Case No. 85369

In the Supreme Court of Nevada

SIERRA HEALTH AND LIFE INSURANCE COMPANY, INC.,

Appellant,

vs.

SANDRA L. ESKEW, as special administrator of the Estate of William George Eskew,

Respondent.

Appeal from the Eighth Judicial District Court, Clark County
The Honorable Nadia Krall, District Judge
District Court No. A-19-788630-C

JOINT APPENDIX
Volume 10 of 18

D. LEE ROBERTS, JR. (SBN 8877)
PHILLIP N. SMITH (SBN 10233)
RYAN T. GORMLEY (SBN 13494)
WEINBERG, WHEELER, HUDGINS, GUNN & DIAL, LLC
6385 S. Rainbow Blvd., Ste. 400
Las Vegas, Nevada 89118
(702) 938-3838
rgormley@wwhgd.com

THOMAS H. DUPREE JR.
(*admitted pro hac vice*)
GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Ave. NW
Washington, DC 20036
(202) 955-8500
tdupree@gibsondunn.com

Attorneys for Appellant

CHRONOLOGICAL INDEX

ALPHABETICAL INDEX

Defendant's Reply in Support of Motion for a New Trial or Remittitur	7/20/2022	17	3530
Defendant's Reply in Support of Renewed Motion for Judgment as a Matter of Law	7/20/2022	17	3512
Pre-Trial Hr'g Tr. Feb. 10, 2022	2/10/2022	1	81
Pre-Trial Hr'g Tr. Feb. 11, 2022	2/11/2022	1	153
Joint Pre-Trial Memorandum	2/22/2022	2	231
Joint Pre-Trial Memorandum (First Supplement) (with exhibits)	2/28/2022	2	239
Jury Instructions—Phase One	4/4/2022	16	3312
Jury Instructions—Phase Two	4/5/2022	16	3354
Minute Order Denying Defendant's Motion for a New Trial or Remittitur	8/15/2022	17	3553
Minute Order Denying Defendant's Renewed Motion for Judgment as a Matter of Law	8/15/2022	17	3555
Notice of Appeal	9/14/2022	17	3557
Notice of Entry of an Order Denying Renewed Motion for Judgment as a Matter of Law	10/24/2022	18	3667
Notice of Entry of and Amended Judgment Upon Jury Verdict	10/24/2022	18	3659
Notice of Entry of and Findings and Conclusions as to Allegations of Attorney Misconduct	10/24/2022	18	3639
Notice of Entry of and Judgment Upon Jury Verdict	4/18/2022	17	3362

Electronically Filed
7/6/2022 1:12 PM
Steven D. Grierson
CLERK OF THE COURT

RTRAN

DISTRICT COURT

CLARK COUNTY, NEVADA

SANDRA ESKEW, ET AL., Plaintiff, vs. SIERRA HEALTH AND LIFE INSURANCE COMPNAY, INC., ET AL., Defendants.	CASE#: A-19-788630-C DEPT. IV

BEFORE THE HONORABLE NADIA KRALL
DISTRICT COURT JUDGE
FRIDAY, MARCH 25, 2022

RECORDER'S TRANSCRIPT OF JURY TRIAL - DAY 8

APPEARANCES

For the Plaintiffs: MATTHEW L. SHARP, ESQ.
DOUGLAS A. TERRY, ESQ.

For the Defendants: D LEE ROBERTS, JR., ESQ.
RYAN T. GORMLEY, ESQ.
PHILLIP NELSON SMITH, JR., ESQ.

RECORDED BY: MELISSA BURGENER, COURT RECORDER

Case Number: A-19-788630-C

INDEX

INDEX OF EXHIBITS

FOR THE PLAINTIFFS	MARKED	RECEIVED
108		31
31		190
71 (pgs 17 and 18)		218

FOR THE DEFENDANT	MARKED	RECEIVED
71-1		220

Las Vegas, Nevada, Friday, March 25, 2022

[Case called at 9:00 a.m.]

[Outside the presence of the jury]

MR. SHARP: And I apologize for some of this, Your Honor, I thought Mr. Gormley was doing the examination of Dr. Chandra.

So there's a couple housekeeping matters, I just want to make sure we're on the same page. Dr. Chandra had reviewed William Eskew Junior's, BJ's answer to interrogatories, so I want to make sure that's not going to be displayed to the jury in any fashion or such.

MR. SMITH: I had no intention of doing that, Mr. Sharp, or Your Honor.

MR. SHARP: The same with complying in terms of displaying -- because the complaint references the Plaintiffs and obviously Mrs. Eskew, you know, her individual capacity. Mrs. Eskew as well as Mr. Eskew.

MR. SMITH: Again, Your Honor, no intention of doing that.

THE COURT: Thank you, Mr. Smith.

MR. SHARP: Now Your Honor, I understand that you had denied our motion in limine to preclude Dr. Chandra, and I respect that. But there are issues that I want to put on the record, and I do think should be considered by you because I think it's going to -- I don't think these things are relevant. And, specifically, it's mostly to do with Dr. Chandra's opinions regarding the fact that if we don't do all these things

for utilization management premiums will increase. And there's nothing in this file about premium increases that's -- I mean, I think that is jury nullification, that is not a relevant factor.

So I can go through item by item, that's one item I'm concerned about. The other item I'm concerned about is I want to make sure that Dr. Chandra is not offering any sort of medical opinions. So what I mean by that is I -- he has -- no issue with him testifying about proton beam therapy, his closing, being a bad investment and all of that stuff clearly within his expertise. And I have no issue with him talking about utilization management as being a cost effective thing, that's fine as well. But he reaches a number of medical opinions in terms of proton beam therapy's not proven, it's not effective. He even cites to Dr. Khan's letter, which you had previously excluded.

And so I just want to make sure those things are not going to be asked of Dr. Chandra.

MR. SMITH: Your Honor, we don't anticipate eliciting any medical opinion from Dr. Chandra. But to the extent that his research into proton therapy has --

THE COURT: Come closer to the mic.

MR. SMITH: Yes. Ma'am.

THE COURT RECORDER: Right over there. There's one right --

MR. SMITH: To the extent, Your Honor, that Dr. Chandra's research into proton therapy among other, you know, medical procedures, medical devices and things like that nature and formed a

basis for his opinion as to why utilization management, which in one facet considers the applicability and the appropriateness of proton therapy in any given case. To the extent that he's done research into that and that has formed the basis of his opinion as to why utilization management is a good thing and why it confers a net benefit on society, then it's relevant.

MR. SHARP: I don't doubt -- I don't disagree he refers to it that way. What I have a disagreement with is if he uses the words, it's not medically necessary, and it's unproven. He hasn't reviewed the insurance policy, so he doesn't -- he's not here to offer testimony about the insurance coverage. He's not a doctor, so he can't make those decisions. That's my concern. I don't have a problem with him saying I did research. I didn't think -- you know, based on my research the outcomes weren't better, things like that. I have no issue with that. But then delving into the conclusion it's not medically necessary and unproven is clearly, that is clearly a medical decision in this context of how they're offering him.

MR. SMITH: So Your Honor, to the extent that Mr. Sharp is concerned that we are going to elicit testimony from Dr. Chandra that in this particular case proton therapy was not medically necessary, I don't anticipate he's going say that and I'm certainly not going to ask him that because I agree with Mr. Sharp. Dr. Chandra should not be able to opine that, and he cannot opine on that. But to the extent that he can say that in his research -- you know, through the course of his research he has found articles or done research himself or, you know, researched

learning treatises, whatever. And based on that he has determined that because there is an issue as to the proton therapy's efficacy in general that counsels his opinion as to why utilization management is important because it ties back into our position that utilization management is important. And it rebuts the Plaintiff's argument in opening statement and kind of throughout the course of this trial, especially with the testimony of Dr. Prater that utilization management is a facet of a rigged health care system.

MR. SHARP: First of all, I -- let me just point out, I don't understand how Dr. Chandra's personal views, he's not an expert about proton beam therapy, tie into the reasonableness of utilization management. That's a corporate decision. He's -- it's fair game for him to explain to the jury utilization management helps combat rising health care costs. That it combats and checks doctors. That it helps patients. All that stuff I'm not objecting to. But when he comes in and says, my personal opinion based upon my research, is I believe that -- I mean, that's effectively what Mr. Smith just said is that he believes it's not medically necessary. He can use all the words he wants, but that's the inference and that's the only reasonable inference.

THE COURT: Are there any additional issues, counsel?

MR. SHARP: What's that?

THE COURT: Any additional issues?

MR. SHARP: Yes. There are.

MR. SMITH: Do you need me to respond to that real quick?

MR. SHARP: So the other issue that I think really is more to

the core of the point, I am presuming that Dr. Khan's letter, journal letter that Dr. Chandra cited to and discussed in his rebuttal is -- that's not going to be part of his testimony?

MR. SMITH: Court's indulgence. Your Honor, I was just conferring with Mr. Roberts, I just wanted to make sure my recollection was correct that Dr. Khan's letter is not in evidence. I certainly don't plan on for instance asking him, part of the -- you know, did your review of Dr. Khan's letter refresh your -- or counsel your opinion, or anything like that. I don't plan on asking him that question.

THE COURT: All right. Thank you.

MR. SHARP: Okay. So specifically paragraphs 12 and 13 of the rebuttal report will not be presented?

MR. SMITH: Give me one second, Mr. Sharp. Let me grab that report, please. And I'm sorry, Mr. Sharp, which paragraph was that again? Was it 12 and 13?

MR. SHARP: Yes. From the rebuttal report.

MR. SMITH: I don't plan on asking him that question. To the extent that he -- to the extent in response to a question, you know, what kind of research counsels your opinion, if he starts to go down that road I'll shut him down.

THE COURT: Thank you, Mr. Smith.

MR. SHARP: Okay. His opinion -- specifically this is more of the meat of the stuff that I'm specifically concerned about. He has an opinion on page 4 of his report. Your Honor, if you don't have his report I can give you my copy and I can pull mine up on the internet on the --

it's Exhibit 195 I believe. It might be easier to follow along.

THE COURT: Which volume --

THE CLERK: It's this one, Judge.

MR. SHARP: I'm not sure because I'm not going off of paper.

THE COURT: Let's see.

MR. SHARP: It's Exhibit 192.

THE CLERK: 192.

THE COURT: Oh, 192.

MR. SHARP: And you can -- I can hand you mine. It's highlighted, but I can also just hand you my iPad.

THE CLERK: She's got it.

THE COURT: Oh Ms. Everett has it. Thank you. Exhibit -- All right. Exhibit 192, what page?

MR. SHARP: So we're at page -- we're page 4.

THE COURT: Okay.

MR. SHARP: And my concern is the opinion he expresses at page 4 at the first full sentence where it starts with higher health costs from inefficient in-care increased premiums --

THE COURT: Hold on. Page 4?

MR. SHARP: Yeah, page 4, Exhibit 192. I'm sorry, 192 page 5. I'm reading off of the number before.

THE COURT: Okay. So where are you now?

MR. SHARP: The first --

THE COURT: Higher health cost.

MR. SHARP: The first full sentence at the top of this bullet

point.

MR. SMITH: And I'm sorry, which page are you on, sir?

MR. SHARP: 195, higher health care costs.

THE COURT: The Court's read it.

MR. SHARP: So our position is that's not relevant, that's going plead to issues that substantially prejudice us and it's effectively a jury nullification argument.

THE COURT: Are there any other issues?

MR. SHARP: There are. Second sentence, given the fee for service reimbursements. Oh no, I'm sorry. I'm sorry, I didn't have -- that's just my highlighting.

Paragraph 27, he -- second sentence. Cites to over treatment regarding fear of malpractice. "Patient pressure, difficulty assessing medical records." Second sentence, "I have written extensively about medical malpractice and high rates at which U.S. physicians are sued and the toll that litigation takes on them". That's not relevant, prejudicial, jury nullification.

Paragraph 35, last paragraph that's on page 12 of Exhibit 192. "Thus utilization management benefits the insured by controlling insurance premiums." I don't have an issue with affordability of health insurance coverage, but controlling insurance premium is neither relevant and it's a jury nullification argument.

Paragraph 50, this is regard -- the entire sentence is regarding insurance premiums and making insurance premiums cheaper. That's a jury nullification argument and not relevant to this

case.

Paragraph 53 -- sorry, that was on my -- that was not an opinion I was concerned about.

Paragraph 61, first sentence -- well, the entire paragraph begins, "However, third incentive for providers to protect them from medical malpractice lawsuits". That's not relevant and it's jury nullification.

MR. SMITH: Mr. Sharp, are you done?

MR. SHARP: Yes.

MR. SMITH: Your Honor, do you need me to respond to any of that?

THE COURT: If you'd like to put anything on the record.

MR. SMITH: Just on the record, Your Honor, it doesn't go to jury nullification. It offers an alternate theory for why utilization management is important. It offers an alternate theory as to the alternate motive of utilization management. With regards to the testimony that we anticipate from Dr. Chandra about --

THE COURT: Go closer to a microphone.

MR. SHARP: Here, why don't you -- I can just switch with you.

MR. SMITH: Thank you. Your Honor, to the extent that Mr. Sharp is arguing that -- or excuse me. With regards to the testimony, the anticipated testimony from Dr. Chandra that, you know, physicians are concerned about medical practice -- or excuse me, of malpractice insurance and getting sued and things of that nature. That offers an

alternate theory as to why physicians may be more inclined to recommend or prescribe treatments that aren't medically necessary. I don't know that Dr. Chandra's going to say that. But that kind of ties into the theme that has been present throughout this trial that, you know, a physician recommending a treatment or prescribing a treatment the sole motive to do that must because it's the right the thing to do and they're can't be any other possible explanation. And so therefore, utilization management serves absolutely no benefit whatsoever in preventing a doctor's recommended treatment from going into effect.

And so the testimony about from Dr. Chandra that will inform the jury that are alternate motives or things that you should think about when assessing the appropriateness of a doctor recommending a specific treatment, that's highly relevant, Your Honor, and it's a major part of our defense.

THE COURT: Thank you. The Court's ruled on this before. The Court had read the reports. The Court does not find that these statements are jury nullification in any way. The Plaintiff has brought up cost rapidly. The Plaintiff has brought up utilization management. Both parties have discussed it with the jury.

Plaintiff's counsel has asked the jury to essentially send a message to the community that the only way the insurance company's going to change is by a very large verdict and that relates to money. And so the Defense is allowed to bring up money because Plaintiff has money a huge part of what is allegedly driving the insurance company to make these decisions.

And then --

MR. SHARP: Your Honor --

THE COURT: -- with -- no, hold on.

MR. SHARP: I'm sorry.

THE COURT: I don't interrupt you.

MR. SHARP: I'm sorry, I apologize, Your Honor. That was improper on my part. I did not mean to do that.

THE COURT: Thank you. With respect to the doctor's testimony regarding whether treatment is proven or not, he can testify based upon the foundation that will be laid by Mr. Smith of any studies that he has reviewed and his experience.

That's the Court's ruling.

MR. SMITH: Thank you, Your Honor.

THE COURT: Are the parties ready for the jury?

MR. SHARP: Yes, Your Honor.

MR. SMITH: Yes, Your Honor.

THE COURT: Thank you.

THE CLERK: Is Mr. Gormley going to be asking question now?

MR. ROBERTS: No. Mr. Gormley was scheduled to do Mr. Guerrero later this afternoon.

THE CLERK: Okay. I just want to make sure if I had to have BlueJeans up to where --

MR. ROBERTS: He was also scheduled to argue the motion for directed verdict in this case.

THE CLERK: Okay.

MR. ROBERTS: Mr. Sharp and I have talked, Your Honor, and we suggest that we argue that motion. We'll just make it to preserve our rights, but then argue it at the end of the day after the jury's dismissed --

THE COURT: Thank you.

MR. ROBERTS: -- if that suits, Your Honor's preference.

THE COURT: Thank you. Yes, thank you.

MR. ROBERTS: Thank you, Your Honor.

MR. TERRY: Your Honor, can I have Ms. Armington take the stand?

THE COURT: Yes.

THE MARSHAL: All rise for the jury,

[Jury in at 9:18 a.m.]

THE MARSHAL: Okay. All jurors are present.

THE COURT: Thank you. Do all parties stipulate to the presence of the jury?

MR. TERRY: Yes, Your Honor.

MR. SMITH: Yes, Your Honor.

THE COURT: Thank you. Mr. Terry, please proceed.

MR. TERRY: Thank you, Your Honor.

THE COURT: Madam Clerk, can you swear the witness in?

THE CLERK: Please raise your right hand. Thank you.

CRISTINA ARMINGTON, PLAINTIFF'S WITNESS, SWORN

THE CLERK: Can you please state and spell your first and last name for the record?

THE WITNESS: Cristina Armington, C-R-I-S-T-I-N-A, last names A-R-M, as in Mary I-N as in Nancy, G as in George, T as in Tom, O as in ocean, N as in Nancy.

THE CLERK: Thank you. You may be seated.

DIRECT EXAMINATION

BY MR. TERRY:

Q Good morning. Could you repeat your name so the jury can hear it. And there's a microphone there in front, so you're a little soft spoken, so.

A Cristina Armington.

Q Okay. Ms. Armington, it's our understanding that you are familiar with the Eskew family?

A Yes.

Q All right. And we're going to come to how that is in a second. But first, let me ask you a couple things about yourself. Do you live here in Las Vegas?

A Yes.

Q How old are you?

A I'm 29.

Q 29?

A Uh-huh.

Q And do you have -- tell us about your educational background?

A I have two bachelor's degrees. My first bachelor is from UNLV in biological sciences. My second degree is in nursing from

Roseman University here in town.

Q Okay. And are you working now?

A Yes.

Q What is your job?

A I'm a registered nurse.

Q Where do you work?

A At Summerlin Hospital in the step down unit.

Q In the step down unit you say?

A Yeah.

Q And how long have you been a nurse?

A Four years, three to four years now.

Q Okay. So tell us if you would, Ms. Armington, how it is that you know the Eskew family?

A I met BJ about eight years ago. I dated him. I was engaged.

Q You and BJ dated for a time, and you were engaged?

A Yes.

Q And that engagement came to an end?

A Yes.

Q So you're no longer dating --

A Correct.

Q -- or romantically involved with BJ, right?

A Correct.

Q Okay. But -- so you said about eight years ago, around 2014 you would have --

A Yes.

Q -- met BJ?
A Yes.
Q And about when did your relationship come to an end?
A 2021.
Q 2021, okay. Last year. Now during the time that you knew BJ and were involved in a relationship with him, did you come to know his family?
A Very much.
Q Okay. And did you and BJ started dating before Mr. Eskew was diagnosed -- Bill Eskew was diagnosed with cancer, right?
A Yes.
Q So were you able to witness yourself the family life of the Eskews?
A Yes.
Q Can you describe for us Bill Eskew's family life before he became sick?
A Very family-oriented and that was something that I really cherished about him.
Q Okay. Now tell us why you say that Mr. Eskew was a family oriented person?
A I remember first meeting Bill, and he made me feel very warm, and comfortable, and welcomed. And asked about me and about my family. And really just really cared about myself and how my future goals. And he talked about his family and I just -- as the years went on -- it's just hard. Sorry. You could tell that he cared about his family. He

was very involved in everyone's life.

Q Okay. So you witnessed his relationship with his son who you were dating, right?

A Yes.

Q What kind of relationship did those two have?

A It was nice to see. They had a mutual level of respect for each other. They shared the same goals. They had the same interests. They were best friends.

Q How about Bill's relationship with his daughter Tyler?

A Tyler's definitely a daddy's girl, if I had to define it. Bill had a very special relationship with Tyler and with Tyler's daughter Sophia.

Q Okay. Tell us about that.

A Sophia was papa's girl. She would light up every time she saw him.

Q She called him papa?

A Yeah.

Q So did you observe Bill Eskew in your opinion taking joy from his relationships with his family and his little granddaughter?

A Yes.

Q Did they do things together?

A All the time. I'd be over very often. And he'd make plans for our Sundays because he would have big Sunday family lunch, dinners everybody would be over. It'd be busy, loud and everybody would be eating and -- or jumping in the pool. It was happy and fun and warm and welcoming. He made it very easy.

Q So was Bill himself sort of an outgoing or energetic --
A Yes.
Q -- person?
A Very, very lively.
Q Now you know that cancer befell Bill?
A Yes.
Q And we heard that that was in the summer of 2015, playing golf broke his arm. You know that whole story --
A Yes.
Q -- right? And so then are you aware that he ended up going off to MD Anderson to be treated for what turned out to be lung cancer?
A Yes.
Q Okay. Do you know any of the details of --
A No.
Q -- any of that? You don't know anything about Bill's medical treatment or --
A No.
Q -- anything like that?
A No.
Q And you've not looked at his medical records --
A No.
Q -- and you've learned --
THE COURT: Hold on. Ma'am, we can only speak one at a time --
THE WITNESS: Sorry.

THE COURT: -- so just let him finish his sentence before you respond.

MR. TERRY: Sorry, Your Honor.

BY MR. TERRY:

Q And you've not been -- you didn't look at his medical records, we weren't involved in the insurance policy or anything like that, were you?

A No.

Q Okay. So -- but you did observe Bill when he came back?

A Yes.

Q And what I mean came back, I mean came back from getting his treatment at MD Anderson.

A Yes.

Q Was he the same?

A No.

Q Tell us about why not.

A He became very weak and tired. Eventually emaciated and withdrawn.

Q Okay. Did you observe Mr. Eskew having any particular problems following his treatment at MD Anderson, and specifically what I'm thinking of, see if you observed, is any problems that he had with eating, drinking, swallowing, that kind of thing?

A Yes.

Q Tell us what you observed, please.

A The man that would love to have Sunday lunches and

dinners with everybody he -- it hurt him to eat. It hurt him to drink water.

Q You could observe that?

A Yes.

Q And did that -- was that a persistent condition for him?

A Yes.

Q Did you observe him when he first came from MD Anderson?

A Not initially, but very shortly after it became a problem.

Q Okay. And did it remain problematic in some form or fashion for the rest of Bill's life?

A Yes.

Q And these are things that you observed with your own two eyes?

A Yes.

Q All right. That's all I have at this time.

THE COURT: Thank you. Mr. Smith?

MR. SMITH: Thank you, Your Honor. May I proceed, Your Honor?

THE COURT: Yes, Mr. Smith.

MR. SMITH: Thank you.

CROSS-EXAMINATION

BY MR. SMITH:

Q Good morning, Ms. Armington.

A Good morning.

Q My name is Phillip, I'm a lawyer for Sierra, and I'm going to ask you a couple of questions, okay?

A Yes.
Q You started off by telling us that you're a nurse, correct?
A Yes.
Q And how long have you been a nurse?
A Three to four years.
Q Three to four years?
A Uh-huh.
Q Is that a yes?
A Yes.
Q Okay. See if I ask you that it's not me being a jerk, it's just so the court reporter can write down that you're actually saying yes.
A I understand.
Q Okay. And then I'm going to ask to do me a favor, and I'm going to try to do the same, and that is for us not to talk over each other, okay?
A Yes.
Q Okay. You're a little soft spoken, ma'am, and I understand the circumstances, but I'm going to ask you to just speak up a little bit, okay?
A Yes.
Q Okay. So you told us you've been a nurse for three years and from what I understand that's currently at Summerlin Hospital?
A Yes.
Q What kind of nurse are you?
A ICU step down. I believe it'd be considered a critical care

nurse.

Q Okay. And so generally what kind of patients do you encounter on a regular basis?

A I stabilize vital signs, ensure that patients are protected as far as needing life support, or I -- and more of airway breathing circulation issues.

Q Based on what --

A Acutely. Acute issues.

Q So based on what you said would it be fair for me to assume that you deal with patients who are kind of in bad shape sometimes?

A Yes.

Q And in your encounters with these patients do you find that they tell you exactly what's going on with them, what's wrong with them?

A Sometimes, no.

Q Sometimes, no?

A No.

Q Okay. And so if the patients don't tell you what's wrong with them then how do you as a medical professional know how to assist them?

A Critically think.

Q I'm sorry?

A You think critically.

Q Okay. Would you agree with me as a general proposition that patients when they go to a medical professional to seek help, they're

probably likely to tell the medical professional what's wrong with them, i.e. what brought them into the hospital in the first place?

A Yes and no.

Q Okay. I understand from your prior testimony that you've actually --

MR. SMITH: Strike that.

BY MR. SMITH:

Q Do you recall testifying previously at a deposition?

A No.

Q Back on November 15th, 2021, do you recall being asked some questions by a lawyer?

A Yes.

Q In regard to this case?

A Yes.

Q Do you remember having to swear to tell the truth?

A Yes.

Q That's what I mean by deposition.

A Okay.

Q Okay. So now do you recall testifying at --

A Oh yes. Sorry, I didn't hear you.

Q No problem, no problem. There are a lot of people who don't know what the word deposition. But surely you remember answering some questions under oath?

A Yes.

Q Yes?

A Yes.

Q And I'm just asking you to repeat because I notice we're still kind of talking over each other, so we're both going to be better to avoid that, right?

A Sorry.

Q No problem. I understand from your prior testimony that you have had some experience dealing with cancer patients?

A Yes.

Q Yes. And it's my understanding that you would come to deal with cancer patients from critical -- from a critical care standpoint kind of when they were having bad issues with their vital signs and things of that nature; is that correct?

A Yes.

Q Can you give us an estimate just for foundational purposes, and I don't need an exact number. But can you give us an estimate during the course of your career how many cancer patients you've dealt with?

A That I can think of?

Q Yes, ma'am.

A Four to five.

Q Four to five cancer patients?

A Yes.

Q Okay. And can you tell us based upon your experience as a general proposition critical care patients that have cancer that come into your kind of area, would it be fair to say that some of them were late

stage and hence that's why their vital signs were failing?

A Most of the cancer patients I've dealt with were those that had -- just had some kind of radiation, chemotherapy treatment and that was causing their body to go into shock, and they needed additional resources to control their heart rate. Make sure they weren't going septic.

Q Okay. So that kind of ties in with my next question which is, would you agree with me that as a general proposition a person has cancer, its late stage, they're not beating it like they maybe thought they would. Those patients tend to get weak, be fatigued, things of that nature kind of is a natural consequence of the cancer?

A It can be.

Q Okay. It's not unheard of, right?

A It's not unheard of.

Q Okay. And again, in your experience as a critical care nurse dealing with patients who are having serious issues, specifically with regards to cancers patients, it's not unheard of for cancer patients to suffer organ failure?

A Not unheard of.

Q Okay. Kind of again along with their cancer spreading and progressing?

A Not unheard of.

Q Okay. And then obviously unfortunately some of them ultimately die, right?

A Correct.

Q That's kind of just a natural consequence of cancer, right?
A Correct.
Q Okay. Now we'll switch gears a little bit because there was some testimony about your relationship with William Eskew Jr., affectionately known as BJ, right?
A Yes.
Q I believe you told us that your guys' relationship ended in 2021?
A Yes.
Q When in 2021?
A May or June.
Q Okay. So almost a year ago?
A Yeah.
Q And are you still in contact with BJ currently?
A No.
Q When was the last time you talked to him?
A Last year. The last time we were together.
Q Okay. So you had --
A May or June.
Q Okay. So it's been since May or June since you spoke with him?
A Yes.
Q How about Mrs. Eskew, BJ's mother?
A Often.
Q You speak to her often?

A Yes.
Q When was the last time you spoke to Mrs. Eskew?
A Yesterday.
Q Did she talk to you about this case?
A No.
Q Has she ever talked to you about this case?
A No.
Q It's your testimony that Mrs. Eskew has never talked to you about this case?
A Not the details, just that it's happening.
Q Okay. And we already heard testimony based on questions that Mr. Terry asked you where you don't really know anything about Mr. Eskew's medical condition and --
A No.
Q -- the status of his progress medical records, right?
A Correct.
Q Okay. Suffice it to say you don't know why a treatment he may have wanted didn't get approved or anything like that, right?
A I have no idea.
Q Okay. Just a couple more questions, ma'am. You told the jury that based on your recollection Mr. Eskew started to have problems very shortly after he returned from MD Anderson and then those problems pretty much remained, excuse me, constant the rest of his life, do you remember telling us that?
A Yes.

Q Okay. You don't remember the exact timeframe when any of that happened, do you?

A No.

Q Okay. So you telling the jury that this happened shortly after he returned from MD Anderson and continued throughout, that's just kind of based on your recollection, right?

A Yes.

Q Okay. In fact previously you testified at a deposition, did you not, that you don't remember the exact timeframe that you witnessed Mr. Eskew after his treatment?

A I don't understand the question.

Q Okay. Do you recall testifying previously at a deposition that you don't remember the exact timeframe when you saw Mr. Eskew after he came back from his treatment?

A Seeing him in person? No. Like I said in my deposition, no. I was over at their house pretty often.

Q I'm not disputing that you were over at his house. I think we can agree you were dating his son at the time, right?

A Correct.

Q Okay. But I think at some point you were engaged to him, right?

A Yes.

Q Okay. So what I'm trying to ascertain from you is when you made these observations about Mr. Eskew's declining health. Because you told us on direct examination that you noticed this almost

immediately after he got back from treatment and that your observations continue until he passed away. Do you remember telling us that?

A Yes.

Q Okay. So what I'm trying to find out is do you recall testifying previously that you actually weren't sure of the timeframe, i.e. when precisely you would have observed Mr. Eskew having these problems after he got back from treatment?

A No. I didn't write them down. I didn't -- no.

Q Okay. So no you don't remember or no you didn't -- you don't recall saying that at the deposition?

A I recall saying that, I don't remember the timeframe.

Q Okay. So then if you don't remember the timeframe it's just as likely that these observations that you made could have happened more closer to when he was getting ready to pass away after as we all know his cancer had spread, correct?

A I disagree.

Q Do you recall testifying previously that you actually don't know and don't remember when you noticed the change in Mr. Eskew?

A I don't remember, and I don't recall exactly when.

Q Okay. Well, you just told us you recall that it happened shortly after he got back and that it went through kind of all the way until he passed away?

A Correct.

Q Let me ask you this, Mrs. -- excuse me. Let me ask you this, Ms. Armington. In your capacity as a critical care nurse have you dealt

with patients who received information that their condition had gotten worse during the course of your encounters with them?

A Yes.

Q Would it be fair to say that as a general proposition that patients who receive news that their condition has gotten worse that's something that might cause them distress?

A Yes.

