IN THE SUPREME COURT OF THE STATE OF NEVADA

ALBERT H. CAPANNA, M.D., Appellant/Cross-Respondent, vs. BEAU R. ORTH, Respondent/Cross-Appellant.	Case No. 69935 District Court Case No. A648041
ALBERT H. CAPANNA, M.D., Appellant, vs. BEAU R. ORTH, Respondent.	Case No. 70227

APPENDIX TO RESPONDENT/CROSS-APPELLANT'S COMBINED OPENING AND ANSWERING BRIEF

VOL. 6 PART 2

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past medical services, Dr. Cash?

A Yes, sir.

Q Okay. I'm going to show you a summary of that.

MR. PRINCE: It's P1066.

MR. HELLMAN: 1066?

MR. PRINCE: 1066.

MR. LAURIA: I make the same objections, Your Honor --

THE COURT: Okay.

MR. LAURIA: -- previously noted.

BY MR. PRINCE:

Q And here's the charges, starting with number one, Desert Institute of Spine Care, kind of going down. Doctor, you know, based upon your review of those charges, do you have an opinion of whether those are -- as itemized on 1/3/11, were the usual and customary charges for the services that are required, you know, starting with your surgery and going forward?

MR. LAURIA: Objection; number 10 is not his surgery.

MR. PRINCE: Well, that's the surgery from University of Nevada, the UMC where the surgery was done --

MR. LAURIA: You asked from his --

MR. PRINCE: -- wrong.

MR. LAURIA: You asked from his surgery going forward.

THE COURT: You did ask it that way.

MR. PRINCE: Well, yeah, that's true.

THE COURT: I mean that --

MR. PRINCE: That's a fair --

THE COURT: -- that number --

MR. PRINCE: That's a fair point.

THE COURT: The number on number 10 has already been represented --

MR. PRINCE: I agree.

THE COURT: -- to the jury through Dr. Capanna.

MR. PRINCE: Yeah, Dr. Capanna dealt with it, that's true. That is correct.

BY MR. PRINCE:

Q Dealing -- so then everything except UMC, so that'd be about $108,000, are all those charges that we see identified there, Dr. Cash, are those usual and customary based upon your education, training, and experience for the services provided?

A Yes.

MR. LAURIA: Lack of foundation.

THE COURT: I'll overrule.

MR. PRINCE: Okay.

THE COURT: I'll allow it.

BY MR. PRINCE:

Q And do you have an opinion whether those charges were necessary as a result of the wrong level surgery performed by Dr. Capanna in this case?

THE COURT: Other than number 10.

THE WITNESS: Right, excluding number 10, yes.

BY MR. PRINCE:

Q Okay. And will that number 10 would be the University Medical Center where the wrong level surgery was performed?

A Correct.

Q All right. And I want to talk to you about, just a minute, like your charges there at Desert Institute of Spine Care in number one, okay? I want to talk about what is a reasonable charge for services versus what a third party payer such as an insurance company reimburses you, okay?

A Okay.

Q Are charges, the reasonable medical expense or a reasonable medical charge, is that different from how much you're going to be reimbursed by, let's say, a health insurer?

A Usually, yeah.

Q Why are they different?

A Okay. So you establish a fair market value for you services, what you think they're worth in the community. And a health insurer will look at those and they'll -- you know, a health insurance company is a business at the end of the day. And their goal is to reduce the cost of any services that are provided to their recipients or their clientele.

Q That they have to pay for?

A They pay for. So by part of taking your premiums they collected in a big pool of money and they've got to pay out services as they're required. So it benefits them and their board and their stockholders to reduce expenses and increase margin and revenue and profits like any business in the world. And the insurance companies are probably the best at it, I'd guess.

So what they do is they come into your office and they'll sit with you and go, well, these are your charges, they're fair and reasonable, but we'd like to pay less. And, of course, you'd like for them not to pay less, but they say, we represent 600,000 patients in Las Vegas valley and they can have access to be on your panel;

otherwise, they have to come in and pay out of pocket themselves and they won't have the money for that necessarily and so you're going to dramatically reduce how many patients you can see maybe to the point that you can't even have a business here. So you negotiate with them and you determine that, well, I accept this payment for your patients for this year of who you have and this is what I'll get paid for performing this level of service.

Now, you can increase that the next year or they may decrease it the next year. You may be off the panel completely. So what you have to do is eventually renegotiate your contract. So you have a contract with, say, Aetna. Aetna has a certain price they'll pay to you for this procedure, but Aetna has several plans. They may pay different rates, so you have to negotiate those. You have to hire somebody on your behalf to try to get you the best rate, otherwise, you might be taken advantage of or you may not renew it and -- for a better amount. So you have to have somebody negotiate it. But they try to reduce it and because they have volume, they essentially work out a deal that you negotiate for, essentially a volume discount by having access to patients that might need your help.

And then you do the same procedure with Cigna. You do the same for United. And then Sierra. And then the government comes in and says, well, we have Medicare, and Medicaid, and TRICARE and here's our rates, take it or leave it. And you're like, well, there's a lot of Medicare and Medicaid and TRICARE patients, so, wow, that's a really bad rate. Will I even survive? Do I lose money on seeing these patients? So I -- but if I think I can make it work, sometimes people negotiate that contract and take it just so they have access to patients so they can keep their doors open and perform the services that they went to school for so long.

Q And, Dr. Cash, you know, in terms of like, you know, the reimbursement

rate, does it vary between insurance companies? Does -- is each contract different?

A Yeah, each contract is different. So Cigna is different from Aetna, but there are, you know, 50 Cigna contracts, so each one can be different depending on what each individual signed up with. So you guys signed a contract with the insurance company and it could vary between all of you. And then I have to look at it and see if I decide to accept it for any or all of you.

Q Why don't you -- why doesn't -- how much an insurance company reimburses, why isn't that just the reasonable charge as opposed to you establishing, you know, what would be a fair rate for your services?

A Because you don't get paid what you -- you don't get paid necessarily what you're worth, you get paid what you negotiate. So they have the bodies, they have the leverage, and if you don't want to operate on somebody for a lower amount, the guy next door does. That's what happened with -- health maintenance organizations came in, the HMOs came through and they pit all the doctors against each other, so if he'll do it for $5, I'll do it for 4.50, now somebody else will do it for 3.95 and they just undercut each other. So the insurance companies go with somebody still reasonable. They're not going to jeopardize the care, but if doctors are equivalently trained and will do a good job, they're going to take the lowest paid provider for their services.

Q Is -- what is a reasonable charge for a service, you know, is that -- and what -- how much an insurance company reimburses, are those apples and oranges?

A No, they're completely not. My charge --

Q They're not the same is what I'm saying?

A Not at all, no. So my reasonable charges include all the schooling I

went to, all the years of training, all my knowledge, all the lucky enough to go with Bob Watkins and learn how to operate on the most elite of athletes. And it also takes into account my overhead, how much my loans are, how much my expenses are, how much the light bills are, how much I have to pay the front staff that has kids. I mean, that's what sets my charges.

Q Okay.

A And then what they pay is whatever they come up with and say, hey, here's what the other guy is going to charge, can you match this or make it lower?

Q Okay. So when looking at what's a reasonable medical expense, we shouldn't look to how much --

MR. LAURIA: Objection.

Q -- an insurance company ultimately reimburses you --

MR. LAURIA: Objection; leading.

Q -- for that service?

MR. PRINCE: Well, I don't think it's leading.

THE COURT: Well, you can rephrase that. I understand what the question --

MR. PRINCE: Sure.

THE COURT: -- is about --

BY MR. PRINCE:

Q Do you --

THE COURT: -- but rephrase it.

BY MR. PRINCE:

Q When -- if you want to know just whether a medical charge or medical expense is reasonable, should you look at how much an insurance company is willing to pay based upon a negotiated contract for 600,000 patients or just what the

reasonable charge is for the service?

A More likely the reasonable charge for the service. The negotiated rate is probably much lower.

Q And it sounds like there's a lot of factors that go into those negotiated contracts?

A Yeah, there's a lot of headaches associated, yep.

Q Okay. Do you have an opinion whether Beau will continue to have pain, limitation, and disability in the future as a -- ultimately, as a result of the wrong level surgery that started with Dr. Capanna?

A Yes, I do.

Q And what's your opinion?

A Well, as I would have suspected and the medical records indicate that the deterioration is continuing, it's going to be progressive worsening. Certainly, physics is not going to reverse itself and he's not going to reconstitute his disc to be normal and healthy. So whether he goes like this or good and bad and goes like this, ultimately, he's going to progressively worsen over time, maybe experience a neurologic deficit, but definitely require surgical intervention in the form of a two-level fusion.

Q And with regard to the need for fusion, will that cure Beau?

A No, there's not a cure at all. No, we're trying to make a really bad situation less really bad. He's got two crummy discs that have been operated on three times in total. He's only 25 years old now. And we're going to try to fuse those, so we take his whole constellation of symptoms, all of his pain, all of his disability, all of his not ever picking up -- you know, a difficulty time to be picking up kids, or running with dogs, or any -- working, or sex, or any kind of recreation, I'm

going to shrink that down and minimize it so that he can perform better with recreation, work, play, and just have a better life, decrease medication. So it's all relevant. We're trying to make whatever the bad intolerable situation is and make it less intolerable. But it won't be cured of and it certainly probably won't be pain free. And if he does have a pain free interval, it'll be short lived.

Q Okay. And we talked about, you know, the surgeries and like the cost of the surgeries. Does that even take into consideration if there was a complication in either one or both surgeries?

A No, not at all. That's if everything goes smoothly. Complications can include, well, you know, death or catastrophic injury, paralysis, ICU stay, transfusions. It's endless.

Q Infection?

A Infection, absolutely.

Q Nerve injury?

A Yes.

Q Pseudarthrosis where the fusion doesn't hold?

A Yep, and the need for revision. Hardware breakage, need for a revision.

Q And so would you say -- with your cost estimate in the future, would you say that that's conservative and that it doesn't include anything else for, you know, any other complication that we don't necessarily -- you know, I can't know right now if he'll have that or not?

MR. LAURIA: Objection, Your Honor. May we approach?

THE COURT: Yep.

MR. LAURIA: Thank you.

[Bench conference begins at 2:13 p.m.]

MR. LAURIA: Obviously, they can't claim any future medical expenses that aren't identified at anywhere in any record, so I don't know what they're -- what the intent of it is because they -- there is no -- even under the most liberal of disclosure rules, the only thing disclosed is the 350- and the 342-. So they cannot claim a request any future medical costs that haven't been disclosed.

MR. PRINCE: All I was asking is, was his estimate conservative and doesn't even take into consideration any unforeseen complications. That's all.

THE COURT: Yeah, well, I don't --

MR. PRINCE: That that's in evidence.

THE COURT: I mean, I think what you're -- I understand what your fear is --

MR. PRINCE: I'm not asking for any --

THE COURT: -- but I would agree that, yeah, if he says, well, sure there's complications that may cost another hundred thousand because, you know, something may occur, that's inappropriate. But to say is it -- are your costs conservative and just based upon the bare bones of what you need to do and perceive to do, I don't think that question is wrong.

MR. LAURIA: All right.

THE COURT: All right.

MR. PRINCE: Okay.

[Bench conference ends at 2:27 p.m.]

BY MR. PRINCE:

Q I've got to go back to my question, Dr. Cash, so it's firmly in my -- we talked about, you know, the need for the -- the two surgeries you talked about. Is that if everything goes perfectly for Beau?

A Yes, that's correct, assuming no complications.

Q If there was complications, a need for additional surgeries because of either infection, hardware failure, pseudarthrosis, meaning the fusion doesn't, you know, grow together, I mean, that would be more money in addition to the cost you've already given?

A Absolutely, of course. We see an example right now. The disc wasn't operated on, the other one, look at all the expenses that incurred because of that.

Q And so would you believe that your cost estimate is actually conservative?

A It's conservative. It's baseline assuming no other surgeries need to be performed --

Q Assuming everything goes --

A -- no complications.

Q Assuming everything goes perfectly?

A Assuming everything goes perfect.

Q Now, Dr. Cash, have all your opinions been stated to a reasonable degree of medical probability?

A Yes, sir.

Q Thank you.

MR. PRINCE: No additional questions.

THE COURT: Mr. Lauria.

MR. LAURIA: Your Honor, is this a reasonable time take a break or you want me to move forward? Let me just do one thing to start, if we can.

THE COURT: Okay.

MR. LAURIA: Can I switch over to the ELMO, please?

CROSS-EXAMINATION

BY MR. LAURIA:

Q Hello, Dr. Cash, I haven't gotten to talk to you yet, except at your deposition.

A No, sir.

Q So good afternoon.

A Good to see you again. Good afternoon.

Q First day for -- you've been here twice now, so sorry you had to come back, but I haven't' even gotten to question you yet, have I?

A My pleasure. Feel free.

Q So I want to talk a little bit just about this reasonable cost thing because, for example, we're talking about charges and these are, you know, what you charge, Southern Hills Hospital wants $33,000 is their charge for patients for a one-night stay, is that how you understand it?

A Yes.

