do you believe on a more likely than not basis is the pain generator?

A I think in the neck it's the joints. He's not having any radicular issues. So that you would anticipate somebody to have, if they have a disc protrusion back there that's rubbing up against a nerve. In the low back we -- I originally thought it was a joint issue. I did the joint block, he didn't get any benefit. So you can rule that out. So the only thing that can be left over is the disc. I ended up doing an epidural which helps the disc pain. He got benefit from that, all right? I don't know the results of the discogram, but if the discogram shows a positive response, then you can say: "We have an epidural that worked, a facet that didn't work, and now we have a discogram that's causing concordant pain or is normal pains, that means it's a disc issue."

Q Okay. And what is treatment -- what kind of treatment would you provide for, say -- and Dr. Muir's already talked about the lumbar spine, so we don't need to waste everyone's time doing that, but for the neck, what type of treatment would you provide; say for instance, for a facet -- what's the long-term treatment plan for --

A The long-term would be --

Q -- something like that?

A -- what's called a tenotomy. So what you rhizotomy can end up doing is putting the same needle in the same location, but what you do is give a heat therapy to the joint. And by providing a heat therapy to that joint it breaks down a very small nerve called the medial branch nerve that's

sending pain signals to the joint to the spinal cord. So it's almost like you cut a wire between this over here and the spinal cord. But cutting that wire you cut the connection between the painful joint and this. So even though this continues to be irritated and send pain signals, because you've cut that wire, that pain signal never is reaching the brain. So you never feel it as pain.

Now it's not a permanent thing, because all nerves grow back. So let's say I chop off your finger and reconnect it, nerves grow back, so you'll start getting sensation in your finger. Same thing in the neck, if we burn that nerve and it starts to grow back and it reconnects in the same direction then the pain signals start all over again. And you may have to repeat that, typically on average about every nine months.

Q Okay.

A But everybody is a little bit different.

Q Dr. Muir said some patients will receive up to two years benefit.

A Yeah.

Q Do you agree with that?

A We tell our patients, average is nine months is what the literature shows. Some people are longer, and some people are a little bit shorter. But on average like nine months to a year.

Q Okay. Doctor, as you sit here today do you -- have you formulated an opinion as to what would be the cause of Aaron's neck and low back problems?

A Once again, I think it's the joints and it's a whiplash injury he probably suffered from when he was in the car accident.

Q Okay. What about the lumbar spine?

A I think that's more of a disc issue.
Q Okay.
A Yeah.
Q And has the treatment that you've provided to Mr. Morgan been reasonable and necessary?
A Yes, for the ongoing symptoms, yes.
Q And has the billing that you have charged been what we call usual and customary here in the Las Vegas community?
A Yes.
Q And is -- are those opinions to a reasonable degree of medical probability?
A Yes.
Q Okay. Now one thing that Mr. Gardner talked about in opening statement were the liens.
A Yes.
Q Do you treat on a lien?
A Yes.
Q Do you -- is that the exclusive way that you treat?
A No, maybe less than ten percent of the people are going to be treated on a lien.
Q Okay. Why don't you explain to the jurors what a lien is and what that means?
A So basically, it's almost like a deferment of payment. It doesn't mean that you don't have to pay, and the bills don't exist. So everybody gets charged identically the same; you're just basically saying there's going

to be a deferment of the bill. So regardless of, I'm not sure, whatever you guys decide what happens here the bills are still outstanding. So he's still -- he's basically still responsible for those bills.

Q And what happens if, let's say, for instance the jurors don't believe that Aaron's hurt and what would the result be?

A So basically, he's still responsible for the bills and if he's not able to pay them, we use a collection agency.

Q Okay. Now what are the bills in total that you have charged for your services?

A I don't know off the top of my head, but -- yeah, you don't happen to have the total, so I don't have to add it?

Q Let me see if we have the total.

[Counsel confer]

BY MR. CLOWARD:

Q Dr. Muir actually reviewed everything and gave some opinions.

A I mean we have it in the records I provided with like whatever the cost is for everything. So if you want to add it up, we can add it up, but --

Q Okay. looks like your charges for the multiple injections were $30,250. Does that sound right?

A Yes.

Q And Nevada Surgical Suites -- do you have to -- I guess, can you do these injections in your office?

A No, you have to have actually live fluoroscopy to be able to do it. So we have to take it a surgical center or to a hospital. The surgical

center is always cheaper than the hospital. So we do it -- most pain physicians will do it an out-patient surgical center, because it's like a same day surgical center.

Q Okay.

A And it looks like the charges for Nevada Surgical Suites is $38,500.

A Yes.

Q Okay. And are those charges usual and customary for the Las Vegas community for like and similar services?

A Yes.

Q Okay. Doctor, have all of your opinions today been stated to a reasonable degree of medical probability on a more likely than not basis?

A Yes.

Q Okay. Thank you.

THE COURT: Mr. Gardner?

CROSS EXAMINATION

BY MR. GARDNER:

Q Hello, doctor.

A Hi, how are you?

Q I'm doing good.

A Good.

Q Let's just start with the typical question I've been asking all day.

A Sure.

Q What are you being paid to be here today?

A $5,000.

Q Okay. how much have you been paid overall?
A Just the $5,000.
Q Okay. You didn't get -- you didn't charge for doing the report or anything like that or --
A No, so -- and then the bills that are outstanding that he basically just said for -- those haven't been paid, but the outstanding bills for professional services and the surgical center.
Q I'm intrigued with this discussion about liens. And you did a good job of describing what a lien is.
A Right.
Q And you said that if the -- there's no recovery, then the person is still on the hook for the bill. Is that right?
A Yep. Absolutely yes.
Q Okay. How many former patients have, I'll say, failed to have been compensated -- let me start over here.
A All right.
Q How many patients do you recall suing for fees?
A Suing? We use a collection agency.
Q How many at a time?
A We probably have had in my career thousands. And it's not just medical legal cases, it's even if you have health insurance and you have an outstanding copay or a deductible and you're not able to pay it and it's outstanding, then we use a collection agency.
Q And collection efforts, are they successful, not successful, something in between?

A I mean it's variable. You know how collection agencies are. It depends on the patient, after that we basically just -- I want to say I forget about them kind of deal with it, because I have to practice medicine.

Q Okay. They need to get that system going on in my office.

A Collections?

Q No, getting down to doing lawyer work.

A Oh yeah, I mean yeah. Unfortunately everything's difficult now.

Q Okay, now from what I understand you first saw Mr. Morgan on March 3rd, 2015?

A Yes.

Q Okay.

A No, it was actually -- the first visit was April 21st of 2014.

Q Okay. Do you have your notes in front of you that you can --

A Yes, sir.

Q -- refer to? What was the issue when Mr. Morgan first saw you? What was he coming in complaining about?

