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<p>1 STATE OF OHIO 2 COUNTY OF CUYAHOGA 3 4 IN THE COURT OF COMMON PLEAS 5 BONNIE PIKKEL, et al., 6 Plaintiffs 7 VS. C.A. NO. 326207 8 MARK ZANNETTI, D.C., et al., 9 Defendants 10 11 DEPOSITION of BENNETT BLUMENKOPF, M.D., 12 taken at the request of the plaintiffs, before 13 Michael Gruber, a notary public in and for the 14 Commonwealth of Massachusetts, on March 27, 15 2001, commencing at 2:30 p.m., at the UMass 16 Memorial Medical Center, 119 Belmont Street, 17 Worcester, Massachusetts. 18 19 A P P E A R A N C E S: 20 FOR THE PLAINTIFF: 21 ROBERT F. LINTON, JR., ESQ. 22 LINTON & HIRSHMAN, ESQ. 23 Hoyt Block Building Suite 300 24 100 West St. Clair Avenue Cleveland, Ohio 44113 -and- MARK RUF, ESQ. (Telephonically) Hoyt Block Building 700 West St. Clair Avenue Cleveland, Ohio 44113</p>	<p>1 EXHIBITS 2 3 4 5 1 Curriculum Vitae 4 6 2 Letter, Witness to Scott, 7 1/9/99 4 8 3 Letter, Witness to Scott, 9 1/2/99 12 10 4 Letter, Witness to Scott, 11 7/9/99 12 12 5 Letter, Witness to Scott, 13 12/14/00 12 14 6 Group of Documents, Cover 15 Page Bearing Reminger & 16 Reminger Letterhead, 6/25/99, 17 with Attachments 15 18 19 20 21 22 23 24</p>
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<p>1 FOR THE DEFENDANT SPANER: 2 WARREN ROSMAN, ESQ. 3 WESTON, HURD, FALLON, 4 PAISLEY & HOWLEY, ESQS. 5 2500 Terminal Tower 6 50 Public Square 7 Cleveland, Ohio 44113-2241 8 9 FOR THE DEFENDANT MERIDA HILLCREST HOSPITAL: 10 JAMES L. MALONE, ESQ. 11 REMINGER & REMINGER, ESQS. 12 The 113 St. Clair Building 13 Cleveland, Ohio 44114 14 15 16 17 18 19 20 21 22 23 24</p>	<p>1 Bennett Blumenkopf, M.D., SWORN 2 3 (Whereupon, Exhibits 1 and 2 were 4 marked, for Identification.) 5 6 EXAMINATION BY MR. LINTON: 7 8 Q. Dr. Blumenkopf, good afternoon. We 9 met a few minutes ago. My name is Bob Linton. 10 Mark Ruf and I represent Mr. and Mrs. Pikkell in 11 a lawsuit that is pending in the Court of Common 12 Pleas against various parties. 13 I understand you have been retained 14 as an expert neurosurgeon on behalf of the 15 hospital, is that correct? 16 A. That's my understanding, yes. 17 Q. We're here to take your deposition. I 18 assume you've been deposed before, Doctor? 19 A. I have, yes. 20 Q. How many times have you been deposed 21 before, approximately? 22 A. For proceedings such as this or 23 including workers' compensation? 24 Q. Let's start first for proceedings</p>

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1 such as this.
 2 A. I would be estimating maybe 20, 30. I
 3 don't have an individual recollection, so it's
 4 anestimate.
 5 Q. And if we were to include additional
 6 cases, how many additional cases?
 7 A. Well, in the workers' compensation,
 8 you mean?
 9 Q. Any depositions.
 10 A. Oh, maybe another dozen.
 11 Q. Okay. Just so we're clear, first of
 12 all it's important that you understand the
 13 question that I ask. I might use a term
 14 inappropriately. If I do please stop me and I'll
 15 do whatever I need to to clarify the question so
 16 you understand it, okay?
 17 A. Certainly.
 18 Q. If you don't ask for clarification
 19 we're going to assume you understood the
 20 question, is that fair?
 21 A. Absolutely.
 22 Q. My purpose today, Doctor, is to find
 23 out all your opinions in this case and
 24 everything you based those opinions on. Do you

1 A. I'll do the best I can to answer your
 2 questions as thoroughly as I can.
 3 Q. Thank you very much. Do you also
 4 understand that our court rules require that you
 5 disclose all of your opinions in a case, and
 6 that if you fail to tell us today all of your
 7 opinions, that we will move to exclude any
 8 additional opinions at the time of trial?
 9 MR. ROSMAN: Objection.
 10 MR. MALONE: He can testify within the
 11 four corners of the report he has written. This
 12 is an expansion of the discovery rules. His
 13 opinions are set forth in that report. It's not
 14 his responsibility to tell you anything today.
 15 It's your responsibility to ask him questions,
 16 and then he has the responsibility to answer
 17 those questions, but beyond that he has no
 18 responsibility today.
 19 Q. Dr. Blumenkopf, I just want to make
 20 it clear that I'm here today to find out, and I
 21 will do whatever I need to to ask you all of
 22 your opinions, and our court rules require that
 23 you disclose all of your opinions both in your
 24 written report and at the time of deposition. We