Q All right. So for example, I had a daughter go to the ER and the charge for an hour in the ER was $15,000 for an ER visit, and a doctor to see her, and to put her shoulder back into place, and to give her a sling. So they took two X-rays, saw her in the ER for an hour, and put her shoulder in a sling and the charge was $15,000. Is it your testimony that the reasonable expense is the $15,000 charge for an hour or it what -- is it what the hospital and the doctors say, okay, yes, we'll accept this for our services? Are you saying it's the $15,000 charge or what the doctors and hospital say, yeah, we'll do this, we'll --

MR. PRINCE: Objection; relevance, foundation, Your Honor. This is --

THE COURT: Well, go ahead and finish your question.

MR. LAURIA: Yeah.

BY MR. LAURIA:

Q Are you saying it's the $15,000 charge for the hour or if the hospital says, yeah, we bill it at $15,000, nobody ever pays us $15,000, we actually take $3,000. Are you saying that the $15,000 is reasonable or the 3- that they actually accept and take?

MR. LAURIA: Objection; foundation, relevance, Judge.

THE COURT: All right. You understand the question to begin with?

THE WITNESS: Yes, he's represented some facts of a case I'm not familiar with, but he's asking me a generalization.

MR. LAURIA: A hypothetical.

THE COURT: Well, I mean, it would require you to have some knowledge of how the hospital does their billing aspect. So, I mean, are you knowledgeable about that or no?

THE WITNESS: I am, but I don't have an itemization of what the hospital bill was. I mean, it could --

THE COURT: Okay.

THE WITNESS: -- vary tremendously. So he's just presented a number.

THE COURT: Well, just hypothetically, for his question.

MR. LAURIA: Sure.

THE COURT: My bigger concern was your familiarity at all with how the hospital does that.

THE WITNESS: Sure. Okay. So the hospital is going to generate a list of charges and they're going to be -- they're not going to be over what they charge, they're going to be under. They're going to be their charges. And that's set across

from no matter what service they provide. They have to have a uniform stance.

Now, hospitals are in a precarious position. They're even in a worse position than doctors because hospitals need to be able to service every life in the valley, so they're going to be at the least advantaged and disadvantaged against the leverage of an insurance company. So they're going to forcibly move their rates down considerably; whereas, a doctor may have 15 and move it down to 11, maybe they're forced to move to a three. It takes more into consideration the slinging that was performed, the imaging that was performed, the doctor's time, the nurse's time, the insurance for the doctor, the insurance for the nurse, the parking lot, the landscaping, the lights, the -- all of the mortgage. There's a lot of factors besides just an hour, just a doctor evaluating a patient, and an X-ray. So I think the reasonable cost is the 15. Anything that the hospital administration, even on a national level is what usually happens, accepts is just what they have to accept. I don't think they like it, but that's what they accept.

BY MR. LAURIA:

Q All right. So your opinion, in that hypothetical, the $15,000 charge for an hour ER visit is what you would define as the reasonable medical expense, even though the hospital may agree, under contract with an insurance company, BlueCross, whatever, to say, yeah, you're right, we have a bill of $15,000, but we understand we're only going to charge three and we're going to get paid three and we're going to write off the rest? You understand that, right?

A Yes.

Q In fact, your charge is the $40,000, I mean, that's a charge -- that's a sticker price, so to speak, right?

A That's the uniform price, that's the sticker price, yes.

Q All right. How often, when you do a surgery, do you actually get paid what the charges are, the sticker price is?

A Well, I'd have to ask my outsource billing department. I don't look at that all the time. I expect payment to be that unless I've pre-negotiated. The fact that I've negotiated with insurances is more likely not for each negotiated insurance that it's lower.

Q All right. Would you agree with me, Doctor, that probably over 95 percent of the time when you actually perform a procedure that you don't get what the charge is, you get something significantly less than that and you accept that as the reasonable price of doing your procedure; isn't' that true?

A Well, you're term -- I don't mean to be elusive, but the term is significant. I don't know what you're referring to exactly. But I'll tell you, yeah, probably 99 percent I will get less than the sticker price because I've negotiated with 99 percent of my patients insurers.

Q Okay. And we've actually got the actual numbers from your office as to what that number is, correct?

A Sure.

Q Okay. And you would expect, again, with all of these things, that's true; for example, Southern Hills Hospital there are charges up here of $33,000, but that's not what they actually received or that's not what the actual reasonable cost of that was, is it?

A Well, every one of the costs are reasonable.

Q Okay.

A And they're in line with the valley and I agree with their cost and they agree with it, that's why they published it and provided and charged the company --

insurance company. But were they all paid the exact amount? I don't know. It's probably lower in most cases.

Q All right. In virtually every case you would imagine, wouldn't you?

A I would say in many. Probably aversely for the hospital, it has less leverage.

Q Okay. I just wanted to ask you about some of these instruments. And I'm not going to touch the sharp ones because I would probably hurt myself. But, for example, the retractor that you had, can you maybe come and grab that for us?

A I'd be glad to, absolutely.

Q Can you describe for the record -- because each instrument has a specific name. Can you describe for the record what instrument that is?

A This is a Meyerding.

Q A Meyerding, is there a size?

A You know, I know there's a smaller one. This is a larger one. This would probably be for appropriate for his size.

Q Is it your testimony that you would use a Meyerding Retractor like that for a lumbar microdiscectomy with an incision of about an inch long?

A Okay. So my incision was more than this long, I'm sure, but I would use similar a retractor. So it's not so much the handle, it's the blade and what's actually doing the retracting. So when I came up, I said this would be representative of a retractor I might use. So, yes, I would either have the assistant hold this or I would pull it through --

Q Just -- I don't need you to go on.

A Okay.

Q You explained all that I think. I just want to know, are you saying that

that's the type of retractor that, for example, would have been used in Dr. Capanna's surgery?

A I don't remember recalling which kind of retractor. Usually it's not specified so often. But a retractor that has a blade and has a metal piece that pulls to the side, even a self-retaining retractor like a McCullough Retractor, would have a blade that comes down and holds everything in place.

Q Are you saying that you used a retractor that big to do the surgery on Mr. Orth?

A I don't recall.

Q Okay. That's a pretty big retractor, isn't it?

A Well, he's a pretty big guy. He's having a revision surgery after his scar. It wouldn't be -- you know, I brought this in because the McCullough Retractor set is a big set, twice as big as this is the only reason why I didn't bring it in. So I was just bringing a representative. Yes, I use these. I use Taylors. I use McCullough Retractors. The main part is this blade here, this does look like McCullough Retractor, very standard to pull that over.

Q Like you said, that's be hard to get in a one-inch incision, wouldn't it?

A No, I don't think so.

Q What about the forceps that you had. Did you have --

A I don't have the forceps.

Q What did you have that you were grabbing the tissue with?

A Okay. This is a pituitary rongeur.

Q Okay. And is that the tool that you would typically use in a one-level microdiscectomy?

A Yeah, so there's different kinds of rongeurs. I didn't bring all of them in

because there are variations on the theme. So this is a pituitary. It has a little bitter at the end. Sometimes you have an up bitter which means it goes straight in and gives a little angle. And there's a down bitter. There's a Takahashi, which is a little shorter version. So if you can reach from the skin and get down in the disc of this, that's a longer one. But, yeah, this would be representative I use pituitary in about every discectomy.

Q All right. And it would be that size?

A Yeah, it would be about this size or maybe slightly smaller, but not more than three-quarters size I guess.

Q I just want to go over something because I think we can -- we can agree on something. You agree, Doctor, that I asked you in your deposition and -- that it is your custom and practice and has been for several years, at least going back to the time of Mr. Orth to tell your patients you are undergoing a microdiscectomy -- let me get this out of the way. You tell your patients that are going to undergo or going to need a microdiscectomy that to a reasonable medical probability, they are going to need a fusion in the future --

A Yes.

Q -- correct?

A Yeah, well, it depends on the age.

Q All right. So in your opinion, you tell patients who are going to need a microdiscectomy that within 10 or 15 years of having that procedure done, they are most likely going to require a fusion, right?

A Yes.

Q And I think I asked you several times, and I want to be clear, it -- that applies in this case, your opinion also, does it not?

A Yeah, absolutely. He has three discectomy, he's for sure going to need a fusion.

Q Well, hold on. If it's not clear, I'll clarify.

A Sorry.

Q In this case, from the time that Mr. Orth was going to require a microdiscectomy and present it to Dr. Capanna's office, it was your opinion that more likely than not he was going to need a fusion in 10 or 15 years, true?

A Yes, if I had seen the patient and I knew he was going to need a microdiscectomy from Dr. Capanna, I would assume that, yes, he would need a fusion at L5-S1 in the future.

Q So in your opinion, from the minute Beau Orth needed a microdiscectomy, whether it was done by you or it was done by the doctor that you trained under or it was done by Dr. Belzberg or it was done by Dr. Capanna, from the minute that Mr. Orth needed a microdiscectomy in September in 2010, and we'll put the first with Dr. Capanna on there, it was your opinion that 10 or 15 years from now, Mr. Orth was going to need a fusion, right?

A Close. I feel like he was going to need a fusion from the minute the discectomy was performed. Sometimes they can ride that need for surgery out for a couple more years, but by the time the surgery is performed and you actually remove the disc, then I believe that 10, 15 years later you're going to need a fusion, especially at his age.

Q Okay. You agree -- I think you agreed, at least in your deposition, that the surgery, the microdiscectomy, was indicated for Mr. Orth, correct?

A Yes.

Q All right. He needed that surgery done?

A It wasn't an emergency.

Q Sure.

A It wasn't an emergency, but, yeah, I felt like he -- it would give him a chance to improve his condition.

Q I mean, he'd been having problems that had been going on for a long time, it wasn't improved this time. He had pain management treatment that didn't make it any better. So Mr. Orth -- I'm going to make a little pie sign here because I don't want to have to write out Plaintiff. He needed that fusion in September of 2010, right?

A Well, he was going to need a fusion in his lifetime.

Q I'm sorry, he needed a microdiscectomy? Let me --

A Yeah, sorry. Okay. Yeah, so I felt he was -- I mean, I felt like it was within the standard care and appropriate recommendation to perform a microdiscectomy at that time.

Q And so your opinion -- and this isn't the first case in which you've given testimony about a patient needing a fusion 10 to 15 years after a microdiscectomy, right, you've testified to that in other cases this year?

A I'm sure.

Q All right. Any estimate as to how many times?

A No, I don't recall.

Q All right. But that's consistently your opinion, right? You're not -- you're not changing it just for Mr. Orth in this case, it's your opinion that once he underwent a microdiscectomy, 10 to 15 years from then he was going to need a fusion?

A I would say any testimony that's been recent, I'm definitely saying 10 to 15 years. When I first came out of practice, I probably may not have said 10 to 15

years for every patient, but I've become more reasonable since then.

Q All right. So all the depositions and the trial testimony, more reasonably -- more recently, that's been your opinion, true?

A I believe it would be, yeah.

Q All right. And so that would take us to -- we know the surgery was in September of 2010, right?

A That's right.

Q All right. So it was your opinion, by 2020 to 2025 the first fusion was going to be needed no matter who did the discectomy, whether it was done perfectly, whether there was a complication, whether there was any problem at all, it's your opinion that Mr. Orth was going to need a fusion more likely than not in '20 or '25, right?

A Yes, I believe so at L5-S1.

Q All right. So even if Dr. Capanna was the most perfect doctor in the world and done everything absolutely perfectly, Mr. Orth was going to incur the costs that you've put up, the 350,000 or some fraction of that, some portion of that, right? He was going to have to undergo rehab, he was going to have to undergo physical therapy, all of those things were going to happen regardless of any complication or need to redo surgery, truth?

A No, I think if Dr. Capanna had performed the surgery at L5-S1, he would have performed it adequately and probably no complications would have been associated with that. And within 10 to 15 years later, a fusion would have been required at L5-S1, with similar, not quite as high, but very similar expenses.

Q All right. So very similar costs. So -- and you would have told that to Mr. Orth if he was your patient coming into the office in September 1st, 2010, where

you would have said to him, I can do this, but I can tell you that it's my opinion that 10 to 15 years down the road you're going to need a fusion, right?

A Yes.

Q All right. Now, we're five years from that now, right?

A That's correct.

Q So when you say, in your opinion, Mr. Orth is going to need a fusion in five to 10 years, we're talking about 2020 or 2025, right?

A Yes.

Q So we're talking, Mr. Orth is going to need a fusion in 2020 or 2025, which is exactly the same timeframe in which it's your opinion he was going to need a fusion anyway, right?

A Well, I mean, I think he needs a fusion sooner than that now. I mean, based on first coming in and needing a microdiscectomy, yeah, I'd say 10 to 15 years. But the way his course has developed over three discectomized discs that -- I mean, his symptoms are -- I don't know that he's going to make it five, I certainly don't think he's going to make it 10 at this point.

Q Okay. I'm sorry, I thought your testify was in the next five to 10 years, I thought that's what you said?

A Oh, I'm sorry, Mr. --

Q I thought when you were testifying about Mr. Orth, you said in the next five to 10 years he's going to need a fusion?

A Oh, certainly, but Mr. Prince asked me questions on Monday and asked me is he a surgical candidate now, I said yes.

Q Okay. I've looked through your office chart or your records, and we can bring them over for you, but I can't find an informed consent form for your surgery for

Mr. Orth. Do you use your own consent form?

A I use my own consent form and it is 100 percent that is like the most important document in my office. I consent the patient and double check them, so I am sure one exists.