A Sure. It was neck pain with headaches; thoracic pain, which is the mid-back pain; and wrist pain.

Q Did it say which wrist?

A It says left wrist at that point.

Q Okay. Is there any record about there being a problem with his right wrist?

A Not at that visit, no.

Q Let me ask you this, how often do you testify in court?

A Not very often. Maybe once or twice a year. But it's not up to

me it's basically, as you know, the merits of the case and whether somebody requests me to come testify. Other than that I never do expert work. I'm just basically a treating physician.

Q Okay. Okay. Now, but when he first started coming to see you on -- what'd you say, April 21st --

A Yes, sir.

Q -- 2014? So just shortly after the accident?

A Yeah, the accident was 4/1 and I saw him on the 21st. So that's 20 days after.

Q Where had he been before he saw you?

A He had been at the hospital the day of the accident and Urgent Care.

Q How long was he in the Urgent Care?

A How long?

Q Isn't that just a day trip?

A Urgent -- yeah, it's an outpatient -- Urgent Care is not a hospital. So you can't be admitted from an Urgent Care. So it's basically you get evaluated at the Urgent Care and then you get released from it that same day.

Q Okay. So you've got him going to the hospital on the 21st and then --

A No.

Q -- 22nd? I'm sorry?

A No, I'm sorry. So the hospital was the day of the accident. So he was taken from the scene by paramedics to Sunrise Hospital. He ended

up having x-rays and a CT scan there. He was released with medication and then he followed up at Urgent Care Extra where he had further x-rays done. And then he was referred over to our office for the continued symptoms.

Q And what was that date that he was referred to your office?

A We saw him on April 21st of '14, which was 20 days later.

Q Okay.

A After the accident.

Q And who made that referral?

A The Urgent Care Extra.

Q Okay.

A They don't' like to treat chronic pain long-term. So they'll evaluate one time. And they don't like writing medications. So they'll basically say: "Here's a couple days and then if you need something else go find your primary care doctor or pain management physician or somebody else."

Q Okay. Do you recall the pain that he was complaining of when he first came to see you?

A Yes. So it was neck with headaches, mid-back pain, and then wrist.

Q Severity, I mean?

A Oh yeah, it's actually in this first note. So the neck pain was a six out of ten between a four to an eight. The mid-back pain was a six out of ten, between a four and an eight. The wrist pain was a three out of ten, between a two and a five.

Q There's really no magic formula to get that four out of eight or --

A No.

Q -- is there?

A There's an intake where you'll say zero's no pain and then ten is severe pain and then we basically just ask each patient between zero to ten, what's your pain level. Is it constant, or does it come and go? If it's constant, what is the best that it gets and what's the worst that it gets? And that's where we come up with those numbers.

Q Okay. Okay. Have you ever had anyone embellish their pain?

A Yes.

Q Tell me about it. How do you know they're embellishing?

A The typical red flags that we see in pain management are the patients that don't want anything else but narcotics. The patients that you'll say: "What's your pain level today?"

"Oh it's a ten out of ten."

"All right. Well what else is it?"

"Oh in the low-back it's a 15 out of 10."

"Well, no, the scale is zero to ten. What is it?"

"No, it's 15."

I'm like: "Really? I have to call an ambulance? You'd be on the floor, what's your pain level?"

"No, it's like 15. Can I get my meds?"

Right? Or people that will say: "No, I really want to get better." But you recommend things like an MRI, you recommend therapies, you recommend injections, they don't do any of that stuff. So they're basically

non-compliant with the recommendations of that. The other thing is sometimes, is we could do a Waddell Test and basically is when people are sort of over-embellishing. So we'll have a pain diagram, and somebody will come in and they draw the entire body as being in pain. It just doesn't make sense, right?

Q Yeah, that doesn't.

A People end up saying, like you go to touch them and do a physical examination, and you barely touch them; let's say it's a female that carries a purse over this area, and they jump off the table and move backwards; but you see them walking in with a purse that's ten pounds and they were carrying it on that shoulder. And so there's a lot of things that they don't' know that we can do. And we can observe them, how they're walking and things like that to see whether we think they're over-embellishing or not.

Q What do you do when you find someone that's kind of exaggerating? What do you do with that patient?

A Just call them out and then kick them out of the practice.

Q Okay. You know what diminishing returns are?

A Like comically --

Q Generally?

A -- wise or --

Q Yeah.

A Yeah. For that -- yeah, the theory of diminishing returns, yeah.

Q Yeah. Okay.

A Yeah.

Q Can a person experience diminishing returns if they try to -- or let me put it this way; do you know how much chiropractic Mr. Morgan had?

A No, I mean my estimate from what I've seen in my career is probably around $5- to $10,000 I would think for the amount of sessions that he had, but I don't know the specific bills.

Q I think it was 18,000.

A Okay.

Q That a little higher than you thought it would be?

A Well it depends on the symptoms and depends on how it's benefiting somebody. So typically if you see a conservative therapy that's helping out, and they want to continue, then I typically don't have an issue. But if somebody says: "Look, I've been doing chiropractic therapy five times a week."

"Has it helped you out?"

"No."

"Okay, well why are you still doing it?" Or if it hasn't helped you out why don't you talk to your chiropractor or your physical therapist, whoever is doing therapy to say whatever technique you're utilizing is not really beneficial. Can you change it to something else? For instance with him we started him on Norco. We had diminishing returns under Norco. So we did an opioid rotation and switched him to a different medication.

Q Okay.

A Right? So just like a therapy, there's different types of therapies, they can sometimes bring it up to the therapist and say: "Look, what you're doing is not helping."

"Oh, why didn't you say so. Let me try something different."

Q Okay. And I'm assuming that that's what Mr. Morgan did. He -- when he was on the Norco, was he -- was that alone or --

A No, it was --

Q -- Norco only?

A -- Norco, a muscle relaxer, and anti-inflammatory.

Q Okay.

A Initially when I saw him he was on the anti-inflammatory, but it was just over the counter. So we gave him prescription strength; so we switched that. When the Norco started to become less efficacious, we switched him from Norco to Percocet. And then later on we switched him back to Norco. So we did an opioid rotation, but then he was able to get off his medications after that epidural injection in the low-back.

Q Okay. And did those pains ever come back then? Or how long did it take for them to come back?

A The -- no, he had pain consistently throughout.

Q Oh okay.

A But as he, you know, well we normally say: "Look, if you feel better then get off your meds. You may still have some pain, but I don't want you on these chronic oral medications long-term." And that's what he ended up doing.

Q Yeah. And that Oxycodone is pretty addictive, isn't it?

A Oh no, I mean it's all relative. I mean if it's helping you out and it's helping you work; and you don't have any addiction. Actually only a small percentage of people actually get addicted to those medications; if you

look at some of the studies. I know there's a lot of media stuff on it, but it's a small percentage that actually get dependent on it.