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1 understand that?
 2 A. Yes.
 3 Q. Do you agree it would be unfair to my
 4 clients if you fail to disclose to us today all
 5 of your opinions?
 6 A. Absolutely.
 7 Q. And do you agree that since we want
 8 everything you based your opinions on it would
 9 likewise be unfair to Mrs. and Mrs. Pikkel if
 10 you fail to tell us today everything you based
 11 your opinions on?
 12 MR. MALONE: Let me just object.
 13 He'll answer all of your questions.
 14 This isn't meant to be an open narrative by him
 15 to explain everything he's done and everything
 16 he thinks. You have to ask questions. That's why
 17 we call it a deposition.
 18 MR. LINTON: I understand that.
 19 MR. MALONE: He's going to give you
 20 full answers to your questions.
 21 MR. LINTON: I understand that.
 22 Q. I just want to make it clear, Doctor,
 23 I'm here today to find out all your opinions and
 24 everything you based your opinions on.

1 will move to exclude any new opinions that are
 2 not expressed in your report or are not
 3 expressed today at this deposition. Do you
 4 understand that?
 5 MR. ROSMAN: Objection.
 6 MR. MALONE: Objection.
 7 A. I understand that. I think that maybe
 8 it's different in Ohio, I don't know, but there
 9 are times when new information becomes available
 10 subsequent to the deposition, so you reserve the
 11 right to maybe either expand or espouse
 12 differing opinions pursuant to new information.
 13 That's the only exclusion I've heard previous.
 14 Q. I'm not going to ask you to
 15 necessarily know what the rule is in Ohio. I'm
 16 just making it clear we will move to exclude any
 17 opinions that were not expressed in your report
 18 or in your deposition today. Do you understand
 19 what I'm saying?
 20 A. I certainly understand it, yeah.
 21 Q. Okay.
 22 A. And I don't know if it's my job to
 23 agree or disagree with that.
 24 MR. MALONE: It's not. It's neither.

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1 Q. Have you done everything you need to
 2 do to provide your opinions in this case?
 3 A. With the information provided me,
 4 yes.
 5 Q. Have you reviewed everything
 6 necessary to provide us your opinions in this
 7 case?
 8 A. I believe so, yes.
 9 Q. Is there any additional information
 10 that you've requested but not received?
 11 A. No.
 12 Q. Does anything else need to be done to
 13 provide us with your final opinions in this
 14 case?
 15 A. Not to the best I can understand the
 16 situation, no.
 17 Q. Let's talk, if we can, about billing,
 18 Doctor.
 19 What do you charge for your
 20 deposition?
 21 A. I just charge for my time, which is
 22 at \$350 per hour, whether it's doing this or
 23 reviewing the records or going to trial,
 24 whatever the process is.

1 it, or have. With the report on here.
 2 (Handed to Mr. Linton.)
 3 A. And then there would be the retainer
 4 for this. I don't know exactly how we -- how we
 5 communicated, may have called me, but this is
 6 just a statement from him with a check for the
 7 retainer for this -- or, actually, it's from
 8 you.
 9 (Handed to Mr. Linton.)
 10 Q. Do you owe me any money back yet?
 11 A. Huh?
 12 Q. Do you owe me any money back yet?
 13 A. I don't know.
 14 Q. \$1,400. Am I correct, just in all
 15 seriousness, that you'll be charging for your
 16 actual time spent today at the rate of \$350 an
 17 hour?
 18 A. As opposed to what?
 19 Q. As opposed to if I walk out of here
 20 after an hour, that you'll be charging me an
 21 amount in addition to that.
 22 A. No, the retainer was for the four
 23 hours of time, so if you leave early it's your
 24 hard luck.

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1 Q. So it's a \$350-an-hour charge?
 2 A. correct.
 3 Q. For any activity on the file, is that
 4 right?
 5 A. Correct.
 6 Q. Do you keep records of your time?
 7 A. Records in a general sense, yes.
 8 Q. What sort of records are available
 9 that would show the amount of time you have
 10 spent in this case?
 11 A. Just the documents I think you
 12 already have, which would be the statements, and
 13 I try to bring all documents relating to this
 14 case. Or relating to any case.
 15 Q. Could you please pull for us all the
 16 billing records you have in your file?
 17 A. I think they're right here.
 18 Q. Could you show those to us, please?
 19 A. Well, this -- this statement relates
 20 to -- I've been requested and been provided a
 21 retainer for the trial date, so that's that.
 22 Then there were two statements almost two years
 23 ago when I initially looked at this for Mr.
 24 Scott in July of 1999. You're free to look at