MR. LAURIA: May I approach, Your Honor?

THE COURT: You may.

MR. LAURIA: Thank you. Could you tell me which exhibit Dr. Cash's at?

THE CLERK: Plaintiff's 3, just so we're using theirs.

BY MR. LAURIA:

Q I'm going to give you and ask you to look at Exhibit 3. Maybe I just missed it.

A Sure.

Q It's Number 3, thank you. And while you're looking --

MR. PRINCE: And, counsel, it may be in the hospital record too. You may want to give him that.

MR. LAURIA: Well, there's a hospital informed consent, but I'm asking about the doctor's --

BY MR. LAURIA:

Q You don't just rely on the hospital informed consent, do you?

A No, absolutely not, no.

Q You have your own signed informed consent form?

A Yeah, so I'll talk to the patient, do a informed consent. We'll do preoperative testing make sure they're okay for surgery and I'll go through everything with the patient, they'll initial 12 lines and sign it. And then when we go to the hospital, the hospital has to protect themselves legally, so they do their own

consent separate and after mine.

Q Okay. It's important to you because you want to make sure your patient knows that there are risks, and potential complications, and things that can happen, right?

A Yeah, we have to give the patient information in order for them to make a reasonable decision on what they want to have performed, whether they want the surgery performed or not, absolutely. I want to lay expectations out ahead of time.

Q Because even in the best of hands, there are things you can't control or risks that can occur, true?

A Yes, sir.

Q You've been -- would you agree, have you been to the wrong level at a surgery where you've gone and removed a ligament and removed some bone and then looked at the pathology and said, oh, I'm not where I want to be?

A I've never excised a disc that was at the wrong level and I don't recall removing any bone or ligament, although, it could happen.

Q All right. Because I thought you said you couldn't see the disc like at certain levels -- L3-4 or L4-5, couldn't see it until you removed ligament and bone, right?

A Oh, no, you have the X-ray to tell you.

Q Okay. So my question is, you're saying you don't remember whether you've ever done that or not?

A I don't think I have. I don't remember any time that I've ever done because I'm a meticulous on doing the exposure with the X-ray. But if I found a case where I did, then I might have. But it's no harm to the patient at that point. But I don't have -- remember ever doing exploratory and not knowing which level I was

at.

Q Have you found it? I couldn't find --

A No, sir.

Q -- it in there.

A I wish I -- I wish I had known coming over, I would have been able to perhaps look for that.

Q All right. That's all right, Doctor. We -- you would agree -- would you agree --

A I won't what your question is going to be, but my informed consent for lumbar surgeries is potential surgeries, including fusions.

Q All right. So you -- you include in that that there -- that a fusion is going to be needed?

A Yes.

Q All right.

A It's possible -- impossible --

Q So you would have told Mr. Orth, if he had come to you in September of 2010, again, that even if you did everything perfectly that he was going to have to, in 10 or 15 years, undergo -- you have a different fusion mechanism there, but he was going to have to go through this operation you described; is that true?

A Well, if you look at Bates 137 for Exhibit 3, in my recommendation section, I specifically said, and I quote, if he has another at this level, he will most require fusion surgery. But barring any injury, there's degeneration and he's going to need a fusion in his lifetime.

Q All right. Your note doesn't say that. Your note -- your recommendation says if this is recurrent L4-5 and if he has another herniation at L4-5, he'll need a

fusion, right?

A Well, I think I said, if he has another --

Q We could put it up there.

A Sure.

MR. LAURIA: Do you have that, Paul?

THE WITNESS: If he has another injury at this level, so that could be an injury from playing football, which his immediate concern was at that time. But certainly, I would have told him this is not a cure and you're going to need a fusion in the future.

BY MR. LAURIA:

Q The patient also recognizes if this is a recurrent disc herniation at L4-5 and he has another injury at that level, he will need a fusion, right?

A Well, that's your reading. He recognizes that this is a recurrent disc herniation. There's no if, it's recurrent by definition because there's two injuries to the disc; one has popped back out that's been operated on before. But if he has another injury at this level, that's I'm trying to coach him into thinking about not playing football because an injury is going to require a fusion more immediately. But over time I tell all my patients that have discectomy that they're going to require a fusion. And I tell my patients that have a fusion, they're going to need a fusion.

Q Is there anywhere, Doctor -- and I've just gone through them all. Again, I looked for your informed consent, but is there -- other than that note on that very first visit, is there anywhere in your records, prior to May of 2015, that you document that Mr. Orth was going to need a fusion, or that you recommended or advised him of the need for a fusion, or that he was going to require a fusion?

A Other than my initial contact with the patient?

Q Other than what's -- what's written right there, is there anywhere in your chart where you see?

A I don't specifically recall in the chart, no.

Q Well, you've gone through the chart now, I would imagine, numerous times to prepare for the testimony with Mr. Prince, right?

A Absolutely.

Q So you would agree with me that there's nowhere in your chart, prior to May of 2015, when you wrote letter at the request of Mr. Prince that says this fusion was going to be needed, true?

MR. PRINCE: Other than what?

MR. LAURIA: Other than the letter of -- in May that was written at your request.

MR. PRINCE: Well, I guess I object to foundation, the timing of it, the question.

THE COURT: Well, you can --

MR. PRINCE: He hasn't laid any foundation for what he's asking.

THE COURT: Well, I'll let you answer the question.

BY MR. LAURIA:

Q You want the question back?

A Yes, please.

Q Thank you. We've talked about this is your very first visit, right?

A That's correct.

Q All right. What's the date of that visit?

A 10/12/10.

Q All right. So on 10/12/10, you make a mention that if he has another

injury at that level, he'll need a fusion, right?

A Yes, I'm discouraging him from returning to that football activities.

Q Well, is there anywhere in -- other than not to return to football activities -- I mean, he's not going to go right back post-op, is he?

A He's certainly not, no.

Q All right. And you thought that he would have a successful result, right?

A Yeah, he was debilitated and had weakness, I thought he'd overcome that with surgery.

Q Well, we'll go through your notes later on, because it appears like February and April is where you start talking about returning to football, but right now, let's stick on the having a fusion surgery if we can.

A Okay.

Q So 10/12/10 says fusion if injury, but there's no indication, no documentation, no writing that says Mr. Orth, you're going to need a fusion surgery in 10 to 15 years anyway, is there?

A No, there's not.

Q All right. And then we go through your records and we've gone all the way through until just a couple weeks ago you last saw him on March 14th, 2014, correct?

A That's correct.

Q All right. And you would agree with me, Doctor, that up to that time there's nothing in your chart, or your records, or your documents that indicates your opinion that Mr. Orth is going to need a fusion, right?

A Well, I'm sorry. I might have misheard your last question. I do have that note here, but that's not the last time I've seen him in the office.

Q No.

A I didn't mean to say that. Okay. Sorry, okay.

Q You saw -- I said the last time up until just a couple weeks ago right before this trial.

A Okay, sorry.

Q All right. So let's talk about that for a minute. Up -- from the first visit until March 14th of 2014, again, you've gone through your records over and over because you've been preparing with Mr. Prince for this testimony, is there any mention that you see anywhere that says this patient is going to need a fusion?

A No, there's not.

Q And when did -- do you recall writing a letter at the request of Mr. Prince about this patient needing, not just one fusion, but two fusions?

A Yes.

Q And when did you write that letter?

A Could you point me to that just to be accurate? What Bates is that on?

Q Are you able to give me an approximation? Was it, you know, a year ago? Was it just a couple months ago?

A I didn't memorize dates in preparation. I know we had the exhibits available for dates.

Q All right. It's either May 13th or 14th of 2015, I believe, and we'll confirm that, absolutely. Now, between -- between March 14th, 2014 and May 14th, 2015, what additional medical information did you have?

A Probably the same information.

Q You didn't have any additional medical information about this patient in the year between March 14th, 2014 and the time you wrote this letter on May 14?

A Dr. Ruggeroli has seen the patient. I don't know if I've -- that note, I don't have the dates memorized again, if it came after or before the authorization of that letter.

Q Dr. Ruggeroli, let me represent to you, did the RFA procedure in May of 2014 and then the patient never came back after that. Does that refresh your recollection?

A Yes, I don't think I had reviewed that at the time of deposition.

Q Okay. So in this 14-month period or so, you had no new information about Beau or his condition or what was going on with him; is that fair?

A Yes, that's correct. Now --

Q So hold on, if you would.

A Sure.

Q Just give me a second.

A Sure.

Q So all of the information that you relied upon to write this report is May 14th, 2015, was information that predated 2015, right? It was all information that went from 2014 backwards?

A That's correct.

Q All right. In fact, all of the information that you relied upon in writing this estimate or letter for Mr. Prince on May 14th went from May 14th backwards, the last visit with Dr. Ruggeroli, if you're even aware of that?

A Right.

Q All right. So there wasn't anything new that you were relying upon, right?

A Right, that's correct.

Q All right.

MR. LAURIA: Your Honor, would this be a reasonable place to take five minutes?

THE COURT: Okay.

MR. LAURIA: Thank you.

THE COURT: During our recess, ladies and gentlemen, you're admonished not to talk or converse among yourselves or with anyone else on any subject connected with the trial; or read, watch or listen to any report or commentary on the trial by any medium of information, including without limitation any newspapers, television, internet and radio; or form or express any opinion on any subject connected with the case until it's finally submitted to you. I'll see you in about 15 minutes.

[Jury out at 2:55 p.m.]

THE COURT: You may step down as well, Dr. Cash. Thank you.

THE WITNESS: Thank you, sir.

THE COURT: All right, guys. We're in recess.

[Off the record at 2:56 p.m.]

[Proceedings resumed at 3:13 p.m.]

[Outside the presence of the jury]

THE COURT: You guys all good?

MR. LAURIA: I think so.

THE COURT: Okay. All right, Joel, you can go ahead.

And I did get plaintiff's proposed jury instructions. Thank you.

MR. LAURIA: We just got them --

MR. PRINCE: We emailed them --

MR. LAURIA: -- same time as you just a minute ago, so --

THE COURT: Okay.

MR. PRINCE: We emailed them yesterday to you.

MR. LAURIA: Okay.

[Colloquy between counsel]

THE MARSHAL: Your Honor, ready?

THE COURT: Yep.

[Jury in at 3:15 p.m.]

THE MARSHAL: The jury is present, Your Honor.

THE COURT: Thank you. You all can be seated. Okay. We'll be back on the record. We're going to continue on with Dr. Cash's testimony. I'll remind you that you're still under oath, sir.

THE WITNESS: Yes, Your Honor.

THE COURT: Thank you.

MR. LAURIA: Thank you.

THE COURT: All right. Mr. Lauria.

BY MR. LAURIA:

Q Dr. Cash, Exhibit 33 now. Counsel has apparently identified or located your informed consent document, correct?

A Yeah, I have page 30 -- 331 and 332.

Q Correct and that is a consent that Mr. Orth signed for surgery review --

A Yes, sir.

Q -- correct?

A Yes.

Q Is there any notation or mention in there of the fact that he was going to

need a future fusion in your opinion?

A No, generally, I'd have a discussion with a patient but I don't outline in excruciating detail all the future needs and costs and all the associated needs, so a discussion I would have. But this usually pertains --

Q Excuse me. I'm sorry. I just want to make --

MR. PRINCE: Your Honor, please let the witness finish the answer.

MR. LAURIA: I think he's answered.

THE COURT: Well, look, you guys --

MR. PRINCE: He wasn't done.

THE COURT: -- have both done this throughout the trial. Go ahead, Mr. Lauria.

MR. LAURIA: Thank you.

BY MR. LAURIA:

Q I just want to make sure. Your -- you -- I think you said it's in your informed consent but it's not actually on this form; is that true?

A Well, it says possible surgery and fusion. What the informed consent mainly focuses on what's going to happen at the time of surgery and what's the anticipated complications at the time of surgery, not 10, 20, 30, whole life span.

Q And I'm sorry. Maybe I'm -- I see. Okay. So it talks about possible future surgery for fusions or hardware and this is for a revision micro lumbar discectomy, but it doesn't say in your opinion it was going to be probable. Is that a fair --

A It doesn't say probabilities. It doesn't say time range and stuff like that. It's just --

Q Fair enough. And one of the things that you have in there that looks

very similar to what Dr. Capanna had in his, you've seen his consent form, I assume?

A Yes, sir.

Q All right. One, no guarantee or assurance that it will be successful, no guarantee of success or cure has been given, right?

A Absolutely. That's correct.

Q No surgeon could give a guarantee of a cure or success.

A I wish we could. No, we can't.

Q Even when the perfectly done microdiscectomy about one to two to three in ten, depending on what you look at, are going to continue to have problems and pain, true?

A Yeah, mainly with back pain, right.

Q All right. So you can take 10 patients and say I think you're going to do well, and one, two or three or maybe more depending of that group are still going to have continued complaints of problems even if you do everything perfectly. Do you agree with that?

A Yeah, we're -- we're doing the surgery to improve their condition, but yes, some we can't guarantee what's going to happen.

Q And that some is significant. I mean, it's not just one in a hundred or it's not, you know, one in a thousand. It's one to three out of 10. So that's, you know, 10, 20, 30 percent of patients may not improve in a microdiscectomy. Do you agree that that's what the literature shows?