Q Okay, okay. So when I read about the Oxycodone deaths, they don't put it -- right in the front of the article it was really the Heroin that maybe killed somebody.

A Yeah. Well it's Fentanyl and the Heroin, but they classify -- unfortunately Heroin's an opioid. So they classify all the deaths as opioid deaths. And they don't really specify which ones are prescription versus Heroin. It's mostly Heroin that people overdose on.

Q In your experience do you see people having diminishing returns when they're using Oxycodone?

A Typically yeah. So basically, if you're seeing a narcotic medication long-term, you can become tolerant to it. Not everybody does. So basically, you'll say, "Look, this used to work and it's not working as well anymore." Or: "I used to only require one tablet, now I require two tablets." But for us is if you're getting functionality and it's helping you function throughout the day, we could continue it. We get to a point where we think you're abusing it, you're deterring and a whole lot of other things, we'll say: "Look, enough. We're not going to prescribe it anymore."

Q Okay. Based upon your experience; what kind of pain should Mr. Morgan have experienced at the accident time -- at the time of the accident?

A I mean it's -- honestly, it's variable. So it depends on -- so I did engineering. So it depends on the forces, the Vectra forces, the masses of the vehicles, the way he was positioned, whether he had any preexisting

conditions, his general physique before the accident, after the accident; things like that. So it's really relatively different for every patient. Most people typically start to see the symptoms within 24 to 48 hours if they're going to have symptoms. But that doesn't mean that it excludes the possibility of symptoms developing a little later on. Those symptoms can wax and wane, they can progress. I'm assuming -- I don't know the data, but I'm assuming not everybody who gets in an accident's injured and seeks out medical attention. And even of the ones that are injured; I'm assuming there's a good percentage of those that actually we never see that just either get better on their own with over the counter meds, or just with therapies. And they don't require our services.

Q Okay. Okay. How long have you been doing this?

A Ten years.

Q Ten years, okay.

A Yes.

Q Feels like 20 doesn't it?

A Oh, I got grey hair. I lost my hair. I got fatter.

Q Tell me about it. We had something going on with the hair thing earlier today, but --

A I'll trade you.

Q Yeah, all right. would you have expected the pain to be more acute?

A It was acute. I mean, it was bad enough that he got taken to the hospital by paramedics.

Q Okay.

A So I mean you typically don't -- unless it's acute and significant, that typically doesn't happen.

Q Was there any kind of a pain diagram that the paramedics prepared?

A I don't know. I'm treating physician. I didn't see any accident reports or police reports or anything like that.

Q Okay. Now in your practice, describe what are you; an orthopedic surgeon or --

A No, a pain management physician.

Q Pain management.

A Yes, sir.

Q Okay. Is it -- isn't it likely that your pain management patients would actually come in every month to get new meds? Or is it more than that?

A Well, if they're on chronic medications and they're stable and they -- yeah, the state law requires you to see them every 30 days. So it's not -- in the old days you could give them multiple months supplies or post-date prescriptions. We are not able to do that anymore, because of the risk associated with that. But typically, for instance, he had a couple months break. One of them was five months. One of them was three months. So if somebody doesn't need to see me, I don't want them just to come in and say hello. So if we're actively treating them with something, whether it be coordinating care with injections or medications or specialists; then I'm happy to see them. But not just to come in and say hello.

Q So a few bad apples have ruined for everybody, huh?

A Yeah. Unfortunately, but --

Q That's usually the way it is.

A That's exactly what it is, yeah.

Q Okay. From the time you first saw him until the time you last saw him -- by the way, when was the last time you saw him?

A So my last visit with him, let's see -- so -- was on 3/28/17.

Q What was his condition at that time?

A So the last visit he had neck pain that was five out of ten; between a two and a seven. It was only on the right side. Initially he came in with neck pain on both sides and headaches. The headaches were gone. The left sided pain was gone. The thoracic pain, which is the middle back pain was a four out of ten; going between a four and a six. Initially he came in with thoracic pain that was on both sides as high as an eight. This was only as high as a six. The low-back was only on the right side going down the right leg; four out of ten, between a four and a six. Initially the first visit I saw him he didn't have low-back pain. Then he progressed to axial low-back pain; which is a center back pain, which then progressed to the leg issues.

Q Okay. Have you treated enough people that you get a pretty good feel for what those numbers mean scale wise?

A Yeah. It's an individual for a patient, right? So you know, it depends on every individual. So your four may be somebody else's six, and somebody else's two. But the biggest thing is that we're asking that individual the same question every time. We're not asking -- we're not comparing him to anybody else.

Q Okay.

A So we're looking for trends to see how he's getting. So in the neck -- in the mid-back on the left side, he got 100 percent relief with just the therapies and the medications. Never had injections. On the right side, he did get some benefit overall with the facet blocks; but it wasn't anything that was complete. In the low-back the left sided issues resolved. He had diminished right sided pain with the epidural; but they continued.

Q Okay. When was the last time you saw him?

A So the last time I saw him was on 3/28/17.

Q Okay. All right. Now I've started to kind of start to understand that pain management is not going to take the pain away 100 percent. Is that fair to say?

A It depends on when. So if you came to me and said, you know, may pain started yesterday. For whatever reason: picked up my grandkid, bent over while I was playing soccer, whatever it is, playing sports. The likelihood of that becoming chronic is very low. Because once again, the majority of the stuff with just therapies, medications, and time; just goes away on its own.

Now, if you come to me and say, "I've had these issues for two years. What's the likelihood of this going away on its own next month?" Zero.

Q Zero.

A Right.

Q Even with medication?

A Well, that's the thing. That's when you -- that's when we start with the conservative stuff. So that's where we would say: "Here's the

medications. Go do some therapy. It may get better." At this point, if you said, "I've had therapies. I've done medications. I've done injections. What is the likelihood of my neck pain getting better on its own next month?" Probably zero.

Q Okay.

A Right, now --

Q Makes sense.

A -- it waxes and wanes. You'll have great -- some good days, some bad days. But it's probably still going to be there, right?

Q Okay.

A So that's sort of, you know, the honest opinion on it. Now it doesn't mean that you're going to want to continue to be on meds. Some people say, "Look, I still have pain. I just, I'm tired. I'm just going to see how I do on my own." Like he did for five months, right? But the issues were still there; he was just trying to live with them. When they became worse, then that's when he came back to see me.

Q Okay.

A And that's typical of a lot of patients.

Q Now in your practice do you do any kind of surgery or anything like that?

A The only surgeries we do is for the spinal cord stimulators. But we don't do spine surgery.

Q Okay. Who's a good candidate for the spine stimulator?