Q Have you seen that actually happen in a patient?

A Yes.

Q Okay. And so would you agree with me as a general proposition that a person who has been diagnosed with cancer and then who later learns that the cancer has spread that that fact alone might cause them a significant amount of distress?

A Absolutely.

Q Okay.

MR. SMITH: May I have the Court's indulgence?

THE COURT: Of course.

MR. SMITH: Thank you. Your Honor, thank you. Thank you for your time, ma'am.

THE COURT: Thank you, Mr. Smith. Mr. Terry?

MR. TERRY: No further questions, Your Honor.

THE COURT: Ms. Armington, you're excused. Thank you. Mr. Sharp, you can call your next witness.

MR. SHARP: Before we rest, Your Honor, I just wanted to move to admit the entirety of Exhibit 108. I think only a couple pages got

admitted yesterday.

MR. ROBERTS: No objection, Your Honor.

THE COURT: Exhibit 108 will be admitted into evidence.

[Plaintiff's Exhibit 108 admitted into evidence]

MR. SHARP: What's that?

THE COURT: Exhibit 108 will be admitted into evidence.

MR. SHARP: Okay. And with that, Your Honor, the Plaintiff's rest.

PLAINTIFFS' REST

THE COURT: Thank you. Mr. Roberts?

MR. ROBERTS: Thank you, Your Honor. At this time we would like to make a motion under Rule 50A(a). I propose that I'll authorize my office to file that immediately, but that we postpone argument until the end of day so that we don't delay the jury.

THE COURT: All right. Argument will be happening later in the day without the presence of the jury.

MR. ROBERTS: Thank you, Your Honor. And at this time Mr. Smith will call our first witness.

THE COURT: Mr. Smith?

MR. SMITH: I'm sorry, Your Honor.

THE COURT: That's okay.

MR. SMITH: Your Honor, the Defense calls Dr. Amitabh Chandra.

THE COURT: Thank you.

THE CLERK: Please raise your right hand.

AMITABH CHANDRA, DEFENDANTS' WITNESS, SWORN

THE CLERK: Will you please state and spell your first and last name for the record?

THE WITNESS: Amitabh Chandra, A-M-I-T-A-B-H C-H-A-N-D-R-A

MR. ROBERTS: The Court's indulgence just for a minute, Your Honor.

THE COURT: Of course, Mr. Roberts.

MR. ROBERTS: We're just discussing the demonstratives that we plan to use.

THE COURT: Thank you.

DIRECT EXAMINATION

BY MR. SMITH:

Q Good morning, sir.

A Good morning.

Q Can you please introduce yourself to the jury?

A My name is Amitabh Chandra. I am a professor of economics, public policy and business administration at Harvard University.

Q Okay. Is that located in Cambridge, Massachusetts?

A It is.

Q And are you here today as an expert witness?

A I am.

Q Are you being compensated for your time today?

A I am.

Q And for the record, how much are you being compensated for your time?

A I'm being paid $800 an hour.

Q Okay. Now, before you came here today, did you review some documents pursuant to a request and then prepare a report after your review of documents?

A I did, yes.

Q Were you compensated for that time as well?

A I was.

Q And you told us that you're being paid $800 an hour. Is that your standard rate?

A It is.

Q And, to be clear, that's your standard rate for consulting work?

A Yes, it is.

Q Can you tell us, just to get this out of the way, how much have you charged in this case, if you recall?

A I did most of my work last year, and I was paid $13,300 last year. And I haven't billed any hours this year --

Q Okay.

A -- but I hope to do so.

Q Understood. And how many hours would you say you worked on this case last year?

A I would have to look at my records for that.

Q Okay. Are you able to tell us how many hours you worked

on this case this year, or would you also have to look at your records?

A I would, yes.

Q Okay.

A But I could give you that answer quickly.

Q Would that refresh your recollection? Because I anticipate Plaintiffs' counsel's going to ask you that.

A Yeah. I think if you give me a few minutes, I could kind have probably open up my laptop and look at hours and --

Q We'll come back --

A Okay.

Q -- to that. So --

MR. ROBERTS: We don't need to --

MR. SMITH: Yeah.

MR. ROBERTS: We don't need to deal with that right now.

MR. SMITH: I appreciate it. We'll come back to that.

BY MR. SMITH:

Q Without getting into your opinions, when you first got involved in this case, what issues were you asked to review?

A I was asked to think about and report on the economic considerations that might be relevant in this case, particularly the role of incentives and the role of efficient healthcare delivery.

Q And I asked you previously if you reviewed some documents in order to kind of do what you were asked to do?

A Yes.

Q Can you tell us what documents you reviewed?

A I reviewed a number of documents. So for the first report, which I believe I filed it May of last year, I read the complaint, I read the plan documents.

Q By plan documents, do you mean Mr. Eskew's health plan document?

A Yes --

Q Okay.

A -- Mr. Eskew's health plan documents.

Q Okay.

A And then I read a variety of reports from the Plaintiffs.

Q Okay.

A And I listed them all in appendix B of my report.

Q Okay.

MR. SMITH: Can you pull up that document?

BY MR. SMITH:

Q During the course of your preparation for this case and prior to your report, did you also review any publicly available documents?

A I did. I reviewed several publicly -- public documents that I cited in my report. I also canvassed the academic literature on economic considerations in the delivery of efficient healthcare.

Q And just for the record, as relevant for our purposes -- as relevant for our purposes today, is your canvass of documents with regarding to economic considerations and healthcare also include documents specifically related to what's known as proton beam therapy?

A Yes. Yes. I reviewed the documents that I am familiar with

on proton beam therapy because it's technology that I research --

Q Okay.

A -- in my own academic world.

Q Okay. And so, to be clear, have you done research on proton beam therapy even before you came involved in this case?

A Yes. I've been doing research on proton beam therapy for over 12 years now.

Q And just for my edification and the jury's edification, why the interest in proton beam therapy?

A For economists like me, we focus on a technology like proton beam because it highlights for us a variety of challenges that American healthcare has to confront with. So U.S. healthcare has to confront many new medical technologies. Proton just highlights for us a particular challenge because it's so expensive, and the evidence base for it is -- at the time that I was doing my research, and even now -- in my professional, quite weak. So for economists like me, we think it's important to study these Bellwether technologies like proton and stents because they inform how we should think about all medical technologies.

Q And you mentioned stents. For the uninitiated, what are stents?

A Stents are -- I'm not a physician, first of all, so I will -- I will just explain this in English. A stent is something that you might put in a person's coronary artery right after they had a heart attack. So there's a blockage in the coronary artery and you put a little piece of mesh in the

coronary artery, a little wire mesh, that holds up the coronary artery and restores blood flow. It's a remarkable technology, it's a wonderful technology, but it can be overused. Meaning it can be given to patients who might not benefit from it. So that's something that our healthcare system has to grapple with.

Q And based on your -- in your role as an economist, that's something that you have researched to kind of --

A Yes.

Q -- form your opinions about healthcare economics?

A Yes. Yes, I have.

Q And just so we're all clear, Dr. Chandra, it's my understanding that you were researching proton beam therapy and other kind of similar medical technologies long before you were retained as an expert in this case?

A That's correct.

MR. SMITH: If we can go to -- oh.

BY MR. SMITH:

Q Dr. Chandra, I want to take some time to go through your background into what we proposed permits you to testify in this case.

Can you please describe for us your educational background?

A I have a Ph.D. in economics from the University of Kentucky, I have a bachelor's in economics from the University of Kentucky, and I have an honorary degree from Harvard University.

Q And, incidentally, how long did it take you to get your Ph.D.?

A Four years.

Q That's pretty good. I've heard it usually takes people six years to sort of get a Ph.D.

A Yeah. My parents are still unhappy that I ever got the Ph.D. So, yeah.

Q All right. And so what do your current position -- what does your current position entail?

A I'm a professor, which means I do teaching, and I do research. When I teach at Harvard University, I teach students from the Kennedy School of Government. I teach MBA students from Harvard Business School. I teach medical students from Harvard Law [sic] School. I teach law school students from Harvard Law School in my classes on U.S. Healthcare Policy.

Q You say -- it may have been a mistake, but you say you teach medical students from Harvard Law School. Did you mean you teach medical students from Harvard Medical School?

A Correct.

Q Okay. Have you taught at any other universities, Doctor?

A Yes. I've taught at Dartmouth College, and I've taught at MIT.

Q And, to be clear, Harvard University, that's known in America as an Ivy League School?

A Yes, it is.

Q What about Dartmouth?

A It's also an Ivy League School.

Q How long have you been teaching at Harvard?

A I joined the faculty in 2005, and I've been teaching continuously at Harvard since then.

Q So 17 years?

A Yes.

Q Okay. How long did you teach at the school prior to Harvard?

A Five years at the other universities.

Q Okay. So you've been involved as a professor of economics for over 20 -- over two decades?

A Yes, I have.

Q Now, Doctor, what is your -- what does your research focus on?

A So I'm very interested in the opportunity and the challenges with new medical technology. So new medical technology can offer incredible promise, hope, a reduction in suffering to patients. New medical technology can also offer false hope and can be harmful to patients. So I'm interested in the question of how does society use these technologies in situations in which they're beneficial and not use them in situations where they may not be valuable to patients. That's the core question that I have studied for the past two decades.

Q And why is something like that important to an economist like yourself?

A So economics as a discipline is -- concerns itself with tradeoffs. So that's what we are always interested in as economists. So

what we worry about is a world in which we adopt and pay for technologies that don't work, that don't benefit patients. But then we're not thinking carefully about what that means for premiums, for affordability of health insurance for other members of society, what that means for the growth of deductibles and coinsurance and copays, which really hurt patients, what that means for taxes, what that means for wages.

So studying this relationship between, you know, what are we getting from the healthcare system and what are we giving up to get it is a key question in economics.

Q Now, Doctor, has any of your research ever been featured on any well-known stations, media outlets or publications?

A Yes. It's been published and featured in the New York Times, a variety of other outlets, like the Wall Street Journal, CNN, and PR.

Q Have you ever received any recognitions for your efforts and/or your research?

A I've received a few prizes in my life, yes.

Q Okay. Have any government bodies ever called upon your expertise?

A Several have. I'm -- I have been for many years, and I continue to be, on the Congressional Budget Office's Panel of Health Advisers. CBO, as it's known is -- reports to Congress on what different pieces of federal legislation in healthcare will cost. So CBO consults with a variety of economists like myself on how it should think about different ways to pay for healthcare, different ideas in healthcare. So that's one --

one thing I've done.

I've also served the Commonwealth of Massachusetts, my home state, as Special Commissioner on provider price reform. I've testified to the United States Senate, and I've testified to the United States Commission on Civil Rights.

Q And let me just back a step. In what capacity and/or what did you testify about in front of the United States Senate?

A So the Senate back in 2008 was very interested in how it should think about healthcare reform. So both Republicans and Democrats in 2008 wanted to engage with, you know, the unfinished agenda around insuring Americans. And I was called in to testify, because a lot of my research is focused on ways in which you can make health insurance more affordable by not paying for things that don't work.

Q And did that coincide kind of with a -- or the development of the Affordable Care Act?

A It did, yes. Those hearings led to the Affordable Care Act, yes.

Q And so you testified in those?

A Yes.

Q And then how about the U.S. Commission on Civil Rights?

A That was a related conversation but a separate conversation. I have a lot of -- I've done a lot of research on racial disparities in healthcare and how we can reduce these racial disparities in healthcare and the role of regulation and market forces in reducing racial disparities

in healthcare.

MR. SMITH: Audra, can we bring up Dr. Chandra's CV, please?

BY MR. SMITH:

Q Dr. Chandra, I'm just going to take a few minutes to go through some -- what I think are parts of your C.V. that highlight your expertise. Fair to say your CV is pretty long, correct?

A If you say so.

Q Okay. All right. So --

MR. SMITH: Audra, can you zoom up on the -- yes, so let's just bring it up.

THE COURT: Is this an exhibit?

MR. SMITH: It's a demonstrative --

THE COURT: Okay.

MR. SMITH: -- yeah. Sorry. I didn't make that clear.

BY MR. SMITH:

Q So this would be your CV, correct?

A Correct.

Q And, in fact, did you include it as attached as a -- as an addendum to your report?

A Correct.

Q Okay.

MR. SMITH: And then, Audra, if you could bring up and point.

BY MR. SMITH:

Q Now, I see here at the top kind of -- we're going to start at the top and work our way down --

A Yeah.

Q -- and not go through every entry. But July 2020 to present, John H. Makin, visiting Scholar, the American Enterprise Institute, can you tell us about that, Doctor?

A The American Enterprise Institute is a think tank based in Washington, D.C. It's a think tank that works with Congress and congressional staffers on thinking about a variety of policy ideas. And I'm visiting them to help them, their staff, their economist's liaison with members on -- of Congress to think about Medicare reform and payment reform, drug policy, pricing reform in the United States.

Q How about July 2018 to present, that's just simply an indication of you being a Professor of Business Administration at Harvard Business School?

A That's correct.

Q Okay. And then the next entry, July 2015 to present, does that just memorialize that you are also a Professor of Public Policy at the Harvard Kennedy School of Government?

A That's correct.

Q And, incidentally, Doctor, what types of things do you teach in that capacity?

A To clarify, Counsel, you mean at the Kennedy School of Government?

Q Yes.

A So the class I'm currently teaching this semester at the Kennedy School of Government is U.S. Healthcare Policy, and how payment reforms in the United States, how private initiatives in the United States have to constantly balance innovation against affordability.

Q Okay. And then if we go to the bottom, the Panel of Health Advisers at the Congressional Budget Officer -- excuse me -- at the Congressional Budget Office, you told us about that, but can you kind of just tell us what the Panel of Health Advisers entails?

A Yeah. So, like I said, the Congressional Budget Office has to tell Congress how much any piece of legislation that Congress passes is going to cost the Federal Government, any piece of legislation. So if Congress is thinking about an insurance expansion, there's going to be a price tag associated with it, and it's the CBO's job to tell Congress that if it were to insure, say, 20 million Americans, then the price tag for that is a trillion dollars. And going into that calculation is going to be a series of determinations about when we insure people, how much healthcare are they going to consume.

When we insure people, what will be the ability of physicians and insurers and regulators to say no to medical technologies that don't work? If we insure people, what new medicines might companies start to invest in? And so that's why CBO engages where a wide group of economists and physicians in helping it come up with those estimates.

Q And so, just to be clear, it's not just economists involved, it's also physicians?

A Yes. It's economists and physicians, yes.

MR. SMITH: And then if we can go to the next page, Audra, please? And then if we could -- just the previous positions part? Yeah, thank you very much.

BY MR. SMITH:

Q So the second entry, you mention -- you mentioned to us Special Commissioner, Massachusetts Commission, and provider price reform. Tell us about that, Doctor.

A Well, as you know -- or as you might know or the Court might know, Massachusetts had passed healthcare reform in 2006 under Governor Romney. And at the time in Massachusetts, even though we insured a lot of people in Massachusetts, we felt like there were some really -- there was some unfinished business around why healthcare is so expensive. Why are the hospitals, in particular, charging such high prices.

So the legislature set up a commission on provider price reform and selected me as the health economist representative to this commission, which comprised physicians and other hospital leaders.

Q And then I also see you consulted in April 2011 to 2016 for Microsoft research?

A Yes, I did.

Q And what was that about?

A Well, that's a -- you know, yes, you might wonder what do I have to do with Microsoft research --

Q I do?

A -- Microsoft as a company -- it's a very big company -- you

know, they decided as a company that they wanted to get involved in healthcare. And, in particular, they became very interested in the idea that patients facing high deductible health plans might be able to shop around. And as part of their shopping around, maybe patients could figure out what are the high value services, what are the low value services.

So they were interested in this idea of whether consumerism in healthcare, patient led, you know, determinations of what work and what doesn't could lead to a better healthcare system. So they had me visit and do my research there during that time period.

Q Okay. What did your research uncover?

A You know, I had to update on my research. I had always thought that patients when give up data on prices and quality would be able to shop around for lower priced providers and higher quality providers. But, you know, the research I did there found pretty convincingly that that was not the case. When patients are sick, they're confused, they're tired. They don't really act like consumers the way one might act if you're walking into a car dealership or into an Apple store.

Q Okay. And has that research kind of formed some background for the opinions that you have today that you anticipate expressing?

A Yes, that research is featured in my opinions today.

Q Next we see July 2008 to 2012, coeditor of Journal of Human Resources. Can you tell us a little bit about that?

A So human resources, it has a variety of different

connotations and different disciplines. But in economics, human resources is about healthcare, it's about labor market, it's about wages, it's about education. These are all topics that are central to healthcare because as healthcare becomes more expensive, we often have less money to spend on social welfare, on children, on police forces.

And so that's that piece about, you know, when society starts to spend a lot of healthcare, it has to give up spending on these other things. So this is a journal that's intimately involved in conversations about those kinds of tradeoffs.

Q And, Doctor, is that kind of a theme that kind of pervades your research over the past two decades that, at least from an economist's perspective, there's always come kind of balancing act that the healthcare industry and society as a whole has to kind of remain cognizant?

A Right. I think that's a great way of -- of summarizing it. I'm very interested in, you know, when we adopt medical technologies that work that benefit patients, how do we pay for them. And then what are the side effects, the consequences of a system that adopts medical technologies that don't benefit patients. And a lot of those -- a lot of that research is featured in my -- in my expert report today.

Q And we'll get to that and the specifics in a second. But, suffice it to say, Doctor, that in your research, and you indicate in your report, that insurers do play some role in that balancing act?

A Yes, that's correct.

MR. SMITH: Audra, if we can go to the bottom of that page,

consulting and advising -- consulting and advising. Can you just bring that up?

BY MR. SMITH:

Q Now, you -- you have operated as a consultant before, Doctor?

A Yes, I have.

Q And in what capacity?

A Well, all my consulting experience is listed in the exhibit that you have in front of you. Starting in 2020, I started working with the Analysis Group, which is a litigation consulting company. I serve on the advisory board of two companies; SmithRx and -- and Kyrus, which means that I advise their CEO and leadership on how they should be thinking about business strategy.

HealthEngine is a company that I co-founded with a physician lawyer back in 2013. I co-founded it, but, as you know, my primary job is to be a professor and teacher. So I'm -- I know actually very little about how HealthEngine is doing. So I'm not involved in their daily operations.

And then several years ago I worked as a consultant to a company that was run my friends of mine called Precision Health Economics. This was a company did consulting. It wasn't litigation consulting, but it was consulting in the life sciences space. How should the United States government think about pharmaceutical innovations, how should companies think about pharmaceutical innovations, how should they think about R&D around pharmaceutical innovations.

Q And not to cut you off, but R&D, research and development?

A That's correct. R&D is research and development.

Q Were you going to say something else?

A No. My first consulting job was at the RAND Corporation, which is a think tank out in California. And I did that for a year while I was still in graduate school.

Q So then just to be clear, Doctor, I don't see on here any insurance companies or anything of that like.

A No. I've never consulted for an insurance company.

Q Have you ever had, to be clear, prior consulting relationship with United Healthcare or Sierra Health and Life?

A No, I have not.

MR. SMITH: Audra, if we can go to the next page, please? And then awards and recognition.

BY MR. SMITH:

Q You told us a couple of minutes ago that you have received some recognition and some prizes. The first one, "Elected member, National Academy of Social Insurance, 2019." That's pretty recent. Can you tell us what that's about, Doctor?

A The National Academy of Social Insurance is sort of an honor society comprised of people who have worked in government, academics, physicians, lawyers, people who think about social insurance. And when I say social insurance, I'm thinking about Medicare, Medicaid, the Disability Insurance program, Social Security.

Q And how about the second one? I'm not going to go through

all of them, but just a couple that I think kind of form a foundation for your expertise here. The --

A Yeah.

Q The National Institute for Healthcare Management?

A We won an award that's given annually by NIHCM. That's the acronym. And this was an award that we received for our, research, which showed that when patients are put into high deductible health plans, they cut back on medical care in ways that are really haphazard and potentially damaging to their health. I think that that's relevant to this case because it suggests that patients are unlikely to be the right arbiters of which technology is going to work for them and which one -- which ones are not. Because in our research, what we found was patients facing a high deductible health plan would often cut back on life-saving medicines and life-saving technologies.

Q Which would seem counterintuitive, would it not?

A I think it's consistent with the world in which patients don't have information on what works and what doesn't.

Q How about the --

MR. SMITH: Skip down two, Audra.

BY MR. SMITH:

Q "Elective member, National Academy of Medicine?"

A The National Academy of Medicine is one of the three leading national academies. There's a National Academy of Medicine, the National Academy of Science, the National Academy of Engineering. I was elected to the National Academy of Medicine in 2012. The

academy is mostly physicians, but they do let economists in once in a while.

Q And then the next one, I see you won a medal for Best Economist Under 40?

A Yes, I did.

Q And then it appears you are in the Alumni Hall of Fame for your alma mater?

A I am.

Q And then here's one I think I know, but I want to ask you. Kentucky Colonel 2005. I'd be remiss if I didn't ask you what that was.

A That's an honor that's given to citizens of Kentucky, Kentuckians, whoever brought honor to the state. So that's an award that's given by the Governor of Kentucky.

Q And I understand that those aren't handed out like candy?

A I don't know about that.

Q "Kentucky Economic Association, Best Paper Prize 1998"?

A That was a while back. I was a graduate student in 1998, and I won an award back in 1998 at the annual meetings for the best paper that was presented at the annual meetings.

Q So, suffice it to say, it looks like you've been winning -- winning awards since 1998 kind of up to the present date? Yes?

A Yes.

MR. SMITH: And then, Audra, if we can go to underneath there, "Public Service"?

BY MR. SMITH:

Q Suffice it to say, you have done some public service as well, Doctor, correct?

A Yes, I have.

Q And we talked about some of that. We see member of Congressional Budget Office and then your testimony.

MR. SMITH: Audra, if we could go -- we could skip the next page. All right.

BY MR. SMITH:

Q Now, we're not going to go through any of these, but this lists all your papers. And by my count, you have 33 papers in economics that you've published; is that correct?

A That's correct.

Q All right.

MR. SMITH: And then, Audra, if you can skip the next page. And the next page.

BY MR. SMITH:

Q And then we have four working papers in economics, correct?

A Correct.

Q And then fair to say you've done several papers on health policy and -- in general?

A That's correct.

Q By my count, it's 71?

A Correct.

Q Does that sound about right?

A Yes.

MR. SMITH: And then, Audra, if you can keep going to page 12.

BY MR. SMITH:

Q You've been published? Is that what we can see here, published commentaries?

A Correct.

MR. SMITH: And then if we could skip to page 14, Audra. So that's the last page.

BY MR. SMITH:

Q And then it's cases.

MR. SMITH: If we can bring up -- there you go. Thank you, Audra.

BY MR. SMITH:

Q Now, I'm just going to ask you about your most recent paper here, January 2021. The paper is titled, "Value-based Insurance Design at Onex." How does -- how does that have any relevance to this case and what you were asked to do?

A Well, I think it highlights -- the case is about how a business -- how a private business can think about balancing the benefits of health insurance against some of the affordability challenges. So employers are -- insure something like half of all Americans. Onex is a very large employer. And this is a case that highlights the opportunity for employers to think about making it easier for patients to access life-saving medicines like diabetes medicines and statins and hypertensives,

but at the same time creating a variety of -- a variety of solutions that would restrict employees from getting healthcare that doesn't really benefit them.

MR. SMITH: And then, finally, Audra, if you could bring up major grants.

BY MR. SMITH:

Q You've received some grants; is that correct?

A That's correct.

Q Can you just kind of explain to the jury how you receiving these grants coincides with your research in which we heard you talk about today?

A Yeah. So all the grants that you see on the exhibit are from the U.S. Federal Government. And if you look at the titles, you know, "Causes and Consequences of Healthcare Intensity," that is the Federal Government funding me and my collaborators to ask questions around what -- why is healthcare so expensive, so intense in the U.S.? What are the causes of that intensity? Intensity means the use of these very expensive technologies. But also at the same time how do we think about the consequences? What does it mean for patients, for payers, or providers and for society when we adopt these very intensive medical technologies?

Q Okay.

MR. SMITH: Audra, can you bring up the PowerPoint, please?

BY MR. SMITH:

Q Now, to be clear and to kind of summarize all of this, your background's pretty established, but you are here to testify as an expert, right?

A Correct.

Q Is expert work for litigation something that you normally do?

A I've done it since 2020. Yes.

Q Specifically expert work for litigation?

A Yes.

Q Okay.

A Expert work for litigation, yes.

Q How many times have you testified at trial?

A Never. This is my first time.

Q So fair to say you don't typically -- this isn't something that you typically do?

A No. I don't take a lot of cases, Counsel.

Q In fact, have you ever turned down the opportunity to serve as an expert in a lawsuit?

A Yes, I have.

MR. SMITH: Audra, if we could --

BY MR. SMITH:

Q Let's talk about the work you've formed in this case. If you can just summarize it for us in a nutshell. What did you do in this case, Doctor?

A Well, I've read the complaint, the plan document, and thought about the economic considerations, the -- in this case related to

balancing the use of a new medical technology against what it means for premiums and a varieties of other social consequences from less affordable healthcare.

Q And, to be clear, that specific medical technology was one that had already been familiar with, correct?

A That's correct.

Q And do you recall that your deadline to submit a report was in May 2021?

A Correct.

Q And do you recall what you did specifically to prepare that report?

A Yes. I read the -- for the May '21 report, I read the complaint, I read the plan document, I read Sierra's management policy, looked at a variety of documents, many documents, many, many documents that I summarized in appendix B.

Q And, to be fair, there's a lot of research and literature on the issues that you're going to address, correct?

A Yes. Yes, there is.

Q And you canvassed all that literature?

A Yes, I did.

Q And do you remember preparing a supplemental report in October 2021?

A That's correct.

Q What did you do in between May and October?

A I read the reports submitted by Mr. Flood, Mr. Prater, and

Andrew Chang, Dr. Chang, for the October '21 report.

MR. SMITH: Your Honor, at this point I'd move to qualify Dr. Chandra as an expert witness on healthcare and economic considerations, including efficient healthcare and incentives, as discussed in his reports and as anticipated that he will testify to today.

THE COURT: Counsel, will you approach?

[Sidebar at 10:19 a.m., ending at 10:19 a.m., not recorded]

BY MR. SMITH:

Q Doctor, is this -- would this be a summary of your opinions that you reached in this case?

A Yes, it would be.

Q This talks about opinion number one, "Utilization Management has an Important Role in the Pursuit of Efficient Healthcare." Can you just tell us -- let's talk about --

MR. SMITH: Let's go to the next slide.

BY MR. SMITH:

Q Let's first talk efficient healthcare. As we can see here, what is it, Doctor? What's meant by the term efficient healthcare?

A Efficient healthcare is healthcare that would exist in a world where the benefits from healthcare far exceed the cost of providing that healthcare. That's the simplest definition of what is efficient healthcare.

Q And what are the factors that contribute to inefficient healthcare?

A There are a variety of factors that contribute to inefficient healthcare. So inefficient healthcare then, just to be clear, is when the

cost of delivering the care, the societal cost of delivering it are greater than the benefits. And so why would it happen? It could happen for many reasons. One reason might just be defensive medicine. Physicians are -- I've done research on defensive medicine. Physicians might be offering tests and procedures to reduce the threat of litigation.

Another reason why we might have inefficient care is that we have a -- physician beliefs that the care might be effective. The beliefs may be incorrect. A third reason might be financial incentives. So a physician might be paid extra money to prescribe a more expensive medicine than a less expensive medicine. You could also have patient beliefs creating an inefficient healthcare. Patients might believe that a new medicine or a new procedure is going to be really important to their outcome, but it might be -- and it might be an unfounded view.

And then, finally, it could also be that healthcare is inefficient because the government, which is a huge purchaser of healthcare, is paying for healthcare inefficiently. And so a lot of inefficient healthcare is getting produced because of the government's large role in -- in healthcare.

Q Okay. Now, in the left of this slide, there's an article entitled, "Aspirin, Angioplasty and Proton Beam Therapy: The Economics of Smarter Health-Care Spending." Was that article, in fact, written by you?

A It was. It was written my me and Katherine Baicker, who's the dean of the School of Public Policy at the University of Chicago.

Q And, suffice it to say, the University of Chicago is kind of a known powerhouse in the field of economics?

A It is. Absolutely.

Q And what journal was this article published in?

A This was a report that we wrote for the annual meeting of the central banks in Jackson Hole, Wyoming. It's an annual meeting that happens every August. And all the central bankers from all the countries get together. So, you know, someone like Ben Bernanke was the head of the U.S. Central Bank, the Federal Reserve, and you have bankers from Japan and the EU. And what they're doing is they're thinking about the big forces out there that affect global economies and central banks.

And one topic that they were very interested in is U.S. healthcare spending and why it's going up so quickly. What can governments do about it and what will happen to global financial markets if the U.S. Government doesn't do something about the dramatic increase in healthcare spending.

So we wrote this paper just to highlight three very simple technologies, you know. Like aspirin, angioplasty, which is sort of another word for stent, and proton beam therapy as kind of high -- it's a paper that is about -- it's just using these three technologies to highlight some of the challenges before the United States.

Q And then what's the significance of this particular excerpt that we see highlighted?

A I think it highlights the tradeoff between, you know, what happens when you adopt medical technologies, whose benefit is substantially less than the cost or whose benefit is unknown. You know, it lands up -- it lands up meaning a lot less money for all the other things

the government could be doing.

MR. SMITH: So let me go back to the right.

BY MR. SMITH:

Q I was actually going to ask you why is efficient healthcare important? And I see you have on the right, "Why does it matter"?

A You know, inefficient healthcare, what it's going to do is -- someone has to pay for that inefficient healthcare, right? So we've got a technology whose benefit is less than the cost of producing the technology. But someone has to pay for that. So what -- how do we pay for it? What happens is premiums go up for everybody when we deliver inefficient healthcare.

And so what my research focuses on is what happens when premiums go up? Well, when premiums go up the, the first thing that happens is that health insurance becomes less affordable to other people. They can no longer buy health insurance. Wages start to fall because a larger share of compensation is now health insurance instead of wages. Taxes start to go up because the government has to ultimately pay for all of this inefficient healthcare. Some employees get moved from full-time jobs with health insurance part-time jobs without health insurance.

Q And, Doctor, here we're looking at a graph entitled, Healthy Expenditures in the U.S. Increased Each Year per capita." What does this show for us?