A And so as far as back pain goes. As far as a compressed nerve with brain -- pain radiating on the leg, yeah. I mean, the worse your condition, the better odds you're going to have improvement. Like Beau came in with 94 percent

disability and that's pain 10 over 10 at times. He's got a higher net for getting better --

Q Right.

A -- but he's going to have persistent back pain.

Q And, unfortunately, do you agree with me, Doctor, that you can't tell if you get 10 patients or you take 10 people sitting in the jury, you couldn't tell me which one, two or three of those would continue to have pain or problems because you can't tell by looking at them beforehand, do you agree, or you wouldn't do surgery on them?

A Right. Absolutely.

Q All right.

A I couldn't tell you which ones are going to have persistent back pain.

Q And so would you agree with me that there's no way Dr. Capanna or you or anyone else could have predicted whether Mr. Orth would continue to have pain and problems no matter how the microdiscectomy was done.

A Well, the 10 percent is probably more likely for the leg pain and the 30 percent for the back pain. This isn't a back pain procedure. This is a leg pain procedure. So yeah, as far as the leg pain goes, I think it's reasonable that Dr. Capanna would have relieved a high percent of his leg pain, but then the back pain is a little more unpredictable.

Q All right. So the back pain, he may continue to have. In fact, you would agree with me that a microdiscectomy doesn't treat mechanical back pain. So if there's any aspect of his pain problems that are not due to this disc, the microdiscectomy isn't going to help him at all typically. I mean, it may help him, but it's not designed to help this.

A It's designed for leg pain, yeah.

Q All right. And I was going on another part of your informed consent there because I know that it was similar is that number 9: I further authorize and request that my physician and his associates, assistants and appropriate hospital personnel perform such additional procedures which in their judgment are incidentally necessary or appropriate to carry out the treatment, correct?

A Absolutely.

Q All right. Would you agree with me, Doctor, that one of the things that you are telling patients with that is that I need to be able to use my judgment when I get in there to decide what's the best way to treat you?

A Absolutely.

Q All right. So while one approach may be favored in a certain case, you may have a different case in which you say you know what, I think I may want to try this. I think this may work best. You need to have that flexibility, don't you?

A Exactly.

Q All right. So if you put a specific my procedure is an L5-S1 lumbar discectomy, that doesn't mean that you can't go outside that little box. You can do what you believe is reasonable in the circumstances in order to take care of the patient's problem. Do you agree?

A Absolutely. Yes. That's correct.

Q All right. All right. And in this case, you're aware Dr. Capanna had consent for an L5-S1 discectomy but that would give him, in his judgment, consent to do what he felt was reasonably needed to treat the problem --

MR. PRINCE: Object --

Q -- agreed?

THE COURT: Okay. Go ahead.

THE WITNESS: And, sir, you're making an objection?

MR. PRINCE: No, go -- no, no. No, I'm not. No, I'm not.

THE WITNESS: Oh, yeah. That's correct.

BY MR. LAURIA:

Q All right. So just we had an interruption. The consent by Dr. Capanna as you interpret it, and it's the same language as yours, would give him consent to do whatever procedures were indicated in his reasonable judgment to try and take care of this problem --

A That would be --

Q -- true? That's what the patient authorized.

A -- that would be contained in the consent, yes. I agree.

Q All right. So just to go back, just so I clarify, because I got scribbles here that I'm not even sure about.

A Yeah.

Q 12/12/10 is your first visit and that's that mention of the fusion if he has another injury to that disc level at L4-5, right?

A Yes. That's correct.

Q All right. But -- so fusion if new L4-5, is that a fair way to put it?

A Yes. That's correct.

Q All right. And then up through March of 2014 and in your records of all the times you saw him, and we'll go through when those were, there's no mention in there of a fusion or a need for a fusion.

A No, there was no need for fusion through there now.

Q Well, there's no mention that that's coming in the future or he's going to

need it in the future. It's going to be required. There's no mention of it at all, agreed?

A Well we discussed it before. There's no need to keep mentioning it.

Q I'll try to be more precise. Is there anywhere in your records during that period of three and a half years where you mention discussing with Beau anything about his need for a future fusion?

A No, I probably wouldn't bring it up if I thought it was appropriate recommendation.

Q All right. But I thought you said that you would have told him at the beginning that in your opinion, he was going to need it in 10 to 15 years, right?

A Well, in his particular case, he's going to need it sooner --

Q No --

A -- if he plays football, but yeah, definitely 10 to 15 years after -- after his surgery is performed.

Q All right. So, and this goes to the time that you actually first wrote down that Beau Orth was, in your opinion, going to need a fusion. And, in fact, when you wrote that document on May 14th, 2015, about his need for a fusion, when did you indicate it would be needed?

A Oh, can I turn to it real quick --

Q Sure.

A -- for specifics? What dates -- what Bates is it?

MR. LAURIA: Do you know what Bates that is, Paul?

MR. CARDINALE: May 14.

THE WITNESS: I got it right --

MR. LAURIA: No, the Bates stamp.

THE WITNESS: No, I have it here. It's okay.

MR. LAURIA: Okay.

THE WITNESS: This one doesn't have a Bates stamp, but this was given during the direct.

BY MR. LAURIA:

Q I think if you look at the portion on the second page.

A Okay. On that.

Q Here.

A Right there? Okay. Thank you. Okay. So the letter dated May 14, 2015, the second -- third full paragraph indicated that he may require facet treatments for the next six to 10 years, more likely 10 years, and then he required the lumbar fusion within 10 years from that date.

Q All right. So in your letter of May 15th -- by the way, Mr. Prince paid you fees to prepare that letter, didn't he?

A I think he paid for my time and effort in producing this letter.

Q All right. And that was $3,500 to write that two-page letter; is that correct?

A I'd have to look to be -- I mean, if that's what you're representing as accurate, then yes.

Q Okay. And then in April, Mr. Prince paid you $10,000 to prepare a record review in this case?

A Yeah, I had to look at the extensive set of records, so I -- I didn't review that particular line item there, maybe I'd look at it, but if you're representing that, sure.

Q We'll put that -- we can put your billings in. We have them. So --

A Okay. That's fair enough.

Q -- just so we can be sure, between April and May of 2015, when we first get the writing about this need for future surgery at this cost of $700,000, you had been paid $13,500 by Mr. Prince to prepare that document and to review records; is that correct?

A That's correct.

Q Okay. And we've established that there was no new information in May of 2015 when you prepared that record that you hadn't had at least a year before that, true?

A Sure.

Q All right. Now, so I think we talked about this a minute ago, but I want to make sure we're clear. That document you says (sic) he's going to need it in how long? You were just reading it.

A In 10 years.

Q Okay. So May 15, 2015, it was your opinion he was going to need fusion in 10 years, correct?

A Yes, within 10 years.

THE COURT: Within 10 years. That's the first two-level fusion?

THE WITNESS: Yes, Your Honor, first two-level fusion.

THE COURT: Thank you.

THE WITNESS: 4-5 and 5-1.

BY MR. LAURIA:

Q And then I think we've established, but it's your opinion that the minute a microsurgery was done on him on September 17th, 2010, even if it was done absolutely perfectly by the guy you trained under or by you or by Dr. Yoo or by

whoever, that it's your opinion that he was going to need a fusion in 10 to 15 years, right?

A Yes, at the -- at L5-S1 in this case.

Q So we are 15 years down the road -- I mean we're -- sorry, we're five years down the road from the time of that surgery in 2010, right?

A Yes. That's correct.

Q So if we're five years down the road, then we're kind of right in the same time frame. In fact, we're a little bit past the time frame in which your opinion was that he was going to need a fusion anyway; isn't that true?

A Well, it's in the range, yes.

Q I mean, here if you're saying 10 to 15 years, that would take us to 2020 to 2025, right?

A That's right. Yep.

Q And your opinion in May was he's going to need it 10 years from May of 2015 --

A With --

Q -- which takes it to 2025.

A Within 10 years, yeah.

Q Okay. And again, just so we're clear, the cost and the rehab and the physical therapy and all of the things that Mr. Orth will have to go through for a two-level fusion are virtually identical to what he would have had to undergo for a one-level fusion; isn't that true?

A It would be -- it would be very similar.

Q All right. So the rehab time very similar?

A Yeah, it would be less for a one-level, but it would be very similar.

Q Physical therapy, all of the other things that go with improving from that, they're all -- he was going to need virtually all of those things anyway, agreed?

A Well, post-op of course would be pretty identical.

Q All right. So, I'm sorry, did you say pretty identical?

A The post-op, of course, would be very similar and the operative course would probably be a little bit more expensive for a two-level.

Q So if you were doing a one-level fusion on L5-S1 as you predicted he was going to need anyway in 2025, the cost for that would be the $342,000 number; is that true?

A That's correct.

Q Okay. And then so in your opinion, Doctor, to a reasonable medical probability even with a perfect surgery, perfect surgery at L5-S1, a perfect discectomy, Mr. Orth was going to require a surgery between 2020 and 2025 costing approximately $342,000 if we use the retail price, right?

A For a fusion at L5-S1.

Q Got it. Okay. Your opinion in May 15th is now that -- so fusion, I'm going to write down here perfect surgery. Your opinion now is same time frame, 2025, he's going to require basically the same rehab and those things, but he's going to have a two-level fusion and it's going to cost a little bit more because you're going to have to spend some more operative time, the anesthesia time is a little longer, the medical device that you have to use, the fusion device, costs a little bit more, true?

A Right. That's correct.

Q All right. And so you've come up with an estimate. You don't know exactly, but in your report of May 15th that you prepared at Mr. Prince's, you

estimated that at $350,000, right?

A That's correct.

Q All right. So as far as just monetary costs that Mr. Orth would incur in the future, it's true, is it not, Doctor, that based upon your opinion, that Mr. Orth has incurred or will incur, in your opinion to a reasonable medical probability, $8,000 or approximately that amount more than he would have incurred even if everything had gone perfectly; is that true?

A Yeah, probably a little more because it's not a revision surgery, like I mentioned earlier, but yeah, it's -- it's similar.

Q Okay. So that this is the cost if you fused L5-S1 as you believed was going to be necessary, right?

A That's right.

Q And this is the cost if you do L4-5 and L5-S1. And then there was -- you were asked by Mr. Prince and I think I asked you in the deposition about this adjacent segment because you talked about, you know, breaking down over time, right?

A Right.

Q And so you would agree with me that your testimony or your opinions, your reasonable medical probability is the fusion that you believed that Mr. Orth was going to require, no matter what once he had a discectomy, would cause additional stress on the adjacent level.

A That's correct.

Q All right. So as a result of that additional stress, you believed that a fusion at the level adjacent to that would be required in the same time frame that you've estimated currently, about 17 years after that, right?

A That's correct.

Q So if we take this time frame, and let's take your most recent estimate of 2025, it's your opinion that even if Mr. Orth had had a perfect L5-S1 microdiscectomy, in 2025 he was going to need a fusion and in approximately 2042 -- can't even think that far ahead, approximately 2042 he was going to need a second fusion.

A That's correct.

Q All right. So either way, whether Dr. Capanna did the correct operation, the wrong operation, whether you did the correct operation, he's going to require two fusions in your opinion in his lifetime.

A Yes.

Q Even if everything is done in accord with the standard of care.

A That's correct.

Q All right. I think it's actually 5/14 is the date of the letter as I recall. Do you happen to know what date?

A 5/14.

Q 5/14. I was close. So let's -- so if I write down 2042 on both of these, your opinion is that in the case that he is now and in the -- as he would have been with a perfect surgery, it's your opinion he would have required a second fusion to a reasonable medical probability in 2042, correct?

A A second fusion being a second level in the first scenario and a third level in the second scenario.

Q Okay. And the cost again for that second fusion in 2042, whether it's a third level L3-4 or whether it's L4-5, would be approximately the same, would they not?

A They would be identical.

Q So that would be that $342,000?

A Yes.

Q So in your opinion, even if Dr. Capanna had fully complied and done everything appropriate as a surgeon, Mr. Orth was going to incur approximately $700,000 in future medical expenses related to fusions that couldn't be prevented or avoided.

A Related to this, the fusion surgeries, that's correct.

Q All right. You would agree that the most common reason for doing a fusion is mechanical back pain.

A Yes, back pain is the most common reason.

Q And you anticipate that when you do a microdiscectomy or you do any type of a procedure on a disc, that it's going to alter that disc, right?

A Yes. That's correct.

Q And as a disc gets altered, it alters the motion of the spine, right?

A Yes.

Q And so as it alters the motion of the spine, that's what ultimately, I think you said, leads to the development of mechanical back pain over time; is that true?

A Yes. That's correct.

Q All right. So in your opinion, Doctor, as a result, even if Mr. Orth had undergone a perfect L5-S1 discectomy in September 2010, we know that the L5-S1 disc would have been affected, right?

A That's right.

Q And we know that that would have altered his motion segments, as you've described, affecting how he moves his back.

A Yes.

Q And so the thing that would have led to this fusion, the first fusion you described, in 2025 would have been the abnormal motion from the L5-S1 disc that led to the development of mechanical back pain; is that true?

A Yes. That's -- it would have been associated -- or would have been contributing to mechanical back pain with abnormal motion.

Q All right. But that's why you do a fusion. If it's not mechanical back pain, you look for some other treatment, right?

A Yeah, by and large, but most likely it was the mechanical back pain.