A Somebody who has back pain that's traveling down a leg that's failed to receive benefit from therapies, medications, and injections; and is

not a candidate for surgery; or does not want to proceed with surgery.

Q Okay.

A Or has had surgery and continues to have the issues.

Q So they're just -- those people that don't want to do surgery; they just are going to have to live with their pain?

A Yes. And that's what most surgeons will tell you. It's -- the option is when they give you the option for surgery is to say: "You can either live with your symptoms or you can do surgery. Your choice what you want to do."

Q Now you started seeing Mr. Morgan just, I think I wrote down like 20 days after the accident?

A Yes.

Q Does that sound right?

A Yes.

Q About there? From that point, when you first saw him to when you saw him the last time --

A Uh-huh.

Q -- what was the difference in his symptoms?

A So once again the neck and mid-back pain on the left side completely had gone away. The headaches that he had, had gone away. The neck pain and mid-back pain did improve somewhat from his initial visit. The low-back pain that came on, I think, at his second or third visit slowly progressed as I was seeing him. And it started going down his legs. We did the epidural and it came down somewhat. He was able to get off his meds once we did that epidural; but it did continue.

Q Okay. Have you just casually seen him the last couple of days during this trial?

A No, I have not.

Q I know you've explained this but explain it to me one more time. What's the difference between the disc and the facet joint?

A So two completely different anatomical areas.

Q Okay.

A So the disc is the cushion that you have between your two vertebral bodies --

Q The donut?

A The donut, exactly.

Q Okay.

A And the joints are basically what connects your -- the two vertebral bodies, which are bones.

Q Okay. Schmorl's nodes, what are those?

A So basically, they can be little nodes that you can see on the spine themselves. Typically not painful. You can see them with either degeneration, sometimes it can be congenital, sometimes it can be traumatic.

Q Did he have those?

A I think they --

Q Those nodes?

A That it did pick them up on those. Let me -- I remember reading that he did, but I'm not -- I can't tell you the specifics. I want to say I remember reading it like in one of the MRIs, I think. They're basically

just -- there it is. It's on the MRI on July 31st, 2014. They saw them, I think, at a couple levels. One of them was at L3/L4.:

Q Was there anything special or unusual about Mr. Morgan's case -- and I'm not trying to be pejorative or anything --

A Yeah. Sure.

Q -- was there something different about it or --

A No, I mean, I wish he would have got -- you typically expect somebody younger to get better faster, but it's not always the case. So typically, for instance, if you get in the same car accident as somebody who is 20; if I was a betting man, I would say your recovery would be much slower than somebody who was 20 years old.

Q Okay.

A It doesn't mean you're not going to completely recover; either of you guys would completely recover or not recover, one way or the other; but it's just most likely than not. Unfortunately he continued to have symptoms, kind of the majority of it in the low-back going into the leg at the end. And I thought that was more of a disc issue.

Q How does that progress? Does it just come with time that it might get more severe or --

A Yeah. Yeah. I mean --

Q -- or what?

A -- it's just like everybody else. I mean, you may have, for instance, even without a car accident; you have low-back pain. And you may say: "Look, I have one episode every couple years. And the older I got it was once a year. And then once every month, and now it's constant."

And then -- so it slowly progresses, the degeneration process that normally can progress.

Q Okay. And that's a normal progression then?

A It depends. The degeneration, yes, is normal. But the speed of the progression could depend on a variety of things.

Q What does it suggest to you that the left sided pain went away? Left side of his neck went away?

A That that was probably more of a muscle strain/sprain in that area; maybe a facet issue. But it got -- went away with the conservative modalities.

Q Okay. So what was the difference between the right side and the left side, one more time?

A So that basically the right side was more of a joint issue that wasn't going away; and didn't go away even with the injections. The left side could have been muscles and ligaments or the joint issue, but luckily it went away conservatively.

Q Is that normal for the sides to be different like that?

A It could occur, yeah. Absolutely.

Q How often?

A I mean everybody is an individual. But most people, depending on how they're positioned; the forces aren't exactly the same down the middle, on the right side, or the left side. So you may end up having more right sided issues or more left sided issues as time progresses. Or they could go away completely on both sides.

Q Okay. What do you know about the accident facts?

A Just what he's basically told me. That he was driving, I think, his Ford Mustang and there was a [indiscernible] bus that pulled out and then basically able to stop in time and he hit the bus.

Q Okay. Do you have a -- do you have the ability to talk about what kind of injury the angle that was in this case would produce?

A I'm not an accident reconstruction specialist.

Q Is Norco a pretty powerful pain reliever?

A Which one?

Q Norco?

A It's medium. It's basically in between Tramadol and Percocet, which is -- Norco's Oxy -- Hydrocodone.

Q Okay.

MR. GARDNER: Just one moment, please?

THE COURT: Sure.

[Counsel confer]

BY MR. GARDNER:

Q Was Norco the first pain medication that you prescribed for him?

A For him, yes. He was already on it from the hospital and Urgent Care when he came to see me. He was on Norco, Soma, and -- what was the other one -- Anaprox which is like an anti-inflammatory. And then I basically continued the Norco. I continued the muscle relaxer, and then I gave him prescription strength anti-inflammatory on our first visit.

Q Okay. Now the Norco, when did he stop taking Norco?

A He said -- I think it was after his injection. On 3/28/17 he

said -- benefit from the epidural injection and that he had discontinued the Norco because of that.

Q What was he doing for pain relief before getting on the Norco?

A Nothing. Before the accident, you mean?

Q Well --

A Because he was given Norco at the hospital.

Q At the hospital, okay.

A And Urgent Care. So he was already on that before he came to see me.

Q Okay. Will you define for me discogenic pain?

A Pain that originates from a disc.

Q Well that was easy.

A Yeah.

Q Now 2018, right?

A Yes.

Q The accident was in '14.

A Correct.

Q Is there anything unusual about the fact that he still claims to have pain?

A No. Like I said, the longer it goes on; the more likelihood that it's going to become something that is chronic. How that's managed is different for every patient. So someone can manage it just with meditation, stretching, over the counter medications; that's great. If somebody says: "I need something a little bit stronger." Then it is what it is. As long as we keep an eye on the abuse potential.

Q Did he do what he needed to do to mitigate his damages from the time of the accident until now?

A I think so. I mean, he did the conservative therapies. Not only physical therapy, but chiropractic therapy. He did a variety of medications, which were anti-inflammatories, muscle relaxers, and pain medications. He did a variety of injection therapies. So he did everything that he could possibly have done to try to mitigate his symptomology.

Q Okay. Isn't it true, though, that we'd have to have those things done anyway; before we do a -- before we go into surgery anyway?

A I would personally recommend it, but I've seen cases where it's not. Surgeons will go straight to surgery.

Q Why is that?