1 Q. And if I stay late?
 2 A. Then there's an extra fee, yeah. I
 3 book my calendar --
 4 Q. That's fine, Doctor.
 5 MR. MALONE: I owe you an adjustment,
 6 and I will deal with you separately about that.
 7 I will make an adjustment to you because I've
 8 taken some of his time to prepare him that you
 9 had booked originally.
 10 A. I was just asked to give four hours.
 11 Q. Doctor, aside from this deposition
 12 we're about to give here today, is there any
 13 additional work you've done on the file that you
 14 have not yet billed for?
 15 A. No.
 16 MR. LINTON: Let's mark these.
 17 (Documents marked.)
 18 Q. I may be stating the obvious, but I
 19 assume you charge for all the work you've done
 20 on this case, is that right? You haven't done
 21 any services on this case for free.
 22 A. No, I charge for my time, that's
 23 correct.
 24 Q. Exhibit 3 is a copy of a letter from

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1 you to the Reminger law firm showing how much
2 time spent for your initial case review. Two
3 hours?

4 A. That's correct.

5 Q. Would that be to review all the
6 written materials that you have in your file?

7 A. I believe I received everything at
8 once, yeah.

9 Q. In addition to that, Exhibit 4 shows
10 additional time of an hour and 20 minutes?

11 A. A 20-minute telephone call,
12 conference, and then an hour to prepare a
13 report.

14 Q. And that would be for the report that
15 you prepared in this case, which we have marked
16 as Exhibit 2?

17 A. Correct.

18 Q. In addition to that, Exhibit 5 shows
19 the amount for your trial testimony, eight hours
20 at 350 an hour, for a total of \$2,800.

21 A. That's the retainer for that time if
22 it proceeds to trial on that date, yes.

23 Q. Thank you. We'll make copies of all
24 of these so can you keep the original in your

1 Q. The bottom of the stack.

2 A. Not on the bottom. Just in the
3 middle.

4 MR. LINTON: Let's mark that, please.
5 (Document marked.)

6 Q. Okay, Doctor, I've had a chance to
7 have a look at Exhibit 6. Exhibit 6 is a letter
8 from the Reminger law firm to you, dated June
9 25, 1999, is that right?

10 A. Yes.

11 Q. And attached to that also is a, looks
12 like an E-mail from Donna C-z-e-r-w-i-n-s-k-i,
13 at the Reminger law firm, as well, dated June
14 23, 1999, is that right?

15 A. Yes.

16 Q. As best we can tell, it would have
17 been Donna, the paralegal from the Reminger law
18 firm, that first contacted you about this case
19 on June 23, 1999, is that right?

20 A. I don't recall if there was maybe a
21 phone call prior to the E-mail. I don't have a
22 recollection how she would have gotten my E-mail
23 or anything like that.

24 Q. Would you --

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1 file.

2 A. I do request that if you're going to
3 do that, put it on the record, that my Social
4 Security number be blacked out on the copy,
5 since that was provided for tax purposes, and
6 not for this proceeding.

7 Q. Sure.

8 Is there anything else that
9 constitutes part of your file that we don't have
0 in front of you?

1 A. Everything that I know that relates
2 to this case is on this table.

3 Q. Okay. Has anything been removed from
4 your file at any time?

5 A. Not that I'm aware of.

6 Q. How about any correspondence with
counsel?

7 MR. MALONE: It's in there.

8 A. Not that I'm aware of.

9 Q. Did you receive an initial engagement
letter from the Reminger law firm?

0 MR. MALONE: It's all in there, Bob.
Notes on it, everything. It's a dream for you.

24 (Handed to Mr. Linton.)

1 A. Certainly the date of the E-mail
2 precedes the date of the letter, but --.

3 Q. Have you reviewed cases for the
4 Reminger law firm before this one?

5 A. I believe so, yes.

6 Q. And how many other cases had you
7 reviewed for the Reminger law firm aside from
8 this one?

9 A. I would say more than one, but I
0 couldn't give you an exact figure.

1 Q. Do you have any records you could
2 check to confirm that?

3 A. No.

4 Q. I assume that the other case or cases
5 you were involved in were for the defense of
6 health care providers as opposed to representing
7 the patient?

8 MR. MALONE: The other cases he was
9 involved in on behalf of my law firm.

0 MR. LINTON: correct.

1 MR. MALONE: Not all the other cases
2 he has been involved in.

3 MR. LINTON: Correct.

4 A. Yeah, I believe that's true. I can't

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1 recall -- I believe all of them were on the
2 defense side, yes.