Q All right. So, Doctor Yoo testified the other day and he didn't believe that Mr. Orth currently had facet pain; do you agree?

A I'm sorry, Doctor --

Q Dr. Yoo, a neurosurgeon hired by plaintiff to testify in this case testified the other day, he said he doesn't believe that Mr. Orth has facet-related pain.

A I haven't seen any testimony from Dr. Yoo, just so everyone knows.

Q Okay. Let me represent that to you.

A Okay. Okay. I just wanted to let everybody know. I haven't seen it, haven't reviewed it.

MR. PRINCE: Well, he didn't say any. He said minor facet pain, so he does -- you -- what you said is incorrect.

MR. LAURIA: Is that an objection or is that a --

MR. PRINCE: It is an objection.

THE COURT: Well, I guess that's an objection --

MR. PRINCE: You're misstating his testimony. Yes, that is. And --

THE COURT: -- so I'll sustain the objection. You can rephrase the question.

MR. PRINCE: -- therefore foundation.

BY MR. LAURIA:

Q If Dr. Yoo testified that he thought any facet-related issue was not a major issue in Mr. Orth and was not a major contributor to any pain he may currently have, would you agree or disagree?

A Well, just so you know, I -- the facet problem is there. It's been demonstrated by Dr. Ruggeroli and I think it's a minor component compared to the disc problem at -- on the mechanical back pain at L4-5.

Q Okay. And if Dr. Yoo testified that he can't say that L4-5 pain or mechanical back pain would have been any different if only L5-S1 had been done, would you disagree with that?

A Yes. I think that if there's any pain generation after a perfectly performed procedure at 5-1, then the mechanical back pain would have been at 5-1 more likely and less likely at 4-5, if any, but the facts of this case are that mechanical back pain is at 4-5.

Q If Dr. Yoo said it's theoretical -- it's theoretical but it's impossible in his opinion to state whether the pain is generated from L5-S1 or L4-5 or whether doing L4-5 put increased stress on the L5-S1 level, would you disagree?

MR. PRINCE: Objection; form, foundation, misstates his testimony.

THE COURT: That's kind of compound.

MR. LAURIA: Sure.

THE COURT: Yeah.

THE COURT: Let's break that one --

THE WITNESS: Yeah.

BY MR. LAURIA:

Q If --

MR. PRINCE: Well, show us the transcript. Maybe we'll just use it that way.

THE COURT: Well, he doesn't have to do that.

MR. LAURIA: I don't have to do that if I had one.

THE COURT: He can do it the way he wants to do it. Go ahead.

MR. LAURIA: Yeah, thank you.

BY MR. LAURIA:

Q If Dr. Yoo testified that it's theoretical that it may be that L4-5 put increased pressure on L5-S1, but it hasn't been studied, so he couldn't state that for a reasonable medical probability, would you agree with that?

A So, yeah, there is definitely theoretical based on -- but I'm basing on more likely than not. I can't prove that with a hundred percent certainty in this case, so I would agree that, yeah, he could -- hasn't proved it, but theoretically, it's true. And we look at the injection from Dr. Ruggeroli at 5-1, the pain generator is not at a disc at 5-1, it's 4-5.

Q Okay. Well, let me go back because I just want to clarify something. I asked I think Dr. Yoo that specifically could you state that to a reasonable medical probability and he said he couldn't. So you do disagree. You believe you can state that to a reasonable --

A Yes.

Q -- probability?

A I would disagree on that.

Q And I wanted to -- I'm glad you brought that up because I almost forgot about that. You said the pain generator is not L5-S1 and that's because that Dr. Ruggeroli did an injection in that area and Mr. Orth didn't get relief. Is that the

epidural steroid?

A Yeah, I'll clean it up a little bit for clarity. So he did an epidural steroid injection at 5-1, so the main pain generator is not the disc at 5-1. Disc is 4-5.

Q All right. Did he do an epidural steroid injection at 4-5 to see if that relieved his pain?

A No, he did not.

Q Okay. So your opinion that the pain generator is at L4-5 is based on the fact that Dr. Ruggeroli did an injection, at least in part, at L5-S1 and the patient didn't get pain relief, true?

A In part, yes.

Q Okay. But would you agree with me, Doctor, that immediately prior to the patient coming to Dr. Capanna in September of 2010, that Dr. Ruggeroli did an epidural steroid injection at L5-S1 and Mr. Orth didn't get any pain relief?

A Well, he got pain relief the first time diagnosing the problem. Now, the second one was therapeutic because the condition had advanced.

Q Let me ask it again because I'm not sure we're on the same page. So let me try again. You would agree with me that when the patient saw Dr. Capanna on September 1st, 2010, his primary pain generator was L5-S1 and that disc herniation, agreed?

A Yeah, disc -- disc generator pain at 5-1.

Q All right. And yet would you agree with me that within weeks prior to the patient seeing Dr. Capanna, Dr. Ruggeroli had done an epidural steroid injection at L5-S1 at that disc and the patient didn't get relief in response?

A There wasn't a permanent therapeutic benefit, correct.

Q All right. So the fact that Dr. Ruggeroli's injection of an epidural steroid

at L5-S1 did not provide pain relief didn't mean that Mr. Orth didn't have an L5-S1 disc that was causing pain in September of 2010, did it?

A Well, I think we're looking at a diagnostic center point for the second time. I don't know if there's any diagnostic utility in the injection, obviously no therapeutic.

Q Well, let me ask again because I'm not sure we're -- I think I understand what you're saying, but I want to be a little bit simpler because I'm not sure --

A If I could help you, can I look at Ruggeroli's most recent injection?

Q Let me just ask you and we'll get there. I'm -- and if Mr. Prince needs to ask every -- we only have so much time with you.

A Yeah.

Q So what I want to know is you told me that one of the bases for your opinion is the pain generator is at L4-5 is because Mr. Orth had an injection at L5-S1 and he didn't get relief, true?

A That's one component, right.

Q Okay. And I also asked you, well, did he get an injection at L4-5 that provided relief so you could confirm that it's L4-5, and you said he hadn't gotten that injection; do you agree?

A He was not.

Q All right. And then I said, Doctor, wouldn't you agree that the mere fact that a patient doesn't get relief from an injection in a disc or a disc area like L5-S1 doesn't mean that that's not what's causing the pain?

A That's correct.

Q All right. So because we know in this case that just weeks before, the patient goes to Dr. Capanna. He gets an injection at L5-S1 and it doesn't relieve his

pain, but nobody disputes that his main pain source was L5-S1, true?

A Right.

Q All right. So the fact that he didn't respond to an L5-S1 injection by Ruggeroli in 2014 doesn't mean that his pain is necessarily not being generated by L5-S1; do you agree?

A And I think we're looking at diagnostic versus therapeutic benefit, but it doesn't mean it's particularly excluded, but the clinical examination I performed with the patient indicates 4-5. That's the most important part.

Q And I'm sorry. I'm not sure you got my question maybe. Let's see if I can ask it again. I just want to know whether you would agree with the fact that he didn't respond to this injection by having pain relief, just as he hadn't responded to the one just weeks before Dr. Capanna saw him, doesn't mean that L5-S1 is not a pain generator.

A Can I look at Dr. Ruggeroli's --

Q Can you answer with my hypothetical?

A No, I -- because I need to look at it because there's two ways to interpret that. Every time a patient comes in after having an injection, I always ask them how did it -- how does your pain improve, and they're like, well, it didn't work because I'm still here and, like doctors tell you, I'm here.

So oftentimes if there's not a therapeutic benefit, they look at me perplexed like, yeah, it didn't work obviously. But we look at a diagnostic component of the injection to see if it's diagnostic and the pain was reduced a certain amount for a certain amount of time. So there's two ways to having to review that answer. I need to see what the diagnostic interpretation was.

Q All right. And you don't know what that was at this point?

A Oh, I don't know off the top of my head.

Q Well, let me just say in general you would agree with me that the fact that he didn't get a response doesn't in and of itself mean pain generator is not L5-S1.

A Well, if he didn't get a diagnostic response, it's less likely that's -- that's the pain generator.

Q You would agree with me I think, Doctor, and I think we want to make sure we're clear, but to a reasonable medical probability that Mr. Orth -- that sometime between end of 15 years after a microdiscectomy was done in September of 2010 would have developed mechanical back pain such that it would have been so significant that he would have required a fusion.

MR. PRINCE: Objection; asked and answered four times, Judge.

THE COURT: Exactly four?

MR. PRINCE: I thought I counted four.

THE COURT: I know.

MR. PRINCE: But anyway, asked and answered. Objection; asked and answered.

THE COURT: You can answer the question.

THE WITNESS: So yes, at L5-S1.

MR. LAURIA: Okay.

BY MR. LAURIA:

Q You -- Doctor, in your experience, you treat patients all the time in which you do microdiscectomies and they continue to have back pain, true?

A Yes, sir.

Q All right. That's not uncommon. It happens all the time.

A That's right.

Q All right. And again, there is no way to predict with any certainty whether Mr. Orth would have continued to have back pain or any back problems after a microdiscectomy even if done perfectly or not; do you agree?

A That's correct.

Q You would agree with me that Mr. Orth had a degenerative process that was going on in his lumbar spine at L5-S1 that had been there for a year and a half, two years at least.

A Yes.

Q All right. And that had been degenerating over time.

A That's correct.

Q It's going to continue to degenerate over time.

A That's right.

Q All right. And again, without any additional stress or levels being done.

A Correct.

Q When you met with Mr. Orth's -- strike that. If you were seeing a patient who is a football player to have a microdiscectomy done in September of 2010, would you discuss with them redshirting for that year?

A Yes.

Q All right. You would discuss with them redshirting because in all likelihood, while they may be able to return to some activity level within a few weeks, getting back to the strain of actually playing football was probably going to take months, agreed?

A Yeah. I mean, just the postoperative rehabilitation including physical therapy would probably last through the end if not past the end of the season.

Q Okay. And even in the best case scenario, they're going to miss the vast majority of season, true?

A Yeah, yeah. That's right.

Q All right. So it would be your custom and practice to discuss redshirting and when to go back, agreed?

A Yes.

Q All right. Do you know any surgeon -- or are you aware of any surgeon that has advised patients after a microdiscectomy that they could return to something like football within two, three or four weeks?

A No, I do not.

Q All right. That's certainly not in conformity with anything that you've been taught or you're aware of in the field of spine surgery, right?

A That's correct.

Q That would be ridiculous and outrageous in your opinion.

A Well it would -- it beyond what would be customary and used to seeing.

Q All right. I mean, you're -- you've trained with -- you're around other spine surgeons, go to meetings. You never heard anybody ever even talk about something like that, have you?

A No, I have not.

Q I want to ask you -- I just want to look at a couple of films because they've been shown a lot and I'm not sure they're clear to me, so can we go to -- yeah.

MR. CARDINALE: All right. That's it. It's ready to go.

MR. LAURIA: Thanks.

BY MR. LAURIA:

Q Now, this has been sitting on my computer for a while, so hopefully it does -- it hasn't reloaded, but I'm going to show you what is on the MRI of 10/6/10, series 3, image 9 of 15, sagittal 2 view, and then I have next to it the axial T2 from that same day, series 5, image 13 of 28.

A Yes.

Q All right. This is an image that you've been talking about quite a bit in fact that Mr. Prince had up today; is it not? You can --

A Yeah --

Q You've got it on the screen in front of you right there if you --

A Yeah, but I have to look at what you're doing --

Q Okay.

A -- because you're pointing there.

Q All right. That's the image that you were talking about with Mr. Prince earlier, correct?

A Let me see. You got a bad angle.

Q And we've -- that's why we've asked the numbers and what you were looking at and what he was showing.

A Yeah, yeah. There's two similar. I think this is one from earlier. There's another set just like 14 -- 914 is very similar, but yes, there might be some of those up there earlier.

Q Actually, there is no 14 in the sagittal T2 series on these X-rays, Doctor. There's only a series of 15 on sagittal T2.

A Okay.

Q So hold on. Let me -- I haven't asked a question yet.

A Okay.

Q You would agree that this -- this axial view coincides with the sagittal view, that is MRI readers come with markers, so when you read a certain portion of an MRI, the program automatically identifies for you where that slice is coming from the body. Do you agree with that?

A That's right.

Q All right. And so what -- we can move it back and forth and I could show you where this axial view is because we get a yellow line over here if I click differently, which would show exactly where the cut is. So whether it's at the disc level, in the bone, above the disc level, we can tell because it tells us on the film, right?

A That's right.

Q All right. In this case, what we can tell is that image 9 of 15 is a centerline view, correct?

A Yeah.

Q It's going basically as close as you can kind of get to right down the center of the spine.

A It's very close to center line.

Q Did you testify earlier -- I thought you testified the other day and then said again today that you could see indications of a laminectomy at L4 that were on that film. Did you testify to that?

A Yeah, it was a ligamentum and a lamina. It's tough to tell exactly what it is, but I can tell you that the disruption here is representing, I mean, not a complete hemilaminectomy but a laminectomy defect.

Q Is it your testimony, Doctor, that on a midline MRI film such as image 9, you can see the lamina?

A You can see --

Q No, I'm not asking about the axial view, I'm asking about this film. Is it your testimony under oath that you can actually see the lamina on that film?

A Can see more the -- where the lamina is coming into a confluence with the spinous process.