A My --

Q Why would they do that?

A The reason I do it is because everything that which is therapies, medications, and injections is reversible. Right? Therapies can be stopped. Medication can be stopped. When we do an injection the needle comes out. We're not cutting or removing anything permanent. Once you do surgery, it's irreversible. The last thing you need to do is go to surgery and the surgery doesn't provide you the benefit that you want. And you say: "Oh man, can you undo this?"

"No, I can't." It's -- now it's permanent, right? So what I recommend to patients is try to do everything possible to avoid surgery, if possible. If they get to that point, then it's between them and their surgeon to decide, with the risk and benefits of surgery and possible outcomes, for them to

decide to do it or not.

Q How much chiro would you say that he needed?

A It's -- every patient is variable. I mean you would have to ask him, once again, if he's receiving benefit then you continue it. If he's not receiving benefit, then I would stop it.

Q Okay. I've been told that if you're on chiro too long that it just isn't doing you any good.

A Every patient is different. I have seen patients that'll say yes, it's beneficial and they continue it. But once again, I think if you hit a plateau with it, where it's not providing any further benefit, my point would be, you know, does the cost outweigh the benefit? And then it's up to a patient to decide.

Q How do you know if you're addicted to a pain killer?

A A variety of things. So you start asking for dose escalation. So you come and say: I'm on a 5, I need a 7.5, then a 10, then a 15, then a 30. And then the list goes on. You ask for increased frequency: I'm on one a day. I need two a day. Now I need four a day. Can you give me six a day? You come in for early refills. So I give you a 30-day supply of the medication. You consistently come in at day 21 saying: "I've run out of my medications." Basically those are sort of the things.

Q Do we have any evidence of that in this case?

A I did not, no. He was pretty stable on one or two Norco. Then we switched him to Percocet. Then he said -- that's stronger and he said at the end -- that -- "I didn't like that, let's go back to Norco." So we went to a weaker medication. And then at the end he got off the med when we did the

procedure, and he got the appropriate benefit.

Q Okay. So Norco, then the next step up would be --

A Percocet.

Q What would the next step be up?

A Percocet.

Q Percocet.

A Yeah, and then we went back to Norco. And then he did a procedure, got benefit, and then he got off the Norco.

Q And you've got Lortab. Where does that fall?

A The same thing as Norco. So Lortab is 10/500 -- 10 being the Hydrocodone/500 being the Tylenol in it. The FDA basically pulled it off the market two years ago, because they didn't want any medication having 500 mg of Tylenol; because people were taking that along with over the counter Tylenol causing liver damage. So they reduced it to 325. When they reduced it to 325, even though it's the same active narcotic and the same Tylenol; because it's 325 now it's called Norco.

Q Okay. What if -- have you ever found anyone that's kind of embellishing their pain?

A Yeah, yeah.

Q How do you know if they're embellishing or not?

A Well we talked about it before. The Waddell signs, if they're asking for more medications, when you're asking questions that doesn't make sense.

MR. CLOWARD: Your Honor, I'm just going to object. This line of questioning has already been asked and answered.

THE COURT: Sustained.

MR. GARDNER: I haven't asked it.

[Counsel confer]

BY MR. GARDNER:

Q Is chiropractic something that needs a prescription for?

A No.

[Counsel confer]

BY MR. GARDNER:

Q When was the first time Mr. Morgan reported pain in his lower back?

A To me it was on July 14th, 2014. But we do have a chiropractor's note where he actually reported it to them before he reported it to me.

MR. GARDNER: Okay. I'll pass the witness.

REDIRECT EXAMINATION

BY MR. CLOWARD:

Q Dr. Coppel, I'm having a hard time understanding something. It seems a little confusing to suggest that a patient went to too much chiropractic; but they failed to mitigate their damages.

A Say that again? Sorry, that's kind of confusing.

Q Yeah. You were asked questions about whether Aaron mitigated his damages, but you were also asked whether he went to the chiropractor too much?

A So with any therapy that we're doing is if he feels that he's receiving benefit from it; then he should continue it. As long as he's feeling

that he's receiving benefit from it. That's only a decision that him and his chiropractor/therapist can make.

Q Okay.

MR. CLOWARD: Your Honor, I move Exhibit 7 and 9 into evidence. I think 7's already there. I just want to double check. And then 9 is Dr. Coppel's records.

MR. GARDNER: Which one is 7?

MR. CLOWARD: Urgent Care.

THE COURT: 7's been admitted. So it would be just 9.

MR. GARDNER: No objection.

THE COURT: No objection?

MR. GARDNER: No objection.

THE COURT: All right. Then 9 will be admitted.

[PLAINTIFF'S EXHIBIT 9 RECEIVED]

MR. CLOWARD: Thank you, Your Honor.

BY MR. CLOWARD:

Q Doctor, you were asked some questions about addiction.

A Uh-huh.

Q Isn't it true that you actually have a board certification in addiction medicine?

A Yeah, I actually used to run a Methadone clinic for a year.

Q So tell me a little bit about your treatment -- or the board certification in addiction. Does that give you special training on that issue?

A Yeah, so basically, it's special training in identifying patients that may be addicted to their medications and how to treat them. So there's a

specialized medication that we can use, actually two of them: Methadone and Suboxone. That we utilize when people we feel are addicted to their medications.

Q Okay. Anything to suggest that Mr. Morgan was -- had any sort of an addiction problem that threw up any red flags for you?

A No. I mean, once again, you know, the -- he -- when I first saw him he wasn't working. Then he started working. Then he increased his work hours. So that doesn't indicate somebody who is addicted to their pills. That'll -- that is basically progressively working more and more hours. It's usually the opposite or they don't want to work. In terms of the symptoms, they were pretty consistent throughout. He never, in my opinion, over-embellished his symptoms. Never said like a 15 out of 10 pain scores. He progressed with any recommendations his physicians made. He was never asking for dose escalations, frequency escalations. He wasn't coming in on -- short on his medications. There were several times where we'd give him one medication refill and it would last him multiple months. So he wasn't taking the medication on a consistent basis. And he was able to get off the meds when he had the appropriate benefit from the epidural.

Q Okay. Now are there times when patients maybe do better psychologically and then they do worse psychologically?

A Yeah, yes.

Q Do patients at times over, I guess, a treatment history, do they at times lose hope?

A Yeah, of course. I mean, imagine if you had unrelenting pain your low-back and going down your leg and you're like: "My god, I had this

for two years and they've done multiple injections, or they've done therapies. And, I mean, it still bothers me." They -- of course they could lose hope. Absolutely.

Q Do you see that in your -- the folks that you treat?

A Yeah. Unfortunately, yes.

Q Okay. And we've established that the treatments you provide are not necessarily going to cure Mr. Morgan, they're just going to help with the pain that he feels?