3 Q. Do you recall any other cases in
4 terms of what the issues were?

5 A. No.

6 Q. Do you recall how long before June
7 23, 1999 you had last consulted with the
8 Reminger law firm?

9 A. Consulted, you mean discussed any
10 situation?

11 Q. Correct.

12 A. I don't recall that.

13 Q. Have you worked on any previous cases
14 with Mr. Malone?

15 A. No.

16 Q. Mr. Scott?

17 A. I believe this was the first time I
18 worked with Mr. Scott.

19 Q. The handwriting that appears on
20 Exhibit 6, I assume that's your handwriting?

21 A. With the exception of Mr. Scott's
22 signature block, yes.

23 Q. And, likewise, on the E-mail, as
24 well?

1 Q. Would that have been based on the
2 statement in the ER record of being unable to
3 void for 26 hours?

4 A. Correct.

5 Q. And what did you use to determine the
6 time on which the 47 hours 15 minutes --?

7 A. That was the interval from the time
8 of the treatment, chiropractic treatment, to the
9 incision at surgery.

10 Q. Incision at 3:15?

11 A. Correct.

12 Q. Are you able to tell, based on the
13 information provided, when the procedure was
14 done to the point that all compression was taken
15 off the nerve?

16 A. I'd have to look at the operating
17 room record. I could -- I could estimate that to
18 see how long --

19 Q. Just give me, first of all, your
20 estimates. It was a two and a half hour
21 procedure, according to the records.

22 A. Mm-hmm. Well, I -- I would assume
23 that that's the incision time.

24 Q. It was.

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1 A. Yes.

2 Q. Just read for me what this
3 handwriting is, so we can decipher it.

4 A. "7/1/99," July 1, 1999, "Two hours.
5 Called Mr. Scott. Left answering machine
6 message, 7/8/99," July 8, '99, "20 minutes,
7 report."

8 Q. Can you read, then, the second page,
9 if you could?

10 a. Second page, "Delay 34 H," for 34
11 hours 13 minutes, "47 hours 15 minutes."

12 Q. Let me stop you there.

13 What did you base those numbers on?

14 A. My understanding of the time line on
15 the case.

16 Q. Time line from onset of symptoms?

17 A. Correct.

18 Q. And what were the original symptoms
19 that -- what symptoms did Bonnie Pikkel first
20 have showing cauda equina syndrome?

21 A. The urinary retention.

22 Q. Anything else?

23 A. That was the one I was timing it from
24 by my review of the record.

1 A. I would say if the -- the total
2 surgical time was what you say, it would
3 probably be within the hour, I would think.
4 Opening and closing is, you know, probably some
5 of the time, and then maybe an hour.

6 Q. So an hour from the point of
7 incision, from 3:15 to 4:15, by that point you
8 would expect all the compression to have been
9 removed from the nerve?

10 A. I would think, from the nerves. I
11 think that's reasonable.

12 Q. In terms of a time line, is it
13 important to start from the time of incision or
14 the time in which all the -- from the point in
15 which the decompression is completed?

16 A. Well, I think to be more specific or
17 more pure about it, probably from the
18 decompression, but I was just taking it to the
19 time of incision, which is, you know, kind of
20 more specific point in time and certainly an
21 earlier point in time from that standpoint.

22 Q. If we were to be more precise and
23 take it to the time of compression you would
24 then adjust that 47 hours 15 minutes by an hour

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1 to 48 hours 15 minutes?
 2 A. It would then go from 35-13 to 48-15,
 3 if you want to do it that way.
 4 Q. Does that cover the time line in
 5 terms of the key events that form the basis for
 6 your opinion?
 7 A. Does what, sir?
 8 Q. The time frame that we just talked
 9 about.
 10 A. I'm not sure I understand what -- I
 11 mean --
 12 Q. I assume that -- I'll back up.
 13 Your report talks about your
 14 addressing the issue of causation of damages,
 15 correct?
 16 A. Correct.
 17 Q. In terms of the time line to give
 18 that opinion, is this the key time line that
 19 we're talking about?
 20 A. Yeah, I believe so. Yeah, the 48
 21 hours 15 minutes.
 22 Q. There's another notation that says,
 23 and I assume it's answering a question, "Please
 24 advise whether the patient likely had a

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1 neurological injury resulting in neurogenic
 2 bladder prior to patient's first presentation to
 3 the ER at Hillcrest Hospital."
 4 You answer, "Yes, by 26 hours by
 5 history"?
 6 A. That's correct.
 7 Q. That, again, would be based upon what
 8 was in the ER record, talking about a 26-hour
 9 history being unable to void.
 10 A. correct.
 11 Q. "Please also advise whether such
 12 injury, if present prior to patient's
 13 presentation to ER for the first time, was
 14 likely a permanent injury again prior to
 15 patient's initial presentation to ER," and you
 16 have what next to that?
 17 A. "Less than 24-hour window."
 18 Q. Okay. Lastly there's a sentence on
 19 the letter which reads, "Finally, please also
 20 advise whether you believe patient likely would
 21 have developed permanent perineal numbness even
 22 assuming that the patient was diagnosed with
 23 compressive disc disease at the time of
 24 patient's presentation to ER at the hospital."