A Well, this is sort of a way of saying, you know, if you think about per capita, per person's spending on healthcare in the United

States, what does the trend line look like? So if you look at just the change from 2010 to 2020, our average healthcare spending has increased by approximately $4,000, right, from about $8,400 to about $12,500. So that's about $4,000.

And so the question that people like me are interested in is, okay, so we're spending $4,000 more per capita on healthcare. What are we getting in return? Are we getting $4,000 of benefit or more? In which case, things would be efficient. But if we're getting less than $4,000 of benefit, then this would be inefficient -- an inefficient increase in healthcare spending.

Q Okay. This slide is titled, "My Research Finds that Patients in the U.S. Receive More Specialized Procedures that have High Costs and Unproved Benefits." And kind of point are you trying to get across via this slide, Doctor?

A So this -- what you have over there is a paper that I wrote with two physicians in the New England Journal of Medicine. What we're trying to do is we're trying to tell policy makers, stop thinking about these technologies as always efficient or always inefficient. It's much harder than that. These technologies are often efficient for some patients but can be inefficient in other patients.

And we're making that point using the example of stents. Stents can be life saving for someone who's just had a heart attack. If I've just had a heart attack and you put a stent in me, I could get many great years of life. But if I had a heart attack three days ago, and you put a stent in me, that has no medical benefit in the clinical trials because the

heart tissue has already died. And so putting an expensive stent in a person with dead heart tissue doesn't confer any medical benefit. So that second use of a stent is an inefficient use of a stent.

And so what you need is a set of policies that allow these technologies to be used when they work and say no to these technologies when we think that they're not going to work.

Q And that helps promote overall efficient healthcare?

A That's correct.

Q Now, incidentally, you indicated that this was published in the New England Journal of Medicine. What is the New England Journal of Medicine?

A It's one of the big flagship medicine -- journals in medicine.

Q And you indicated that you wrote this article with a physicians?

A Yeah. I think physicians -- a growing number of physicians are worried about this tradeoff, which they're not able to balance. Because I think when you go to medical school, at least in my understanding of -- in medical school, they're not taught economics, they're not thinking about this tradeoff. They're thinking about medicine, they're thinking about how much will this technology maybe help this patient, or what do I think based on what I learned in medical school, how much would this help my patient.

But they're not able to think about what does it cost? How much does it cost? What happens if it creates some incremental benefit in a patient, but the cost was so much greater than that incremental benefit?

What are the societal implications of that inefficient care?

Q And that -- again, that's something that you've been researching for quite some time?

A Yes.

THE COURT: Counsel, we're going to take a 15-minute recess.

Ladies and gentlemen, you are instructed not to talk about each other or with anyone else about any subject or issue connected with this trial. You're not to read, watch, or listen to any report of or commentary on the trial of any person connected with this case or by any medium of information, including, without limitation, newspapers, television, the Internet, or radio. You're not to conduct any research on or own relating to this case, such as consulting dictionaries, using the Internet, or using reference materials.

You're not to conduct any investigation, test any theory of the case, recreate any aspect of the case, or in any other investigate about the case on your own. You're not to talk with others, text others, Tweet others, Google issues, or any other open kind of book or computer research with regard to any issue, party, witness, or attorney involved in this case. You're not to form or express any opinion on any subject connected with this trial until the case is finally submitted to you."

So we'll return at 10:45.

THE MARSHAL: All rise for the jury.

[Jury out at 10:30 a.m.]

THE COURT: Any issues outside the presence?

MR. ROBERTS: No, Your Honor.

MR. SHARP: No, Your Honor.

MR. ROBERTS: Mr. Smith practices mostly in federal court, so he was unaware of that rule. But --

MR. SMITH: My apologies.

MR. ROBERTS: -- we'll stick with it in the future.

THE COURT: That's okay. No problem.

All right. So we'll come back in 15 minutes?

MR. ROBERTS: Yes. Thank you, Your Honor.

THE COURT: Thank you.

[Recess taken from 10:31 a.m. to 10:48 a.m.]

[Outside the presence of the jury]

THE MARSHAL: Back on the record.

THE COURT: Thank you. Please be seated.

MR. ROBERTS: Thank you for the doughnuts, Judge.

MR. SMITH: Thank you, for the doughnuts, Your Honor.

THE COURT: The Court was concerned you weren't eating them.

Are the parties ready for the jury?

MR. SMITH: Yes, Your Honor.

MR. SHARP: Yes, Your Honor.

THE COURT: All right.

[Pause]

THE COURT: Thank you, Madam Reporter.

THE CLERK: Me?

THE COURT: The reporter.

THE CLERK: Oh. Melissa.

THE COURT REPORTER: Oh. I'm sorry?

THE COURT: Thank you.

THE COURT REPORTER: Oh. Thank you for letting me sit here. I appreciate it.

THE MARSHAL: All rise for the jury.

[Jury in at 10:50 a.m.]

THE MARSHAL: Okay. All the jurors are present.

THE COURT: Thank you.

Do the parties stipulate to the presence the jury?

MR. SHARP: Yes, Your Honor.

MR. SMITH: Yes, Your Honor.

THE COURT: Thank you. Please be seated.

Mr. Smith, please proceed.

MR. SMITH: Thank you, Your Honor.

DIRECT EXAMINATION CONTINUED

BY MR. SMITH:

Q Doctor, we left off talking about your research involving patients in the U.S., receiving more specialized procedures, and then we specifically ended up talking about the article that you wrote with some physicians. There's a highlighted section I want to talk to you about where it's highlighted,

"There are large gray zones in which an intervention is neither clearly effective nor clearly ineffective. Zones where benefits are

unknown or uncertain and value may depend on patients' preferences and available alternatives." Now, can you talk to us about how that ties in with your research and your task in this case?

A Yeah. You know, in writing this -- if you read this article, this article is about stents. And stents, we have very clear evidence, like I was saying, that they work incredibly well just after a heart attack. And just to be clear, and my Co. author here is Tom Lee, who is a cardiologist. So that's why that is in the paper. What we don't know is how well do stents work for people if used, you know, for quality of life improvement. So not to treat the heart attack but someone who has not had a heart attack but they're feeling a little bit of pain going up the stairs, should they get a stent? We don't have good information on what stents do for those kinds of patients. That's the challenge of gray area medicine.

So if we had a simple coverage rule which said, "You got to cover every stent," well, you'd land up covering the stents for heart attacks and the stents for people who are having chest pain when they climb up the stairs. And with that second group of stents, we don't know whether those stents generate any value to the patient. But we do know that they're expensive and will increase premiums. And through that channel, make healthcare less accessible.

Q Now, kind of tying it to this case specifically, does your research inform you that there were some similar considerations with regards to proton their kind of in general?

A Proton is similar in some ways and dissimilar in other ways.

The first way that it is similar is that with proton, we -- we really don't know even the conditions where it works extremely well. We don't know. And so there's that question. And, as you know, there's just a lot of research that's been happening in the proton space. The difference between proton and stents is just, wow, stents of expensive, 20, 25, $40,000 per stent, but a proton is much --

Q Much more expensive?

A -- more expensive.

Q Okay.

A You know, it's a -- I'm sure the jury knows, I'm sure the Court knows, this is a million dollar technology, which at the level of an individual patient, can cost, you know, $100,000, $120,000. So proton is a much bigger challenge for us. But, to be clear, we're grappling with the challenge around stents --

Q Okay.

A -- as well.

Q Now, kind of going back to the premise of this slide talking about patients receiving more specialized procedures that have a high cost and unproved benefit, does -- you know, addressing this and looking at your graph, does this mean that care has gotten better over time?

A We have some evidence that care has gotten better over time. There are certainly many medical innovations that have improved care. No question about that. What we don't know, Counsel, is whether all of that increase in spending reflects better care. As you'll see in some

of my opinions, a lot of that care seems to be care with small or dubious medical benefit.

Q This next -- in next slide is addressing, "High healthcare cost does not translate to better health outcome." So, as I understand it -- actually, let me back up. What -- what's this article talking about?

A This is not an article written by me, but I referenced this article because it's very important in my field. This is a research article that comes from the Commonwealth Fund, which is a think tank in New York City, that thinks a lot about what's good and working in American healthcare and what are some of the opportunities for American healthcare. And the point that they make is, you know, a little less than a trillion dollars of U.S. healthcare spending is wasteful, that's about a quarter of U.S. healthcare spending, according to this foundation is -- is wasteful.

And then they go on to ask, well, what are -- what are -- what's the waste? What's causing the waste? And they implicate a variety of medicines, a variety of tests, and a variety of procedures that provide, you know, small or minimal benefit, but, interestingly, also procedures that create harm for patients. So it's not just that they don't benefit the patient, but they could actually be very harmful to the patient if they receive the patient [sic].

So I wanted to share of perspective, that my opinions are also shared by the larger policy community that there's a huge opportunity here with thinking about ways to reduce the overtreatment.

Q Now, Doctor, if we're talking about treatments that can

actually harm patients, then how are these treatments even able to be -- you know, why are they even being considered?

A I think there's many reasons to why they might be considered. I mean one reason is, you know, the -- the U.S. Government's programs, Medicare in particular, is -- has a very hard time saying no to medical treatments. And so it could be that the U.S. Medicare program has agreed to cover a medical treatment that is actually dangerous. And there are many examples of this in the academic literature from my own research.

As some -- as some of you might know, if you go back a couple of years and you think about the treatment of best cancer, and how were we treating metastatic breast cancer a few years ago? Few years ago, we were telling -- by "we," I mean physicians were telling the patients, you know, you need to come in for heavy dose chemotherapy. We're going to destroy all of the bone marrow, we're going to get it to regenerate, and we're going to do radical mastectomy, removing both the breasts. That's going to be the treatment for metastatic breast cancer.

And we don't even need to study it because we know it works. And it was only when clinical trials came along that we realized not only did that technology not work, it was actually harming the women who were receiving it.

Q And you said that was only discovered as a result of clinical trials?

A Yes.

Q Okay.

A And the clinical trials were challenged by a lot of physicians who said it is unethical to do clinical trials in this setting because we know it works. Now, those were very expensive technologies that we were paying for.

Q Then how does that color your opinion as to the importance of efficient healthcare?

A Well, I think that's a great example of inefficient healthcare. Extremely inefficient healthcare because there the care was expensive. And it's not just that it had zero benefit, it had negative benefit. It was creating harm for patients. So that's the -- that is the most inefficient type of healthcare.

Q Does it take away from what you've just discussed with it, Doctor, the fact that inefficient healthcare doesn't benefit health outcomes, and, in fact, can have a detrimental economic impact?

A It can have a detrimental economic impact, certainly. If premiums increase not because the care is valuable but because wasteful care is being covered, if premiums increase for that reason, people are going to have a really hard time paying their insurance premiums, they're going to land up being uninsured with all the challenges around medical debt and medical bankruptcy that come about as a result of people being uninsured. So we have to constantly balance the benefit from care with what we're charging for that care in the form of premiums.

Q Is one such way to do this known as utilization management?

A Yes, one way to do this is utilization management.

Q And just tell us, what is utilization management?

A So at a very high level, the goal of utilization management is to embrace these principles of efficient healthcare and say, we need an entity. Some entity somewhere. It could be government, it could be patients, it could be doctors, it could be private payers. But we need an entity that's going to always think about whether the benefit of this care that we're giving the patient is equal to what we're paying for that care.

So someone has to do this difficult task. And as I've said, it's a difficult task. It's not a binary task of always working, never working. You know, a stent could work for heart attack patients but like not work in patients who -- who are wanting the stent because they're facing chest pain when they go up the stairs. So it's a -- you know, it's a -- you need a combination of medical judgment, but you would need a variety of economic determinations entering into the calculation as well.

Q And, again, Doctor, I understand that this is a good thing? This is a good net benefit, correct?

A This is a good net benefit, yes.

Q Incidentally, you know, you told us that you reviewed Mr. Eskew's health plan?

A Yes.

Q Did that health plan contain a utilization management provision?

A Yes, it did.

Q Okay. Incidentally, Doctor, are utilization management

provisions common in the U.S. healthcare system?

A I think they've been becoming more common in the U.S. healthcare system. I mean if you think about U.S. healthcare in the 1960s when it was mostly Medicare and Medicaid, there was no utilization management. I think where you see the most utilization management is the efforts of private health insurers. They tend to do the most utilization management. But, just to be clear, utilization management can also, I mean in principle, be done by doctors and in principle could be done by patients.

Q You say in principle. What about from a practical standpoint?

A I mean I think the question is who does it best --

Q Right.

A -- right? So a lot of people could do it, and then the question is who does it best.

Q And I understand you have an opinion on that?

A Yes, I do.

Q We're going to get to that in a little bit.

It says here, "The goal of utilization management is to deliver efficient healthcare which requires balancing medical necessity against affordability." And then it looks like you have kind of like a teeter-totter or -- or a seesaw?

A Yes. Imagine the seesaw. Suppose we said, you know, we're going to cover everything if a doctor thinks it's going to be beneficial. Regardless of the evidence, we're going to cover it. So we

put a thumb -- a thumb on the scale and we push down on the benefit side. Right? So we're covering really beneficial care, we're covering harmful care, we're covering care where we don't know the evidence. Well, what happens? Then we're going to be very light on affordability. We're going to be very light on affordability because premiums are going to be very, very high, and people will struggle with being able to afford those premiums. And that's a big social problem.

On the other hand, you could put your thumb on affordability. You could say the only thing I care about is that health insurance is cheap. It's got to be cheap. Right? And so that would be a world where I don't cover stents for patients who are having heart attacks. Health insurance would be very cheap, but it would be a lousy health insurance product because it's really not helping me when I need valuable medical care.

So if you put your thumb on just one of those two things, either benefits or affordability, I think you don't get efficient healthcare. You've got to constantly be balancing this.

Q I'm going to skip ahead because you've already referenced this. The various stakeholders in the healthcare system, talk to us about that, Doctor.

A Right. So I made this demonstrative because I wanted us to think about who could do the utilization management. Right? Patients could in some sense. In some sense, you could think of a world where patients decide, is this care something I want? And if it's care that they want, then they go and get it and premiums go up as a result of them

wanting to get that care. And we'll talk about, you know, what the evidence is for the ability of patients to make these decisions wisely. You could have doctors make this determination, right? You could have doctors say, oh, I have -- I went to medical school. I know something about whether this benefits the patient. And I can think about whether the benefits to the patient are greater than the cost of delivering that care.

So you could, in theory, have doctors do this. You could have the government do it. You know, the government to say, we are a really large payer. We run Medicare and we run Medicaid. We ensure over 100 million Americans every year. We the government will decide whether we're going to pay for it. Or you could have private payers, private health insurance companies make that determination. And so you got, you know, four -- I think of it as four entities who could potentially do the utilization management.

Q So we're going to talk about how each of those categories actually deals with the utilization management in practice. So I'm going to go back.

So kind of a summary of your second opinion as relevant to this case is Medicare is unable to consider cost and is required to cover Medicare with unproved benefits. And you talked about this. So let me just ask you. Doctor, is the federal government well-positioned to pursue efficient healthcare, in your opinion?

A In my opinion, no, because the federal government is the furthest away from the patient. The federal government knows the least

about what is good for the patient. And if -- that's kind of issue number one. The other issue with the federal government is that by statute, by law, it is prohibited from doing cost-effectiveness analysis. So if a therapy generated one day of survival and cost a million dollars or $10 million, the federal government would have to pay for that therapy. And so that is going to run into trouble if your goal is to deliver efficient healthcare. The government recognizes this problem. The federal government recognizes it. So I'm not critical of the federal government.

What the federal government has done over time is it has said, look, we the government are not able to do the utilization management, so we are going to delegate that responsibility to private firms in the form of Medicare Advantage.

So we're going to basically put our patients, our Medicare patients in the Medicare Advantage plans where we will have insureds, like United or Aetna or CIGNA, or Anthem, decide whether or not the treatment is covered or not. Alternatively, we're going to put patients into these things called accountable care organizations where we're going to have groups of doctors decide whether a treatment is covered or not covered. But we're going to incent them financially to make sure they don't land up approving a variety of treatments with very, very small medical benefit.

So the government I think is acutely aware of the fact that it is hamstrung, that it can't consider costs, that not considering costs means healthcare is inefficient. And over time, the government has been moving to a system where an agent of the government, physicians or

private insurers, does the utilization management.

Q And does the literature that you have canvassed and/or participated in yourself support your position?

A Yes, it does.

Q Based on what I understand then, the government itself is actually attempting to implement a utilization management approach?

A It's not trying to implement its own, Counsel, just to be clear. The government is having someone else do the utilization management for it.

Q I appreciate it. Now, I want to go back --

A And it's been very successful in that effort, if I can add. I mean if you think about how many patients in Medicare, which covers about 45 million people, are now covered by private plans that are delivering these Medicare benefits, you know, it's enormous. It's about 35, 40 percent of Medicare enrollees are now in these private plans. And they've been growing rapidly.

Q Another stakeholder are patients. Is that fair --

A Yes.

Q -- to say?

A That's correct.

Q Are patients well-positioned to pursue efficient healthcare?

A Well, you know, the patient knows a lot about how much they're suffering from a disease. So in terms of knowledge of the disease and how it affects them, they probably know much more than the government, than their doctor, than the private insurance company.

But to deliver efficient healthcare, you need to know how much is this treatment going to benefit me. Not just what am I experiencing, but what is this treatment going to do for me? And they need to think about the cost.

So let's think about those two determinations. Patients didn't go to medical school, so it's unlikely that they know how a particular treatment is going to benefit them. And in my research, it looks like patients seem to think that if the treatment is expensive, it is going to benefit them. So that's something that I have shown in two separate research papers.

The second challenge with patients is they that they don't really understand the cost side. So, in my research, when you expose patients to prices, it's not like efficient choices comes out of it. The patients really struggle with deductibles, coinsurance, co-payments, and they land up cutting back on really valuable thing that would each -- actually keep them out of the hospital and would prevent death. So patients have a really hard time with doing this. Even though I do think patients know the most about how the disease affects them.

Q So we've heard about patients, we've heard about the government. What about physicians, Doctor?

A Right. So the physicians are -- are absolutely key to -- to thinking about how we might do utilization management. So the -- the thing about the physicians is, while they went to medical school and they know a lot about medical technologies where clinical trials are well done, well research, physicians struggle with medical technologies for a varieties of different reasons.

First, they have a really hard time with brand-new medical technology. So technologies where you don't have randomized control trials, technologies where the evidence base is -- is weak, physicians then fall back on their own opinions to make sense of those medical technologies. And history has shown us that those opinions are often wrong with devastating implications for patients.

So one example I've already shared with you is destroying patient's bone marrow, doing radical mastectomy thinking that it would be helpful to breast cancer patients. But then we learned it was not. Another example is just what happened with hormone replacement therapy. Millions of women in the United States were given -- this is, again, from my research. So this is not a commentary. But millions of women were given hormone replacement therapy not only to prevent some of the symptoms of menopause but as a way to reduce the risk of cardiovascular events. We learned later that this was a terrible thing to do, that this was actually killing women. Suddenly starting a women on a hormone replacement therapy when she's in her 60s was actually going to be deadly for most women. But, there too, I think physician opinion was on the side of advocating for treatments that did not benefit patients, and in these two examples was actually harmful to patients.

I think we have a lot of studies where physicians have been asked themselves about whether they deliver wasteful care. And one of the exhibits in my -- in my slide that talks about how when you survey physicians, they think that about 20 percent of the care that they deliver is wasteful. They think that 85 percent of the time they practice

defensive medicine. So 85 percent of the time they're delivering care to avoid litigation, not because the care benefits the patient. That's a -- that's a really big issue. About 50 percent of the time they're giving care because the patient wanted it, and the physician has a really hard time saying no to the patient because it's also not the physician's job to think about cost and think about this larger issue of are we delivering efficient care.

Q Now, we had talked a couple of minutes about government. And tell us what -- why this slide is in your deck, Doctor.

A This is a slide from MedPAC. Sorry to hit you with that acronym. But MedPAC is the Medicare Payment Advisory Commission. Medicare, as you know, the such a big program. You know, it's billions of dollars. It's so complicated. And it's run by Congress. So Congress is really not an expert on how to run a health insurance program.

So it has created a commission known as MedPAC to advise it on payment reforms this Medicare. And MedPAC puts these annual reports out to Congress. And it has again, again flagged that proton therapy in particular lacks evidence that it offers a clinical advantage over alternative treatments for a variety of different cancers, but that because Medicare covers proton, it's actually head to a big increase in these proton centers.

So here's the group advising Congress on Medicare payment policy and saying to Congress, "hey, Congress, there's this technology that you're covering because you're unable to consider costs. And because you're unable to consider costs, we're using a technology where

we lack evidence, and which is actually now creating this proliferation of proton centers, because a lot of hospitals know Medicare will pay for this technology even if it doesn't create benefit.

Q And just to kind of bring us back to the point, why is that bad for healthcare in general?

A It's bad for healthcare in general for two reasons. One is what if a technology is harmful and we don't know it because we've -- we've not done the trial? Maybe it's harmful in the sense it has higher toxicity or something like that. Maybe it has lower survival. But the other reason it's harmful is someone still has to pay for that technology, and the someone here is American taxpayers, have to pay for this technology in the form of higher taxes. And if the government is going to tax people more, it has so many other things that it could spend the money on. It could fix the schools, it could fix the roads, it could fix infrastructure. Right?

So there's all these other priorities that the government has. And every time it spends on something where there isn't evidence, it means less money for all these other public priorities.

Q And, again, proton therapy is something that you've been studying for how long?

A You know, I found out about proton therapy around 2009. So I've been studying it for over a decade.

Q If I understand this correctly, specifically proton therapy is a treatment that a government agency has identified that actually causes a concern when it comes to efficient healthcare?

A That's correct.

Q And, Doctor, can you tell us what -- 1 through 3 categories are as it relates to Medicare?

A So this is -- now we're switching from -- away from MedPAC to my own research. I like to think about medical technologies as sort of, if you will, falling into three categories; category 1, category 2, category 3. A category 1 technology is something that -- that virtually everybody who receives it will benefit from. Something like insulin. Right? Anyone who needs insulin should get it. Right? Every -- so we would love to have lots of category 1 technologies.

A category 2 technology is like a stamp. It's a technology that work in some patients but might not work in other patients. So you need some kind of utilization management to figure out in whom it works, and so in whom it should be covered and paid for, and in whom it doesn't work and doesn't -- and should not be paid for. And then you got these category 3 technologies like proton, where the -- we just don't know. We just don't know what it does. And so we need a lot more evidence to decide how we're going to pay for it and how much we're going to pay for it.

Q Now, Doctor, are you aware in your research that, you know, there are physicians out there who champion proton therapy as superior to other types of treatment for lung cancer?

A I've heard this, yes.

Q Okay. Do you have an opinion as to -- as to the veracity of those types of conclusions, especially when it comes to whether or not

there should be a utilization management system in place?

A So, first of all, I think that physicians know things that someone like me might not know, and I think that -- I'd make two points of -- you know, one is physician intuition is sometimes right, but can be wrong. And so you can't rely on the eminence of a physician to determine whether or not something works. You want to study. And I have not seen, at least in the time that I've been studying these technologies, a good study demonstrating that proton confers a meaningful benefit over alternative therapies for a treatment like lung cancer -- for a condition like lung cancer.

Q And, again, why is -- why is that significant in your research?

A Well, if you look at the growth of the proton centers, there's really no way that we could fill the proton centers with the little kids who might benefit from proton therapy. So if you think about where proton therapy might work, you know, it might work for something like pediatric brain cancer, it might work for something like an ocular tumor, a tumor of the eye, it might work for something like a skull-based tumor where you're trying to protect the spinal cord. But kids whoever these tumors are very small. And we've got all these proton centers.

So why are people building proton centers? They're building proton centers not for the kids; they're building proton centers for the indications where we have a lot of patients but where we don't have evidence that the treatment works.

Q And by evidence, you were talking about clinical trials?

A Clinical trials. Ideally, randomized control trials.

Q Now, through the course of this case, Doctor, Plaintiff's counsel has proposed, or suggested at least, that because the amount of proton centers in the U.S. is growing and has grown in recent years, that that's evidence of the advantages of that particular treatment. Do you have an opinion as to that?

A I think it's more likely to be reflective of what MedPAC themselves say in this chart, which is that the number of proton centers reflects Medicare's broad coverage of this technology. And Medicare's not using the principles of efficient healthcare in deciding that coverage. Medicare's paying for this technology without evidence that it works, because it has to. Because there's so many patients with prostate cancer, lung cancer, other cancers, these centers thought -- all right, probably may still continue to think that, you know, they can treat a lot of these patients quite profitably, and that's the reason these centers are growing. I don't think it has much to do with evidence that this -- that this technology works.

And, just to be clear, counsel, if this technology works, then the growth in proton centers is not a problem.

Q Understood. But it's your position that there hasn't been any proof that it actually works, and that's relevant to your research because --

A Yes.

Q -- it factors into utilization management and whether or not it's efficient healthcare --

A That's --

Q -- correct?
A That's correct.
Q And it also factors into your opinion as to why utilization management, particularly when it comes to proton, is a good thing?
A It is a good thing, yes.
Q Because it confers a net benefit to society?
A Yes. If done well, it confers a net benefit to society.
Q Now, we were talking about Medicare. It reminds me of a -- of a federal agency, the FDA. I'm assuming you've heard of it?
A Yes.
Q It's been suggested during the course of this trial that proton therapy must be a good thing because the FDA has approved it. I'm over simplifying it. But, to be clear, your research, as I understand it, has discovered that the FDA does, in fact, approve proton devices. Is that fair to say?
A It does approve proton devices, yes.
Q What's the significance of that for our purposes today?
A Well, I think you want to think about what went into the FDA's determination of approving a medical device as opposed to a medicine. When the FDA approves a medicine, it asks, is this medicine safe? Question one. Is this medicine effective? Question two. When it approves a device, like a proton, it's not asking is it safe or is it effective. It's saying, is this device's method of action, the way it works, it's emanating protons, is that similar to other technologies that we have adopted? So it is not adopting -- it's not -- the FDA is not asking is this

technology safe and effective; it's asking, does the method of action used by this technology, is it similar to something else that we've approved?

So device approval in general -- and I don't mean to say that this is a problem only in the way the FDA approves protons, but when the FDA approves any device, it could be a titanium or a ceramic hip, it could be a new kind of MRI, it could be a new kind of CT machine, the FDA is not asking, is this technology safe and effective? And so a lot of new medical technologies that are devices, including radiation therapy devices, like proton, are these category 3 technologies where we don't have information about safety and effectiveness?

Q Doctor, when it comes to efficient healthcare, have you specifically researched the impact of any specific procedures?

A Yes, I have. I've examined a variety of procedures, but the two that I've spent the most time on are proton and stents. And just to be clear, the reason I focused on, and stents is because they're so expensive. And in the case of stents, we know that we have situations in -- under which it works. But we also know many situations in which it doesn't work. And with proton, we don't know, but we have the centers.

So these two technologies are Bellwether technologies for an economist like me because I feel like if we're going to get American healthcare to be more efficient, we've got to think about managing stents and proton, and then taking those lessons and applying it to all the other technologies that come to market.

Q And I see here you, two other individuals, one from Harvard, one from Dartmouth, took place in a writing. Is this an article or a

commentary, for the record, Doctor?

A That's right, Counsel. This is an article with Anupam Jena, who's a physician at the Massachusetts General Hospital where the first proton center was built, and Jonathan Skinner, who's an economist at Dartmouth, and we're talking about the importance of comparative effectiveness research in making sense of treatments, you know. And, as you can see the highlighted passage below, that we're very worried about what happens to the social implications of offering treatments that are covered and paid for without regard to value and all the financial pressures that that puts on the public sector, which would be the government, and the private section and all the rationing of care that ultimately has to start for other patients because we paid for something that we didn't have evidence of as working.

Q And in this article, "The Pragmatist's Guide to Comparative Effectiveness Research," I see you highlighted the portion that says, "We don't know whether proton beam therapy, a very expensive treatment for, in this case, prostate cancer, which requires building a cyclotron in a facility the size of a football field offers any advantage" -- emphasis yours -- "over conventional approach." Is that accurate?

A That's accurate. That's accurate. And it also highlights in contrast to how devices like proton are approved, drugs are approved differently. With drugs, to get your drug approved, you've got to do a clinical trial. You've got to so that your drug is safe, you've got to show that your drug is effective. To get your device approved, you don't have to show that it's safe and effective. You've got to show that it is using

technologies that are similar to predicate devices, devices that preceded the technology that -- that you brought to market.

Q On the bottom part, you highlighted the section that says, "But offering treatments without regarded value, whether chemotherapy, angioplasty, proton beam therapy, or others simply means greater financial pressures in the public and private sector to ration care to other patients by cutting insurance coverage?"

A That's correct.

Q And then how about -- what about the highlighted portion on the left side, Doctor? And talk to us about this writing.

A This is an article that we wrote for the Brookings Institute. They have an annual publication that come out every year called the Brookings Papers on Economic Activity. And we were talking about -- this is a bunch of policy makers in Washington who get together once a year to discuss big themes in U.S. Healthcare Policy.

And one of the points that we're making in this article that we wrote was, you know, one of the things that's really broken in American healthcare is that because the federal government is not allowed to consider cost in its coverage decision and because the federal government is so large, it can land up creating an entire market for a technology that really doesn't benefit patients. And that creates real pressure on the government in everything else that it does. And it also means that a lot of Americans get their care rationed because we're paying for something that doesn't work. A bunch of Americans face higher premiums, and then land up essentially saying, "I can't get

coverage because I can't get covered. I can't afford a premium of $12,000 a year."

And so our view was, you know, look it's going to be virtually impossible to get the government to start to think about cost, because that's baked into the how, it's baked into the statute. But what you want to get behind are a variety of efforts that would allow government to delegate this responsibility to somebody else.

Q The highlighted portion of this article, I'm going to read it because I think it ties in well to the next question I'm about to ask you. It says, "While there is no evidence that outcomes arising from this treatment" -- and you're talking about proton therapy, correct?

A Yes.

Q "Are better than alternative treatments, such as radiation therapy or prostatectomy, the removal of the prostate, it costs roughly double what they cost. 50,000 per course of treatment as compared with 25,000 or even less. This is an example of a category 3 treatment, expensive but with no proven value. The willingness of Medicare, and, hence, private insurance to pay at least the average total cost of this treatment creates a strong incentive to invest in the large, fixed cost of the proton beam facility, hundreds of millions that dollars, and an equally strong incentive to run through as many prostate cancer patients as possible to pay off bonds."