A At this point, yes.

Q Okay. Doctor, I appreciate your time. Thank you.

A You're welcome.

MR. GARDNER: Just a couple follow-ups.

THE COURT: Sure.

RECROSS-EXAMINATION

BY MR. GARDNER:

Q Do your notes reflect that Mr. Morgan ever lost hope?

A No.

Q If he didn't report it; I'm assuming you didn't talk about the psychological factors involved with the accident?

A No, I mean I'm not a psychiatrist, so I'm not going to pretend to tell you that I treat depression and I treat anxiety, because I don't. So but it is something very common to see in patients that have chronic painful conditions to have, basically, episodes where they just get frustrated, because the pain can affect multiple aspects of their lives; their sleep patterns; and things like that.

Q The fact that it's not in your records about losing hope; is that something that we should not even concern ourselves with as far as the damages here? Has there been any indication that he has depression or anything else like that?

A I don't know. Once again, I'm not a psychiatrist. I wouldn't be able to diagnose depression or the anxiety --

Q Okay.

A -- aspects of it.

Q Okay. Okay.

A There was a point where he was working, then he had to stop working because of his symptoms. That's what I did document in my notes, but once again, I'm not a psychiatrist/psychologist.

Q We're looking at your notes here and you do have a psychological history section.

A Yep. Yes.

Q Is that -- why do you have that in your notes, that psychological section?

A Because we have to ask that as physician. So basically, once again, it says any suicidal or homicidal ideations, previous history of suicidal/homicidal ideations, any previous history of abuse. And the reason we do that is because those can -- are elevated risk factors if you're going to prescribe somebody opioid medications.

Q Did Aaron ever bring up the fact that he was depressed to you?

A No, but I -- once again, I don't treat it. And if he did, that was something he had to bring up with his primary care physician.

Q Would you put that in your records, if he did say something about being depressed?

A I think if it gets to the point where they're suicidal and they need psychiatric care, maybe. But once again, I'm not a psychiatrist/psychologist. I concentrate on my specialty, which is pain management.

Q Okay. I think that's it.

A Okay.

Q Thank you.

A All right.

THE COURT: Any questions from the jury?

No? All right. Thank you, sir.

THE WITNESS: Thank you, Ma'am.

THE COURT: You're free to go.

THE WITNESS: Thank you.

THE COURT: Counsel approach for a second?

[Bench conference begins at 4:31 p.m.]

THE COURT: What would you like to do, Mr. Cloward? I mean can you finish your direct of Mr. Morgan in 30 minutes or no?

MR. CLOWARD: I don't think so.

THE COURT: Okay. How long -- much longer do you think you have?

MR. CLOWARD: I think probably with the direct and the cross, I would think --

THE COURT: Just your direct.

MR. CLOWARD: I --

THE COURT: I don't think we could get through both, but --

MR. CLOWARD: I think at least 30 minutes.

THE COURT: Do you think you could finish it?

MR. CLOWARD: I might be able to. We'd prefer to call -- if the Court wants us to call a witness; we'd prefer to call a 30[b][6].

THE COURT: Oh, do you have them? Oh yeah. She's here. Got it. Yeah. Let's do that then.

MR. CLOWARD: Okay.

THE COURT: All right.

[Bench conference ends at 4:32 p.m.]

THE COURT: All right. Mr. Cloward, please call your next witness.

MR. CLOWARD: We would call the Rule 30[b][6] designee. I don't know Erica's last name.

THE COURT: I don't either.

MS. JANSSEN: Janssen.

MR. CLOWARD: Janssen.

THE COURT: Thank you. Come on up.

THE MARSHAL: Please remain standing, raise your right hand, face the Clerk to swear you in.

ERICA JANSSEN

[having been called as a witness and being first duly sworn testified as follows:]

THE COURT: Good afternoon, good ahead and have a seat. And if you would please state your name and then spell it for the record?

THE WITNESS: Erica Janssen. E-R-I-C-A J-A-N-S-S-E-N.

THE COURT: Thank you.

Mr. Cloward, whenever you are ready.

MR. CLOWARD: Thank you, Your Honor.

DIRECT EXAMINATION

BY MR. CLOWARD:

Q Ms. Janssen, how are you today?

A I'm well.

Q Good. I just have a couple questions. And we'll get you on and off, okay?

A Thank you.

Q And is it Ms. Jansin or Jan --

A Jansen.

Q Jansen okay. All right, Ms. Janssen, did you have an opportunity to review the sworn testimony of Mr. Lujan in this matter?

A No.

Q Okay. Are you aware that Mr. Lujan was the driver?

A Yes.

Q Okay. Do you disagree that Mr. Lujan testified that Mr. Morgan did nothing wrong?

MR. GARDNER: Form of the question, I object.

MR. RANDS: Objection. She also said she didn't read his testimony.

MR. CLOWARD: They have a position, 30[b][6] has a position, corporation has a position. She can state that.

THE COURT: Overruled.

Mr. Cloward, do you want to re-ask the question?

MR. CLOWARD: Sure.

THE COURT: Thank you.

BY MR. CLOWARD:

Q And -- we're going to read Mr. Lujan's testimony tomorrow into the record.

A Okay.

Q So we'll do that. And if it's not accurate then the jurors will know that I misrepresented things, but it -- have you been made aware of the facts in this case?

A Generally.

Q Okay. You weren't here the last time we were in trial, correct?

A No.

Q That case ended prematurely, correct?

A It did.

Q You know Mr. Lujan sat on the stand and he testified to jurors about what happened?

A If you say so.

Q Did you know that that happened?

A I was not aware of that, no.

Q Okay. So you're not aware of whether not Mr. Janssen [sic] said at that time that Aaron --

THE COURT: Mr. Lujan, I think you mean.

MR. CLOWARD: Or I mean -- I'm sorry, it's getting late in the

day.

THE COURT: It is late.

MR. CLOWARD: Judge, this happens to me and I'm sorry.

BY MR. CLOWARD:

Q So you're not aware of Mr. Jan -- Mr. Lujan took the stand and told individuals that Mr. Morgan did nothing wrong?

MR. GARDNER: Hold on. Let's object. I think form of the question is not appropriate. I think it's argumentative.

THE COURT: Counsel approach.

MR. GARDNER: And she's already testified that --

THE COURT: All right. Counsel approach. Counsel approach.

[Bench conference begins at 4:35 p.m.]

THE COURT: All right.

MR. GARDNER: She's already testified that she hasn't looked at the records. She -- so, for him to ask about what was in the records that she hasn't seen; I just don't think that's appropriate. So I guess she could say, I don't know, but --

MR. CLOWARD: But I mean, if she says I don't know, that's fine. I'm going to read his transcript into the record tomorrow. So --

THE COURT: All right.