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1 You, once again, put --
 2 A. "Less than 24-hour window."
 3 Q. Can you just read for us, and tell me
 4 the significance of your handwriting on the
 5 E-mail dated June 23, 1999?
 6 A. It says, "injury", then in
 7 parenthesis "manipulation". That's relating to
 8 the chiropractic treatment. September 3, 1996,
 9 1600. That was the time that I understood from
 10 some record when that procedure was performed.
 11 First ER visit was at 9/4/96 at 1903. Second ER
 12 visit 9/5/96 at 0805. To the operating room
 13 9/5/96 at 1440. Surgery start, 1515.
 14 Q. Again, started --
 15 A. -- 9/5/96.
 16 Q. Started the incision?
 17 A. That's what I assume. I haven't
 18 looked at that record.
 19 Q. Okay.
 20 A. Then I have -- I think this is some
 21 mathematics, but if I extrapolated the time from
 22 presentation of the first procedure -- time of
 23 presentation at the second ER Visit to the time
 24 of surgical incision, it was seven hours ten

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1 minutes total, so the surgical incision,
 2 assuming that time line from the first
 3 presentation, I have surgery start at 0213. And
 4 then I calculated, then, the time interval from
 5 the injury to that kind of hypothetical incision
 6 after the first emergency visit, and that's the
 7 34 hours 13 minutes versus the true incision,
 8 which was 47 hours 15 minutes, resulting in the
 9 13 hour two minutes delay of the hypothetical to
 10 the real incision time.
 11 Q. Okay. And if we were to revise that
 12 to reflect the point at which decompression was
 13 completed, would you once again change that time
 14 frame to 35 hours and 13 minutes and 48 hours
 15 and 15 minutes?
 16 A. Yeah, I don't think the net changes,
 17 but the absolute changes, correct.
 18 There's some other little notations
 19 here.
 20 Q. I'm sorry.
 21 A. I think it was just where I was doing
 22 my mathematics. I think at some point it
 23 occurred to me whether I forgot about the time
 24 for the MRI, but that was encompassed in that

1 other time. So that's why there's some
2 scratchings.

3 Q. In terms of what you've reviewed,
4 what I would like to be able to do is make -- do
5 you have access to a color copy machine, or you
6 can provide these to the court reporter and we
7 can get color copies of things that you've
8 highlighted?

9 A. The answer to your first question is
10 no. The answer to your second question is, fine
11 with me.

12 Q. It will help speed things up that
13 way.

14 In terms of what you've reviewed, if
15 we could just go to the index, you were provided
16 with medical records from the Reminger law firm,
17 correct?

18 A. Yes.

19 MR. MALONE: I would say medical
20 records by the Reminger law firm. We don't
21 provide medical care. At least we used to, but
22 we've stopped.

23 MR. LINTON: Have you stopped that?

24 MR. MALONE: Yeah.

1 MR. LINTON: Okay. Maybe you ought to
2 start again.

3 MR. MALONE: We may, we may. We have
4 some people who know what they're doing. We can
5 perhaps help some folks out.

6 THE WITNESS: It's his time.

7 MR. MALONE: Yeah.

8 Q. Those records consist of, number 1,
9 our expert reports; number 2, discharge *summary*
10 from Hillcrest Hospital dated 1/22/80; number 2,
11 9/13/90 ER visit; number 3, a 9/4/96 -- the
12 first ER visit involved in this case, is that
13 right?

14 A. Yes.

15 Q. Number 4, the second ER Visit, from
16 9/5/96; number 5, the 9/5 through 9/10/96
17 admission; number 6 is the 9/27 through 9/28/96
18 admission; number 7 is miscellaneous radiology
19 reports; number 8 is miscellaneous lab reports.

20 There's a stick-um that I assume has
21 your handwriting on it at page 4 of Dr. Bell's
22 report?

23 A. Correct.

24 Q. And can you read that for us, please?

1 A. I wrote, "I agree with his
2 impression/diagnosis, but 80 percent is not
3 supported by any literature I'm aware of," and
4 then I put, "Indiana study". I-n is Indiana
5 study.

6 Q. What did you mean by that last part?

7 A. By which last part?

8 Q. The Indiana study.

9 A. I'm familiar with a study regarding
10 this kind of syndrome that came from a group, I
11 believe, in Indiana.

12 Q. That you believe supports or refutes
13 Dr. Bell's position?

14 A. I believe it refutes his position, or
15 supports my position.

16 Q. Okay. So your note was that you don't
17 believe there's any literature that supports it
18 and, in addition, you think there's an Indiana
19 study that refutes his position?

20 A. In regard to the 80 percent statement
21 he makes in his letter.

22 Q. What did you mean when you said you
23 agree with his impression regarding diagnosis?

24 A. I said I agree with his

1 impressions/diagnosis.