Q So can you actually see the lamina on that film?

A The lamina would meet the opposite lamina right here and form into the spinous process as you go posteriorly.

Q Okay. That's the axial film. The one that you've been looking at with Mr. Prince over here, I just want to know, Doctor, in your medical opinion, can you actually see the lamina on that film?

A Well, the -- well the lamina has been removed partially on this side and as the lamina meet each other, there's a finite -- there's a line that connects the two that (indiscernible) into the spinous process, so where the lamina would come in here, there's not existent.

Q I'm not sure -- can I get a -- are you saying yes, you can see it or no, you can't?

A Well, what -- no, what you've done here is you've taken a section up above this hole -- you've taken it right here across the disc. This is is where that section is represented.

Q So my question again, and I'm sorry, maybe I'm being dense, if you look at image 9 of 15, series 3 of the X-rays of 10/6/2010, can you visualize the lamina on that film?

A You can visualize the lamina --

Q I'm not asking about the about the axial view, I'm sorry, the sagittal

view.

A Okay. You can visualize the lamina here where that axial view's taken, yes.

Q Can you visualize the lamina at L2 or L3?

A This is the ligamentum and the lamina would be coming right here.

Q Not would it -- where it would be coming in. Can you actually see the lamina on that film?

A Yes, the confluence of bone right here behind L2-3 is continuous with the spinous process. That little sliver would be where the lamina (indiscernible) --

Q So that little sliver is all that you can see of the lamina on that film?

A Well it has to be a sliver because you're looking at a finite line through it.

Q Well, you're looking at a line that is center and the lamina is not in the center of the spine, is it? It's out lateral to.

A Well so the lamina have to come in like a rooftop and they meet. By definition they come together at a point. So yes, they're separated by maybe a fraction of a millimeter so lamina come together. Now on top of it lies the spinous process. We classically think of the midline being the spinous process, but if you dissect it through, the spinous process and lamina all meet at confluence of a triangle right there like Mercedes Benz emblem, but yes, technically, they all converge right here.

Q You're not a neuroradiologist, true?

A That's correct.

Q All right. And you understand that there's a specialty of people who are board certified who do nothing -- that are trained in reading spine films such like this.

That's their job, right?

A That's correct.

Q All right. And if a neuroradiologist were to testify that in looking at image 9 of 15, series 3, sagittal T2 of October 6th, 2010, that it is impossible to visualize the lamina on that film, would you disagree with me?

A I would disagree because I'd say the spinous process and the two lamina as they come together it's absent right there.

Q All right. And can you see -- all right. Fine. Let's talk about your surgery if we can. And it's your testimony, Doctor, that you can see o n that film an indication that a laminectomy has been done at L4, correct? I just as ed it yes or no. You don't need to point to anything.

A Well, you can see an absence right there.

Q On what? Absence of what?

A He's absent the ligamentum.

Q Yeah.

A It's a -- I mean, we're just looking at one slide there now, so there could be a sliver of laminectomy performed.

Q Okay. You -- now you said could be a sliver of laminectomy. I want to know if you can say to a reasonable medical probability looking at that film that there was a laminectomy, removal of bone at L4.

A Well, I saw it on the X-ray but you're splitting hairs with this.

Q No, I'm asking about this particular film because you've testified, I think, that this film shows laminectomy. I just want to clarify whether that's true or not.

A It confirms a (indiscernible) perform which I indicated on my records, yes, and I what saw visually with a microscope.

Q Okay. Thanks. Let's look at your operative report if we can. We'll switch over, if you would be so kind.

A What are the Bates?

Q It is Bates number 147 and 148 in your records. Do you have that in front of you, Doctor?

A Yes, sir.

Q Turn to page 2, please. Have you read this report? I'm sure you've read it to get ready to testify today, haven't you?

A Yes.

Q All right. And did -- was it pointed out to you in meetings with Mr. Prince prior to coming here to testify that I raised questions about some of the terms and some of the things you said in your report?

A Yes, I think we discussed those during the deposition.

Q No, that wasn't my question.

A Oh.

Q My question was did you have a discussion with Mr. Prince before coming here today to talk about some of the things that I pointed out regarding your operative report?

A I think he mentioned was any of L4 removed, the lamina.

Q Did you have a discussion with Mr. Prince before coming here about the things that I pointed out about your operative report? Yes or no, sir.

A He asked me if the lamina had been removed at L4 and I said it looks like it was partially removed. It's hard to tell with a scar if a sliver was taken. That's splitting hairs either way. But the surgery was performed at L4-5 and ligament was out and it was hard to tell if a sliver of L4 was removed or not.

Q So what you're saying is you may have removed a sliver of L4 but it's hard to tell?

A Well, no, I removed more of L4 because I had to chase the disc fragment.

Q Oh, okay. So what you're saying is the question that he asked you was whether you could say that Dr. Capanna had removed any of L4 and your answer was you couldn't tell with any certainty; is that true?

A Well, where the scar formation formed to the ligamentum, it's hard to tell how much if any was there or not.

Q So the answer is you couldn't tell with any certainty whether it had or had not been removed; is that fair?

A Well, there's scar tissue there, so I mean, it was a millimeter removed or not, I don't know if it was. It's splitting hairs really.

Q Okay. So as we come here today and we're talking, you cannot testify under oath that you saw that Dr. Capanna had, in fact, performed a laminotomy at L4; would you agree?

A Well, there's scar tissue at 4-5 and the ligamentum was removed. If they're split one -- if you took one millimeter away or not, it really -- it's inconsequential to the case.

MR. LAURIA: I'm sorry, Judge. Can I -- I believe the answer is nonresponsive.

THE COURT: Well, let's ask the question.

MR. LAURIA: So --

THE COURT: Just answer it as best you can.

THE WITNESS: Okay. I'm sorry.

BY MR. LAURIA:

Q Doctor, I just want to know whether as you sit here now you can say to a reasonable medical probability based on your training that in fact Dr. Capanna has formed a lamina -- had performed a laminotomy at L4?

A Well, because a laminotomy is technically -- even if you remove one millimeter at a one millimeter bite, then that's a laminotomy. I couldn't tell for sure how much of a laminotomy or if a laminotomy had been performed because the scar tissue really distorts normal anatomy.

Q Okay. So you couldn't tell because what happens is in the weeks when you went in there between September 17th and when did you go in, October 22nd?

A Yeah, and the --

Q There had been scar tissue that makes things hard to see, right?

A That's correct.

Q Okay. And my paper -- I have to use this. So we're talking basically five weeks or so after the surgery, there was all this scar tissue that had formed making it difficult to identify structures and see things, so you couldn't tell, fair?

A That's correct.

Q All right. Now, let's go back to your operative report if we can. Would you agree with me that there was some things in here that don't make sense? Do you agree with that?

A Can I just read it real quick? I mean, I -- I'm -- I did --

Q Sure.

A -- prepare for this.

Q Read the first paragraph if you would.

A Okay. The first full paragraph or just the first one on top?

Q You know what, you can read the whole thing, but you --

A Okay.

Q -- but have you read this to prepare for today?

A Yeah, absolutely. I read it a couple times this weekend but, you know, I've had a busy clinic and I've performed surgeries and I just need to review it one more time real quick --

Q Sure.

A -- because I've read -- I read a lot records the last three, four days.

Q When you're looking at that, will you please tell me anywhere that you describe performing any kind of removal of lamina at L4?

A Okay. Sorry. I read the first paragraph and --

Q Where have you -- is there anywhere in there you describe removing any lamina at L4?

A No, not particularly.

Q All right. You don't mention doing that, do you?

A No.

Q All right. And that is a -- was that an important part of the operation that you needed to mention in order to have an accurate and honest and truthful operative report?

A No.

Q All right. Because it was incidental to what you were doing, true?

A That's correct.

Q All right. In the case of Dr. Capanna, he does not mention removing any lamina at L4, does he?

A I need to refer to his real quick.

Q Well, that's okay. You don't need to go back.

A Sorry.

Q I think you've said if he did remove any lamina at L4, it was so inconsequential that you couldn't even see it, true?

A And the main part of the surgery is removing the disc that's violated.

Q Okay. So the other question that I have is you say that you removed the ligamentum at L4-5 and the large disc fragment went cephalad, right?

A That's right.

Q So that's above the L4-5 level.

A That's correct.

Q So you open up this disc space, you look at this disc, and you find the fragment has gone cephalad. That means it's above the L4-5 disc space, true?

A That's correct.

Q All right. And then what do you describe doing next?

A A hemilaminectomy at L5.

Q So what you say in your report is that the disc fragment is up here, true?

A That's right.

Q And that then you went down and removed lamina down here, right?

A Well, I adjusted this fragment by chasing it up and then went back down for the scar tissue below it.

Q Okay. Okay. I'm just going by what you wrote. I'm sorry. But you don't describe going and chasing the fragment or removing bone to get to the fragment, do you?

A I don't describe that there, no.

Q Okay. What you say is the disc fragment went cephalad and then a hemilaminectomy was performed below, down in this area, true?

A Yeah, so obviously I chased the disc and went -- cut it and pulled it cephalad and then went down below for scar.

Q Okay. Because you know you did that, but you agree with me it's -- that's not how your note exactly reads. It's not entirely accurate in that regard, is it?

A Well, it is accurate. It's not inaccurate, but doesn't read that I chased it up, did a bite here, bite there. I chased it, I got it, I removed the entire disc, I wouldn't leave it behind, and I went south for the scar.

Q Okay. So there were things that were done in your procedure like removing some of the bone at L4 that you didn't mention. There were some other things that you did that were part of your procedure and you didn't write them down. That didn't mean you were not telling the truth or you were hiding something, did it?

A No, that's right.

Q All right. Let's put up, if we can, the -- you took some plain X-rays of Mr. Orth's spine both before and after surgery, didn't you?

A Yes.

Q Okay. Oh, it's going to take a second because we got to switch computers, but let me ask you something in the interim. You would agree with me that an MRI is not the best study to look at both.

A I would agree with that.

Q All right. The best study is the CT scan but we don't have a pre-op and a post-op CT scan, right?

A Right.

Q So next best thing we kind of have, although it's not three dimensional,

would be plain X-rays will sometimes show bone better than an MRI.

A Yeah. That's correct.

Q All right. And so you took some plain films of Mr. Orth both when he first came to see you before you did surgery on him and after, right?

A That's correct.

Q And I just want to go back because I think your testimony was -- when Mr. Prince was asking you, was that in order to do an L4-5 discectomy, you have to remove lamina, true?

A No, I'm sorry. If I can recall, no, you have to remove the ligament. You have to reflect it back at least, usually remove it, and you could take a sliver, a millimeter, two millimeter, four millimeter. You should -- you can remove the bone, but it depends on the circumstances.

Q So, Doctor, it's -- you're saying that you did not testify in this case that you have to remove lamina to get to the L4-5 disc to perform a discectomy?

A Well, I needed to for sure in this case.

Q No, that's not my question.

A That -- no.

Q My question is you did not testify that in order to perform a discectomy at L4-5, you have to remove lamina at L4.

THE COURT: Just generally speaking.

BY MR. LAURIA:

Q Just generally speaking.

A Generally speaking, I don't believe I said you have to. You can and many times you have to.

Q But you would agree with me that L5-S1 is the -- basically the easiest

access space sometimes and you may not have to remove bone at L5-S1 to get into that space. You agree with that?

A Sometimes yeah, sure.

Q All right. So L5-S1 you'd be even more able to access without bone removal than you would L4-5, true?

A Sometimes.

Q Okay.

MR. LAURIA: Do we have that, Paul?

MR. CARDINALE: Yeah.

MR. LAURIA: All right.

MR. CARDINALE: Is this the one you wanted?

MR. LAURIA: Yep.

BY MR. LAURIA:

Q Doctor, you have the film in front of you. I think they were up there with Mr. Prince, but again, I want to be sure if we're right. What we're showing is here is lamina at L4 that you have removed; is that correct?

A Yeah, had to chase the fragment.

Q Okay. So again, that's lamina you removed at L4. You took a bite of that out to go get the disc fragment, but you didn't -- just because you didn't write it down didn't mean you didn't do it, right?

A Right, right.

Q And we've got evidence that you clearly did it in this case because it's on film, true?

A Correct.

Q And then these openings here are generally symmetrical on both sides

except here you've done a laminectomy that goes down the left side of L5.

A That's right.

Q All right. You could have done a smaller laminotomy, which is only a partial opening, but in this case because of scar or whatever reason, because you're five weeks post-op and it's harder to see, you decided to just open it up and give yourself a better view; that's true, right?

A Well, I was chasing the scar from 4 and 5 down. I need to see it terminate. I want to see the entire segment of the L5 nerve so I didn't leave anything behind.

Q Okay. And you would agree with me that the disc fragment as reported by the radiologist in this case was about four millimeters, true?

A That's his interpretation.

Q All right. And that the disc fragment is best seen on the contrast films.

A Yes, that's correct.

Q Because he describes it as non-enhancing, so what happens is they inject the contrast in, the scar tissue enhances and becomes white, and the little disc fragment -- the four millimeter disc fragment is a dark spot in that, right?

A That's right.

Q All right. And we haven't -- you haven't shown us one of those films yet, have you?

A I don't recall.

Q Okay. In any event, this reflects the bone and the lamina that you removed on -- after your surgery, true?

A That's right.