Now, in your research, have any proton centers faced financial difficulties due to lack of demand?

A We're starting to see for the first time -- I mean I got into this

technology, you know, in the -- in 2009, 2010, and you saw this run up in proton centers. But for the first time you're starting to see signs that some of them are closing because they're not able to run through as many patients as they thought they would. I think there has been pushback from payers on the ability of these centers to kind of patients through the centers.

So there's at least three. I think the Indiana university proton center closed. There was one at -- in Scripps in San Diego that closed for sure. And there might be a third one as well that closed because of these financial pressures where the centers were just not able to run as many patients as they thought they would be able to.

Q And, Doctor, you mentioned that this probably is because of payers pushing back on it. Is that a bad thing, payers pushing back under the circumstances?

A It's a -- it's a bad thing if a payer pushed back only because this thing is expensive. It would be a bad anything if the payer pushed back only because the thing is as big as a football field. It would -- but if the payers said, you know, hey, look, this thing is really expensive, and we've got to know -- we're not going to not treat you, but we've got another treatment where we have evidence of benefit, which is much cheaper, so we're going to send you to the other treatment, the alternative treatment, that's not a bad thing.

Now, it would be a bad thing if the payer had evidence that proton was say superior to IMRT, suppose there was good clinical trial evidence proton is superior to IMRT for lung cancer and the payer withheld

treatment, I would think that's a bad thing.

Q Kind of the flip side of that, a payer not pushing back in the light -- excuse me -- with a lack of clinical evidence to suggest proton therapy is superior to IMRT, that would be a -- would that be a bad thing?

A It is a bad thing because what's happening there is, you know, payers don't like the headline risk associated with denying a medical therapy. So sometimes what will happen is because the government pays for a therapy, the payer will also pay for the therapy, not because they believe in the therapy but because they just don't want all the headlines associated with denying a medical treatment.

Q And does that undermine the goals of efficient healthcare?

A It is because -- it does undermine those goals because it means the care that people are getting is inefficient, that the care that people are getting is care where the benefits of the care are less than the cost of that care, because premiums still go up every time we deliver something with unknown benefit or with unproven benefit.

Q Here's a summary of your third opinion. Third of four. Three of four. "Utilization management is difficult. Private payers are best suited to apply it." So let's talk about that. We've already talked about the stakeholders; patients, payers, healthcare providers, government. We talked about patients and their role. Because I think you actually discussed one of these slides. So I'm just going to -- we'll just -- we'll just go through it since we have it up there. What's the significance of this article?

A The article on the left you've already seen. That's just

making the point that, you know, patients have actually fairly limited information about the benefits associated with care. So the -- while they understand their disease and how it affects them, they don't really know much about how the treatment is going to affect their care. And you see that actually on the paper on the right. The paper on the right, what we show in this paper, which is published in the American economic review, which is the flagship journal in economics, what we show is if you increase co-payments on patients from $1 to $5 or from $5 to $10, patients cut back on life-saving medicines. They cut back on insulin, they cut back on their diabetes drugs, they cut back on their hypertension drugs.

So it's a -- it's a way of saying patients are not good at knowing what are the high value treatments, like insulin and statins, what are the lower value treatments, like a category 3 treatment. So I think this is all part of my worry that patients have limited information to do the utilization management.

Q You have a slide here that talks about physicians. Talk to us about these articles, Doctor.

A Let's start -- let's do something a little bit unusual. Let's start from the upper right. That's an article that I wrote. So let's start with that article. That says that, you know, look, in the United States in 2008, 2010, we wrote our article in 2010. The amount of defensive medicine in the United States is about $55 billion a year.

So what is defensive medicine? Defensive medicine is care that patients -- that physician's deliver not because it's going to benefit the

patient, but because it's going to reduce the threat of litigation. They don't want to be sued so they'll perform an unnecessary test, diagnostic procedure.

What's that worth? About $55 billion in spending, which does mean that premiums have now gone up by $55 billion. That's inefficient health care. If a physician is ordering proton because of fears about defensive medicine, then that is not good for the patient and it's not good for society and it's not efficient health care.

And the point here is, and we're not studying proton be clear, we're just saying at the level of the entire system there's a lot of defensive medicine that's happening. And so there's a lot of inefficient care that's being delivered.

The second paper, the one that starts with background is -- the title of the paper is Over Treatment in the United States. That's a paper that I didn't write, but it's an interesting paper because this is a paper where folks surveyed physicians. And they asked physicians, do you guys deliver unnecessary care? Do you over treat your patients? And they said, 20 percent of the time physicians say that physicians deliver, you know, over -- they do over treatment. And if you ask them why, you can see on the right the numbers are really interesting. They're saying, 85 percent of the time when we over treat, when we recommend care that doesn't benefit patients it's because of defensive medicine.

And then they go on to say, that, you know, 59 percent of the time, so 60 percent of the time it was patient pressure or patient request. So the patient wanted something, the physician had a really hard time

saying no and so the physician went ahead and ordered that test.

So that's -- I thought it was interesting, and I cited it in my report because it's not an economist view of physicians, it's physicians' view of physicians.

Q And so to be clear, I see a highlighted portion that says, 2,106 physicians from an online community composed of doctors from the American Medical Association master file participated in the survey, right. And then you noted, "physicians reported that an interpolated median of 20 percent of overall medical care was unnecessary". These are physicians saying that?

A Yes. Physicians are saying 20 percent of health care is unnecessary. And if you remember I showed you an exhibit from the [indiscernible] that it said basically a quarter of care was unnecessary. So there is this very tight agreement between economists and physicians on the extent to which wasteful care is delivered in the United States.

Q And does that tie into your opinion that utilization management is important?

A It's extremely important because we don't want wasteful health care.

Q You also have highlighted because you indicated the most common cited reasons for overtreatment were fear of malpractice 84.7 percent. Patient pressure requests about 60 percent, and difficulty accessing medical records, 38 percent. Did I accurately sum that up?

A Yes, counsel. And if I might also draw your attention to the very -- the second to last line, 70 percent of the physician respondents

believed that physicians are more likely to perform unnecessary procedures when they profit from them. So that's a great worry in this community too that, you know, if I'm getting paid more to deliver a particular medicine or use a particular medicine or procedure, then, you know, I might do more of that.

I've always been skeptical of that explanation, it's not something that I've studied in my own research, but these people have studied it and there saying, even physicians are saying that financial incentives to the physician do profoundly affect what physicians may end up recommending.

Q And how about the -- you said we started --

A Yeah.

Q -- from -- so let's bring it around. Cost Consideration in the Clinical Guidance Documents of Physician Specialty Societies in the United States.

A Right. This is a paper not by me, but by two very distinguish physicians who are thinking about -- it's published in JAMA, Journal of the American Medical Association, their internal medicine journal. So it's one of the big journals in medicine. And what they're saying is, how often do doctors think about cost? And the way they do it in their paper is they say, let's look at the physician medical societies, the specialty societies.

So let's look at these expert societies. How often do they think about cost or do they just think about the benefit of care. And remember this is important because if a physician is only thinking about one part of

my little seesaw, if they're putting a lot of weight on benefit or, you know, generously doing things, then you're going to get unaffordable health care. And so what they say is that, you know, it's just over half of the largest physician medical societies explicitly consider costs, the cost of the care as a determination of whether that care should be given to the patient.

And then they also go on to criticize the societies by saying these societies are actually not very transparent in how they consider costs and rigor with which they bring the cost information to physicians. And I think all of these articles collectively point to challenges with using just physicians to do utilization management.

Q We need a healthcare system relying solely on physicians to, you know, approve care?

A That's right. Just relying on physician judgement would not got get you efficient health care because we know physicians do a lot of defensive medicine, just let's start with that. So if they're -- if the doctors are thinking about defensive medicine and they're not thinking about the wellbeing of the patient or if the doctors acquiesce to patient demands or patient requests, and the doctors are unable to say no to that and they don't think about cost we're going to get inefficient care.

Q The purpose of this flag to kind of memorialize in writing kind of the articles that support or agree with your position with regards to Medicare and proton therapy?

A Yeah. So this is an article that, you know -- the part on the left is from MedPAC, so that's not mine. The part on the right is my

writing with Craig Garthwaite, who is an economist at Northwestern University in Chicago.

On the left you've already seen this report from MedPAC, but it's basically saying that MedPAC, which is the agency that's advising congress on Medicare they're admitting to the large extent to which there is low value services being delivered by Medicare. They estimate a very conservative range, it's somewhere between two and half billion to six and a half billion a year of care that isn't worth the benefit, right. So they're very worried about that.

And then they go on to say, you know, CMS, the government is legislated to pay for treatments that will not cause harm and is required to offer coverage for medical care with unproven benefits. So they're sort of saying to congress, hey, your hands are tie. I mean, the law is written in a way that you're not able to balance benefit against affordability. Benefit against value. And so you might want to think about payment reforms that get you out of the bad situation that you are in.

Q And then again, Doctor, why is that good?

A I think that's good because the principle we want is we want to make sure that the benefits of care are at least as large as the cost of delivering that care.

Q What's the purpose of this slide, Doctor?

A Well, this is kind of what got me into the whole business in the first place, right. I saw this explosion in proton beam facilities in the United States. You know, back in 1990 we had one, fast forward to 2020

we're up to about 40, right. And I began to think, wow, here's this incredible medical technology, I'm an economist I don't read anything about whether this thing works and how well it works, but it's so expensive.

Why is this technology proliferating so quickly? And then I realize that a lot of people including people in the government have also been thinking about this technology and the challenges of paying for it because the more you pay for this the more of these centers you get. And that's really bad because it means higher taxes, less affordable health insurance, less money for schools and everything else the government does.

Q But to be clear, Doctor, is your opinion that the proliferation of proton beam doesn't correlate with its efficacy?

A Right. We don't have good trials, we don't have any trials of its efficacy in all the cases, in all the situations in which it's being used, so that's a problem. It's not a problem if we knew this thing worked. But we need to know two things, we need to know that it worked and that it worked more than what we pay to give a patient proton. That's what we would need to know.

Q While were on here I want to talk to you about proton therapy, can you tell us if the literature supports a conclusion that utilization management and by extension prior authorization reviews for things such as proton therapy actually promotes efficient health care?

A What we know is that if you look at where the utilization management is done, it tends to be done in these kinds of settings and

that is a good thing. What we don't know is could it be done better. We don't know that. So I guess I'm not comfortable saying that what we know that utilization management and prior authorization are done as well as we could do them.

What we do see is, we do see private insurers using utilization management and prior authorization in exactly those settings where there's a real likelihood of delivering inefficient care. So they tend to push back when there aren't clinical trials, or they tend to push back when there might be another therapy where we have good evidence that it works. And we don't have evidence that this new thing is better than the older therapy.

Q Now let's talk about the proverbial elephant in the room, insurance companies. What's the significance of this line, Doctor?

A Well, let's start with the answer to your previous question and let's do the clock work thing. Let's start with the paper in the upper right, which is the paper by Jon Skinner whose name you've come across before comparing health care in McAllen, Texas and El Paso, Texas. So I apologize for the long explanation that I'm about to give you.

But in 2009 there were a series of very influential articles written by the surgeon Atul Gawande saying that doctors in McAllen, Texas were doing a lot of unnecessary tests, were using a lot of unnecessary procedures. And that was really troubling to congress, it was really troubling to the president that you had this group of doctors in one town, you know, stenting a lot of patients, ordering advance imaging on a lot of patients. McAllen, Texas in Medicare is a very expensive place.

Compared to El Paso, Texas, which is a similarly poor border town.

So this research in 2009 is saying McAllen and El Paso are similar towns, similar demographics, but the doctors in McAllen are doing a lot. What is going on in McAllen?

Jon Skinner and his team come along and say, you know, what's fascinating about McAllen and El Paso is that they are similar towns demographically, but if you look at what doctors are doing when they're covered by private insurance they're very similar. It's only in Medicare that the doctors in McAllen are doing so much. And the reason is that in McAllen the private health insurance companies come in, do the utilization management or the prior authorization or whatever it is that they are doing, and they say, no to dubious stents and advanced imaging that might not benefit patients. But they're not able to do that in Medicare. They're not able to do that in conventional Medicare.

So the McAllen, El Paso paper is really important here because it's showing you that in Medicare you can have a lot of low value care delivered, but when a private insurer manages claims from those same doctors you get these two cities looking very similar.

Q And so with regards to the McAllen and El Paso article, you've highlighted a portion that says, "all elective inpatient admissions must be preauthorized and counseling before admission and after discharge is used to establish post-operative goals and identify discharge planning needs". And if I understand your opinion, that's not necessarily a bad thing?

A That's not a bad thing. Counsel, just to clarify, this is not my

research. This is research from other scholars in the field.

Q And when I say -- I appreciate that. When I say your research, I mean articles that you have researched.

A Correct.

Q Not that you've written this article?

A Right. Articles that I've researched that I use when I'm advising government on payment policy reform.

Q And then you have highlighted, "in contracts there are fewer medical service controls in Medicare"?

A Correct.

Q And then let's work our way around, what's the next article?

A Well, I was thinking about the general issue over here in this case.

Q Now are we talking about the bottom right hand corner that starts with, "we also find that consumers?"

A Yes, yes. So I was just thinking about, you know, what would be the settings under which utilization management by insurance companies would help get us to efficient care. And so I started with the McAllen, El Paso article as a way of showing that when Medicare struggles, private insurers have not struggled. They're able to say no to a lot of these things that Medicare struggles with.

But then I began to wonder a little about, well, what if the private insurers just deny a lot of claims? And what if that was the business model, right? So they come along, something is medically necessary, and they deny the claims.

And so if you look at the research out there, again this is using publicly available data. It's not my research, but it's done by the Kaiser Family Foundation, which is a nonprofit. What they find is that, you know, if you look the exchange plans, if you look at the off exchange plans what you find is that patients and their doctors, let's just call those two groups consumers, very rarely appeal the denials that their insurers make, right.

So insurers deny about 17 percent of claims. We kind of know that on average, some insurers deny more, some deny less. And so you might say for every thousand claims that are denied how often does the patient or their doctor appeal the denial? The denial rates are really tiny, they're really tiny. The denial rates are about two and a thousand of the denied claims are appealed.

And that made me wonder, I said, you know, wow. If you really believed this thing was going to help the patient and the insurance company was just denying the claim, then you should be challenging the denial more often. But you're challenging the denial only two and a thousand times. So that's a sign to me -- it's a sign that maybe doctors and patients understand that for the most part when a claim is denied it was probably not going to be a service that was really going to benefit the patient.

Q And how is that relevant to utilization management?

A It's relevant to utilization management because I would worry a lot with the world in which, you know, patients are getting their claims denied a lot of the time and their appealing that denial a lot of the

time, right. If there a thousand claims getting denied and patients are complaining 950 out of thousand times that would be a problem to me. They're complaining two out of a thousand times, right.

And so I think this worry that I had that, you know, insurance companies might be denying claims all the time is much less of a concern than I started with.

Q Can you tie that in to how that is indicative of utilization management being good for efficient health care?

A It speaks to the fact that at the end of the day the vast majority of patients and their physicians, the vast majority, 998 out of a thousand are happy with the denial that an insurance company makes. Not happy in the sense of excited, but they'll accept that decision, right. Which makes me think that a lot of the demand for the service was coming about because of medical malpractice, because a physician believes that we're not connected to medical evidence, because a patient believes that a particular therapy might benefit them, but the patient just doesn't know or because the profit incentives.

Q How about the March 31st, 2016 notation, only 33 percent of exchange enrollees in 2016 kept their same plan from 2015. Why is that significant?

A It's significant because at the end of the day what you want is, you don't want to just assume that insurance companies know how to do utilization management properly. You never want to assume that. You want to be sure that if they were doing it improperly, if they were doing it incorrectly, if they were being too harsh with utilization

management, if they were denying too many claims then enrollees have other options available to them, right.

So for example, if you saw a world in which exchange enrollees really couldn't switch insurers, like there's no insurer for them to switch to then that could be a problem because it could mean that the insurance company could deny a lot of claims and there's no escape valve for enrollees to find another insurance company to switch to that does a better job of doing the utilization management.

And so the point of this article is that there's a lot of switching in this industry, right. I don't know the right amount of switching, but in a lot of exchange markets you've got choice. You've got two, maybe three insurance companies that enrollees can switch to if they were unhappy with their insurance company. And I think that's a good sign, that's a necessary condition for relying on insurers to do utilization management well.

Q Now there may be an argument, in fact one was made, right. That, you know, insurance companies are in it to deny services because they're focused on costs, but not in the way that you've talked about is good for insurers to focus on cost, but the bad way, that they're focusing costs to retain a greater share of profits. Can you talk to us about how this -- the blurb in the top left corner may address that argument or that assertion?

A Yeah. There is a real fear that -- I mean, I would have this fear that the insurance company because it's profit motivated might be denying a lot of claims. And so, you know, what would be the

counterbalance to that? One counterbalance is just that there's market forces. If I deny a lot of claims because I'm a profit oriented insurer who just wants to deny claims, well then my enrollees will leave. They'll go to other insurers. That's one way we can guarantee that insurers will not deny too many claims.

But you might want some regulation here as well. And what the medical loss ratios are doing is they're saying, in this exchange market place your profits and administrative costs can't exceed 20 percent of premiums on average.

Q That's by law?

A By law.

Q Okay.

A Right. So that puts a brake on the ability of insurance companies to keep denying claims. If they keep denying claims and their profits are say 30 percent of the premiums they take in, they're going to have to rebate 10 percent because the maximum profit, the maximum spending that they can allocate for profits and administrative spending in these programs is 20 percent. They have to rebate anything extra back to the patient. And so that's regulatory solution that's coming in on the back end. I think it's a great regulatory solution.

This is -- I'm sorry, this is not in my report, but it's relevant to the case. With COVID 19 you saw a lot of rebates by the insurers, you know. With COVID 19 what happened was not a whole lot of health care was delivered, but the insurers took in all the premiums. And so they really had to rebate those premiums back to their enrollees.

Q And that's similar to what you pointed out in discussing the Affordable Care Act?

A That's right. I mean, a lot of this is from the Affordable Care Act, Counsel. These laws are from the Affordable Care Act because the exchanges were set up by the Affordable Care Act. So there's regulations embedded in the Affordable Care Act that limit the ability of insurers to make profit.

Q So Doctor, based on this would it be your opinion that these types -- that things that you've just discussed would kind of undermine the assertion that a health insurer would deny proton therapy and approve IMRT solely because proton therapy costs more?

A Yeah. They wouldn't -- I mean, not solely because I think there's just a lot of other expensive health care that the same insurer is probably covering, like IMRT for starters is really expensive. So they would just deny both the claims, right. They could deny proton and IMRT if the only thing they cared about was profit. They could deny a variety of medicines for lung cancer. You could look at a drug like Tarceva, which is also known as a lock med for lung cancer. It costs about $52,000. They could deny that one too. They could deny Zolgensma spinal muscular atrophy, which is a two million dollar therapy. If they were just interested in denying expensive therapy there's a lot of expensive therapies that they could deny.

Q And based on research that you've done as I understand it, that's just simply not happening?

A That's not happening, no. There's a lot of expensive

therapies that are covered, in fact to my -- in my view there's a whole host of therapies that should be denied that are not being denied.

Q Doctor, is it your opinion that based on what you've told us that private payers like Sierra are actually well positioned to pursue efficient health care?

A That's correct. Relative to the other entities that we discussed. So Counsel, if you think about the entities as being, you know, government, patients, doctors, let's call them providers or private payers. You know, I see challenges with any one of these people doing it, but I say out of these four if you give me my pick I would pick the private health insurer.

Q Why?

A To do the -- because I think there's a variety of things that happen if they get it wrong. So if government gets it wrong, nothing happens, right. Government is paying for proton and what happens is proton centers diffuse throughout the United States, health care becomes really expensive and that's terrible. There's no consequence to government getting it wrong.

When patients get it wrong they die. When they -- and that's a terrible thing, right. If they misjudge the value of a therapy that's a terrible thing. If they think it's more beneficial than it actually is, it drives up premiums. If doctors get it wrong, then what would be the solution to -- what would be the market solution or the regulatory solutions to doctors getting it right.

When private insurers get it wrong, and I'm not saying they always

get it right. But when private insurers get it wrong there's at least three things that happen. First, there's some switching. Patients will switch to other insurers if they have choice. Second, providers will say, I'm not going to work with this insurance company that just denies all my claims. So the providers will not accept payment from an insurance company. And third, we've got a regulatory stop gap on the back end which limits the ability of insurance company to profit by recklessly denying claims.

THE COURT: Counsel, we're going to take our lunch recess.

Ladies and gentlemen, you are instructed not to talk with each other or with anyone else about any subject or issue connected with this trial. You're not to read, watch or listen to any report of or commentary on the trial by any person connected with the case or by any medium of information including without limitation newspaper, television, the internet or radio. You're not to conduct any research on your own relating this case such as consulting dictionaries, using the internet or using reference materials.

You're not to conduct any investigation, test any theory of the case, recreate any aspect of the case or in any other way investigate or learn about the case on your own. You're not to talk with others, text others, tweet others, google issues or conduct any other kind of book or computer research with regard to any issue, party, witness or attorney involved in this case. You're not to form or express any opinion on any subject in this trial until the case is finally submitted to you.

We will return at 1:00 p.m. Thank you.

THE MARSHAL: All rise for the jury.

[Jury out at 12:00 p.m.]

[Outside the presence of the jury]

THE COURT: Counsel, any issues out the presence of the jury?

MR. SMITH: Not on behalf of the Defense, Your Honor. But just for the --

THE COURT: You're excused off the stand, Doctor.

MR. SMITH: Just for the Court's edification and counsel too, I probably have about 10 minutes left with this witness. Just to give you an idea.

THE COURT: Thank you, Mr. Smith.

MR. SHARP: I don't have anything.

THE COURT: Thank you.

MR. ROBERTS: And Your Honor --

MR. SHARP: I mean, I'm sorry. What did you ask me, I didn't --

THE COURT: If you had any issues outside the presence of the jury.

MR. SHARP: No. That's what I thought you asked me and no I don't.

MR. ROBERTS: And I have one request, Your Honor. Our next witness following Dr. Chandra is Dr. Cohen. He's the local treating physician from Comprehensive Cancer Center. He's not a compensated expert, he's a local doctor under subpoena. He's supposed to be here at

1:00 o'clock, that was our, I guess, overly optimistic guess. We'd like to let him take the stand and get out in the middle of Dr. Chandra's because we expect our direct is only going to be 15 to 20 minutes. But, you know --

THE COURT: Any objection, Mr. Sharp?

MR. SHARP: I don't think so. I do -- we do have some issues that -- I think -- don't we have issues with Cohen in terms of -- well, I can just talk to -- we can confer with Mr. Roberts, so you don't have to waste time. There may be some issues, probably not, but.

THE COURT: Okay. Thank you. We'll see you right before 1:00.

MR. ROBERTS: Thank you, Your Honor.

THE COURT: Thank you.

[Recess taken from 12:02 p.m. to 1:02 p.m.]

[Outside the presence of the jury]

THE MARSHAL: Court come to order. Back on the record.

THE COURT: Thank you. Please be seated. Do the parties have some issues outside the presence of the jury?

MR. SHARP: Your Honor, I'm sorry I didn't mean to interrupt you.

THE COURT: That's okay.

MR. SHARP: I just -- we had just one issue on the Plaintiff and Dr. Cohen is the next witness. And there's -- he's going to testify with regard to what his opinion was on the standard of care in 2016 and I believe that's excluded under the after acquired motion in limine. I

mean, they never -- nobody at Sierra Health and Life conferred with him as before the denial, so that's the objection.

THE COURT: Thank you. Mr. Smith or Mr. Roberts --

MR. ROBERTS: That would be me, Your Honor. Your Honor, Dr. Cohen was a treating physician locally at Comprehensive Cancer Center. He was initially disclosed under 16.1. This person provided medical treatment to the decedent in the Comprehensive Cancer Center and as a result is likely to have discoverable information concerning the party's claims and defenses.

The deposition of the doctor was taken, let's see if I can get the date for the Court, on May 27th, 2021. And the doctor is the one who was going to treat him before he went to MD Anderson. And then he was asked if he ever sent patients to proton therapy. He said, yes. For certain specific cancers. And then he was asked if IMRT was the state of the art treatment or the standard of care at the time he was treating Mr. Eskew.

There was an objection made that it called for an expert opinion. It would be our contention that if he was coming up with a treatment plan and he did not recommend proton beam that we inquire as to the reasons he didn't because those decisions were made in the course of treatment.

But based on the objection we then supplemented our expert disclosures and indicated that in his deposition he gave opinions about the standard of care at the time he treated Mr. Eskew. And additional statements of fact an opinion as recounted in his 20 page deposition

transcript. He's a board certified radiation oncologist and we therefore disclosed him as an expert to the extent necessary to allow him to express the opinions he sort forth in his deposition.

We closed with to the extent that Plaintiff's object to this discloser as inconsistent with rule 16.1 A1F or not an appropriate supplementation under the same, Defendant's request notice and to meet and confer on this issue. And that was October 28th, 2021. And Mr. Gormley informs me that he never received notice that they objected to the supplement.

MR. SHARP: There's a difference between what's disclosed and what's admissible. I -- the question -- the only issue that I raised to, Your Honor, was the testimony about the standard of care as it existed in 2016. The only relevance to that question would be whether the denial conformed with the terms of the medical necessity because the Defense has said that standard of care is something they consider. That's after acquired. I mean, I'm not objecting to the testimony or whether or not they were referred to proton beam -- you know, proton beam therapy, testimony about the care that was provided, that's fine. The only issue that we have is the opinion regarding standard of care because that's only relevant to the question of the reasonableness of the denial.

MR. ROBERTS: It seems that we've left that barn a long time ago, Your Honor, and that the issue is now been put forward by their witnesses that proton beam therapy was the appropriate treatment and was the standard of care. And the fact that his own treating oncologist did not consider it to be the standard of care at the time he was treating

Mr. Eskew in 2015 and 2016 should be relevant to these issues, Your Honor.

THE COURT: Dr. Cohen will be allowed to testify. The Court finds that Plaintiff opened the door during their case-in-chief. Thank you.

MR. SHARP: Thank you, Your Honor.

THE COURT: Is Dr. Cohen here, Mr. Roberts?

MR. ROBERTS: Yes. He's here, Marshal. We had him here, and he was asked to leave so that we could argue these issues.

THE COURT: Are we ready?

THE MARSHAL: Ready for the jurors?

THE COURT: Yes.

[Pause]

THE MARSHAL: Okay. All rise for the jury.

[Jury in at 1:08 p.m.]

THE MARSHAL: All jurors are present.

THE COURT: Do the parties stipulate to the presence of the jury?

MR. ROBERTS: Yes, Your Honor.

MR. SHARP: Yes, Your Honor.

THE COURT: Thank you. Please be seated. You can be seated, sir, for now.

Ladies and gentlemen, due to witness scheduling we're going to take a short break with respect to Dr. Chandra. And in his stead we're having Dr. Cohen appear due to his scheduling issues. So Dr. Chandra will come back after Dr. Cohen is done. Thank you.

MR. ROBERTS: Thank you, Your Honor.

THE COURT: Madam Clerk, will you sweat the witness in?

THE CLERK: Could you please stand and raise your right stand?

ANDREW COHEN, DEFENDANTS' WITNESS, SWORN

THE CLERK: Will you please state and spell your first and last name for the record?

THE WITNESS: Andrew Cohen, A-N-D-R-E-W C-O-H-E-N.

THE CLERK: Thank you. You may be seated.

THE COURT: Please proceed, Mr. Roberts.

MR. ROBERTS: Thank you, Your Honor. And just for the record the defense calls as its next witness out of order Dr. Andrew Cohen.

THE COURT: Thank you.

DIRECT EXAMINATION

BY MR. ROBERTS:

Q Dr. Cohen, could you tell the jury first some of your background, focusing generally on your education after college and any medical experience that you had prior to today?

A Sure. I'm a radiation oncologist, and I trained in medical school at State University of New York Upstate Medical Center in Syracuse, New York. That was followed by an internship at Maimonides Hospital in Brooklyn, New York. Followed by a residency in radiation oncology at the University of Miami Jackson Memorial Hospital that was back in 1989 through '92. I received board certification in '93. And I've

been practicing radiation oncology first in south Florida, but since 1997 here in Las Vegas.

And we formed Comprehensive Cancer Centers in the year 2000. Radiation oncologists joined some medical oncologist to form a cancer center. I've been practicing there since. I focus my practice on well general radiation oncology. I treat all forms of cancer except pediatric cancers. And however, I do have a special interest in prostate cancer and brachytherapy and stereotactic body radiation therapy, several forms of radiation. And I'm currently the president -- practice president at Comprehensive.

Q And are you currently still practicing at Comprehensive Cancer Center?

A Yes, I am.

Q Okay. And what does it mean when you say you're president of that center?

A The -- we -- I represent the physicians of our practice. I sit on the board, and I'm also serve as a chairman of the board.

Q Are you board certified in any medical specialty?

A Radiation oncology, yes.

Q And I apologize, I didn't introduce myself. I'm Lee Roberts, I represent Sierra Health and Life.

A Uh-huh.

Q It's the first time we've met, right?

A Yes.

Q You mentioned you treated all forms of cancer except of

pediatric cancer, right?

A Right. As a resident we treat pediatric cancers, but we do not treat them at Comprehensive.

Q Thank you. And do you regularly treat patients with lung cancer?

A Yes.

Q And I know it may be hard to estimate, but approximately how many lung cancer patients would you estimate that you've treated since you began practicing as a physician?

A Many hundreds, probably over a thousand.

Q Did you treat Mr. William G. Eskew?

A I did.

Q And we took your deposition pursuant to a subpoena back in 2021, do you recall that?

A Yes.

Q And prior to that deposition did you review medical records to refresh your recollection of Mr. Eskew's --

A Yes.

Q -- case?

A Yes, I did.

THE COURT: Doctor, because the court recorder's taking everything that you say, if you can just wait until Mr. Roberts is done his question before you supply your answer, so we'll have a clean transcript. Thank you.

BY MR. ROBERTS:

Q And prior to testifying today -- well first let me ask you, why are you here today?