2 Q. What was his impressions/diagnosis?

3 A. Well, basically his impression of the
4 clinical scenario, syndrome, and then his
5 diagnosis as to what -- basically everything
6 he's discussing in the letter up to that point.

7 Q. So the only thing you really disagree
8 with in his report is his finding that there
9 would have been an 80 percent likelihood of
10 improvement had surgery been done after her
11 first presentation as opposed to after her
12 second.

13 A. Based on the *time* line that I was
14 provided, that's correct.

15 Q. You agree, I saw in your report, that
16 she did present on September 4, 1996 with cauda
17 equina syndrome.

18 MR. ROSMAN: Objection.

19 A. I'm sorry. I agree what?

20 Q. That on September 4 of 1996 Bonnie
21 Pikkell presented with cauda equina syndrome.

22 MR. ROSMAN: Objection.

23 A. Findings consistent with that, yes.

24 Q. Okay.

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1 A. Or complaints consistent with that.
 2 Q. Let's be precise about this, if we
 3 can. I'm looking at your report, which we
 4 identified as Exhibit number 2.
 5 A. Mm-hmm.
 6 Q. This third paragraph begins, "Mi-s.
 7 Pikkel presented on 9/4/96 with cauda equina
 8 syndrome.
 9 A. Right.
 10 Q. Close quote.
 11 A. Right.
 12 Q. So on 9/4/96 she had cauda equina
 13 syndrome, correct?
 14 MR. ROSMAN: Objection.
 15 A. By clinical findings, yes.
 16 Q. And the clinical findings that
 17 supported that diagnosis were incontinence of
 18 urine and stool and perineal numbness.
 19 MR. ROSMAN: Objection.
 20 MR. MALONE: I'll object to that.
 21 Q. Correct?
 22 MR. MALONE: There's no evidence of
 23 that.
 24 MR. ROSMAN: That's not a fair

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1 characterization of what --
 2 Q. Is that what your report says,
 3 Doctor?
 4 A. Yes.
 5 Q. Is that, in fact, your findings and
 6 opinion?
 7 A. That's my understanding at the time,
 8 yes.
 9 Q. And the cauda equina syndrome that
 0 resulted in incontinence of urine and stool and
 1 perineal numbness was due to compression on the
 2 lumbosacral nerve roots within the lumbar
 3 thecal sac by a large free fragment disc
 4 herniated from the L5 level, correct?
 5 A. That's my belief, yes.
 6 Q. And that's the same finding that Dr.
 7 Bell made.
 8 A. Well, I'm basing it on the finding
 9 that Dr. Bell made basically. That's a surgical
 0 finding and I have no reason to believe
 1 otherwise.
 2 Q. Did you at any time review the actual
 3 MR for this case?
 4 A. I don't believe so, no.

23 MR. MALONE: So if he's called in to
 24 see this patient by some happenstance -- is that

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Page 3:

1 the question? Because he doesn't work in ER as a
2 primary ER physician. You're putting him in a
3 position he doesn't occupy professionally.

4 Q. Doctor, is there a different
5 differential diagnosis that would be made by
6 different physicians who are qualified to
7 diagnose cauda equina syndrome?

8 A. Well, I think that the answer to that
9 question is, we each have our personal biases,
10 based on our experience in our field of
11 endeavor, and while the listing or the list
12 probably should be the same for everyone, I
13 think it's fair to say, at least when you ask a
14 neurosurgeon about a list, he's probably going
15 to more likely than not to put neurosurgical or
16 neurological issues ahead of others, and that's
17 true about other disciplines to some extent. I
18 think we have probably an experience or
19 discipline bias in that regard. But, in essence,
20 I think the differential diagnosis of any
21 complaint or syndrome should probably be the
22 same, albeit I may not know everything that -- I
23 think my list is probably not as complete as the
24 entire list. It's my list, and then there will

1 raise that to a higher or lower likelihood of
2 possibility among all the other possibilities.
3 Or mechanisms.

4 Q. So as I understand it, there would be
5 four items on your differential. 1 would be
6 neurological, 2 would be urological, 3 would be
7 due to medication, 4 would be a mechanical
8 problem.

9 A. Well, I -- just trying to think in a
10 more generic sense as to what could cause those
11 sorts of problems. As a process.

12 Q. Anything else that would be on your
13 list?

14 A. Well, frankly, I haven't really
15 thought about it that way because, again, I'm
16 not a **primary** urologist. I'm sure urologists
17 have more ways of thinking about it. But if --
18 but if it's not an obstructive process and it's
19 not a physiological process and it's not a
20 neurological process -- "physiological" meaning,
21 like, medication, "neurological" -- I don't know
22 what else you could surmise unless the patient
23 doesn't even have a bladder. I mean, it could be
24 a bizarre situation, but --

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1 be other lists, and then you'll get a total
2 list, and I would probably leave out, you know,
3 maybe there's a dermatologic reason -- for it that
4 I'm not aware of.