Q All right.

MR. LAURIA: Let's -- can we put up the other one, Paul?

Q You also took an X-ray of the spine of Mr. Orth the first day you saw him on October 10, and would you agree with me, Doctor, that there's no indication on that X-ray that Dr. Capanna had removed lamina anywhere in the spine?

A Can I look at the bigger screen quickly? They do look a little similar. Actually, this one comes down and this one comes back up a little bit.

Q And that's because it's angled because we can look at this one up here and it looks a little bit different than that one and this one looks different. We're not saying anybody did surgery up there, are we?

A No, that's correct. So they may look a little bit different, but this one kind of slopes down and this one definitely has a knob up here. This doesn't have a knob and that doesn't have a knob. This one has a little knob coming back up this way.

Q All right.

A You see probably a bite's been taken there. All these are smooth. On the other side they're all smooth. This one comes up and come -- that is notched.

Q So this one has a notch down here. Does that mean a bite was taken down at an L5-S1 in your opinion?

A I don't necessarily say notch. It's consistent with the MRI though (indiscernible) --

Q So in your opinion this X-ray shows that a partial laminotomy had been done where, at L-4?

A It looks like potentially it's right in here. It's difficult to tell. There are some variations, but looking at the MRI and looking at this, it's consistent --

Q So --

A -- with a bite -- would make it a millimeter bite or two.

Q So when you say potentially, it sounds to me like it could be but you're not really sure; is that true?

A Yeah, it's tough to tell. It's kind of --

Q All right.

A -- close.

Q So you can't say with any reasonable medical certainty that there's any evidence that a laminotomy was done at L4 by Dr. Capanna on this X-ray, agreed?

A Well it's not very impressive, no.

Q Okay. So my question was a little more specific. You agree with me that you can't state to a reasonable medical probability that this X-ray shows a laminotomy was done at L4 by Dr. Capanna, agreed?

A Yeah. If I'd only had the X-ray, then no, I wouldn't be that certain about it.

Q And you couldn't tell at the time of surgery whether there had been any laminotomy, that is partial removal of the bone at L4, because all the scar tissue had formed, right?

A Yeah, it's tough to tell.

Q All right. But your testimony is that you could tell five weeks at the same time of surgery that a box cut had been made in the disc because there wasn't any scar tissue surrounding that? Is that --

A Yeah, you're comparing apples and oranges.

Q So was there scar tissue that had formed around the area of the disc where you believe you saw box cutting?

A Yes.

Q All right. But you were able to identify, in your testimony, a box cut from removal of lamina?

A Oh, it's so different. I mean, you're talking about a scuff. Like on this would be a bone, take a scuff out, and then just flush it over with scar as opposed to you have a canal that's filled with scar that definitely wasn't there before and it's entrapping a nerve. It's apples and oranges, but --

Q Would you agree with me that on the sagittal T2 images, series 3 that were shown on 10/6 without contrast, that you cannot specifically identify the fragment itself on those films, that you need the contrast films to identify that?

A Yeah, I need the contrast.

Q All right. So for example, the film that we had up earlier or any of those sagittal views without contrast, wouldn't show it because it has to be a dark spot with a contrast against the white, true?

A Well, to distinguish scar from the -- from the disc, you would have to have contrast to distinguish them.

Q All right. Otherwise, if you saw kind of the big white area there, you don't know whether that's scar, whether there's a fragment in there, what it is. It just represents epidural fibrosis, true?

A Well, it looks similar with a disc or scar tissue.

Q So you can't tell the difference just by looking at that film, right?

A You would have to look at it with a microscope --

Q Okay.

A -- or with a contrast.

Q Thank you. Now, I just want to be certain that we're clear. In your medical opinion, to a reasonable medical probability, the only additional medical

expenses that Mr. Orth will incur in the future as result of the need for you to do a surgery afterwards is that the first fusion's going to cost approximately 8, $10,000, something more than he was going to have to have anyway, agreed?

A If you're talking about just the price of the surgery and --

Q Sure.

A -- the post-op rehab and excluding all the other life care plan kind of associated cost, yeah.

Q All right. Well, I mean, and I think you said the rehab is basically the same, maybe a little bit longer, but the physical therapy is going to be the same, so Mr. Orth was going to have to undergo all those things if he'd walked into your office on September 1st and you decided to do a microdiscectomy, true?

A If you're talking about strictly that part, yeah.

Q All right. And if he'd come into your office on September 1st, 2010, he was also going to have to have that second fusion surgery in 2042, or 17 years after the fuse version (sic), that's your opinion to a reasonable medical probability.

A That's right.

Q All right. So even the perfect surgery could not have prevented those, in your opinion.

MR. PRINCE: Objection; asked and answered, Judge.

THE COURT: I'm sorry?

MR. PRINCE: Asked and answered.

THE COURT: I couldn't hear you.

MR. PRINCE: Asked and answered. Objection; asked and answered.

THE COURT: All right. Mr. Lauria?

MR. LAURIA: Just kind of my last question, Your Honor, so --

THE COURT: All right. Go ahead. He can answer it again.

BY MR. LAURIA:

Q Even a perfect microdiscectomy at L5-S1, in your opinion, could not have prevented Mr. Orth from requiring fusion surgery in his spine on two occasions in the future, true?

A That's correct.

MR. LAURIA: All right.

THE COURT: Mr. Prince?

MR. PRINCE: Yes.

REDIRECT EXAMINATION

BY MR. PRINCE:

Q Well, I guess, Dr. Cash, do you think that Beau Orth is in the very same position now sitting here today, August 2015, as he would have been if, you know, the surgery would have been perfectly?

A No.

Q Tell us why.

A Okay. Because if a -- if a perfect surgery had been performed, he would have gone back to football, played his last two years, had a -- probably a reasonable life after that, maybe NFL, maybe not, but he wouldn't have been -- he would have had a advanced spine degeneration from the one-level discectomy.

Now, he has a significantly more advanced degeneration at three levels. He was prohibited from certain activities. I mean, he's got more pain. He wouldn't be in pain like this after an L5-S1 problem. He would still need the fusion in 10 to 15 years out, but he's really accelerated.

As opposed to the one-level discectomy if increasing the spine, I would

say 10 or 15 years, you got a three-level discectomy advancing at 25, 30. So he's essentially missed out on a great part of his twenties and his thirties by having three levels discectomized at 20.

Q And what age bracket, you know, would Beau -- would you even be considering Beau even having an L4-5 fusion in the future? Let's assuming you're right and the defense experts are wrong, and even one of ours, Beau's experts, let's assume that he required a fusion at 5-1 at some point within 10 to 15 years of the original surgery --

A Okay.

Q -- puts him in his mid -- when are we even talking about having a L4-5 fusion?

A In his forties.

Q Right. And so 20 years from now?

A Yeah, and he would have enjoyed life better with a one-level discectomy and then one-level fusion as opposed to a three-level discectomy and now a two-level fusion for -- you know, it's totally altered the course of the next 20 years.

Q Right. I mean, based on the way Mr. Lauria was questioning you, don't you think he's trying to like cherry pick parts of your opinions --

MR. LAURIA: Objection, Your Honor.

Q -- that may benefit him, right?

MR. LAURIA: Objection, Your Honor.

THE COURT: I'll sustain the objection and strike that.

MR. LAURIA: It's inappropriate.

BY MR. PRINCE:

Q Well, if you expect -- if you accept the opinion of Dr. Belzberg and Dr. Yoo, then none of this happened, right?

A Right.

Q And so therefore assuming they're right, then the need for surgery for an L4-5 and L5-S1 would be 100 percent related to what Dr. Capanna did due to the wrong level surgery, right?

A Their testimony I believe I was here for most -- I was here for all of Belzberg's -- said that if you have a discectomy and you have generation (sic), you're not going to need a fusion, so he'll say not need a fusion as opposed to needing a two-level fusion and a third-level fusion.

Q Right. And in a -- if a -- are we even having a conversation, Doctor, do you believe that Beau would ever even be a reasonable candidate for an L3-4, a third level to be fused had everything gone perfectly on September 17th, 2010 even using your analysis?

A Just -- as stated earlier, just a two -- two separate fusions.

Q Right. And I want to -- is it important to your analysis, Dr. Cash, that we're talking about now the primary pain generator and the need for surgery being L4-5 as opposed to L5-S1?

A Absolutely.

Q Tell us why.

A With a perfectly performed L5-S1, Dr. Belzberg thinks he'll never need a future surgery. I think he will need a fusion at 5-1 and in his forties a fusion at 4-5. But now he's degenerated at 4-5 significantly and he needs it in his twenties. Perhaps he might make it to 30, but he's advanced it so far 10 to 15 years. Plus, if quality of life after one-level discectomy is much better and then the -- than having a

two-level fusion in your thirties. So I mean it's not just the associated cause for the surgery itself, what is he forsaken, what has he been stripped of, what is his current situation in life and future medicals other than the surgery as a consequence of having three discectomies opposed to one.

Q Okay. Now, in Beau's case, we talked about -- remember Mr. Lauria was talking about well, you really don't know whether or not L5-S1 is a pain generator or not, right?

A That's what he indicated.

Q Right. And you know when you sent Dr. -- when you referred Beau to Dr. Ruggeroli for a transforaminal epidural steroid injection, there is some diagnostic information that's available from that --

MR. LAURIA: Objection; leading, Your Honor.

MR. PRINCE: It's a transitional question.

THE COURT: Well you can finish the question.

MR. PRINCE: Okay.

BY MR. PRINCE:

Q Is there diagnostic information available from the injection procedure performed by Dr. Ruggeroli?

A That's correct.

Q Okay. To determine, as one piece the overall clinical picture, what the source of the pain is?

A Yes, important.

Q All right. What I want to do is show you part of Exhibit Number 9. It's the pain record for the transforaminal epidural steroid injection from March 16th -- 26th, 2014, Bate number 406. Okay. I want to -- Dr. Cash, can you please explain

when a patient goes in for a pain management procedure, the practice for recording the pre-procedure pain score?

MR. PRINCE: And it's the top left box, Peter. Okay.

A Okay. So essentially, a patient will come in for -- present for the injection and the question is -- you know, this has been-- can I move that microphone? That's right in way of a couple people.

Q I'll move it for you.

A Thanks.

So you want to ascertain not only are you getting therapeutic benefit from the injection which is intent, but also what diagnostic information can we glean. So by having the patient come in on the day of the injection, ask what the pain score is, we know where our baseline is before the injection. After the injection is performed we can figure out how much, if any, is the pain reduced given his diagnostic information.

Q Okay. And in this particular case, what was Beau's preoperative pain score?

A Six out of 10.

MR. PRINCE: All right, Peter, I want you to go down to the procedure, so we know what we're talking about, right in the middle of the document. Right there, just pull it down to -- yeah. Start -- pull down from there, down, there you go. All right.

BY MR. PRINCE:

Q And where it says here T-F-E it looks like -- I don't know if it's a D. I don't know what that is, but can -- tell us what that is.

A Yeah. That's transforaminal. That just means in the foramin. Epidural steroid goes to the epidural space. There's a steroid injection. And it's performed

on the left. That's what that L with a circle is at S1 and L5-S1. So he's injecting the nerve roots --

THE COURT: As they're talking about right here, correct?

THE WITNESS: Yes, sir.

THE COURT: Okay.

THE WITNESS: That's correct

THE COURT: Thank you.

THE WITNESS: Right there. I forgot I could do that.

BY MR. PRINCE:

Q Yeah. And so as part of the procedure do they give some anesthetic to try to get some immediate diagnostic information in addition to the steroid which is more longer acting?

A That's right.

Q Okay. Well why don't you -- can you explain to the jury what things they -- when they do a procedure like this how they inject him and what with?

A So they usually take one syringe and it has three different things in it. One is a contrast agent to see if you're in the right space. It's not required but it's helpful. And the second two are like a Novocain, a Marcaine or a Lidocaine, something that will anesthetize any painful area. Like I explained the other day, if you have a sore tooth and you anesthetize it, the pain will go away. But if it's over here and you inject over here, it won't go away because it's not in the right area. Unfortunately you can see your teeth without an X-ray, but you can't see your spine without the X-ray so you have to use the X-ray to make sure you're in the right place. Then you use the anesthetic for the diagnostic reduction in pain, and the steroid is also in the syringe which will give therapeutic relief of pain hopefully.

Q Okay. When does the steroid typically kick in?

A Well, a steroid can kick in anytime within first week usually.

Q Okay. But not like within moments after the procedure. It's usually longer acting.

A Oh no, it would --if it were moments, then we wouldn't need the anesthetic. We use anesthetic for the moments --

Q Okay. All right.

A -- and then we use the other --

Q Okay. So now we know that he had a preoperative pain score of six, okay? And I want you to -- remember this is L5-S1 and we're going to go to Bate number 407 and we're going to talk about the pain level afterward.

MR. PRINCE: And let's go the top kind of right -- right in the middle of the page, Peter.

MR. CARDINALE: Right here?

MR. PRINCE: Says pain level to the far right. Right here.

BY MR. PRINCE:

Q What was his post-procedure pain score?

A It was unchanged.

Q What does that tell you about whether L5-S1 is a significant pain generator in Beau's case?

A Pain's not coming from there. It wasn't put -- it wasn't -- the anesthetic went to an area where the pain is not emanating from.