MR. CLOWARD: -- if she says I don't know then --

THE COURT: I mean she's the corporate representative, so I think he's entitled to ask questions about the position of the corporation with respect to the case.

MR. GARDNER: Fair enough. Yeah.

THE COURT: Yeah, all right.

MR. CLOWARD: Thanks.

[Bench conference ends at 4:36 p.m.]

THE COURT: Objection is overruled.

BY MR. CLOWARD:

Q Okay. So are you aware of what Mr. Lujan testified to last time?

A No.

Q Have you had an opportunity to read Mr. Morgan's deposition?

A Yes.

Q And have you had a chance to review the facts in this matter?

A Could you be more specific?

Q Sure. With regard to the way that the accident took place, the crash took place, are you familiar with the facts in this case?

A Regarding the collision itself, yes.

Q And have you had an opportunity to speak with Mr. Lujan about what he claims happened?

A Yes.

Q So you are aware that he was parked in a park in his shuttle bus having lunch, correct?

A That's my understanding, yes.

Q You're understanding that he proceeded to exit the park and head east on Tompkins?

A Yes.

Q You're understanding that he had a stop sign?

A I'm not aware of a stop sign, but I do understand that it was a

driveway going into the park.

Q Okay. If Mr. Lujan testified that he had a stop sign, do you dispute that?

A I -- I can't confirm or deny it.

Q Okay. So you don't know whether he had a stop sign, or you don't know whether he did not have a stop sign; fair to say?

A That's correct.

Q Do you have a position one way or another as to whether Mr. Morgan had a stop sign?

A My understanding is he did not.

Q Okay. And are you aware that Mr. Lujan testified that he looked both directions before proceeding into the road?

A That's my understanding, yes.

Q And that he claims to have seen Mr. Morgan coming, or that he did not see Mr. Morgan coming?

MR. GARDNER: I need to object. I think these are inappropriate questions because we don't have Lujan's stuff right in front of us, and I don't think he should be able to be asking that kind of question.

MR. CLOWARD: This is the corporate spokesperson, Your Honor. The corporation was also sued in this case.

THE COURT: All right. But at this point, she's already testified that she's not familiar with Mr. Lujan's testimony, Mr. Cloward, so.

MR. CLOWARD: Okay.

BY MR. CLOWARD:

Q I'm going to show you the answer that you filed in this case,

okay.

MR. CLOWARD: Your Honor, may I approach?

THE COURT: Go ahead.

MR. CLOWARD: This is Exhibit 26. Move that into evidence.

MR. GARDNER: What is it?

MR. CLOWARD: It's the answer.

MR. GARDNER: The pleading.

MR. CLOWARD: Do you have any objection?

MR. GARDNER: No, it's a public record anyway, isn't it?

MR. CLOWARD: Yeah.

BY MR. CLOWARD:

Q Okay. So, Ms. Janssen, if you can just get the binder in front of you. Exhibit 26, if you wouldn't mind turning to that.

THE COURT: Admitting 26?

MR. CLOWARD: Yes.

THE COURT: All right. 26 will be admitted.

[PLAINTIFF'S EXHIBIT 26 ADMITTED]

BY MR. CROWDER:

Q Are you there?

A Yes.

Q Okay. Thank you. If you can just turn to page 3. Now I want to make sure, you testified that you don't know what Mr. Lujan said last trial, true?

A Correct.

Q You have spoken to Mr. Lujan about what he knows, though,

correct?

A Yes.

Q And you're aware of what Mr. Morgan testified to during his deposition, correct?

A Yes.

Q Okay. So the second affirmative defense, that's a defense that you have to prove in this case. It's actually your burden of proof. And it says, "The negligence of Plaintiff caused or contributed to any injuries or damages that Plaintiff may have sustained, and the negligence of Plaintiff in comparison with the alleged negligence of Defendants, if any, requires that the damages of Plaintiff be denied or be diminished in proportion to the amount of negligence attributable to the Plaintiff."

So what was it that Aaron did that was more negligent than Mr. Lujan?

A Our shuttle bus is quite large and very visible, and it managed to cross three lanes of traffic and enter the fourth lane when the collision took place. Essentially, I'm saying that your client needs to look out.

Q So it was his fault for assuming that Mr. Lujan would obey the rules of the road and would stop at the stop sign? It's Aaron's fault?

A He had the last opportunity to avoid the accident.

Q Are you aware of what actions he took to avoid the accident?

A I believe he braked and swerved.

Q Okay. What could Mr. Lujan have done differently?

MR. GARDNER: Object. Speculation and irrelevant, frankly.

MR. CLOWARD: It's their employee.

THE COURT: Overruled.

THE WITNESS: I'm sorry. Could you repeat the question?

BY MR. CLOWARD:

Q Sure. What could Mr. Lujan have done definitely?

A Well I think that's obvious -- waited.

Q Do you think he could have maybe stopped at the stop sign?

A Well, if you say there's a stop sign there, then yes.

Q And he didn't do that, did he?

MR. GARDNER: Object. Argumentative. Form of the question.

MR. CLOWARD: This is cross examination [*sic*], Your Honor.

THE COURT: Overruled.

BY MR. CROWDER:

Q He didn't do that did he?

A I believe he did stop and simply pulled out.

Q So he didn't look left, and he didn't look right.

A I believe he did both.

Q So was he trying to beat traffic? Was he trying to gun it in front of Aaron?

A No, I don't think so.

Q Because either he saw Aaron coming -- if he stopped at the stop sign, and he looks left and he looks right, either he sees Aaron coming and he tries to beat him, or he just -- he doesn't look left and right, and that's how he ended up causing the collision.

THE COURT: Mr. Gardner?

MR. GARDNER: Object. Form of the question.

THE COURT: I'm not sure what your question was there.

BY MR. CLOWARD:

Q Don't you agree that if he would have stopped at the stop sign and looked left, and then looked right, he would have seen Aaron coming?

A That's very likely. But we've all had encounters with cars that we simply have not seen.

Q So do you agree that if it's not safe to enter into the intersection, then you should stop and slowly move out and look, and slowly move out and look, until you know that it's clear to enter into the intersection?

MR. GARDNER: Object. Argumentative, form of the question, and goes beyond the evidence.

THE COURT: Sustained.

BY MR. CLOWARD:

Q What should a driver do if they pull up to a stop sign and they can't see whether traffic is coming left or right? What should they do?

A If they can't see, what they taught me in driver's ed was to pull forward slightly and look again.

Q Okay. Did Mr. Lujan do that?

A I don't know.

Q You agree that nobody has indicated that Mr. Morgan was speeding, true?

A So far I haven't heard that during this trial.

Q You hired an expert, Dr. Baker, who will come on Monday, true?

A True.