5 Q. With that in mind, Doctor, what would
6 be on your differential diagnosis list given the
7 signs and symptoms Bonnie Pikkel had when she
8 presented on September 4, 1996?

9 A. I think the -- given the -- I'm
10 sorry. When she presented when?

11 Q. On September 4, 1996.

12 A. Generally when I'm asked to look at
13 someone with regard to bladder and bowel
14 dysfunction, the question at least that I'm
15 trying to address is on the basis of a
16 neurological physiology issue or is it other
17 potential issues. So inability to void could be
18 a neurological mechanism -- could be due to a
19 neurological mechanism or it could be due to
20 urological mechanism, could be due to
21 medications, it could be due to mechanical
22 issues. Again, I bring to the table, if you
23 will, bias, obviously, of neurological issues,
24 and I may or may not, through my own assessment,

1 Q. I doubt that would be the case in a
2 37-year-old woman --

3 A. I'm not saying it is --

4 Q. Prior to 36 hours --

5 MR. MALONE: I don't think she was 37.
6 She was 47, wasn't she?

7 MR. LINTON: Forty-seven. I'm sorry.

8 MR. MALONE: Forty-seven. I want to
9 make sure we're still staying on the same case.

10 MR. LINTON: Same case.

11 Q. Doctor, in your eyes, on the top of
12 the list would have been cauda equina syndrome?

13 A. I'm sorry. Say again?

14 Q. On your list the number one diagnosis
15 on a differential would be cauda equina
16 syndrome.

17 A. Well, that would be -- when I'm asked
18 to see somebody with inability to void I'm
19 looking for -- the number one things on my list
20 are neurological issues, and whether it's a
21 spinal cord syndrome or cauda equina syndrome,
22 that's what I'm going to at least attempt for
23 myself and for the patient and for the
24 requesting physician to determine as best I can.

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1 Q. So you're going to see if there is
 2 something going on in the spinal cord or in the
 3 nerve roots that are interfering with bladder
 4 function.
 5 A. On the basis of my ability to examine
 6 the nervous system and try to put all the pieces
 7 together, so to speak.
 8 Q. And assuming she is your patient and
 9 presents with an inability to void for 26 hours
 10 following chiropractic manipulation, what do you
 11 do to test her to see if there is a neurological
 12 basis for this?
 13 A. Well, I generally would do a
 14 neurologic exam, which would include as part of,
 15 I think, the neurologic exam, a rectal exam.
 16 Q. And is that a difficult examination
 17 to do?
 18 A. It's not difficult for me to do, no.
 19 Q. Does it take a lot of time?
 20 MR. MALONE: Would you like him to do
 21 one on you? He can show you.
 22 A. Well, I think that in my hands at
 23 least I could do what I would think is a
 24 competent exam in 15 minutes, and if I was

1 can use that to your exam benefit by testing
 2 reflexes.
 3 Q. How do you do that?
 4 A. In a woman you would just pull on the
 5 catheter and see if she has a rectal reflex.
 6 Q. What would you do to check for
 7 perineal numbness?
 8 A. Well, I don't check for perineal
 9 numbness. I check for the intactness, if you
 10 will, of perineal sensation. And that could be
 11 to touch, that could be generally to pin-prick,
 12 which is another sensation. I think that's
 13 generally what one limits oneself to. So I would
 14 just, myself, tactilely examine the patient and
 15 see if they perceive that as anything abnormal,
 16 and then also check their perception of
 17 pin-prick as to its sharpness, and certainly
 18 comparing it to areas that don't seem to be
 19 clinically involved by any stretch of the
 20 imagination.
 21 Q. Is that a difficult examination for
 22 you to do?
 23 A. No, I wouldn't think that's
 24 difficult.

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1 finding things that I was concerned about I may
 2 have to extend that another ten, 15 minutes just
 3 because if things are normal you can exclude a
 4 lot of things. If you start finding
 5 abnormalities there may be additional exam
 6 findings you may want to pursue. But I think as
 7 part of a -- I think I can do a reasonably
 8 thorough exam to rule in or rule out a
 9 neurological issue within maybe a 15-minute time
 0 frame, and then extend that if I need to.
 1 Q. Are you talking now total exam or
 2 time for a rectal exam?
 3 A. I'm talking about total exam. Rectal
 4 exam--
 5 Q. How long would the rectal exam take?
 6 A. I mean, you know, probably a couple
 7 of minutes. Just getting the people involved and
 8 doing it and --
 9 Q. What you'd be looking for in that
 0 couple of minutes would be whether there was
 1 rectal tone?
 2 A. Well, you can test rectal tone and
 3 you can test the rectal reflexes. This lady at
 4 some point did have a catheterization, and one