A I was subpoenaed.

Q Okay. And prior to coming into court today did you go back and review the medical records again?

A Yes. In the last few days.

Q And as you sit here today, was your memory refreshed and do you have good recollection of Mr. Eskew's case?

A Fairly well. I don't have it memorized.

Q So are you familiar with the fact that we also subpoenaed medical records from Comprehensive Cancer Center back before your deposition?

A I don't recall.

Q Okay. Let's --

MR. ROBERTS: Your Honor, I believe Exhibit 169 is already in evidence. So Audra, I'd like to put on the screen Exhibit 169, beginning page 122.

BY MR. ROBERTS:

Q Do you recognize this, Doctor, as a medical record from Comprehensive Cancer Centers of Nevada?

A Yes.

MR. ROBERTS: And could you blow up the patient and the date here in the middle, Audra?

BY MR. ROBERTS:

Q And can you identify the patient and the date of this medical

record?

A Patient is William G. Eskew, and the date is August 20th, 2015.

Q And who was the attending physician?

A I was.

Q At this time in August of 2015 do you recall what your working diagnosis was of Mr. Eskew's condition, or would it help you to go to the section on pathology and impression?

A Yes. To the best of my recollection he had squamous cell carcinoma. It wasn't absolutely clear where the primary lesion started from, what the source of that was, but it had spread to bone.

Q And at this time do you recall what the incident was which had brought this issue to your attention and Mr. Eskew's attention?

A A fracture of a bone in his arm.

Q And did you do a biopsy or otherwise determine that the fracture had been caused by cancer?

A Prior to seeing me he had been operated upon by orthopedic surgeons and they did a biopsy at that time which found squamous cell carcinoma.

Q And did you believe that the cancer had originated in the bone at the place of the fracture?

A I did not, most squamous cell carcinoma don't originate in bone.

Q So when you say it was uncertain, you're saying the primary site was uncertain at that time?

A Correct.

Q But you knew it was metastatic; is that fair?

A Yes.

Q And what stage was the cancer at the time Mr. Eskew was originally diagnosed with cancer after the break in his arm?

A Four.

MR. ROBERTS: And Audra, if we could go to page 124. Pathology. And we're going to pull up the pathology section from the same medical record.

BY MR. ROBERTS:

Q And can you review that and tell me does the medical record confirm the testimony that you just gave to the jury?

A It does.

Q Looking at impression and recommendations. Do you see that?

A Yes.

Q The first sentence where it states, "with regards to the metastatic cancer of the distal humerus status post ORIF palliative radiation therapy to control tumor and aid in the healing is recommended". Do you see that?

A Yes.

Q Okay. First of all, could you tell the jury what does ORIF refer to?

A Operative reduction internal fixation. It's a surgery that they do to repair a bone.

Q So this was the surgery on his arm following the golfing incident?

A Yes.

Q "Palliative radiation therapy to control tumor." Does the use of the word palliative indicate anything to you here?

A In contrast to curative.

Q So if this was curative it would not be palliative; is that right?

A Palliative is without the expectation of cure.

Q And at this time when you first saw Mr. Eskew following the break in his arm, was the treatment you were recommending designed to be hopefully curative?

A No.

Q And did you believe more likely than not that the cancer could be cured at this point?

A More likely than not, no. I did not believe that it could be cured.

Q And what was that based on, sir, at the time you were seeing him at this time?

A Statistics regarding stage 4 cancers in general.

Q After this the jury's seen that Mr. Eskew sought treatment at MD Anderson, did you make that referral to him?

A No, I did not.

Q And are you aware that he received proton beam therapy at MD Anderson -- I'm sorry. That he received IMRT treatment at MD Anderson?

A I have been made aware of that, yes.

Q And have you now been made aware that he also received a request for preauthorization for proton beam treatment at MD Anderson from his doctor there?

A I have become aware of that, yes.

Q Are you familiar with proton beam radiation therapy?

A To a limited extent, yes.

Q And as a radiation oncologist do you have a general knowledge and understanding of it?

A Yes. Although I don't personally treat with proton beam therapy and it's not available locally.

Q Is there a proton beam therapy center anywhere in the State of Nevada?

A Not that I know of, no.

Q Have you ever referred a patient to receive proton beam radiation therapy?

A Yes, I have.

Q For what type of diagnosis?

A It was a patient with a recurrent esophageal cancer adjacent to an area that had prior radiation therapy, that was one. There was a patient with a type of spinal cord tumor, that was another I can recall. And then there probably have been less than half a dozen patients who have personally requested that I help refer them to a proton beam center for various types of tumors, such as prostate cancer or head and neck cancer.

Q After Mr. Eskew went to the MD Anderson Center for his IMRT treatment --

A Uh-huh.

Q -- did you continue to treat him as a treating physician?

A I was re-consulted to treat him after he had gone to MD Anderson, so --

Q Do you recall --

A -- I wasn't his primary physician, but I had treated him. Yes.

Q And why were you re-consulted to treat Mr. Eskew after his MD Anderson treatment?

A He developed a lesion in the other arm and the physician at MD Anderson requested that we give radiation therapy to that area as well.

Q So after his IMRT at MD Anderson the cancer started spreading again?

A Yes.

Q And did you provide radiation treatment before the IMRT at MD Anderson on his original arm that fractured when he was playing golf?

A Yes.

Q And did you apply radiation therapy to Mr. Eskew on his subsequent spreading, which I believe was up near the ball joint or the shoulder?

A Yes.

Q At the time you were a treating physician and consulting with

Mr. Eskew in between those two treatments, did you believe it was necessary for him to have proton beam therapy in order to treat his lung and chest tumors?

MR. SHARP: Objection, Your Honor. Can we approach?

THE COURT: Yes.

[Sidebar at 1:24 p.m., ending at 1:25 p.m., not recorded]

MR. ROBERTS: Court's indulgence just for a second, Your Honor.

THE COURT: Of course, take your time.

BY MR. ROBERTS:

Q So let me rephrase that question. At the time that you saw Mr. Eskew and you treated his arm, did you know about the tumors in his chest?

A I don't have a specific recollection of that, but I would presume that I did.

Q And did you ever refer Mr. Eskew to receive proton beam therapy?

A No.

Q Have you ever treated lung cancer with intensity modulated radiation therapy or IMRT?

A Yes.

Q Is that a common practice in your experience?

A Yes.

Q And based on your experience, is IMRT or was IMRT considered the standard of care for radiation treatment when it came to

lung cancer such as that that Mr. Eskew had?

A In the area that he was treated I'm not sure that it was the standard of care yet.

Q So you could explain what you mean, not the standard of care yet?

A The standard of care prior to IMRT was 3D conformal radiation therapy. It's a different modality of radiation. But eventually it evolved with more data to show better results with IMRT.

Q So was IMRT more of a cutting edge advancing technology at that time?

A I think at that time it was, yes. For lung cancer, yes.

Q Are you familiar with the side effect of esophagitis from radiation therapy treatment?

A Yes.

Q And what is esophagitis?

A Inflammation of the esophagus.

Q And are you familiar with the side effect of dysphagia?

A Yes.

Q And what is dysphagia?

A Difficulty or painful swallowing.

Q If you're treating a patient in your practice that's received radiation therapy in the area of the esophagus, have you ever seen patients suffering from esophagitis and dysphagia following radiation treatment?

A Yes. It's very common.

Q And if you saw a patient was it your standard practice at that time to ask questions about whether or not that side effect was occurring?

MR. SHARP: Objection, Your Honor. Same objection asserted a moment ago.

THE COURT: Mr. Roberts?

MR. ROBERTS: I think I can show him the deposition, hopefully that may resolve that.

THE COURT: Okay.

BY MR. ROBERTS:

Q You reviewed the medical records of Comprehensive Cancer Center before you came in here?

A Yes.

Q In your opinion are those accurate and complete based on your recollection of the case?

A Yes.

Q Thank you, Doctor.

MR. ROBERTS: I have no further questions, Your Honor.

THE COURT: Thank you. Mr. Terry?

CROSS-EXAMINATION

BY MR. TERRY:

Q Hello, Dr. Cohen. My name's Doug Terry. I represent Mrs. Eskew who is the representative of the estate of your patient Bill Eskew.

A Uh-huh.

Q Just as a matter of saying hello. I've not met you before,

right?

A Correct.

Q Not me or Mr. Sharp or anybody over here has ever spoken to you?

A I don't recall ever speaking to any of you.

Q Okay. And have you spoken to anybody on this side of the courtroom?

A I don't believe so, no.

Q Okay. So does Comprehensive Cancer Center have a contract with UnitedHealthcare or Sierra Health and Life or Health Plan of Nevada, any of those entities?

A Some of them.

Q Okay.

A Yes.

Q All right. So it's true to say isn't, Dr. Cohen, that Bill Eskew broke his arm swinging a golf club because he had a tumor in his arm that he didn't know about, right?

A I believe that's true.

Q Okay. And so there was -- it was soon learned that he had lung cancer and that was the primary site?

A Eventually that was the conclusion, yes.

Q Okay. So Bill wanted to go to MD Anderson to get treated for his lung cancer, did you know about that?

A Yes.

Q Okay. And between the time of the diagnosis with cancer

after the broken arm, some work had to be done on his arm to get him in shape so he could go to MD Anderson in the first place, right?

A Correct.

Q Okay. And that's where you came into the picture as the radiation oncologist to deal with the arm?

A Right.

Q Okay. And to radiate the arm you did not need any sort of conformal -- or you didn't need any sort of intensity modulated radiation to do that, right?

A Correct.

Q Because you could put Bill on a treatment table and stick his arm out and you can shoot photons into his arm that go right through his arm. It's okay you're not near anything, any organs at risk?

A Correct.

Q So you didn't need to worry about IMRT or proton therapy, you could just use conventional radiation therapy for that?

A Correct.

Q Okay. And the idea is that there's -- there is conventional radiation therapy, which is photon based and then there's IMRT, which is photon based. You with me so far?

A Yes.

Q IMRT being more accurate than conventional radiation therapy because of the computer control over the intensity modulation, right?

A More conformal rather than accurate I guess.

Q Okay. And then there's also proton therapy?
A Right.
Q Which is not photon based at all?
A Correct.
Q And you know that much about proton therapy obviously, you're a radiation oncologist, you know something about it, right?
A Yes.
Q Okay. So you did the treatment on Bill's arm for -- I can't remember how many fractions. There were a number of fractions, but you finished I think 30 gray of treatment on his arm?
A 10 fractions.
Q 10 fractions, 30 grays and you were -- successfully completed that therapy, true?
A Yes.
Q I mean, there wasn't any --
A Yes.
Q -- no unusual complications. You reached the goal that you set out to reach by radiating the arm, right?
A The intense -- yeah.
Q Okay. So you didn't know that -- I think you've told us and please correct me if I'm wrong. You didn't know that Mr. Eskew -- back then you didn't know that Mr. Eskew was going to MD Anderson; is that true?
A I'm not sure.
Q Okay. But you know who MD Anderson is?

A Yes.
Q Okay. Tell us what you know about MD Anderson? Just in general, Doctor.
A It's probably the largest cancer center in the United States. It's very well respected. It has high quality care.
Q Okay. And there is a physician there by the name of Zhongxing Liao. She's a long time radiation oncologist specializing in thoracic cancers at MD Anderson. You ever hear of her?
A I believe I spoke with her.
Q Like after the original round of radiation therapy, right?
A Right.
Q Okay. Now do you know Dr. Liao's resume or qualifications, anything like that?
A No, I don't.
Q Okay. So -- now but you do know that there's a proton center at MD Anderson in Houston?
A Yes.
Q Okay. And you know that the proton center at MD Anderson is therefore affiliated with one of the top cancer centers in the world, right?
A Yes.
Q Okay. Now Dr. Liao has testified in this case, do you know anything about what she said?
A No.
Q Okay. A gentleman named Dr. Andrew Chang has testified in

this case about propriety of proton therapy and do you know anything about what he had to say?

A No.

Q Now you have not regularly -- well, let me back up. There's no proton center in Las Vegas, Nevada, right?

A Right.

Q There's -- there are a couple of proton centers in southern California though, right?

A Yes.

Q One in Loma Linda and one in San Diego?

A Yeah.

Q Okay. And you've testified here today that sometimes you will send patients to -- refer them out for proton therapy?

A Yes.

Q You don't think there's anything wrong with proton therapy, do you?

A Absolutely not.

Q In the right context it can be a tremendous tool, do you agree with that?

A Absolutely.

Q And the right context should best be determined by the treating physician of the person who has the cancer in their body, would you agree with that?

A In an ideal world, yes.

Q Okay. And what if the treating physician we're discussing

here is a world-renowned thoracic radiation oncologist at MD Anderson, don't you think that person is the person that ought to choose the modality of radiation for a lung cancer patient they're treating?

A Well, that would give them credibility.

Q Okay. So there's been a lot of talk and I don't -- I guess I don't understand. But there's a lot of talk about, well, there's no proton center in Las Vegas or in the whole state of Nevada. Does that in your mind, Dr. Cohen, somehow render proton therapy unproven or experimental or investigational because there's not one here?

A That specific criteria does not render it --

Q Okay.

A -- unproven or investigational.

Q Okay. And so I take it that you would not have any criticism of Mr. Eskew and his family seeking out the advice of a world-renowned lung cancer radiation oncologist at MD Anderson in an effort to determine if proton therapy was the right thing for them?

A No criticism at all.

Q Okay. And so if you had been consulted with regard to Mr. Eskew's lung tumor and his mediastinal tumor that he had in his chest and if the Eskew family had said to you, Dr. Cohen, we're thinking about going to MD Anderson to get consulted -- to consult with them about getting proton therapy. You would have said, I think that's a good idea?

A I always encourage my patients to seek out tertiary care opinions.

Q Okay. And MD Anderson would be a fine place to go do that,

wouldn't it?

A Yes.

Q Okay. So just -- and I'm not being pejorative here, so please don't take it this way. You're not an expert on proton therapy?

A I said so myself.

Q Okay. You've never treated patients with proton therapy?

A Correct.

Q And you would really need someone with experience specifically with proton therapy for lung cancer to weigh in intelligently on whether proton therapy is appropriate for a specific patient's specific cancer, wouldn't you? If you're going to look at the question of proton therapy.

A I would consult a person who has expertise in proton therapy.

Q Right. And you would not think that that would ever be a medical oncologist, would you?

A Medical oncologist, I'm not sure who would have the best expertise in general. The radiation oncologist would be delivering the proton therapy.

Q Right.

A But to have knowledge about how to treat cancers --

Q Sure.

A -- might be in the hands of the medical oncologist also.

Q Sure. You've got medical oncologist in your group, right?

A Yes.

Q Dr. Clark Jean for instance?

A Yeah.

Q But if somebody is making a decision about the modality of treatment with radiation therapy be it IMRT or proton therapy for this person's mediastinal tumor adjacent to his esophagus, then you would want the person to be a radiation oncologist and not a medical --

A Yes.

MR. ROBERTS: That's all I have. Thank you, Dr. Cohen.

THE COURT: Thank you. Any redirect, Mr. Roberts?

MR. ROBERTS: Yes, Your Honor. Audra, could you put up page 123, back to Exhibit 169?

REDIRECT EXAMINATION

BY MR. ROBERTS:

Q Now Mr. Terry just asked if you thought the treating physician was in the best position to decide what treatment to recommend, you kind of agreed with that, right? That a treating physician at least is good -- is in a good position to recommend treatment?

A Yes.

Q And you were one of Mr. Eskew's treating physicians, right?

A Yes.

Q And this is back in the medical record in August of 2015.

MR. ROBERTS: Down at the bottom on the studies. Very last paragraph, Audra.

BY MR. ROBERTS:

Q And you said you think you probably knew about the lung cancer, does this refresh your recollection as to whether the studies that you'd done at the time that you knew about the lung cancer?

A Yes.

Q You did know about it, right?

A I knew there was a tumor in the lung, I did not know whether that was the primary tumor.

Q Okay.

MR. ROBERTS: And if you go to page 122, Audra. This is the same medical record right at the beginning. If you could blow up the --

THE COURT: Mr. Roberts, hold on.

MR. ROBERTS: Oh I'm sorry.

THE COURT: That TV's off.

[Pause]

THE COURT: All right. Mr. Roberts, please proceed.

MR. ROBERTS: Thank you very much, Your Honor.

BY MR. ROBERTS:

Q And this back to the first page of the medical record.

MR. ROBERTS: It's off again.

[Pause]

THE COURT: Let's take a break and call IT. We're going to --

MR. ROBERTS: Okay. Your Honor, this is the last thing I needed to show him. Maybe we can finish up with Dr. Cohen unless you think you're going to need to display anything out of this. I think this is big enough over here, I can do this, Your Honor. So Mr. -- unless the

Court would like to take a break to fix it.

THE COURT: Ladies and gentlemen, can you see that? Okay.

UNIDENTIFIED JUROR: You've got the pole right in the way.

THE COURT: You can stand up in the corner if you'd like.

UNIDENTIFIED JUROR: Okay. I can see it.

BY MR. ROBERTS:

Q So at the time you were a treating physician did you know that Mr. Eskew had non-small cell lung cancer?

A I believe what you're showing is something that's auto populated on the note based upon the shared medical record that another physician entered that data into. And my recollection of my impression or evaluation at the time stated it was not absolutely clear at that moment whether this was an unknown primary. There was -- the pathology was consistent with a possible urothelial primary or lung primary, so it wasn't 100 percent determined.

Q Okay. You knew he had cancer in his lungs, you just didn't know if it was primary cancer or metastatic cancer; is that fair?

A Right, yes.

Q Okay. And you recommended certain radiation treatment for his arm at this time, right?

A Yes.

Q And you testified earlier you did not refer him for proton beam therapy at this time as his treating physician?

A Yes.

Q Why not?

A At this time -- first of all, the question wasn't posed to me. He was also in the care of a medical oncologist and the typical treatment approach at the point would be to proceed with chemotherapy.

Q Okay. Thank you, Doctor.

MR. ROBERTS: Nothing further, Your Honor.

THE COURT: Thank you, Mr. Roberts. Mr. Terry?

MR. TERRY: Real quick, Your Honor.

RECROSS-EXAMINATION

BY MR. TERRY:

Q Dr. Cohen, the fact of the matter is you weren't treating him for his lung cancer, right?

A I was not, no.

Q You were treating him for his arm, not his lung cancer?

A Correct.

Q Okay. Thank you.

THE COURT: Mr. Roberts?

FURTHER REDIRECT EXAMINATION

BY MR. ROBERTS:

Q But even though you're just treating him for his arm you were aware of the standard of care for the treatment of lung cancer, right?

A Yes.

Q And in Nevada in 2015 and 2016 was proton beam therapy required by the standard of care for lung cancer?

A Not required by the standard of care.

Q Thank you, Doctor.

THE COURT: Mr. Terry?

FURTHER RECROSS-EXAMINATION

BY MR. TERRY:

Q Dr. Cohen, I mentioned Dr. Zhongxing Liao, the world-renowned thoracic radiation oncologist at MD Anderson.

A Uh-huh.

Q She testified in this case that at MD Anderson where Mr. Eskew went to be treated for his lung cancer that proton beam therapy is the standard of care. Do you have any reason to disagree with that? I don't think it was back then in 2016.

A She testifies as to her opinion.

Q Right. You have no reason to disagree with her, right?

A I understand that there are many opinions --

Q Sure.

A -- that can be valid.

Q But she would have a better idea what the standard of care at Houston, at MD Anderson would be than you would obviously, right?

A Of course.

Q Okay. Thank you.

THE COURT: Mr. Roberts?

FURTHER REDIRECT EXAMINATION

BY MR. ROBERTS:

Q Were the hundreds of patients you treated for lung cancer in Nevada with something other than proton beam therapy all receiving

treatment that was under the standard of care?

A Yes.

Q So you didn't meet the standard of care?

A I'm sorry?

Q The treatment you were giving your patients, for hundreds of patients over 10 or more years was all underneath the standard of care, it did not meet the standard of care?

A No. I believe I was meeting the standard of care.

Q Okay. Thank you, Doctor.

MR. TERRY: Nothing further, Your Honor.

THE COURT: Dr. Cohen, you are excused. Thank you.

THE WITNESS: Thank you.

THE MARSHAL: Judge, I think [indiscernible].

THE COURT: Wait, hold on. Sit back down. Counsel, will you approach?

[Sidebar at 1:46 p.m., ending at 1:47 p.m., not recorded]

THE COURT: Dr. Cohen, this is from a juror. What are the stages of cancer? Stage 1, Stage 2, Stage 3, Stage 4, Stage -- Stage question mark and how are they different?

THE WITNESS: So I'll speak to lung cancer specifically. Stage 1 would be a small tumor in the lung itself, not involving lymph nodes. Typically one that can be potentially cured with surgery. Stage 2 is now a bit larger involving what we call hilar lymph nodes which are the lymph nodes going toward the center of the chest. Stage 3 now the tumor could be larger. It could be possibly invading the surrounding

structures around the lung like the chest wall. It could be also involving mediastinal lymph nodes which are in the center of the chest. And then Stage 4 there are a couple of types. The more common being where it has spread outside of the chest into other organs. It could also be in multiple spots in both lungs.

THE COURT: And is there a stage past Stage 4?

THE WITNESS: No.

THE COURT: Any follow up, Counsel?

MR. TERRY: None from us, Your Honor.

MR. ROBERTS: None for us, Your Honor.

THE COURT: Any additional questions from the jury? There being none, Dr. Cohen, you are released from your subpoena. Thank you.

THE WITNESS: Thank you, Judge.

THE COURT: Is it working?

[Court and Court staff confer]

THE COURT: Mr. Roberts, would you call your next witness.

MR. ROBERTS: We would resume the direct examination of Dr. Chandra, Your Honor.

THE COURT: All right. Please proceed.

UNIDENTIFIED SPEAKER: It's not working?

MR. SMITH: Yeah, it's not working. That one is going off and on.

UNIDENTIFIED SPEAKER: Now it's back on. It's on.

MR. SMITH: Now it's off.

THE COURT: Can the jurors see the main -- your screen?

UNIDENTIFIED SPEAKER: Yeah.

THE MARSHAL: I can roll it out, Judge?

THE COURT: Yes, please roll it out.

THE MARSHAL: Tell me when to stop. Just let me know.

THE COURT: Okay. Can everyone see that? All right. Please proceed.

THE MARSHAL: You want me to go over this way?

THE COURT: That's okay. Can everyone see that? All right. Please proceed, Mr. Smith. Thank you.

MR. SMITH: Thank you, Your Honor.

AMITBAH CHANDRA, DEFENDANTS' WITNESS, PREVIOUSLY SWORN

DIRECT EXAMINATION CONTINUED

BY MR. SMITH:

Q Doctor, I believe we finished off before lunch we were talking about insurance companies and whether or not they would, you know, whether or not they -- they should or are motivated solely about profit. Do you remember talking about that?

A That's correct.

Q Okay. Can you remind us what your conclusion was about that?

A The conclusion was that as long as you have either market forces at work that would reduce the tendency of insurance companies to prioritize profits over patients or regulation, then we're not going to be

in this situation. So I think what we should be thinking about is let's talk about the regulation. Let's just start with that. The regulation says that insurance companies in this space cannot make more than -- cannot spend more than 20 percent on profits and on administrative cost. If they do more than that, so if they just kind of end up rejecting claims and making a ton of profits that way, they would have to rebate those profits back to their enrollees. That's known as the MLR, medical loss ratio regulation. So that's one -- one way that this -- that -- one reason that I have come to this opinion.

And the other reason is there's also a market discipline on insurance companies. If they just rejected claims and put profits over patients, then patients would move to other insurers. In addition, hospitals and physicians would refuse to take payment, refuse to sign contracts with insurers who they know would just reject their claims. So that was my -- the three reasons for why I arrived at opinion four.

Q Then our last [indiscernible]. Insurance companies have the responsibility to deny inefficient care. So this kind of brings me back to something that you said at the beginning of your testimony when I asked you what did you review during the course of your retention in this case. And I believe you told us that one of things you did was review reports produced by Plaintiff's experts, including one Mr. Prater. Do you recall that?

A That's correct.

Q And did you have a chance to also listen to Mr. Prater's testimony?

A I did.

Q Do you recall testimony from Mr. Prater to the -- arriving at a conclusion that essentially claims that were made -- any claims made to insurance companies that are not fraudulent should be approved?

A I do remember him saying that, yes.

Q And do you agree with that opinion?

A I disagree with that opinion completely.

Q Because why?

A Because imagine a claim where a doctor is trying to avoid the threat of malpractice or litigation. So a physician says I'm worried that this patient will sue me, and so I'm going to refer this patient to the procedure or treatment that this patient wants. Well, that's not a fraudulent claim. That's a real fear that the physician has. But if we were to pay that claim, we would have delivered inefficient healthcare and increased health insurance premiums for all of us.

Alternatively, take a very expensive medicine where the physician often gets paid extra money to prescribe an expensive medicine. We would not want -- that's not a fraudulent, you know, again, not a fraudulent claim, but we would want someone to deny a claim brought about by a physician who has a financial incentive to prescribe a particular medicine.

Q Do you have any concerns overall either with the report that Mr. Prater produced that you had an opportunity to review or his testimony that you had an opportunity to review when it comes to the concept of efficient medical care as you've been speaking about it here

today?

A I don't know Mr. Prater and, as you know, I'm new to all of this. He knows a lot of things that I don't know. But I think what -- a perspective that is missing in his report and his testimony is that you got to balance the benefit of care against the cost of delivering that care. You can't just put weight on benefit. Just as I said earlier, you can't just put weight on cost either, but you got to constantly balance them. And if you don't do that, we get into the world that we're in and often struggling with as a country where premiums go up not because the care is getting better, but because the care is wasteful, perhaps even harmful.

Other people struggle to pay their insurance premiums. Some people go uninsured. They face medical debt, medical bankruptcy. Taxpayers pay more in taxes. Employers move people into part-time jobs where they don't have to offer them health insurance. So that -- that's the world I want to avoid. And I felt like that tradeoff between the benefit of care against the affordability of care was missing from Mr. Prater's testimony in my reading of that testimony.

Q Doctor, coming to the end -- coming to the end of my examination, so I kind of just want to take a couple seconds to just kind of bring this all home and sum it up in a nutshell. And so as applied to this case, in a nutshell, it would appear that the Plaintiff's position is that, you know, all health insurers care about is cost and that that's a bad thing and that utilization management procedures such as those that require prior authorization review are an example of that, and further that those are indicative of the system being rigged.

First let me ask you this. Is it your opinion that it is bad for health insurers to consider costs?

A It is bad, counsel, for health insurers to only consider costs.

Q Right. My point -- so I guess I asked that poorly. I was hoping you were going to say no, that's not -- as long as that's not the only thing that they consider. Would that be fair?

A That would be fair.

Q Okay. But it would also be fair to say that it's -- there's nothing wrong with health insurers -- there's nothing wrong with health insurers considering costs?

A That's correct.

Q And in fact, that's a good thing because it promotes efficient healthcare?

A That's correct. As long as when they consider costs, they also think about the benefit of the care then that's a good thing for society.

Q How about the notion that utilization management and prior authorization review are indicative of the system being rigged?

A You'd have to give me a more specific example of what you mean by rigged. What does rigged mean here, Counsel?

Q They it -- that it unfairly stacks odds against say the patient or the physician.

A I would disagree. If that is the definition of rigged, I would disagree with that characterization as long as you have regulations like we do like the MLR and as long as you have market forces that work that

allow patients to exit from that insurance contract. If we have those protections, market forces and regulations, then I don't think that the system is rigged using the definition of rigged that you just suggested.

Q Based on your research, is it your opinion that, at least in America, that health insurers do in fact only consider costs when making coverage determinations?

A No. It is not my view that they only consider costs when they make these determinations because if that were the case, health insurance would be very, very cheap in America. It would be extremely cheap, and it is not. It is extremely expensive.

Q Do you have any other evidence to support that?

A Health insurers cover a variety of extremely expensive medical technologies every day. They cover the birth of babies who are born in level 3 NICUs because they're premature. They cover incredibly expensive immunotherapies for lung cancer, breast cancer, other cancers. They cover gene therapies for spinal muscular atrophy and inherited blindness that are in the millions of dollars. Much more expensive than proton. And they do that because there's evidence that those technologies work. Those technologies are transformational to the patients who receive them.

Q And in fact, Doctor, would it be fair to say that based on your research, proton therapy isn't denied in all cases, correct?

A It is not denied in all cases. That's correct.

Q Doctor, the articles that we've seen today that you've discussed with us and informed us about have those articles and

research formed the basis of these opinions that you've testified to us?

A They have.

Q And have all your opinions been rendered to a reasonable degree of economic probability?

A Yes.

MR. SMITH: Court's indulgence.

THE COURT: Of course.

MR. SMITH: Judge, thank you. I'll pass the witness.

THE COURT: Thank you.

Mr. Sharp.

CROSS-EXAMINATION

BY MR. SHARP:

Q Good afternoon, sir.

A Good afternoon.

Q I want to follow up that last question. Did you -- did you offer commentary about Mr. Prater's coverage analysis that you listened to on BlueJeans?

A No.

Q So we're clear, you've never made a coverage decision?

A I have not made a coverage decision.

Q You're an economist?

A Correct.

Q And so you talked a little bit today about the efficacy of proton beam therapy, right?

A Correct.

Q But just so we're clear, you're not a medical doctor?
A I'm not.
Q Now, when you were retained by Sierra Health and Life, were you -- did they -- did they put any kind of constraints on your analysis?
A Not to my recollection.
Q Did they tell you, you know, we won't give you documents?
A Not to my recollection.
Q Did they offer to give you any documents?
A All the documents that they gave me I listed, sir.
Q Because we've been sitting here for quite some time and the one person that really wasn't mentioned in your testimony was Bill Eskew?
A Correct.
Q And it's true that Sierra Health and Life didn't give you the claims file?
A They did not.
Q Now you testified that you were given the insurance contract?
A Correct.
Q But when I looked at your report this morning, it said you only got 11 pages of that contract?
A That sounds about right. Correct.
Q So whatever is in your report we can rely upon this portion of the plan that you were actually provided?
A That would be appropriate.

Q And --

MR. SHARP: Jason, could we pull up the jury instruction on -- I think that's the third one. Keep going up. I think we got it [indiscernible]. That right there. There you go. There we go.