Q Dr. Baker didn't say that Aaron was speeding, did he?
A I don't know.
Q Okay. Have you read his report?
A No.
Q If you turn the page, fourth affirmative defense, "The damages and injuries sustained by the Plaintiff, if any, as alleged in the complaint were caused in whole or in part, or were contributed to by reason of Plaintiff's violation of the Nevada revised statutes and the provision of applicable codes and ordinances concerning the operation of a motor vehicle."

So what rule of the road did Aaron violate?

MR. GARDNER: Object. Foundation, relevance.

MR. CLOWARD: It's their answer, Your Honor. This is their affirmative defense. I'm entitled to talk to the facts of this affirmative defense.

MR. GARDNER: Fair enough.

THE COURT: Overruled.

THE WITNESS: Failure to exercise adequate look out.

BY MR. CLOWARD:

Q And who says that he didn't do that?
A Again, our bus crossed several lanes of traffic, and the collision took place in the far right lane. More significantly, your client, as I understand, said that he didn't see the bus coming until the last moment.
Q Did you also hear where my client testified that he thought that your bus driver was going to obey the rules and was going to stop at the

park at the stop sign that he had right there?

A I believe that's what your client said.

Q Is it unreasonable for my client to have trusted that Mr. Lujan would follow the rules of the road and stop at a stop sign?

A I think that's reasonable.

Q Okay. The seventh affirmative defense. "That the injuries sustained by the Plaintiff, if any, were caused by acts of unknown third persons who are not agents, servants, or employees of these answering Defendants, and who were not acting on behalf of these answering Defendants in any manner or form, and as such, the Defendants are not liable in any manner to the Plaintiff."

Who is this third person, this third party, that supposedly caused this crash?

A I don't know.

Q If you don't know, then why is it that there's blame being placed on some third party?

A That's why we've hired an expert.

Q Is the expert that you haven't read his report?

A No.

Q So is it your belief that the expert is going to come in on Monday and say that a third party caused this accident?

MR. GARDNER: Object. Argumentative.

THE WITNESS: No, I don't know the answer to that --

THE COURT: Overruled.

THE WITNESS: -- question anyhow.

BY MR. CLOWARD:

Q As you sit here right now, are you aware of some third party that somehow was responsible for causing this crash?

A I am not.

Q Okay. Can I read to you the testimony of Mr. Lujan?

A Certainly.

Q Okay. This is the question: "Mr. Lujan, earlier you testified -- I don't want to put words in your mouth, so I'm going to ask you this way. Did you testify earlier that you've never placed blame on Aaron for this accident?"

Answer: "No. I don't think I place blame on Aaron."

Mr. Lujan didn't place blame on Aaron, but you're here placing blame on Aaron, correct?

A I am.

Q I'm going to also read to you testimony from Mr. Lujan where he said, and I quote, "And you would agree with me, Aaron did nothing to cause this accident?"

MR. GARDNER: Object. She already said she's not familiar with these, she hasn't read them.

MR. CLOWARD: I'm asking her if she agrees or disagrees with Mr. Lujan's sworn trial testimony.

THE COURT: Overruled.

MR. GARDNER: It's probably taken out of context, though, Your Honor. I mean --

MR. CLOWARD: Your Honor, I'm happy to have Mr. Gardner

read it.

THE COURT: If it is taken out of context, then obviously, you can ask Mr. Cloward to read the whole thing.

MR. CLOWARD: I'll read it. You can follow along.

BY MR. CLOWARD:

Q This is what Mr. Lujan was asked: Question, "You would agree with me that Aaron, driving on McCloud at this intersection, had the right-of-way at the time of the accident, correct?" Answer, "Yes."

MR. CLOWARD: Did I read that okay? Please confirm that I read it.

MR. GARDNER: Go finish your cross examination.

MR. CLOWARD: I just want him to verify --

THE COURT: Mr. Gardner, he was just --

MR. GARDNER: It's a public record. I believe that's what it says, yeah.

MR. CLOWARD: Did I read it correctly?

THE COURT: Counsel, approach for a minute.

[Bench Conference Begins]

THE COURT: All right. It's been a long day, and I get it, but Mr. Gardner, Mr. Cloward was just showing you because you were complaining that he wasn't reading the whole thing, so he was just showing you the document so that you could see it. I don't know what this behavior is about from you. I expect you to act better than this.

MR. GARDNER: What am I doing wrong?

MR. CLOWARD: All I was asking is --

THE COURT: Well, you snapped at him whenever he was trying to show you the document.

MR. GARDNER: She doesn't know anything about an answer.

THE COURT: All right. Well then that's your fault for not preparing your corporate representative.

MR. GARDNER: Oh [indiscernible].

THE COURT: Seriously.

[Bench Conference Ends]

THE COURT: All right. We're going to break for the evening folks.

During this break, you're admonished not to talk or converse among yourselves or with anyone else on any subject connected with this trial; read, watch, or listen to any report of or commentary on the trial or any person connected with this trial by any medium of information, including without limitation, newspapers, television, internet, and radio; or form or express any opinion on any subject connected with the trial until the case is finally submitted to you. I remind you not to do any independent research.

We'll see you tomorrow at 9 o'clock. Everybody have a good night.

THE BAILIFF: Please rise for the jury.

[Jury out]

THE COURT: All right. As I said a moment ago, I understand it's been a long day. It's been a long couple of days. It's been a long couple of days for all of us.

However, I expect everyone in this courtroom to treat everyone

else with respect at all times, including me. Mr. Gardner, if you ever do something like that again, I am going to sanction you, and I don't do that lightly. In fact, I have only done it I think twice ever.

We're in the middle of a bench conference and you just walked away. That is completely unacceptable. Completely unacceptable.

MR. GARDNER: I'm sorry.

THE COURT: I understand. Trial gets really frustrating, and you apparently didn't anticipate that your corporate representative would be called, and I appreciate that as well. However, they have every right to call your corporate representative. And at the point that you snapped at Mr. Cloward in front of the jury, he was just trying to show you the entire document because you had objected that he wasn't reading it completely, which I think was a little unfair to Mr. Cloward.

We're just going to start over again tomorrow. But I'm not going to tolerate disrespectful behavior to the Court or to anybody else. And I won't tolerate from the other side, either. It's just not acceptable. We're all professionals here and I expect everybody to act professionally.

MR. CLOWARD: Thank you, Your Honor.

[Proceedings adjourned]

ATTEST: I do hereby certify that I have truly and correctly transcribed the audio-visual recording of the proceeding in the above-entitled case to the best of our ability.

Karen Watson
Karen Watson
Transcriber

Liesl Springer
Liesl Springer
Transcriber

Meribeth Ashley
Meribeth Ashley
Transcriber

Deborah Anderson
Deborah Anderson
Transcriber

Date: May 4,2018

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