Q Using this piece of information in collection with all of the other available information to you, do you have an opinion whether L5-S1 in March of 2014 or now is a significant pain generator in Beau's case?

A It is not. It's the L4-5 level.

Q Is this the type of diagnostic information you use in your practice in caring for patients who have ongoing spinal issues?

A Of course this is a component of what we use and this is precisely why we do it and that's precisely why Ruggeroli does it that way.

Q Now, talking about an L4-5 fusion, let's stay with L4-5 for a minute. We're not talking under even using your approach, we're not talking about an L4-5 fusion until sometime in -- after 2040?

A Right. 2042.

Q And I guess in Beau's case, is it your opinion that he's a surgical candidate at L4-5 right now as you sit here in court today?

A Yes.

Q Why aren't you -- why don't you just go ahead and do surgery then?

A Well, once you do the fusion you relegate the patient to a second fusion because the first one's going to be sitting on top of a really crummy disc that's been a problem for eight years so we got to include both, otherwise we come back and redo it which is much more risk and much more expensive and he's going to have pain in that whole interval. You got to do them both. So the problem is you can't take the physics and biomechanics away with a fusion. They're hand in hand. So when you do a two-level fusion you're going to start wearing that 3-4 down right away. So as long as he can tolerate it in some way, please, you're only 25, stretch this out as long as you can. Don't harm yourself by injuring nerves and irreprehensible harm, but carry on and put off surgery as long as you can. We always recommend that for elective procedures.

Q Okay. And are you well familiar with Beau's condition after, you know,

being as involved in his care for almost five years?

A Intimately.

Q And regardless of whether you mention fusion in your first note or every note thereafter or never in any note, are you familiar with his care enough that you can testify under oath to your opinion that he requires a fusion surgery at L4-5, and you're going to include the second level at 5-1, as result of the wrong level surgery performed by Dr. Capanna?

A Absolutely.

Q Is that your opinion to reasonable degree of medical probability?

A Yes.

Q And beyond that are you certain?

A Yes.

Q There was a number of questions asked about -- of you, Dr. Cash, about whether there is even evidence of a laminotomy at L4. Do you recall that?

A Yes.

Q Do you recall reviewing the MRI report from Steinberg Diagnostic Imaging?

A Yes.

Q Let's go to Bate number 232 of Exhibit Number 5.

Thank you, Judge.

Let's look under the findings -- simple. Did Dr. Kuo, the radiologist, did -- based upon your review of the record, did he find an L4 laminectomy?

A Yes.

Q Do you recall reviewing Dr. Rimoldi's report, who is a defense medical -- who did the defense medical evaluation in this case?

A Yes.

Q Do you recall whether Dr. Rimoldi found on his review of the MRI from October 6 whether there was an L4-5 left-sided laminotomy?

MR. LAURIA: Objection; lacks foundation, calls for speculation.

MR. PRINCE: How would -- he said he reviewed it.

THE COURT: Well, you can --

MR. LAURIA: Well it may say it in the report, but how does he know that's -- he's not recording something else? I mean --

THE COURT: Well --

MR. PRINCE: Oh I'll show it to -- oh yeah, I'll show it to him.

THE COURT: -- it's --

MR. PRINCE: Yeah, that's fine, I'll show it to him.

BY MR. PRINCE:

Q Here let me show it to you --

THE COURT: Look --

Q -- let me show it to you.

A Which exhibit --

THE COURT: -- it's overruled. He can answer the question.

BY MR. PRINCE:

Q Oh answer the question.

A Yes.

Q Do you want to see it?

A Yeah, I like to see it also.

Q Yeah, here you go. Page 5.

A This is Dr. Rimoldi's medical record page 5 --

Q Yes.

A -- indicating lumbar spine MRI shows left L4 laminotomy was performed.

Q Okay, what does he say about an L5-S1 laminotomy?

A There's no laminotomy at L5-S1.

Q Did he review your X-ray of October 12th, 2010?

A Yes.

Q Taken in your office. Does Dr. Rimoldi in his report note that he sees an L4 laminotomy on that X-ray?

A Yes.

Q Okay. Do you agree with that?

A Yes.

Q Now, Cash, when we're talking about those -- before you did your surgery, you obviously reviewed the MRI imaging, correct?

A Of course.

Q Did you suspect at that point there was a combination of scar as well as disc fragment that had left the L4-5 disc?

A Yes.

Q What is more sensitive, Dr. Cash, an MRI or the -- you visualizing the disc using a high power microscope?

A The microscope.

Q By far?

A One hundred percent.

Q Why do you say that with such --

A There's no question.

Q -- certainty?

A Because I'm looking directly at the tissue, looking to see if it's scar, looking to see if it's disc material. I'm looking at it under a high resolution, even better than 20/20 vision. An MRI has technical challenges. It only takes certain slices. It could skip over. It could see part of the disc and skip over the rest of it. There's kind of a three dimensional reintegration of just -- it just can't see better than the human eye especially under a microscope.

Additionally I might add, the disc fragment that came out that's indicated as four millimeters by the radiologist doesn't mean that's all the disc material that can ever exist there. There's a wide gaping hole that was created by a box cut. Disc can come all out. There's a lot of disc material left. It can come out, expand and creep up. There was no MRI performed the second of surgery. A few weeks went by there was a gaping hole. Some squirted out already. More comes out and chases out. It's more like that there was more disc material coming up and not just relegated to a four millimeter only protrusion.

Q So do you believe that it can -- could Beau have even worsened from the time of his initial MRI of October 6th?

A Yeah, there's a wide open hole for disc material to come out.

Q I want you to look -- let's look at your op report for a few minutes. It's Bate number 148 of Exhibit Number 3.

A Okay.

MR. PRINCE: I want to go -- yeah, kind of there, Peter, all the way to -- through -- that's fine.

Q Okay. And it says -- you talk about, you know, your approach and that the L4-5 disc space was identified under fluoroscopy and, you know -- you said

there was a defect in the L4-5 ligamentum. Did you have to, based upon your review of the X-rays, you -- do some L4 laminotomy?

A Oh yeah, I performed more L4 laminotomy for sure.

Q What was the purpose of that?

A I had to chase the fragment up. It was going up the canal. It was heading cephalad towards the head and I had to find it. I had to visualize the end of it. I can't visualize towards the end of it, I must visualize the entire rest the segment to remove it to be certain that I don't have to go back in for more later.

Q Now, were you concerned about hey, unless I get in there, I don't want to leave any disc fragment behind between L4 and L5?

MR. LAURIA: Objection; leading, Your Honor.

THE COURT: I'll sustain.

MR. LAURIA: I'd like to hear the doctor --

BY MR. PRINCE:

Q Were you concerned about leaving any disc material between L4 and L5?

A Disc material and scar.

Q Okay. Why was it important to you to make sure you removed all disc material and scar between L4 and L5?

A Because if I did not he would probably remain symptomatic for nerve entrapment from the scar or the disc herniation and we'd have to go back in three weeks later and -- after another MRI and perform the surgery to complete the job.

Q And did you -- you said you went -- you chased it up. What do you mean? Are you saying this way, towards the head?

A That's correct. That's correct.

Q Was there fragment and scarring also below the disc?

A There was definitely scarring below the disc. I don't recall if there was a disc, but there was definitely scarring.

Q Okay. Let's look at your note. It says attention was turned to L4-5, and the epidural fibrosis was removed. What are you removing?

A Scar tissue.

Q Okay. And you said -- you also say as well as the disc fragment.

A Yes, that's correct.

Q How were you able to differentiate between epidural fibrosis or scar on one hand and what's the disc fragment on the other hand?

A Well, the same reason the MRI -- same way MRI does it. Scar is enhancing, meaning there's blood flow to it. It's red and angry. It looks mad. We've all had a scar. We've all had a deep cut, a wound, it looks red. There's blood flow going to it for healing. Disc doesn't have any vascularity to it, especially when it's poked out. It just looks like a little lobulated, like a little ball. So you can look definitively and see this is a disc and this is scar tissue.

Q Okay. So when you say discs don't have vascularity, you mean they don't have a lot of blood flow?

A Extruded disc like this has zero blood flow.

Q So would they appear red and angry like the fibrosis like you're talking about?

A Blood flow appears red. The disc with no blood flow, it doesn't have blood, it doesn't have red, it looks white.

Q So using a microscope were you clearly able to differentiate between the two?

A Absolutely.

Q Okay. There was questions asked of you a minute ago regarding using your surgical judgment, correct?

A That's correct.

Q And you always must use your best surgical judgment, correct?

A Yes.

Q And it's -- whether accidentally or intentionally, it's never a good use of surgical judgment -- well, strike that. It's never a good use of surgical judgment to go to a wrong or unintended disc level, correct?

A Yeah, by definition it's unintended, it's not -- that's not using surgical judgment. That's the opposite of surgical judgment if it's unintended.

Q Right. Intended mean (sic) I went up there with a purpose?

A Well, not -- you know, if you went up -- well, in this particular case if you went up to 4-5 -- he did not go to 5-1, but if he was at 5-1 and went to 4-5 to try to do some procedure he thought was indicated, that's okay. Perforate the L4-5 disc, there's no -- there's a hundred percent no reason to perforate the L4-5 disc.

Q Yeah, that would never be within the standard of care, would it?

A Not in this case, absolutely not.

Q Is that your opinion to a reasonable degree of medical probability?

MR. LAURIA: Objection, Your Honor.

MR. PRINCE: No, no, he opened the door to this, Judge. He opened the door to this by all the other questions.

MR. LAURIA: Excuse me. Excuse me. First of all, I don't like speaking objections. Okay?

MR. PRINCE: Okay.

[Bench conference begins at 4:33 p.m.]

THE COURT: Yeah.

MR. LAURIA: Why is he now asking a -- someone who's supposedly a treating physician standard of care questions in this case? I never asked this doctor a standard of care question. I asked him in practice whether things could happen -- those are risks to the procedures, but I did not ask --

MR. PRINCE: (Inaudible) --

THE COURT: I thought you asked him some questions in terms of standard of care?

MR. PRINCE: Yes, you did. You said isn't -- you can do (inaudible) standard of care you -- oh yeah, you --

MR. LAURIA: Well I didn't ask him what the standard of care was. I said --

MR. PRINCE: (Indiscernible) --

MR. LAURIA: -- even if the surgery was done within the standard of care, he's going to need a fusion.

MR. PRINCE: No, see --

MR. LAURIA: That's all I asked him.

THE COURT: Well --

MR. PRINCE: No, no you didn't. You asked about doing the procedure, about the (inaudible) --

THE COURT: I think you asked about it in terms of standard of care. I'm going to ask -- allow him to ask the questions. I just need to know how much longer you have with Dr. Cash.

MR. PRINCE: Like 10 -- five, 10 minutes.

THE COURT: Okay. All right.

MR. PRINCE: Okay.

MR. LAURIA: Because I got a little bit of redirect with him, Judge.

THE COURT: You're going -- we're stopping at five, I'm telling you right now.

MR. LAURIA: Well, I --

THE COURT: I mean you had ample opportunity to cross. You had ample opportunity to direct. They get ample opportunity do their redirect. If there's time left over when they're done, you can have some time, but I'm not -- you guys are playing with their time like it doesn't matter we can just keep going every day past 5:00. It's not happening today. Let's go.

[Bench conference ends at 4:34 p.m.]

BY MR. PRINCE:

Q And, Dr. Cash, and based on everything you know and based on the questions from Mr. Lauria earlier, was it within the standard of care for Dr. Capanna to go into the L4-5 disc space?

A No.

Q Okay. That's your opinion to a reasonable degree of medical probability?

MR. LAURIA: Objection, Your Honor.

THE COURT: Overruled.

THE WITNESS: Yes.

BY MR. PRINCE:

Q Did that injure Beau?

A Yes.

Q I want to just look at, just for briefly, demonstrative 5, please. I only have about five more minutes left, yeah. And when you compare the preoperative

and the postoperative MRI, you know, going almost a five year -- well, more than five years, when you look at that film, what does that show you as an orthopedic spine surgeon about the progression of Beau's condition at L4-5?

MR. LAURIA: Excuse me. We have two films, Your Honor, so if we can identify them, that will be great.

MR. PRINCE: One is the March 13, 2014, it's eight of -- sagittal 2, eight of 15.

MR. LAURIA: Thank you.

MR. PRINCE: And it's the February 3rd, 2009, we show -- it's eight of 15.

MR. LAURIA: I don't --

MR. PRINCE: Or nine of 15. Nine of 15 rather. Same ones I show every time.

BY MR. PRINCE:

Q Go ahead, Dr. Cash.

A Looking at L4-5, which is this disc, okay. And if you look it looks similar to all the discs above. I'm just marking on the side of them. So they're all bright and they're all plump. They have no abnormality as identified by any radiologist or any expert in this case. But if you look at the new film, the much more recent film, you'll see that these discs have maintained their integrity and their composure and their appearance. But at L4-5 you have a significant difference. White shows up -- or water shows up more white on a T2 image, which both of these are. So you have white spinal fluid that's on the -- sorry, that's on the gray part, but the white here -- that's off a little bit. The white here and the fat, the white in these discs are showing up white. This is white. It's got -- it's hydrated. It's a normal plump disc. And if you look over here, this disc -- sorry. How do you undo that?

MR. PRINCE: Thanks, Judge.