BY MR. SHARP:

Q So how many days were you watching the trial?

A Well, I've read the -- you mean this trial, sir?

Q Yeah.

A I only read the thing that was sent over to me from a few days ago.

Q So you read a trial transcript?

A That's correct, sir.

Q So I thought you were -- you just testified that you were on BlueJeans?

A Is that the same -- I don't know exactly what that is. Is that the same as the --

Q So --

A -- video and the trial transcript that I was sent over?

Q So -- so you were given a video and a trial transcript?

A That's correct, sir.

Q And that was of Mr. Prater?

A Yes.

Q Any other testimony that you were provided?

A It was for the day I think, so they were all in there --

Q So --

A -- for the day.
Q -- you've heard the testimony from everyone from Shamoon Ahmad to -- up to yourself?
A For that one day, sir.
Q Just one day?
A Yeah.
Q Okay. I'm trying to figure out.
A Yeah, yeah.
Q You had Mr. Prater?
A Yeah.
Q And --
A That's the one that I read --
Q Okay.
A -- very carefully.
Q Got you.
A Yes.
Q Any other testimony that you were given to read?
A Mr. Eskew's children were interviewed that day in court, I believe, and I read that.
Q Did you read them?
A I read that, yeah.
Q It is Eskew.
A Eskew.
Q Thank you. So any of that? I want to make sure that we're clear. This is -- the attorneys never provided you the jury instructions

that this Court gave?

A No.

Q This is the dispute that we're here to resolve. Whether or not Sierra Health and Life breached its duty of good faith and fair dealing to Mr. Eskew. Do you understand that?

A Correct.

Q And you're certainly not an expert on the duty of good faith and fair dealing?

A I'm not.

Q So the first element is the proton beam therapy was a covered service under the terms of the agreement of coverage. You didn't reach any opinions on that?

A I did not.

Q The next one is Sierra Health and Life had no reasonable basis for its February 5, 2016 denial of the prior authorization claim. You didn't review the denial, right?

A I did not.

Q So you don't have any opinions on element two?

A Sir, if I can just comment on --

Q Well, let me ask it this way.

A Yeah.

Q You can't testify about whether or not the denial of February 5, 2016 was reasonable since you never read the denial?

A That's correct. But I can speak to --

Q Okay. Now we can go to the next one. Third point, Sierra

Health and Life knew or recklessly disregarded the fact that there was no reasonable basis for the February 5, 2016 denial of the prior authorization. You didn't read the February 5, 2016 denial, right?

A That's correct.

Q Fourth one. Sierra Health and Life's denial is a legal cause of harm to William Eskew. Did I read that correctly?

A You read that correctly.

Q You're not a medical doctor, right?

A No.

MR. SHARP: Jason, you can pull that down.

BY MR. SHARP:

Q Now, where you provided Dr. Liao's deposition testimony?

A Is that -- give me one second. Is that -- that name rings a bell, sir. That is --

Q That's the treating physician who made the recommendation from MD Anderson to treat Mr. Eskew with proton beam therapy. Were you given her deposition?

A I don't recall seeing her deposition.

Q Let me ask you this. Do you have any reason as we sit here today when you wrote your report to disagree with her opinion? And in her medical opinion, Mr. Eskew would have benefitted from proton beam therapy.

A I have not come across papers in the medical literature --

Q Sir --

A -- that would suggest that proton would have been a valuable

intervention here, but I have not seen the other physician's --

Q Okay.

A -- opinions, sir.

Q I understand the message. My question is pretty specific.

A Yeah.

Q You're not a doctor?

A I'm not a doctor.

Q Dr. Liao testified under oath that she believed that the best therapy for her patient, Mr. Eskew, was proton beam therapy. You had no reason to disagree with that?

A I don't, but if I can --

Q Sir, so the answer is you don't?

A Yeah, I don't.

Q I understand you like to ask, you know, add things on. Your attorney, Mr. Smith, will have an opportunity to clarify anything on my end.

A I understand.

Q I understand it's your first time, and I don't mean to cut you off. Now, did you -- were you provided Dr. Chang's testimony? Do you know who Dr. Chang is?

A Remind me, sir.

Q Dr. Chang is the expert that we brought before this jury. He's a radiation oncologist who does proton beam therapy.

A This name rings a bell.

Q You wrote about him in your report?

A Yes.

Q Now, Dr. Chang goes around the country and the world teaching people about proton beam therapy. Are you here to tell the jury that he's kind of -- some kind of fraud because he's promoting proton beam therapy?

MR. SMITH: Objection, Your Honor. Argumentative.

THE COURT: Overruled.

THE WITNESS: Sir, I don't -- I don't believe I called anyone a fraud in my report. But I do note again and again that the opinions of eminent physicians have often been overturned through broader scientific examination and evidence.

BY MR. SHARP:

Q So the answer to my question is no?

A No.

Q Now, Dr. Chang presented evidence to this jury to demonstrate why proton beam therapy was better than IMRT. Did your lawyers provide you that information?

A No, but I've seen similar information, sir.

Q So do you have any basis, medically, to say Dr. Chang's interpretation of the data that Mr. Eskew would have benefitted from proton beam therapy was correct?

MR. SHARP: Judge, objection. It's outside the scope of this witness's expertise. He's testified that he's not a doctor nor was he retained to render medical opinions.

THE COURT: Overruled.

THE WITNESS: Sir, do you -- will you just repeat the question so I can give you a simple answer?

BY MR. SHARP:

Q Yes, sir. Here we have -- we have a doctor and radiation oncologist, and he showed to this jury why in his opinion Mr. Eskew would have benefitted from proton beam therapy, and you have no basis to question his medical judgment?

A That's correct. I cannot question his medical judgment.

Q In fact, you've talked about all of these papers that you've run, and I respect that, but you've never made the medical judgment call because you're an economist?

A That's correct.

Q And you might have interesting discussions about public policy, and you and I might be able to debate those in another setting, but you're here in a legal setting. Do you understand that?

A I understand.

Q And did you ever ask the insurance company, like, you're not a specialist in the insurance stuff and good faith and fair dealing, you're not a medical doctor, do you say why you bringing me here?

A I think when they brought me in, sir, they said we want you to talk about issues related to what happens when insurance companies approve every claim. Can you speak to that as an economist? And that's what I've spoken to in my report, sir.

Q I understand. And whether we love, whether we like, whether we're indifferent about utilization management, it really doesn't

matter because it's in the insurance contract, right? Or you wouldn't know. You didn't read it. Let me -- let me give you a hypothetical. If Sierra Health and Life put into its contract the ability to do utilization management, follow me so far, it really doesn't matter what our personal opinions are about utilization management. It's in the contract.

A Okay.

Q People follow contracts, right?

A Okay. Yes.

Q And you seem to be, listening to you, a promoter of free economics. You're a believer in markets?

A I also believe in regulations, sir.

Q Okay. We'll get to that later. But you're a believer in the marketplace?

A Correct.

Q And when you teach people at Harvard about economics, do you tell them hey, contracts don't matter?

A No, I don't teach that.

Q In fact, you tell them contracts are important?

A Correct.

Q Contracts are important to form a predictable and free marketplace, right?

A I agree with that.

Q And when you enter into a contract, do you tell your -- your students you don't need to read it, you don't need to follow it? Do you ever tell your students that?

A I don't tell them that.

Q So you would agree with me that from a free economic perspective an insurance company should be expected to follow its insurance contract?

A Sure, I agree.

Q And when a claim comes in, it should be expected to consider the insurance contract? You agree with that?

A The insurance -- whatever the word is, I'm worried that insurance contract might be a specialized term --

Q Right.

A -- but I agree with you on the spirit of the question, yes.

Q It's an -- I call it an insurance contract because that's why we're here.

A Okay.

Q But it's a contract. And you would agree with me that when a claim comes in, any insurance company whether its Sierra Health and Life or State Farm should follow the laws of the State of Nevada if that contract is governed by Nevada law?

MR. SMITH: Judge, I'm going to object. This is outside the scope of his expertise. He's asking questions about contract law --

MR. SHARP: He opened this whole door up about --

THE COURT: Overruled

MR. SHARP: -- utilization management. Thank you, Your Honor.

BY MR. SHARP:

Q Do you need me to --

A I would agree with, you know, following contracts and following contract law. Yes, sir.

Q Or following whatever the law is in the State of Nevada?

A Yes.

Q So if there's a law that says you got to treat your insureds with equal consideration on a claims file, you'd expect Sierra Health and Life to follow that?

A That's correct.

Q And all of the standards that Mr. Prater discussed that apply to insurance companies in the State of Nevada, you would agree Sierra Health and Life should follow?

A I would. And as I note in my report, that has a variety of effects on the economy, on other people, and on patients.

Q So --

A That's sort of what's in my report.

Q I understand that, but --

MR. SMITH: Judge, objection. Approach.

MR. ROBERTS: Your Honor, objection. May we approach?

MR. SHARP: Hold on.

THE COURT: Please approach, counsel.

[Sidebar at 2:15 p.m., ending at 2:16 p.m., not recorded]

BY MR. SHARP:

Q Now, you would agree with me that there are qualified medical doctors in the United States who believe that the science

supports the use of proton beam therapy, correct?

A Can I ask you a clarifying follow up? When -- by qualified you mean other licensed radiation oncologists who believe that, yes.

Q And one of those places is MD Anderson?

A One of the -- one of the -- that might be a place where some of these doctors' work, yes, sir.

Q I mean, you're aware that MD Anderson runs a proton beam therapy center?

A Yes.

Q And you're aware that that -- that the radiation oncologists within that center are some of the best in the world?

A I do.

Q And in fact, one of those radiation oncologists that was at the proton beam therapy center became the chairman of the FDA, right?

A The chairman of the FDA, sir, who --

Q Commissioner, head of the FDA.

A Who would the --

Q Dr. Hahn.

A Dr. Hahn, yes. Stephen Hahn, yes.

Q You're aware that Dr. Hahn was chief of the Proton Beam Therapy Center --

A Yes.

Q -- at MD Anderson?

A Yes.

Q And you are aware that Dr. Hahn before that was in the

University of Pennsylvania running the proton beam therapy center?

A I didn't know that.

Q In any event, you're not here to suggest in any manner that MD Anderson has committed fraud upon the Eskews?

A No, sir.

Q You talked about defensive medicine.

A Yes.

Q You remember those questions?

A Yes.

Q And you said defensive medicine is one of the reasons that healthcare costs are so high.

A Correct.

Q So that means people like me who represent people injured by medical malpractice we're part of the problem, too? For healthcare costs.

A Yes.

Q And the person who's been injured by medical malpractice they're part of the problem?

A Yes.

Q Now, so we can add to the little group that you gave Mr. Terry and I because we represent people injured. You have the doctors up there. You have the patients up there. How about economists? Are they part of the problem?

A Which problem are you trying to solve, sir?

Q The one you've been talking about today. The cost of

healthcare.

A I've been talking about -- there's a -- there's a number of reasons why the costs of healthcare are high, and my exhibit, sir, was about who might be able to do something about it via utilization management.

Q Well, I thought you had there a whole display about doctors or --

A Correct.

Q -- providing care they don't think they need to provide, too many lawyers filing lawsuits. So my question to you does a world economist bear any responsibility for the cost of healthcare?

A I don't know, sir. I've not studied that question.

Q Okay. So will you say in this courtroom that Mrs. Eskew's husband, Bill Eskew, he was a patient, and he wasn't of making sound medical -- sound rational decisions about his medical care, and that's kind of what you testified to?

A I didn't say that, sir.

Q Or his cost, cost of care?

A That's right. That patients in general, and I can't speak to Mr. Eskew in any way or his family, but in general, patients struggle with understanding both the benefit of a treatment and the cost of that treatment.

Q Yeah. That's probably why they go to doctors?

A Yes.

Q So you have Mr. Eskew, you have Mr. Terry and me, we're

part of that problem of healthcare costs, right? Yes?

A I don't consider you a problem, sir, but go ahead.

Q I mean, what I do generally because I sue doctors. Okay. You just said too many people are --

A I see what your question is.

Q Yeah.

A Yeah.

Q Okay.

A So I don't consider lawsuits against doctors to be always without merit. The term defensive medicine when used by economists means that it resulted in care that did not benefit the patient. So if it resulted -- if litigation causes doctors to improve the quality of the care that they're giving their patients, we don't consider that to be a problem. We consider that to be a good thing.

Q A good thing?

A A good thing.

Q So lawsuits that prevent improper and illegal conduct are good things?

A I don't know about improper and illegal. That's not my expertise. But lawsuits that discourage physicians from stinting are a good thing. Lawsuits that cause physicians to give more than good care, wasteful care, dangerous care, are a bad thing.

Q Okay. I understand the precedent. So you're saying a lawsuit that's legitimate against a doctor can be a good thing?

A I think all lawsuits are legitimate, sir. It's more that the ones

that cause physicians to not under use care are good. The ones that cause them to over use care are bad.

Q What about this. How about a lawsuit that changes a doctor from engaging in an unsafe practice? Would that be a good thing?

A Changes in which direction? So they're in a -- currently in an unsafe practice?

Q Yeah. I mean, now switch to a safe practice.

A That would be a good thing, yeah.

Q Okay.

A Yeah.

Q Follow me here. So a lawsuit that encourages an insurance company to act in good faith to its insured would be a good thing?

MR. SMITH: Objection, Your Honor. Vague and ambiguous --

THE COURT: Overruled.

MR. SMITH: -- in terms of what a good thing is in light of the doctor's expertise.

THE COURT: Overruled. You can answer if you can.

THE WITNESS: I would just want a little bit more concreteness to that, sir.

BY MR. SHARP:

Q Let me give you --

A I think I understand where you're going, but a little bit more concreteness would be helpful for me to answer.

Q Let me give you an example.

A Yeah.

THE COURT: Hold on. Don't interrupt the witness.

MR. SHARP: I'm sorry. I didn't mean to. I thought he had finished.

BY MR. SHARP:

Q Did -- have you finished?

A Yes, sir.

Q I don't mean to interrupt you. If I interrupt you, just put up your hand, okay? I have a tendency sometimes to do that. Okay. So let me give you an example. It may not be directly applicable to this case. Let's say we have an auto insurance company, and they say in their policy we'll pay fair market value for your car. And then they secretly decide, you know, for a certain type of vehicle, we're going to pay 15 percent less. You got me -- you got me so far?

A I do, but I'm -- I don't -- I've never studied car insurance in my life.

Q Well, you don't need to -- you don't need to. You're a numbers guy, and I'm just saying, okay, let's say the car is worth 100.

A Uh-huh.

Q Under the contract it says fair market value. The car is worth 100 bucks.

A Okay.

Q And the insurance company just decides secretly, meaning it's not in the policy. They say we're going to start paying only $15.

A Okay.

Q And consumers they may not know that their vehicle is actually worth 100 bucks, and they're taking the 85. You get me so far?

A Honestly, not really but --

Q Okay. They should be paying 100.

A Uh-huh.

Q They're knowingly paying 85. You get that part?

A Okay. So they're violating a contract?

Q Yeah.

A Okay.

Q Violating law because they're paying less than what they owe.

A Okay.

Q So in that instance, it would be a good or legitimate lawsuit to change the auto insurance company's practice, so they pay what is owed under the contract?

MR. SMITH: Objection, Your Honor. Improper hypothetical.

THE COURT: Overruled.

THE WITNESS: I have no expertise on answering that question, sir.

BY MR. SHARP:

Q Fair. Fair.

A And I -- and it might be that I just don't -- I've never thought about car insurance seriously enough, but I feel like I want to know a lot more about the responsibilities of the insurer to the insured in that setting.

Q Well, you read -- you read Mr. Prater's testimony.
A Yeah.
Q So you kind of got a primer there, right? About how insurance companies are supposed to behave?
A From him, yes.
Q Yeah.
A That's correct.
Q And you have no reason to think that Professor Prater is not an expert in insurance trade practices?
A That's right. I don't -- I don't think that.
Q So let's go to something else. In a free economic society you've been discussing market forces, when you hurt someone, you should compensate them for the loss they suffered? That's part of the free economic system, right?
A Right.
Q So in my hypothetical, I go back to it, if a medical doctor hurts a patient because of their negligence, they should be responsible for the harm they caused?
A Yes.
Q And that harm exists whether they're a healthy 20 year old or a person with Stage 4 lung cancer, right?
A Yes.
Q And that evaluation is important for economic purposes would look at that Stage 4 person and say they're a person, they deserve to be compensated?

A Yes.

Q And there's nothing -- nobody at United Healthcare told you that there's some sort of exclusion in their contract for people that are pursuing treatment for Stage 4 lung cancer?

A Yes, I never had any conversation with anyone from United Healthcare.

Q That --

A So they didn't say anything to me.

THE COURT: Mr. Sharp --

MR. SHARP: I'm sorry. I'm sorry.

THE COURT: Do not interrupt the witness. The court reporter can only take one person down. We need a clean transcript.

MR. SHARP: I apologize, Your Honor.

BY MR. SHARP:

Q Now I lost my train of thought. The -- oh. As I understand it, you never consulted with United Healthcare on any -- in any manner?

A No, I haven't.

Q The one way an insurance company could say we don't want to pay proton beam therapy is to exclude it from coverage, write in an exclusion, right?

A Right.

Q And you don't know if that happened in this case because you didn't review the insurance policy?

A I was not asked to. I might have even had the -- that fact in front of me, but I was not focused on that particular fact.

Q In any event, when you issued -- when you rendered your opinion, you didn't render anything on the terms of the insurance policy?

A I did not.

Q Now, one of the things you spoke about -- one of the things you spoke about you were critical of -- you were talking about Medicare --

A Uh-huh.

Q -- right?

A Yes.

Q And you're critical -- as I understand it, there's not a definition of medical necessity? Is that what I'm following?

A Right. That in fee for service Medicare, Counsel, my point in my report and in my research is that fee for service Medicare has to by statute cover a variety of medicines and treatments and testings where we may have no evidence that the technology actually works.

Q Well, as I understand it --

A Relative to, you know, a substitute technology.

THE COURT: Counsel, we're going to take a 15-minute recess.

MR. SHARP: Okay.

THE COURT: Ladies and gentlemen of the jury, you are instructed not to talk with each other or with anyone else about any subject or issue connected with this trial. You are not to read, watch, listen to any report of or commentary on the trial by any person connected with the case or by any media information, including without

limitation newspapers, television, internet or radio. You are not to conduct any research on your own relating to this case such as consulting dictionaries, using the internet, or using reference materials. You are not to conduct any investigation, test any theory of the case, recreate any aspect of the case, or test any theory of the case or in any other way investigate or learn about the case on your own.

You are not to talk with other, text others, Tweet others, Google issues, or conduct any other kind of book or computer research with regard to any issue, party, witness, or attorney involved in this case. You are not to form or express any opinion on any subject connected with this trial until the case is finally submitted to you. We will return at 2:45.

THE MARSHAL: All rise for the jury.

[Jury out at 2:30 p.m.]

[Outside the presence of the jury]

THE COURT: Counsel, we'll return -- are there any issues outside the presence of the jury?

MR. SHARP: None, Your Honor.

MR. ROBERTS: Just one clarification, Your Honor. I know we just, you know, we're very non-specific with improper hypothetical. Just to supplement the record. Hypotheticals can be asked to an expert, ask him to assume certain things. But under the jury instructions, if those assumptions are not shown by the evidence, they can disregard it. In a case where the hypothetical assumes facts which can never be admissible or proven in the case, we believe it's improper and that's the

basis of our objection.

THE COURT: Thank you, Mr. Roberts.

MR. ROBERTS: Thank you, Your Honor.

THE COURT: Come back at 2:45.

MR. SHARP: Thank you.

[Recess taken from 2:31 p.m. to 2:46 p.m.]

THE MARSHAL: -- court come to order. Back on the record.

THE COURT: Thank you. Counsel, please be seated. Are the parties ready for the jury?

MR. SMITH: Yes, Your Honor.

THE MARSHAL: All rise for the jury.

[Jury in at 2:47 p.m.]

THE MARSHAL: Okay. All jurors are present.

THE COURT: Do the parties stipulate to the presence of the jury?

MR. SMITH: Yes, Your Honor.

THE COURT: Mr. Sharp?

MR. SHARP: Yes. Thank you, Your Honor.

THE COURT: No. Hold on. Do you stipulate to the presence of the jury?

MR. SHARP: I'm sorry. Yes, I do.

THE COURT: Thank you. Please proceed.

MR. SHARP: Can I -- may I proceed?

THE COURT: Yes.

MR. SHARP: Jason, can you pull up Exhibit 24?

BY MR. SHARP:

Q And sir, I don't think you've seen Exhibit 24 before.

A I have not.

Q This is the proton beam therapy medical policy. Do you see that?

A Yes.

Q And are you generally aware that insurance companies have these sorts of medical policies?

A Correct.

Q And you've talked to us about is kind of macro level on your views relating to proton beam therapy and its potential costs on -- in health care, right?

A Correct.

Q And in this case we're focusing upon United -- upon Sierra Health and Life who's a subsidiary of UnitedHealthcare, do you understand that?

A Yes.

Q And did anybody at UnitedHealthcare tell you that they had a file that they developed to explain to -- or explain how they developed this proton beam therapy policy?

A No, sir. I've never spoke to anyone at UnitedHealthcare.

Q So the attorneys didn't tell you that?

A They did not give me this document, I don't think.

Q And they didn't tell you we have a folder that'll explain to you why we decided to say in certain instances proton beam therapy is

medically necessary or not medically necessary?

A No. That information was not given to me.

Q Okay. And you would agree with me, the best evidence as to why UnitedHealthcare adopted proton beam therapy policy for good, bad or indifferent reasons would be in UnitedHealthcare's possession?

A Yes.

Q And you as an economist who's commenting upon the effect of paying for proton beam therapy might have on everyone's insurance premium, you could rely upon the statistical data that UnitedHealthcare kept when informed and evaluated the proton beam therapy policy?

A Amongst other insurers, yes.

Q Now let's say -- you talked about marketplace issue, about if insurance companies aren't behaving properly you can change markets, do you remember that?

A Yes.

Q And that's the case with the Affordable Healthcare Act?

A Correct.

Q Right? But not everybody is insured under the Affordable Healthcare Act?

A That's correct.

Q And in fact you had in report the number of insurers that UnitedHealthcare had, do you remember that? It was like something like 127 million.

A United, sir, would have close to about 27 million, if memory serves right.

Q 27 million?
A If it is United you're talking about, yes.
Q Yeah. The -- I mean, you reviewed their 10K, right?
A Yes.
Q United Health Group. It's part of your job talk to this jury and review the 10K for United Health Group?
A Yes.
Q And tell the jury what a 10K is.
A It's a form that publicly traded companies file every year with the security and exchange commission. It gives you a very high level look at their financials and, you know, threats to their business and statements about how they're doing as a company.
Q And obviously it was important for you to review that to form the opinions you have provided here today?
A I didn't actually rely on that particular form, sir, in forming my opinion, but I did read it because it was given to me.
Q The 10K was given to you?
A Or I thought it was worthwhile to look at the 10K.
Q Okay. You listed it on the documents you relied upon.
A I did rely on it, yes.
Q Okay.
A So I said I read it, yeah.
Q I just want to make sure we're on the same page.
A Yeah.
THE COURT: Mr. Sharp, please stop interrupting the witness.

MR. SHARP: I'm sorry.

THE COURT: We need a clean record.

MR. SHARP: I'm sorry.

BY MR. SHARP:

Q Back to -- so we have 20 -- you determined there are 27 million insureds?

A Yes.

Q And when you were talking about this whole thing for -- about the Obama exchange and I think it says you can only -- you have to have 80 percent paid for claims?

A Yes.

Q Okay. And for Nevada, at least according to your report that consisted of 67,404 people?

A Yes.

Q Okay. So with the respect of the other 27 some million, if you have a preexisting condition or things like that, it can be more difficult to find insurance than just simply going down the street?

A After the Affordable Care Act, sir, insurers were prohibited from discriminating on the basis of preexisting conditions.

Q I mean, that -- yeah. And that's been going on for a while. But if you like were uninsured and you lost your job it's -- and the exchange may not be open, it can be difficult getting insurance?

A If you lost your job that would create an enrollment period that would allow you to access the exchange.

Q Okay. Well, I --

A Is my understanding of how the exchanges works, sir.
Q Okay. You --
A But that would be a qualifying event, just like have a baby would be a qualifying event and the exchange would be open for you.
Q All right. You probably know more about that than I do, so that was a poor question. If you're employed, and you said many people are employed by, you know, getting insurance through their employment.
A Yes.
Q If you're an employee treated badly by an insurance company, you would agree with me you are market wise limited to the insurance your employer selects?
A That's correct.
Q Okay. And there's a large number of that 27 million that UnitedHealthcare has of insurers are employment based?
A That's correct.
Q I think you said 60 percent generally within --
A Generally, yes.
Q Now with the Affordable Healthcare Act for somebody like Mr. Eskew that's not as easy -- like if a claim is denied like his was denied in February 5, 2016, he just can't go hopping over to another insurance company on February 6th?
A No. He would not have been able to do that.
Q He would have to wait until the next year, right?
A Correct.

Q And so -- and if somebody's treatment is denied, it's not as easy as to just move over to another insurer?

A No. It's not.

Q So part of the risk, would you agree with me in utilization management is that treatment that is recommended by a medical doctor may not be provided to an insured?

A Yes. That's a risk. Correct.

Q And so you'd say it's really important to make sure that that initial utilization management decision is made correctly?

A Yes.

Q And you talked about appeals?

A Yes.

Q And you had a statistic up about appeals, do you remember that?

A Yes.

Q So in your -- and I don't remember what your statistic was precisely, but I do remember reviewing it and you had another statistic I think it was in your report.

A Yes.

MR. SHARP: And Jason, if you could pull up Exhibit, I think it's -- the report, I think it's 192.

MR. TERRY: It's not admitted yet.

MR. SHARP: It's his report. I mean, do I -- I don't need to admit his report to impeach him on it. It's a demonstrative only.

THE COURT: Not to publish to the jury.

MR. SHARP: Well, it's his report, it can be utilized for impeachment or whatever. I mean, that's fine. I can just ask him the question, but --

THE COURT: You can show it to him, but not the jury. Unless Mr. Roberts stipulates to it, which he does not by his body language.

MR. SHARP: Okay. I've never -- anyway I'm fine.

BY MR. SHARP:

Q In the last paragraph of paragraph 47, in 2017 -- well, you tell me when you're at paragraph 47. It's on page 15 of your report.

A Yup.

Q Okay. So it says, "In 2017 consumers and/or their physicians appealed less than one in 200 claims"?

A That's correct.

Q "Out of which 14 percent of appeals resulted in overturning the initial decision."

A That's correct.

Q Okay. So -- and do you know where they got the 200 -- or I mean, 200 was based off of?

A Well, so sir, what's going on here is this is a report that was put together by the Kaiser Family Foundation, which is using data that the insurers have to submit to the government on claims, the set of claims that were denied. Why they were denied. It's part of the -- it's one of the many transparency efforts in the Affordable Care Act.

Q Okay.

A So that's where those number are coming from.
Q Yeah. I understood that, but I just wondered where the 200 was based off. 200 of like is it 200 of a million, is a 200 of 100,000?
A For every -- the way to read that, sir, is for everyone 200 claims that were denied, physicians appeal less than one in 200.
Q Okay.
A So if I denied 200 claims, less than one in 200 was actually, you know, challenged by the physician whose claim was denied.
Q And that is data that the insurance company provides to the government?
A That's right.
Q So that's kind of built into the insurance company's system?
A It's built into the transparency efforts in the Affordable Care Act.
Q That was a poor question. I mean, it's built into their computer system, in other words they know this data in order to provide it?
A Right. and what this group is doing, Kaiser Health Family Foundation is they're taking the data from all the thousands of insurers and saying on average one in 200 claims was appealed across all the insurers.
Q Okay. And you would -- it would stand to reason that all -- not all of those 200 claims were legitimately denied?
A I have no idea, sir.
Q Well, let's just assume that for purposes that some of them

were not.

A Were not?

Q Denied properly.

A Okay.

Q What the government statistic shows is that the insurance industry knows that only one of those 200 denials will actually be appealed; is that right?

A The insurance company would know that, yes. The insurance companies as an industry would know this fact, yes.

Q Yes. And they would also know that only 14 percent of the appealed of the one in 200 would result in the decision being overturned?

A Correct.

Q And I don't know what that would turn out to be in a percentage, but could you give an estimate, you're the -- since you're an economist?

A It would be 14 percent of one, so it would be like .14 claims out of 200 would -- out of 200 denied claims .14 would be overturned.

Q Now did UnitedHealthcare's -- or Sierra Health and Life specifically give you their claim data on appeals relating to proton beam therapy?

A No.

Q But it's your understanding in order to provide the information to the government they'd have to be tracking how many appeals were overturned or how many were upheld?

A Yes, they would. I don't know if they have their -- I don't believe they're required to track at the level of difference services. They're just tracking the overall denial rate and the overall appeal rate conditional on denial.

Q Fair enough. But you're aware that -- I mean, each of these conditions has a CPT code?

A Yes, yes.

Q So it would stand to reason as an economists that you could probably isolate that to a CPT code that applied to proton beam therapy?

A Yes.

Q Now you talked about returning premium. Did -- are you aware of any instance where Sierra Health and Life has rebated premium to Nevada insured as part of this Affordable Healthcare Act?

A No, sir. That was not part of my assignment.

Q You mentioned that certain companies I guess had given a premium rebate from COVID 19?

A Yes, sir.

Q Do you know what the amount is for that Sierra Health and Life did?

A No, sir. That was not part of my assignment.

Q One of the things that one can talk about with incentives is that executives receive incentives, right?

A Right.

Q And you talked about everybody's incentives. And it's typical that high level executives obtain incentives when the company does

better?

A That's correct.

Q So follow me right now, let's say in 2011 roughly Sierra Health and Life and United Health Group implemented a particular utilization management program that they continue to utilize today. You with me so far?

A Yes.

Q And you would agree from the public records that you've seen that during that same period UnitedHealthcare has had a healthy return on equity?

A Yes, it has.

Q And you would agree would you not that from 2000, I think it's '13 to 2019 that return in equity has been from 17 and a half percent up to 27 and a half percent?

A I don't know that number, sir. I'm just curious why are you using the return on equity? I don't know the number and I also don't understand why you're talking about return on equity.

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

THE COURT: Yes.

BY MR. SHARP:

Q So I'm showing you the form 10K.

A Yes.

Q This is the one you read --

A Yeah, yeah.

Q -- do you see that?

A Yeah.

Q This is page 35 down at the bottom and it has return of equity for 2017, '18 and '19?

A Yeah. About 24, 25 percent.

Q Yeah. I think I overstated it by a couple points.

A That's okay.

Q And then I'm going to show you what's been marked as Exhibit 66. And that's form 10K for 2000, I think that's '15?

A Yeah.

Q Okay. And then we have from 2011 we have 18.9 percent ranging from 2015 to '17 point --

A On return on equity, yes.

Q Return on equity.

A Yeah. And Counsel, if you don't mind my asking, I just want to repeat my earlier question. I don't understand why you're talking about return on equities. I'm just -- want to --

Q Well, that's okay. I mean, you can ask your other -- I mean, I'm asking the questions.

A Okay.

Q I know you haven't done this before, but that's just the rule. So you would agree with me from 2011 to 2019 the upper management who held stock options and such, they did pretty good?

A This is why I was asking the question, Counsel. I disagree with that statement. While what you ask me is possible, you seem to be using return on equity as a measure of profitability and those are

different concepts.

So I would guess that the United execs have their compensation tied to profits. I would be surprised if they're tied to return on equity. I could be wrong on that, but that's the reason I was asking about, why are you talking about return on equity --

Q Well --

A -- and not profits.

Q -- does return on equity reflect the increase in stock price?

A Return on equity also reflects the use of debt. So if I borrow a lot of debt I can increase my return on equity.

Q Okay. Let me ask it this way.

A Yeah.

Q So I'm showing you from Exhibit 66, I think. Oh, this is from 2000. From 2000 -- so if you invested $100 in 2014 --

A Yeah.

Q -- to United Health Group, how much would that be worth, around 250 [indiscernible]?

A Yeah.

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

THE COURT: Yes.

MR. SMITH: I'm sorry.

[Sidebar at 3:08 p.m., ending at 3:09 p.m., not recorded]

BY MR. SHARP:

Q So when you were talking about incentives and your conclusion that insurance companies do not have an incentive to deny

claims through utilization management --

A If I can modify that, Counsel. It's they have an incentive in my view to deny claims that are not going to like through the denial hurt the patient. They have an incentive to deny wasteful claims through utilization management or claims that they think will not benefit patients.

Q Consistent with the terms of the insurance policy?

A I don't know about the terms of the insurance policy.

Q So they --

A But I think the spirit of this is that utilization management will increase the incentives for the insurance company to deny claims that it views are not going to benefit patients are potentially wasteful.

Q Okay. So maybe I misunderstood your opinion. You're giving an economics opinion just as a general principle --

A Yes.

Q -- utilization management. It will encourage the reduction of wasteful spending?

A Yes.

Q That's your general --

A Yes, correct.

Q But in the exercise of that system --

A Uh-huh.

Q -- we've already agreed that whatever insurance company needs to comply with the contracts, right?

A What's the question, sir?

Q We've already agreed that an insurance company conducting

utilization management has to comply with the insurance contract?

A We've agreed on that, yes.

THE COURT: Doctor, please don't answer until he's finished with his question. We have a court reporter here and the court reporter can only take down one person at a time.

THE WITNESS: I apologize.

THE COURT: Okay.

BY MR. SHARP:

Q It's all right. I've been doing the same thing, so. I've been doing it more than you have. So the other thing we've agreed on in implementing this utilization management system, the insurance company has to comply with the obligations as you read by Professor Prater?

A It has to comply with contract law, yes. I agree with that.

Q And industry standards for fair claims handling?

A If you say so.

Q I mean, do you disagree with that concept?

A I'm not an expert on contract law, so I don't know that last piece.

Q I'm just trying to figure out where you and I are at so I can either continue questioning you or understanding where you're coming from. And I guess what -- I mean, you're not saying that the fact that utilization management can be used to discourage wasteful management, means that in this case UnitedHealthcare did not have incentives or such that could potentially lead to the denial of wrongful --

of legitimate claims?

A If you don't mind, Counsel, could you rephrase that question? I have a feeling I'm going to agree with you, but I just want to make sure I understand that. I'm -- go ahead.

MR. SHARP: Your Honor, I know that the madam court reporter's not the official court reporter for the -- I don't think so. Can I have her ask that question, so I remember what I asked?

THE COURT: Go ahead.

COURT REPORTER: Question, I'm just trying to figure out where you and I are at, so I can either continue questioning you or understand where you're coming from. And I guess what -- I mean, you're not saying that the fact that utilization management can be used to discourage wasteful management, means that in this case UnitedHealthcare did not have incentives or such that could potentially lead to the denial of wrongful -- of legitimate claims?

MR. SHARP: Thank you. I didn't mean to put you on the spot. You've asked -- okay. I now know where my train of thought was.

BY MR. SHARP:

Q So what I'm getting at is, you have an opinion that as a general principle utilization management can lead to the reduction in health care costs for the reasons that you've articulated this morning?

A I agree with that, Counsel.

Q But you're not here to offer any opinion or analysis as to how the utilization management program was actually implemented by Sierra Health and Life in this case?

A I agree with you, Counsel.

Q And so whether United Health and Sierra Health and Life had incentives in place to potentially deny legitimate claims, you wouldn't have any understanding one way or the other?

A I would not outside of any macro forces that might apply here.

Q Okay. I understand now and I'm sorry I was confused. It sounds to me like, you know, just listening to you and you have a sincerely held opinion that proton beam therapy is something that in your view is wasteful?

A Unproven, sir. Is kind of how I think about it.

Q Yeah --

A And because it's unproven -- so it's wasteful because we don't know, but maybe one day soon we'll know and then we should be paying for it if it generates large benefit in patients.

Q But as of today, you feel like for cancers like lung cancer and prostate it's still at the point where it's not proven?

A The benefit is not proven, yes.

Q Okay. And that's a belief, you know, you and I obviously disagree about that. But it's a belief you sincerely hold?

A It's based on my understanding of the research, Counsel. Yes. But it is a belief I sincerely hold.

Q And so you wouldn't be an investor in a proton beam therapy center?

A I would not.

Q Okay.

MR. SHARP: Can we go to Exhibit A? Jason, if we go to Exhibit 8 at 164.

BY MR. SHARP:

Q Sir, were you aware that United Health Group had invested in a proton center?

A No.

Q Did anybody --

A I was not.

Q Did anybody at UnitedHealthcare say -- well, they didn't tell you that?

A I didn't talk to anyone at United, Counsel.

Q Okay. So let's --

MR. SHARP: If we could go to the -- let's go right here.

BY MR. SHARP:

Q And so nobody, none of your lawyers, UnitedHealthcare never told you that ProHealth Proton Center Management LLC, which is part of United Health Group had a 33.63 percent ownership in the New York proton center?

MR. SMITH: Objection, to the form of the question, Your Honor. Mr. Sharp has repeatedly referred to us as Dr. Chandra's lawyers, that's not true.

THE COURT: Overruled.

BY MR. SHARP:

Q And I think the answer to my question is, no, they did not?

A No, I'm sorry. I got lost, Counsel. But yeah, the answer's no.

MR. SHARP: And if go to page -- Exhibit 8 at 155. Just go down to utilization by condition.

BY MR. SHARP:

Q It reads, "The proposed center would serve 1,150 patients in its first year of operation and reach a capacity of 1,500 patients in its third full year. The applicant projects following case mix". And it says, "Adult head and neck, 27 percent. Prostate, 20 percent. Adult breast, 13 percent. Adult lung, 13 percent. Adult other, 13 percent. Ocular therapy, seven percent. Pediatrics, seven percent." Did I read that correctly?

A Yeah.

Q And these last two are the ones you had talked to earlier today about -- with us about, that those two cancers wouldn't be sufficient to run a proton center.

MR. SHARP: Now if you could -- well, just -- you can pull that down.

BY MR. SHARP:

Q Now based upon the data -- well, let me ask you this, you and Mr. Smith have been talking about clinical trials. When was the clinical trial conducted on IMRT?

A I don't know, sir.

MR. SMITH: Objection. Oh sorry, withdrawn. I misunderstood the question, Your Honor. I'm sorry.

THE COURT: That's okay.

BY MR. SHARP:

Q But just so we're clear, from your viewpoint from 2016 to today in your viewpoint, proton beam therapy for things like lung cancer and prostate cancer they're still not proven?

A Yes.

Q Okay. And were you aware that the New York Proton Center opened up in January 2019?

A No.

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

THE COURT: Yes.

BY MR. SHARP:

Q Dr. Chandra, I'm giving you Exhibit -- showing you Exhibit 31. And is that a proton beam radiation therapy manual that's got UnitedHealthcare on the top?

A It's the medical policy for proton beam radiation.

Q And it's effective date January 1, 2019?

A Correct.

MR. SHARP: Your Honor, I move for the admission of Exhibit 31.

THE COURT: Any objection?

MR. SMITH: Yes, Your Honor. It's irrelevant. Court's indulgence. Let me find -- yes, Your Honor. In our A3 disclosures we objected based on relevance.

THE COURT: The Court receive a copy.

MR. SMITH: I'm sorry, Your Honor?

THE COURT: Court needs a copy. Thank you, Mr. Sharp. It's overruled.

MR. SHARP: Thank you, Your Honor.

THE COURT: Exhibit 31 --

MR. SHARP: Oh, sorry about that.

THE COURT: -- will be admitted into evidence.

[Plaintiffs' Exhibit 31 admitted into evidence]

MR. SHARP: So if we could pull page 1 of Exhibit 31. Well, put -- yeah, page 1. And Jason, if you could go to effective date January 1, 2019.

BY MR. SHARP:

Q And Doctor, you had already noted the effective date of the proton beam therapy policy.

MR. SHARP: And then if you go to the -- this full second paragraph in bold. This one right here.

BY MR. SHARP:

Q This says, "Now proton beam therapy and IMRT are proven and considered clinically equivalent for treating prostate cancer". Did I read that correctly?

A Yes.

Q And it's your understanding that the biggest revenue or potential revenue source for these proton beam centers is prostate cancer?

A That's right.

MR. SHARP: And then, Jason, if you could go here.

BY MR. SHARP:

Q And it continues to say, "Proton beam therapy is unproven and not medically necessary due to insufficient evidence of efficacy for treating all other indications not listed above". And it's got lung cancer. Do you see that?

A Yes.

MR. SHARP: And then now, Jason, if you could take that down and then pull this -- blow this up. Blow this whole paragraph up from, "the following".

BY MR. SHARP:

Q So this policy has four different types of cancer or tumors that are without review considered medically necessary. Do you see that?

A Yes.

Q And then it says:

"PBT, proton beam therapy may be covered for a diagnoses that is not listed above, including recurrence or metastasis in selected cases. Request for exemptions will be evaluated on a case by case basis when both of the following criteria are met. Documentation is provided that sparing of the surrounding normal tissue cannot be achieved with standard radiation therapy and techniques and evaluation includes a comparison of treatment plans for PBT, IMRT and SBRT."

Do you see that?

A Yes.

Q So you're a reasonable man, so it looks to me like in January

2019, UnitedHealthcare changed this policy to specially allow for proton beam therapy in cases like lung as long as the two things met, right?

A Yes, correct.

Q And -- well, we already went over, you're not here to dispute Dr. Liao's findings with regard to Mr. Eskew?

A No, I'm not.

Q Doctor, let me ask you this, does it seem to you to be a little inconsistent for Sierra Health and Life to put you up on the stand to explain your views on proton beam therapy when they knew the whole time they were paying for proton beam therapy in at least in select cases and they were investing and operating a proton center in New York?

A Given the assignment I was given, sir, I don't feel like I needed all of this information to perform my assignment.

Q I understand that, but I mean, you stake your reputation here?

A Yeah.

Q You're a highly regarded economist from Harvard. And the people who hired you never bothered to tell you that at least as of 2019 they were paying for proton beam therapy?

A If those conditions were met. I'm okay with that, sir.

Q You're okay with that?

A Yes.

Q So you're okay with payors paying proton beam therapy for things like lung cancer when these two conditions are met?

A Yes. In fact the core of my report is that I want payers to be

making the determination of what is covered and in whom and when exactly as this document appears to illustrate.

Q And just as I understand again, you're not aware of any difference in the literature between 2016 and 2019?

A Right. That is correct. I wasn't -- I'm not tracking the literature between 2016 and 2019 in my report or in my research.

Q Okay.

A You're right about that.

Q And it's not your -- well, we've gone over that again. So from your perspective as an economist, there are instances where proton beam therapy can help a patient?

A I think that's more a medical determination, Counsel. As an economist I would say you need think about the benefit to the patient and weigh it against the costs.

Q But -- and yeah. Now I understand what you're saying. That's an economic view. Whether proton beam therapy is best for the patient is a medical view?

A Correct.

Q And whether the proton beam therapy is covered under the terms of the insurance contract is an insurance position, right?

A Correct.

Q And so if the insurance policy covered proton beam therapy under the terms then you would say to go pay it?

A Yeah. That sounds more like a matter of contract, sir and so I would agree with the contract view. I was asked in my report to talk

about what happens generally to America, American's uninsurance wages if we're making that determination incorrectly.

Q All right. And so you're not here in any way to suggest to the jury if they award money in favor of Mrs. Eskew that they should be afraid that that's going to increase their premiums or anything like that?

A I think what -- I would -- I don't know if -- as I think about your question, I would just want folks to think that this institution of an insurance company asking for evidence, asking for science, asking for documentation and denying or approving a claim is aligned with the principles of efficient health care.

Q And I understand, and I don't think that -- I think Mr. Prater and you would agree on that point. But my question's a little different and I think it's -- I think the answer to my question is no. I mean, you're not here on any form of the legal elements to the claim. So nothing in your testimony was designed to suggest to the jury that if money is awarded to the estate of William Eskew that these jurors should be concerned that that might raise premiums for me or for somebody else and that's not the focus of why you're here?

A I agree with the -- your statement, Counsel, with one caveat, which is I would want folks to think about the situation where if you extract from this case for a second. If that money were awarded for care that would not have benefited the patient because it's unproven, because it's wasteful then there are meaningful social implications of continuing to do that.

Q Sure. I understand that. And the burden on us to prove it

was a covered charge. I just wanted to make sure you and I are in agreement.

THE CLERK: Can you move toward the speaker, please?

MR. SHARP: I'm sorry.

BY MR. SHARP:

Q I just want to make sure you and I are in agreement, what you're really here to talk about was more or less -- I mean, it's public policy rationales that you're discussing in a large part based upon your training and education?

A That's correct.

Q You're not here to talk about legal aspects or even the elements that I put in front of you when we started this case?

A I'm not.

Q And you're not suggesting to this -- well, you are telling this jury follow the law in terms of how it defines damages and such?

A I don't have a position on that, Counsel.

Q Okay. Thank you.

MR. SHARP: I have no further questions, Your Honor.

THE COURT: Thank you. Mr. Roberts?

MR ROBERTS: It's Mr. Smith, Your Honor.

THE COURT: Oh Mr. Smith.

MR. SMITH: Thank you.

REDIRECT EXAMINATION

BY MR. SMITH:

Q Dr. Chandra, let me start off by asking you, so you know, we

spent the last several hours among other things listening to Plaintiff's counsel ask you questions regarding whether you have opinions about contract interpretation, or administrative procedures, good faith fair dealing, things of that nature, correct?

A Correct.

Q But can you remind the jury, sir, specifically why were you retained in this case?

A I mean, I was retained to talk about the incentives facing different actors in health care and the economic considerations involved in delivering efficient health care to people. The role of these different actors in being able to deliver efficient health care to Americans.

Q And so what information did you need to accomplish that assignment?

A I wanted to know -- I wanted to see the complaint. I wanted to -- I wanted access to my own research as you know from my demonstratives and my report, I rely heavily on my research. But I also thought because I'm an academic that it would be good to bring in the research of other people that I was able to access and that I have cited in my report.

Q To be clear, where you asked to render a medical opinion with regards to Mr. Eskew?

A I was not.

Q You did however note, did you not and as brought out on cross-examination by Mr. Sharp that Mr. Eskew's insurance plan did in fact have a utilization management provision; did it not?

A That's right, it did.

Q And you also told us that utilization management has its risks?

A It does have risks, correct.

Q Does that make it bad?

A No. It doesn't make it bad as long as there are forces at work that make sure, that ensure that insurers don't use utilization management to deny claims. And as you know from my report and our conversation earlier, those forces are, do patients have an ability to switch insurers, do providers have the ability to say no to an insurer who's just denying claims and are there regulations in place of the type we see here that severely restrict the ability of insurers to simply reject claims to inflate profits.

Q And so remind the jury, Dr. Chandra, as to why utilization management is a good thing?

A It's a good thing because it's a way of balancing the benefit of the treatment against the cost of that treatment. And we don't want to just weight benefit from a treatment because imagine a world where you got two treatments and one generates -- or just one treatment and it generates a day of survival, but it costs a million dollars. Without thinking about cost at the same time that you're thinking about benefit, we get very low value in insurance coverage that's extremely expensive.

MR. SMITH: Court's indulgence. I need to grab Dr. Chandra's report.

THE COURT: Of course.

BY MR. SMITH:

Q Do you recall being asked by Mr. Sharp a question about your report, specifically paragraph 47 where there was some discussion about in 2017 consumers and/or physicians appealing less than one in 200 claims. Do recall that conversation?

A Yes, I do.

Q And do you recall explaining that are some bit of regulatory oversight to the extent that one of the provisions of the Affordable Care Act requires payers to, for lack of a better term report denial information to the government. Did I understand that correctly?

A That's correct.

Q Okay. And you told us that that promoted transparency in the healthcare system. Can you expand on that a little bit?

A Well, if you look at the report, the one that I cite, you know, you can see that on average, you know, something like 17 percent of claims in the United States in this exchange market are denied. But what's great about that report and what's great about the reporting is that you can see that the insurer level, you know, and you can say who are the insurers who are rejecting, you know, maybe 15 or 20 percent of claims. Who are the insurers that reject five or 10 percent of claims? So that's all in the report.

So you get insurer level transparency, which is going to help the marketplace figure out who are the insurers that, you know, people should sign up with and who are the ones that might want to avoid.

Q And as a reasonable man, would you agree that that

transparency could in fact promote insurers making appropriate decisions when it comes to denials?

A That is the theory that those transparency efforts are creating some market pressure on insurers not to over deny claims. But I say theory, Counsel, because it's not like I have studied that and to the best of my knowledge I don't know if anyone else has actually studied that piece of it.

Q Understood, Doctor. Mr. Sharp also asked you your opinion as to whether or not proton therapy is unproven, and I believe you said you still believe it is?

A Well --

Q In certain circumstances.

A In certain circumstances, that's correct.

Q And just to kind of take us back a couple of hours ago, why is that relevant for utilization management purposes?

A I mean, what if there was another therapy that was proven, wouldn't you want that. So first of all, I guess there's two explanations here, right. One is, if there's a proven therapy, putting aside costs wouldn't you just want the proven therapy? You've got a patient with cancer; you could treat the patient with something unproven or something proven. Wouldn't you want to treat the patient with something proven? That's kind of one determination.

The other way to think about is, what about cost? What if the thing -- we don't know how much it is works, but we do know it's extremely expensive. We know the cost side with certainty. We know the benefit

side, not at all.

So those are two reasons to use utilization management to move patients away from proton towards another therapy whether it might -- which might be a better option for them.

Q And Doctor, in somewhat of an intent to suggest that -- or at least to advance the narrative that proton therapy presently is in fact proven, do you recall being asked questions about the New York Proton Center?

A Yes.

MR. SMITH: And Audra, if we could bring Exhibit 8, please. And I want to go to page 155. And then can you blow up utilization by condition?

BY MR. SMITH:

Q And do you recall being shown this page, Doctor, and asked to acknowledge that in this section it talks about utilization by condition, and we have adult lung cancer at 13 percent?

A Yes.

Q Do you remember seeing the page in this document?

A Yes, I do.

Q And Doctor, suffice it to say, at least in forming your opinions or supporting them would you have liked to have reviewed the entire document as opposed to just one page?

A Sure. I would like to see the whole document.

Q Okay. Let's do that.

MR. SMITH: So can we first go to 8-150? Okay. And then

Audra, can you first bring up for me the second paragraph?
BY MR. SMITH:
Q Now that second sentence, Doctor, as I see that reads that, "The existing methodology for therapeutic radiology is not appropriate for proton beam therapy facilities given the emerging nature of proton beam therapy and the absence of compelling evidence supporting its use for more than a few relatively rare conditions". Did I read that right?
A Correct, you did.
MR. SMITH: And then if we can down, Audra, to the fourth line from the bottom starting -- or actually how about after, "several months of deliberation and research?" Yeah.
BY MR. SMITH:
Q And then Doctor, does it say here, "After several months of deliberation and research that SHRPC at its meeting of April 8th, 2010 endorsed a department policy paper on proton beam therapy and recommended to the commissioner the operation of a proton beam therapy demonstration project." Did I read that right?
A Yes. You did.
Q The SHRPC noted, "In particular the importance of using the demonstration project to promote research into the effectiveness of proton beam therapy in comparison with other therapies." Did I read that right?
A You did.
Q So here, Doctor, if I understand this correctly, we're looking at the need analysis for the New York Proton Center and in that need

analysis what the writers are saying, that there appears to still be a need -- a demonstrated need to promote research to find out if proton beam therapy is in fact effective. Am I understanding that right?

A I agree with that, and I believe that's also consistent with my view that we need a lot more evidence on this technology.

Q Okay.

MR. SMITH: And then Audra, if you can take that down and bring up the paragraph on May 5th, 2010.

BY MR. SMITH:

Q And then, Doctor --

MR. SMITH: Audra, the third line all the way at the end starting with, "a threshold."

BY MR. SMITH:

Q And, Doctor, do you see here, "A threshold requirement for participation in the demonstration project is a commitment to engage in research concerning the effectiveness of proton beam therapy in comparison with other treatment modalities?" Did I get that right?

A Yes.

Q Okay.

MR. SMITH: Audra, next page, please. Then Audra, if you could bring up starting at the top of the page and then the chart.

BY MR. SMITH:

Q And Doctor, here we see it says, do we not, "The following table shows the annual incidents of these cancers in New York State?" And I see intraocular melanoma, skull base chordoma, meningioma,

arteriovenous malformations, medulloblastoma, pediatric cancer and pituitary adenoma. Conspicuously missing from this list is lung cancer, would that be fair to say, Doctor?

A That's correct.

Q And do you -- would you interpret this chart to signify -- you say potentially eligible for proton beam therapy. And we're talking about -- it's listing annual cases; is that correct?

A I believe it is, yes. In column two it does say that it is listing annual cases.

MR. SMITH: And then if we go down to -- if we get rid of that, Audra. And then the paragraph directly underneath the chart, please.

BY MR. SMITH:

Q Again, we're still reference Exhibit 8 document that was shown to you Plaintiff's counsel. And then we see, "Based upon these figures currently there is a need for one proton beam therapy center in New York State with the capacity to provide access to approximately 700 patients. While therapeutic gain is recognized for these relatively rare cancers," and again we're talking about the cancers that were listed in that chart, correct?

A Correct.

Q Where lung cancer was not noted, correct?

A Correct.

Q "Additional research is required to document the effectiveness of proton beam therapy in treating more common cancers,

for example lung, breast, and prostate," correct?

A Correct.

Q Okay.

MR. SMITH: Then Audra, if can take that and bring up the next paragraph, please. And Audra, if we can start at the sentence that starts with, "because a proton beam therapy center."

BY MR. SMITH:

Q And Doctor, as I can see this, this says does it not:

"Because a proton beam therapy center of the five beam type under consideration for this demonstration project typically serves 1500 patients a year, there would remain in addition to capacity for roughly 700 patients for whom proton beam therapy is indicated based on published evidence, capacity to treat an additional 800 patients with cancers for which the effectiveness of proton beam therapy has not been demonstrated."

Did I read that correctly?

A Correct.

Q And that would obviously include lung cancer based on what we've read thus far, correct?

A Correct.

Q "This provides an opportunity to advance a principle goal of the demonstration project. Conducting research into the efficacy of proton beam therapy and in particular it's efficacy in comparison with other treatments." Did I get that right, Doctor?

A You did.

MR. SMITH: Audra, if we can next go to 153, please. And then the -- just you can pull up the first two paragraphs for me, please.

BY MR. SMITH:

Q And Doctor, I'm going to ask you the last sentence. Does this not say that, "The researched purposed includes disease cite based research, physics research, biology research, multi institutional collaborative research as follows?" Did I read that right?

A You did.

MR. SMITH: And then the next page, Audra. Actually, yeah.

BY MR. SMITH:

Q And then so this paragraph kind of introduces the types of things that this proton beam therapy research project is targeting. Would that be fair to say?

A Yes.

MR. SMITH: And then if we go to the next page, Audra. Number four, please.

BY MR. SMITH:

Q And then the third bullet point, does that not say, "small cell lung" --

MR. SMITH: The third, Audra, not the second. I'm sorry.

THE WITNESS: Yes.

Q "Small cell lung cancer phase 1/2 protocol for limited stage small cell lung centers -- lung cancer with gross tumor volume greater than 200 cc's" --

MR. ROBERTS: Sorry, Your Honor. Thank you.

THE COURT: Of course.

BY MR. SMITH:

Q "To receive daily proton therapy with dose constraints on major organs."

MR. SMITH: And then the first bullet point, please.

BY MR. SMITH:

Q And then: "Early stage non-small cell lung center -- excuse me, lung cancer develop guidelines and techniques to treat early stage non-small cell lung cancer tumors that are adjacent to the chest wall utilizing the dose drop off of proton irradiation and compare it to stereotactic body radiation therapy in a dose escalation protocol for central tumors using proton beam therapy."

Did I get that correct?

A You did.

Q So Doctor, if I understand this correctly and let me ask you this way, would you understand this to signify that one of the purposes of the New York Proton Center was to in fact conduct further research into whether or not proton therapy was actually effective in the treatment of non-small cell lung cancer?

A I would agree with that. It does sound like what they're saying is, we don't really have good evidence of this technology working in a variety of cancers like non-small cell lung cancer and -- but we would like to learn. We would like to know if it works. And so they want to do this demonstration project as a condition of approving the center.

MR. SMITH: And so if we go back to that first page, 8-155,

Audra please.

BY MR. SMITH:

Q And again to be clear, this is the only page in this document that Plaintiff's counsel showed you, correct?

A Correct.

MR. SMITH: And then if we can bring up the utilization by condition.

BY MR. SMITH:

Q If we look at this 13 percent, would that suggest to you, Doctor, based on everything that we just discussed that that 13 percent lung cancer statistic is talking about research?

A I haven't read the whole document, Counsel, but based on what we've just discussed it does appear that the document says, we don't have evidence that it works in lung cancer. We also have evidence that they're anticipating that 13 percent of the patients will be lung cancer patients. We've also got evidence that they're going to do a demonstration project. So I do think it would be reasonable to conclude that a lot of these patients are patients coming off the demonstration project.

MR. SMITH: Court's indulgence, Your Honor.

THE COURT: Of course.

BY MR. SMITH:

Q And Doctor, to be clear, the fact that as we've just understood after you reviewed at least more pages of the document than what Plaintiff's counsel showed you, that support your conclusion that

proton therapy treatment for lung cancer is still not proven?

A That's right and that is what I say in my report, and I also said to Plaintiff's counsel that we still need a lot more evidence on whether this technology benefits patients with lung cancer.

Q And is that a fair consideration when talking about utilization management and insurers approving requests for proton therapy when it comes to -- in regards to non-small cell lung cancer?

A Absolutely.

MR. SMITH: Nothing further, Your Honor.

THE COURT: Thank you. Mr. Sharp?

MR. SHARP: You just want to pull back up Exhibit 8, 146. I think it's 146.

RECROSS-EXAMINATION

BY MR. SHARP:

Q So Doctor, there's been some indication that it would have been nice for you to be able to review Exhibit 8 before you got here, right?

A Yes.

Q So if you look down at the bottom you see some bate stamp numbers, called Eskew. Do you see that down there?

A Yes.

Q These are documents we produced to Sierra Health and Life. Do see that?

A Yes.

Q So they could have provided that document to you before

you testified today, right?

A Right. But it wouldn't have changed anything in my report, Counsel.

Q I understand. But you and Mr. Smith are acting like this was some kind of charity project, the operation of the New York Proton Center.

A I don't think I used that word.

Q You understand that it's a profit making venture, right?

A Right.

Q And on page 146 --

MR. SHARP: If you can pull this back. Pull this paragraph up here. No, no. Right here. Right up here to here. There, exactly.

BY MR. SHARP:

Q So you're an economist so you're -- and I also noticed on the internet when I was looking at, you're also an entrepreneur?

A I'm a better economist than I'm an entrepreneur.

Q Fair enough. But you know how businesses work. So we've got the New York Proton Center, they enter into an administrative service and licensing agreement with New York Proton Management LLC. And New York Proton Management, down here will own or lease the hard assets of New York Proton Center. And so then that's semi typical where the manager of the LLC say buys the building and the company even though they're controlled by the same people, might pay the rent?

A Yeah.

Q Yeah? Is that right?

A That's my understanding.

Q Okay. Now if we go to page 155. And Mr. Smith had been talking to you about the utilization by conditions?

A Yes.

Q And the suggestion was that on questioning that the adult lung at 13 percent was research not patients paying for the care. That's what you and Mr. Smith were discussing, right?

A And I said I have not read the whole document, Counsel, so I'm not 100 percent sure if all of that 13 percent is research.

Q Or any portion thereof?

A Or any portion thereof. But it does look like they are going to be doing research in adult lung cancer patients.

Q Now if this 13 percent or any portion thereof reflect the charity, the people that would have the records to prove that are United Health Group, right?

A I don't know --

Q I mean --

A -- Counsel.

Q -- they're subsidiary is operating the proton center. Follow me so far?

A I follow you on that point, Counsel.

Q So it would be typical that the person that the entity operating the proton center would have records that could tell us how many people were getting treated for lung cancer that were either being

paid by some payor or on a charity basis, right? That would be sound business principles.

A Yes.

Q Okay.

MR. SHARP: Now if you go to page 160. And the -- go down here -- or just pull this whole -- all the way down.

BY MR. SHARP:

Q So somebody -- to your point as to how expensive these centers are to put together, somebody at UnitedHealthcare made the decision that investing into a project that was going to cost 238 million would be a good deal?

A Okay. If you say so.

Q I mean, that's how rational businesses work, right? They just don't throw [indiscernible] money, they're looking to make a profit?

A Right.

Q And when ProHealth Proton Center Management LLC made an equity contribution to the New York Proton Center of over $15 million, did you see that?

A Yeah.

Q And would expect that as a reasonable business, you as an expert in economics that somebody at UnitedHealthcare thought that investing that 15 million was a good deal for the company?

A You mean at ProHealth Proton Center --

Q Yeah.

A -- Management, Counsel? Yes.

Q It was a good financial deal?

A Sure.

Q And just so I'm clear because I thought had made this point, you yourself are not aware of any changes in the literature between 2016 to today which would justify your view concluding that lung -- treatment for lung cancer through proton beams was proven and medically necessary?

A I'm not aware of any change in the literature, Counsel. But there's many other reasons, economic reasons for why United might have invested in this kind of center. I don't speak for United, but if I was an insurance company like United and I see a lot of payments for proton coming in, I might decide to run my own proton center because right now I'm making very expensive payments to MD Anderson and a variety of other proton centers. But if I ran my own center I could cut out the MD Anderson component.

So there's many economic reasons for why an insurance company would want to vertically integrate with the proton provider. It would be profitable for the insurance company to do that.

Q And that was another thing I was going to talk because --

THE COURT: Counsel, we're going to take a brief recess.

MR. SHARP: Okay.

THE COURT: Ladies and gentlemen, you are instructed not talk with each other or with anyone else about any subject or issue connected with this trial. You're not to read, watch, listen to any report of or commentary on the trial by any person connected with the case

including without limitation newspaper, television, the internet or radio. You're not to conduct any research on your own relating to this case such as consulting dictionaries, using the internet or using reference materials.

You're not to conduct any investigation, test any theory of the case, recreate any aspect of the case or in any other investigate or learn about the case on your own. You're not to talk with others, text others, tweet others, google issues or conduct any other kind of book or computer research with regard to any issue, witness, party or attorney involved in this case. You're not to form or express any opinion on any subject connected to this this trial until the case is finally submitted to you.

We'll take a brief five minute recess and come back at 4:10.

THE MARSHAL: All rise for the jury.

[Jury out at 4:03 p.m.]

THE COURT: All right. We'll come right back.

MR. SHARP: Thank you, Your Honor.

[Recess taken from 4:03 p.m. to 4:11 p.m.]

[Outside the presence of the jury]

THE MARSHAL: Department 4 come to order, back on the record.

THE COURT: All right. Please be seated, counsel. Are the parties ready?

MR. ROBERTS: I just wanted to briefly ask about the schedule because we've got our next witness in the hallway. At this

point I don't think he'll get on and off, and we had wanted to reserve a little time at the end of the day to argue the directed verdict motion. Would -- I would propose that we go ahead after this witness, let the jury go home a little earlier on Friday, take care of directed verdict and start first thing Monday morning?

THE COURT: How much longer do you have with Dr. Chandra?

MR. SHARP: Oh, you know, five minutes. I don't know if Mr. Smith has any other follow up.

MR. ROBERTS: Probably one or two minutes.

MR. SMITH: One or two questions.

MR. ROBERTS: Unless your next five minutes is really good.

THE COURT: That's fine with the Court.

MR. ROBERTS: Thank you, Your Honor. And then just to confirm how hard I have to work with this weekend, what's the rule on Mr. Gormley returning? He will not be able to return on Tuesday, would that be correct? Or if he has no temperature and symptom free yet, I don't know if we --

THE CLERK: It's five days.

THE COURT: Ms. Everett would know that.

THE CLERK: Yeah.

THE COURT: I can contact her. I'll email her right now.

MR. ROBERTS: Thank you, Your Honor. And then Mr. Terry and I were discussing the off chance, I think we're on schedule to end mid-day on Wednesday and -- but if we unexpectedly happen to go

shorter and we ended on --

MR. TERRY: We don't want to have to close on Wednesday.

THE COURT: You're not.

MR. TERRY: Okay.

MR. ROBERTS: Okay.

THE COURT: There's no way we're going to close on Wednesday. That would not be fair to the jury.

MR. TERRY: I wouldn't think so. But we just wanted you hear say that, so we don't lay awake at night. Thank you.

MR. ROBERTS: So now we get to sleep a little this weekend.

THE COURT: I was looking at that thinking even if we did get done mid-day on Wednesday it wouldn't be fair to do jury instructions and closings on Wednesday.

MR. ROBERTS: And then go away for four days and come back.

THE COURT: Yeah. That's not --

MR. ROBERTS: Thank you, Your Honor.

THE COURT: Not appropriate.

MR. TERRY: Thank you, Your Honor. We appreciate that.

[Pause]

THE MARSHAL: All rise for the jury.

[Jury in at 4:14 p.m.]

THE MARSHAL: And all jurors are present.

THE COURT: Thank you. Do the parties stipulate to the presence of the jury?

MR. SMITH: Yes, Your Honor.

THE COURT: Mr. Sharp?

MR. SHARP: Thank you, Your Honor.

THE COURT: No. Do you stipulate to the presence of the jury for the record?

MR. SHARP: Yes, I do.

THE COURT: Thank you.

MR. SHARP: Sorry about that.

THE COURT: That's all right. Please proceed.

BY MR. SHARP:

Q Dr. Chandra, when we took break we -- you were talking about how one of the things big insurance companies like UnitedHealthcare Group they do is bill -- you know, they might invest in medical -- the practice of medicine if you will of medical clinics like the proton beam therapy in New York?

A Counsel, I disagree with that. I don't think that's the practice of medicine, that's investing in a facility that they're paying for.

Q Totally agree with you. I didn't mean it that way. I just meant they're investing into a facility that provides medical care?

A Correct.

Q And that's because it's a good deal financially?

A It may be a good deal financially.

Q Well, they wouldn't do it if it wasn't a good deal?

A There are a lot of things that aren't good deals. They make mistakes all the time.

Q Fair enough. I mean, somebody's not throwing 15 million plus because they think it's a bad -- they think at the time they're making that invest --

A Correct. I agree with that, Counsel.

Q Expectation is it's a good financial deal?

A Yes.

Q And you're aware or are you aware that as of today the New York Proton Center still is providing proton beam therapy for lung cancer for profit?

A I know nothing about the New York Proton Center, Counsel.

Q Can you look at Exhibit 71? Do you have that in front of you? I'm sorry --

A Oh you want me to look in the book, Counsel?

Q Yeah, I'm sorry. That was my fault because you wouldn't know.

A Yes, Counsel. I have you, yeah.

Q And you see that's a printed out version of the -- of a website for the New York Proton Center?

A Yes.

MR. SHARP: Your Honor, move to admit Exhibit 71.

MR. SMITH: Objection, Your Honor. Relevance and foundation.

THE COURT: Do you have a copy of it, Mr. Sharp?

MR. SHARP: I don't have a copy of it.

THE CLERK: She can give it to me.

MR. SHARP: It's Exhibit 71.

THE CLERK: She'll grab it.

MR. SMITH: Judge, can we approach, please?

THE COURT: Yes.

[Sidebar at 4:18 p.m., ending at 4:22 p.m., not recorded]

THE COURT: Exhibit 71, pages 17 and 18 will be admitted into evidence.

[Plaintiffs' Exhibit 71, pages 17 and 18 admitted into evidence]

MR. SHARP: Jason, can you pull Exhibit 71, please?

BY MR. SHARP:

Q So this is from the New York Proton website. "Proton therapy for lung cancer and thoracic tumors." Did I read that correctly?

A Yes.

MR. SHARP: And go to the next page, Jason.

BY MR. SHARP:

Q The top says -- and this is from the New York Proton Center, Exhibit 71. "When lung cancer is treated with conventional radiation it is difficult to deliver a high enough radiation dose to control the cancer without also damaging the normal lung, esophagus, heart and spinal cord." Did I read that correctly?

A You did.

Q Now the next paragraph. "Proton therapy can more effectively treat these tumors, particularly large ones while better protecting critical structures from radiation. As a result, proton can minimize the side effects such as lung inflammation, pneumonitis, or

scaring, fibrosis, difficulty swallowing, heart complications, hospitalizations and other side effects that are commonly seen with conventional lung cancer treatment."

Did I read that correctly?

A You did, Counsel.

BY MR SHARP:

Q Now let's go, it says, "Lung cancer and -- lung and thoracic cancers we treat with proton radiation therapy include non-small cell lung cancer". You understand that's what Mr. Eskew had?

A Yes.

Q And then also it says, "small cell lung cancer." Did I read that correctly?

A Yes.

MR SHARP: I have no further questions.

THE COURT: Mr. Smith?

MR. SMITH: Judge, I understand by agreement, the Defense is going to move for admission of page 1 of this document, so it's going to be Exhibit 71-1, which shows the date that this website was printed out.

THE COURT: Any objection, Mr. Sharp?

MR SHARP: No. And Mr. Smith, if you want to tell the jury what the date is, I have no problem with that.

MR. SMITH: Can I just publish it on the ELMO, Your Honor?

THE COURT: Yeah. So Exhibit 71, page 1 will be admitted into evidence.

[Defendants' Exhibit 71-1 admitted into evidence]

FURTHER REDIRECT EXAMINATION

BY MR. SMITH:

Q Doctor, does this show the date of -- the 2 pages the document that you've seen appears to be February 18th, 2022?

A Correct.

Q Okay.

MR. SMITH: And then Audra, can you bring up Exhibit 8, please.

MS. BONNEY: One second.

MR. SMITH: Or no, excuse me.

MS. BONNEY: I have to go back, hold on.

MR. SMITH: Yeah. If you don't mind please. Thank you.

MS. BONNEY: What page?

MR. SMITH: Page 146.

BY MR. SMITH:

Q And then going back to the New York Proton Center documents that we -- both you and I and you and Mr. Sharp discussed at length. And this is the document that we talked about where it was indicating that proton beam therapy was still not proven and needed to be researched for non-small lung cancer, correct?

A That's correct.

Q Then what's the date of this document? Is 2015 fair to say?

A 2015.

MR. SMITH: Nothing further, Your Honor. Thank you.

THE COURT: Thank you. Mr. Sharp?

MR SHARP: Nothing, Your Honor.

[Sidebar at 4:27 p.m., ending at 4:28 p.m., not recorded]

THE COURT: Dr. Chandra, there's a question from one of the jurors. It's only -- if you can answer this question. What does PBT cost?

THE WITNESS: The answer varies substantially from indication to another. You saw one cost estimate in the exhibit you just saw, which is the cost estimate of building the facility. I think for the purpose of this case we're also interested not in the cost building it, but what is the price that United or Sierra would have to pay MD Anderson. I think that's what you're getting at, so I'm going to try to answer that second question.

So the -- let me you give a fact, there is a paper written by a physician at MD Anderson, his name is Hubert Pan, P-A-N. He's a radiation oncologist at MD Anderson. And he has a paper in the Journal of Clinical Oncology in 2018 where he reports how much it costs to use proton versus IMRT for I think it was prostate cancer. And the answer is, proton for the full cycle of care is $115,000; IMRT for the full cycle of care is $60,000. And so I'm willing to round that 115 up to 120 and say that proton is twice as expensive. And just to give you -- to recap this is a study done by a radiation oncologist at MD Anderson.

It's the average price of proton versus IMRT across a variety of institutions. I don't know what MD Anderson has negotiated with United because all of these hospital might have negotiated their own separate price. And what we're learning from what I just shared with

you is the average price across all the institutions.

So 2X difference and as a lot of this discussion has highlighted, you know, no evidence that it is better, at least according to clinical trials.

THE COURT: Thank you. The second questions was, what does IMRT cost, but you already answered that.

Counsel, any follow up questions to these questions?

MR SHARP: No, Your Honor.

MR. SMITH: No, Your Honor.

THE COURT: Thank you. Jury have any more questions? No more questions? Dr. Chandra, you are now released.

THE WITNESS: Thank you.

THE COURT: Thank you.

Ladies and gentlemen, the Court needs to address some legal issues with the attorneys, and so we're going to release you early today. You will come back on Monday at 9:00 a.m. So we only have trial next week Monday, Tuesday and Wednesday. So it'll be a short week for you next week. It'll be 9:00 a.m. to 5:00 p.m. We will not have trial Thursday or Friday next week.

During the interim you are instructed not to talk with each other or with anyone else about any subject or issue connected with this trial. You're not to read, watch or listen to any report of or commentary on the trial by any person connected with the case or by any medium of information including without limitation newspapers, television, the internet or radio. You're not to conduct any research on your own

relating to this case such as consulting dictionaries, using the internet or using reference materials.

You're not to conduct any investigation, test any theory of the case, recreate any aspect of the case or in any other investigate about the case on your own. You're not to talk with others, text others, tweet others, google issues or conduct any other kind of book or computer research with regard to any issue, party, witness, or attorney involved in this case. You're not to form or express any opinion on any subject connected with this this trial until the case is finally submitted to you.

So what this means is you cannot over the weekend start googling the New York Proton Center or the cost of IMRT or the cost of proton. Because if you do we'd have to start this process all over again, you understand that?

And if you find out a fellow juror has violated their oath you're going to report it to the marshal, correct?

All right. We'll see you Monday at 9:00 a.m.

THE MARSHAL: Okay. All rise for the jury.

[Jury out at 4:32 p.m.]

[Outside the presence of the jury]

THE COURT: Counsel, Ms. Everett advised that Mr. Gormley can return once he has a negative COVID test. So -- did you hear that?

MR. ROBERTS: I did. Thank you, Your Honor.

THE COURT: So even if he feels better, if he doesn't have a negative test he cannot return.

MR. ROBERTS: Okay.

THE COURT: All right. Go ahead on your motion.

MR. ROBERTS: Mr. Gormley is going to do that. He --

THE COURT: Oh okay.

MR. GORMLEY: I'm here, Your Honor. If you guys can hear me all right.

THE COURT: Okay. So you heard that? You can return when you have a negative test.

MR. GORMLEY: Yeah, I understand.

THE COURT: Thank you.

MR. GORMLEY: Sorry the inconvenience with -- I (indiscernible) courtroom and things like that.

THE COURT: That's okay.

MR. GORMLEY: So we have our motion here for judgement as a matter of law. We filed that earlier today. I wanted to just touch on a few of the points here. I figured I'd start at the end of the motion and start with the punitive damages' argument.

I know that -- I'm sure you've been paying close attention to that; we filed that motion for summary judgement on punitive damages and you denied it without prejudice. There's no difference in the law, I don't think we need to revisit that. It's just from our prospective the evidence has come in and it just they haven't met their burden by clear and convincing evidence for their punitive damages claim to reach the jury.

I think Mr. Prater -- you know, the questions related to his

opinion on conscious disregard. But that doesn't take it -- that type of speculation or conclusory opinion shouldn't take this case, which was -- which if -- which isn't -- which is more consistent with the *Peterson* case out of the Nevada Supreme Court than the *Powers* case where in *Peterson* although there was sufficient evidence to affirm a finding of bad faith, there was insufficient evidence for punitive damages because it just showed that there was no specific intent to act in a fraudulent manner or with malice or with oppression as compared to *Powers* where there's evidence that the insurance company deviated from their practices in like a one off effort to harm the insured. And based on those two cases this case seems more similar to the *Peterson* matter.

After that I'll go into the bad faith claim and touch on just a couple of the arguments in the brief.

Our first argument is that the agreement of coverage is plain and unambiguous. And the promise from that agreement of coverage was to cover [indiscernible] determined to be medically necessary by Sierra Health and Life and that in doing that Sierra Health and Life would consider the items listed in section 13.66 of the agreement of coverage and the definition of medically necessary. And those are those -- they've been highlighted multiple times on the screen. They include things like the likelihood of a certain service or supply producing a significant positive outcome, reports and peer review literature and evidence based reports and guidelines published by nationally recognized professional organizations.

I think it's clear, even Mrs. Eskew testified that she

understood that the covered services have to be medically necessary. And I'd also add that's [indiscernible] they've introduced this idea of there being three different versions of the agreement of coverage, that was the same in all three versions, whichever one you want to look at.

So the promise was to cover services determined to be medically necessary by Sierra Health and Life. This service wasn't determined to be medically necessary by Sierra Health and Life. And it's undisputed that Sierra Health and Life relied on items identified in those six bullet points, including the reports and peer reviewed literature and evidence-based reports and guidelines published by a nationally recognized professional organization. Dr. Chang agreed that the proton policy contains sources equivalent to those items.

And so although they hold up the proton policy as this, you know, item that shouldn't be relied on, all that is a memorialization of the items that are appropriate for reliance under the definition of medically necessary. So for that reason we'd submit that there's been no breach of contract and that their bad faith claim can't reach the jury.

Moving on, then there is the idea of is there a reasonable basis for the denial, so sort of the element that gets the most attention I guess under the bad faith inquiry. And the question is not, is Dr. Chang right, is Dr. Liao right, is the clinical evidence right for what is -- or Dr. Liao's 2008 paper correct or is what Dr. Chandra saying correct. That's not the question, it's just is there a reasonable basis for the denial of the prior authorization request?

There's also many tangential issues related to the

preparation [indiscernible] letter related to the New York Proton Center. All these [indiscernible] issues sort of I think miss. The crux is whether there's a reasonable basis and I think the key evidence on that as it came in which is different than it was presented on summary judgment. I think it's fair to say it's come in a little different than the summary judgement briefing presented it. Is that Dr. Chang had no opinion that any of the items in the proton beam medical policy misstated the clinical evidence, so there's no challenge as to the accuracy of what they say.

Now his opinion is, well, there's some items in there that lead to the opposite conclusion. But that's not the end of the inquiry, it's whether there's a reasonable basis. And he hasn't challenged the accuracy of what's in there.

And then you look at what ASTRO says, which he agreed is one of the leading organizations for radiation oncology. It said that they concluded that the current data does not provide sufficient evidence to recommend proton beam therapy outside of clinical trials in lung cancer.

The AHRQ sentiment from the proton policy also provides for the same conclusion. And I don't think you even need to look at any of the other sources beyond that, these are -- ASTRO is one of the leading organizations in the country for radiation oncologist. AHRQ is a federal agency dedicated to the advancement of medical research and science. And there's no question as to the accuracy of the medical policies resuscitation of their positions on this matter. And I think those two statements alone from the policy, which Dr. Ahmad testified.

And I think every -- it's our position he relied on more, but

even taking Mr. Prater's position, he only relied on the medical policy. That's enough to make it so there's no question for the jury on whether there's a reasonable basis because there's no -- there'd be no basis for a reasonable juror to disregard those items as a reasonable basis for the conclusion that the medical policy provides for it when Dr. Ahmad reached on this claim at issue.

And then I just have two quick arguments related to damages. So on the pain and suffering damages their allegation is that because of the bad faith denial Mr. Eskew suffered increased pain and suffering due to the use of the IMRT instead of the proton beam therapy. And I think the way that the evidence came in on that was not sufficient to satisfy proximate cause. Because Dr. Chang testified that the use of the IMRT instead of proton beam increased the odds of the grade 3 chronic esophagitis that he testified regarding from 3 percent to 15 percent. And we would submit that that is not -- that 12 percent difference is not enough.

While maybe it meets the foreseeable aspect of proximate cause, it wouldn't be enough to meet the probable consideration when it comes to proximate cause. And that 12 percent difference doesn't take it over the line, so it's a foreseeable improbable consequence of the alleged tortious act.

So the argument there is that there -- they failed to satisfy proximate cause when it comes to the specific pain and suffering damages related to the chronic esophagitis.

And then the last argument I wanted to address is one that

was raised in the original motion to dismiss briefing in this matter when it was originally before Judge Corey. It's a concept from California law. From my prospective I don't believe Nevada courts have ruled on it directly. In California emotional distress for breach of the implied covenant of good faith and fair dealing, emotional distress damages are only recoverable for the emotional distress related due to the purported economic loss. And Plaintiffs didn't introduce any evidence of any economic loss in their case.

So we would submit that basically all of Nevada bad faith law is based on California law and if this issue came before the Supreme Court they would likely follow the California approach.

I recognize there's a split of authority on it and I don't want to -- this was all briefed before the motion to dismiss briefing. I don't think we had a definitive ruling on it one way of the other, so I don't want to misrepresent anything that happening in the past. But there's courts that follows this approach, there's courts that not. But I think Nevada's history of following California when it comes to bad faith law indicates that's likely the way they would go. And because there was no evidence introduced in Plaintiff's case regarding any economic loss with any level of the mathematical detail in order to recover an economic damages that would foreclose their ability to recover emotional distress damages.

And those were the points I was hoping to address, unless the Court has any questions?

THE COURT: No questions, Mr. Gormley. Thank you. Mr. Sharp?

MR SHARP: Is there any particular order you would like me to address these in?

THE COURT: No. It's --

MR SHARP: So I guess let me begin with element one, was there a covered service. Dr. Liao testified there was a covered service. Dr. -- Professor Prater testified there was a covered service. The Defense points to Dr. Chang repeatedly, but what they fail to also acknowledge, which the jury can accept is Dr. Chang said that the literature cited to supported the fact that proton beam therapy was medically necessary and proven. And that's assuming you even get to the medical literature.

The policy, as defined, has very simple elements consistent with is it the appropriate level of care and is it done for the convenience of Mr. Eskew. Well, it's not done for his convenience, the level of care was the same and it was consistent with his diagnosis as reflected in the evidence.

The idea that this policy is clear and unambiguous, yes. It's clear and unambiguous if you're interpreting it consistent with the laws of the State of Nevada that you interpret a coverage provision broadly to find coverage. It's interesting in this case that the Defense is interested -- introduced the ambiguity. I mean, I don't know how many different definitions we've had, but I can count to three of just one portion of the policy which is dealing with level of care. So I think under any scenario there's covered services.

Second issue was there a reasonable basis. Well, you begin with the fact that they didn't even look at the policy. I mean, this -- all

this stuff about what they did in analyzing the policy, the jury can just say that didn't happen. You have generously Dr. Ahmad spending 12 minutes. That's generous. With no record of what he actually did, so the only thing that we have is that in three separate emails he referenced the policy guidelines, which they all agree can't form the sole basis of denial and it did. There's no evidence that he even reviewed the policy and I think a rational jury can say he didn't. He certainly didn't review the literature section. Now that's -- so that's the lack of a reasonable basis.

On top of that there was absolutely no investigation done and there was no evaluation of the evidence that even was provided by MD Anderson, beginning with MD Anderson's cover letter that he met -- that Mr. Eskew met their criteria for proton beam therapy. Obviously Dr. Liao is a world renowned radiation oncologist, and it's clear Dr. Ahmad was not qualified to review this claim. And in fact admitted as such and admitted he had no qualifications to question her medical judgement. They violated NRS 695G.150 when they provided -- when they had a radiation -- an oncologist make a radiation oncologist call when they denied the claim. They did that knowingly.

Now you get to the knowledge of reasonable basis. They violated every one of the rules that Professor Prater talked about with knowledge. I mean, this is not a case where somebody made a mistake and didn't investigate a certain -- they did nothing. They did no investigation. And they did that by design. So you have now knowledge of no reasonable -- you have no reasonable basis, knowledge of no reasonable basis and a legal cause of harm.

So as to the pain and suffering, Dr. Liao testified that the administration of the IMRT caused the grade 3 esophagitis. The extent of that pain caused by the grade 3 esophagitis is a factual question, but she diagnosed him with grade 3. She testified to that fact. And so the extent of the suffering is a question of fact for the jury to decide. I think what Dr. Chang said by showing to the jury the varying rates, five times more likely to cause esophagitis had the -- between the IMRT and the proton beam therapy supports that. And as I recall, he said his opinion that the proton beam therapy caused the esophagitis was rendered to a degree of 95 percent, is what I think he testified to. So you have damage.

Now let's talk about the emotional distress. It's my recollection that Mr. Eskew testified that they sold the shop. The shop out at Nellis. So that's the economic loss.

If you read those -- the cases that they're citing to, and I haven't read their motion for directed verdict. But I'm generally aware of all of these cases. There is no requirement in California that there be a correlation to the delay. These are cases dealing with the delay of payments.

So like the lead case is *Waters* [phonetic], and what happened in *Waters* it was a homeowner's loss and the insurance company delayed in the payment, but they eventually paid the claim. And no evidence of economic loss during the delay period was introduced. But if you look further into those cases there doesn't have to be a correlation between the bad faith conduct and economic loss. I

think it's *Delos* [phonetic] that says you can actually have an economic loss of like 15 bucks for filing the complaint. Well, we obviously filed a complaint.

And on top of that the California cases they're citing to, they don't deal with a denial. This was a denial of a claim, it wasn't a delay. And the denial resulted in physical injury. And if you look at the cases in *Waters*, what they're basically saying is there needs to be an objective basis to support a claim of emotional distress. Well, I can't think of a more objective basis than a man who's trying to fight for his life, who's denied a claim that his doctors recommend, results in a physical injury to him coupled with an emotional injury that changed his life. That's objective.

Now on top of that if you look at both the Colorado case and the Hawaii case, the modern trend is that this idea that you need a dollar, literally like a dollar to assert emotional distress doesn't make any sense. The jury can assess the reasonableness of emotional distress claims. You, Your Honor, post-verdict can assess the reasonableness of those claims. That's all that the law really requires, and we have obviously a long set of juris prudence on what the Court needs to evaluate to determine whether the jury's decision was based upon the evidence or, you know, defamatory in nature. You will instruct them on the law.

So with that, I'll turn to the punitive damages. And I would point out that Professor Prater qualified in all respects, reviewed the materials to detail, explained to the jury in the detail, concluded as an ultimate issue, which is permissible under Nevada law. And I don't have

the exact code cite, but you know what I'm talking about. He testified that each of the three -- four -- three elements to liability for bad faith were met. And he testified, I don't remember the exact number of times, but I know it was more than five that this was in conscious disregard for Mr. Eskew's rights. And even if you disregard what Mr. Prater said, I mean, I can't think of a more obvious case that could go to a jury for conscious disregard than this case.

I mean, if you begin at the beginning when Mrs. Eskew searches out the policy for proton beam therapy, MD Anderson is given the insurance policy, which says therapeutic radiation is covered. Nobody tells her about this secret medical policy where all proton beam therapy claims are automatically denied. Claim comes in as it was known to do, they went to MD Anderson thinking they had coverage. Claim goes in, it's subjected to a utilization management program that is not conforming with the duty of good faith and fair dealing as, you know, in detail explained by Professor Prater. That program is used to send the file to Dr. Ahmad at $200 an hour where the claim is denied without investigation. They don't even have the decency to try and even contact Mr. Eskew as their program required them to do.

And then a denial letter is sent, written by a desk clerk based upon a 456 different denial texts that they've had in their possession. And within the denial is simply, we don't cover proton beam therapy because of our medical policy. Nothing else is in that denial letter. They know that Mr. Eskew is in need of this particular treatment, and they mail the denial letter. They don't even fax the denial letter to MD Anderson.

And they're saying, well, it's all Dr. Liao's fault. Well, I think we head today from Dr. Chandra that an appeal is futile.

So within this whole scope they know that people are going to be hurt like Mr. Eskew when they do this conduct, and they did it. They did it indifferently with deliberate disregard for his right and many other insureds.

So when you look at the definition of malice, implied malice, all we have to show is did they act with conscious disregard for his rights. Well, they did. He had a right under the contract to have his policy -- to have his claim adjudicated in accordance with the contract. He had a right under the duty of good faith and fair dealing to be treated with equal consideration. Both of those things were knowingly violated.

And if you look at the definition of conscious disregard that results in cruel and unjust hardship I can't think of a situation that I've had experience with in a long time of a more sense of cruel and unjust hardship. When a family, as Mrs. Eskew said yesterday, I was just trying to do what was best for my husband. And they get sent into this cycle, whether you call it rigged, but it's a cycle of denial. And this company didn't care. And they knew the consequences. They knew he had lung cancer, they knew he needed treatment, and this is the care he received. It was obviously unjust, and it was cruel, I mean, look what happened to him.

Disregard the grade 3 esophagitis, the fact that this man was taken away his best chance through no investigation and no consideration of the policy and no evaluation and they know they did

that.

So I -- if there's something more that I need to argue, Your Honor, I really feel strongly that this is a clear case. I mean, we're not going to pursue fraud, we're just going to pursue oppression and implied malice.

THE COURT: And the Court doesn't have any questions.

The Court finds that there's an issue of fact whether the Defendant acted in conscious disregard of the Plaintiff's rights preventing the granting of Defendant's motions for a directed verdict bad faith and punitive damages.

The Court bases it on the fact that the insurance policy states that therapeutic radiation was a covered service and proton therapy is a form of therapeutic radiation.

The witnesses did testify that no one at the insurance company reviewed the insurance policy when this decision to deny coverage was made. And Dr. Chang clearly testified in his direct examination on the stand that within a 95 percent degree of medical probability Plaintiff -- well, Bill Eskew the decedent sustained a grade 3 esophagitis due to the IMRT treatment.

With respect to the California case law preventing emotional distress when there's no accompanying economic loss, the Court finds those cases to be distinguishable as because here Plaintiff has alleged that Bill Eskew suffered physical injury and related emotional injury.

So on those bases the Court is going to deny the motions for a directed verdict.

MR SHARP: Thank you, Your Honor.

THE COURT: Any questions?

MR. GORMLEY: Thank you, Your Honor.

THE COURT: No?

MR SHARP: Not on our end.

THE COURT: Okay. So we'll see you bright and early Monday morning at 9:00 a.m.

MR SHARP: We'll be there.

THE COURT: All right.

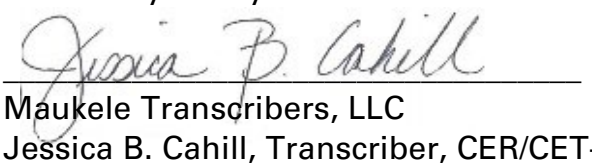
MR. ROBERTS: Yes, Your Honor. Have a good weekend.

MR SHARP: Thank you, Your Honor.

THE COURT: Thank you.

[Proceedings adjourned at 4:58 p.m.]

ATTEST: I do hereby certify that I have truly and correctly transcribed the audio-visual recording of the proceeding in the above entitled case to the best of my ability.



Maukele Transcribers, LLC
Jessica B. Cahill, Transcriber, CER/CET-708