1 Q. How long would it take?
 2 A. Well, again, if you start finding
 3 abnormalities you may have to expand upon it
 4 but, you know, a couple, five minutes for a
 5 sensory exam is probably a reasonable ballpark
 6 figure, for a focus sensory exam such as that.
 7 Q. When did you first learn how to do a
 8 pin-prick examination to check for sensation in
 9 the perineal area?
 0 A. Well, I don't have a specific date of
 1 recollection. Generally in medical school you do
 2 physical diagnosis, which includes the physical
 3 examination. I think at the end of your second
 4 year, because you're preparing for your third
 5 year clerkship.
 6 Q. So you would have known back in
 7 medical school how to do a routine examination
 8 that would have included a rectal as well as a
 9 pin-prick sensation of the perineal area.
 0 A. Well, as I say, that's when you're
 1 instructed how to do it. You may perfect your
 2 examination over time, but that was, I think,
 3 our first introduction to physical examination.
 4 Q. It would be fair to say all medical

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1 doctors would be trained by the time they
 2 finished medical school in how to do a routine
 3 examination that would include a rectal exam for
 4 rectal tone and a pin-prick sensation to see if
 5 there was the presence or absence of numbness in
 6 the perineal area. Would that be fair?
 7 A. I think that's reasonable, yes.
 8 Q. Can you define perineal numbness?
 9 A. Well, the perineum is the area of the
 10 body between, say, the -- or encompassing the
 11 area around the rectum and then between the
 12 rectum, in a woman, the vaginal area, and then I
 13 guess the area around the vagina.
 14 Q. Would it be the same as the saddle
 15 area, sometimes referred to as the saddle area
 16 or saddle numbness?
 17 A. I think that's the colloquial
 18 expression for it, yes.
 19 Q. How does one definitively make the
 20 diagnosis, then, of cauda equina syndrome?
 21 A. Well, I mean, I **think** that depends on
 22 what your perspective is. There's a clinical
 23 impression and then there's looking for
 24 structural pathology. As a neurosurgeon, you

1 you know, shortly immediately after that.
 2 Q. What specifically caused the
 3 incontinence in Bonnie Pikkel's case?
 4 A. She had loss of nerve input to her
 5 bladder.
 6 Q. Caused by what?
 7 A. Caused by the compression on those
 8 nerve roots that go to the bladder.
 9 Q. What specifically was compressing
 10 what **part** of the nerve?
 11 A. I think the big ruptured disc
 12 fragment was compressing the nerve root.
 13 Q. Do you know how much of the nerve
 14 roots that go to the bladder were being impinged
 15 by that large disc fragment?
 16 A. I don't know what you mean by "how
 17 much".
 18 Q. Is there any way that you can
 19 determine how large of an area of nerve root was
 20 being compressed by the disc fragment?
 21 A. Well, no, I don't **think** -- it doesn't
 22 take -- I mean, a nerve is a fiber, and a fiber
 23 only has to be functionally disrupted at a point
 24 to be dysfunctional. What I do know is, in order

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1 know, we're limited to structural pathology
 2 generally, so that once we arrive upon a
 3 clinical impression we then choose to evaluate
 4 for structural pathology, and I think that its
 5 presence, then, may involve us. Its absence
 6 would certainly exclude us. But the clinical
 7 diagnosis of clinical syndrome I base upon, you
 8 know, somewhat the history, the complaints and
 9 the exam. The depiction of structural pathology,
 10 generally nowadays we rely upon the MRI scan. So
 11 generally that's definitive. If it's not, then
 12 we may pursue other investigative studies.
 13 Q. In this case the MRI that was taken
 14 did show the compression of the nerve roots?
 15 A. By the report, by Dr. Bell's notes
 16 and the report, yes.
 17 Q. In your opinion, would that
 18 compression have existed since the onset of
 19 symptoms? Since at least the onset of symptoms,
 20 if not earlier?
 21 A. I think this was a very -- rather
 22 acute symptom, or acute incident, so I
 23 interpreted the whole episode to when the onset
 24 of symptoms, like during the manipulation or,

1 for the bladder to be dysfunctional it generally
 2 requires a bilateral involvement, meaning both
 3 sides. And it generally requires more than one
 4 nerve root involved level. So that I think I can
 5 infer from the fact that she has a large disc,
 6 and the level of that rupture, and the fact that
 7 she has this retention, that it's involving both
 8 sides of the -- nerves on both sides and at more
 9 than one level, but it doesn't require a
 10 longitudinal -- I don't **think** of it as a
 11 longitudinal expanse along the nerve because --
 12 I mean, you could make a knife cut and the nerve
 13 is not going to be functional, but it has to be,
 14 in my mind, bilateral and multiple level to
 15 result in loss of bladder function.
 16 Q. Tell us what specific level, at what
 17 specific portions Bonnie Pikkel's -- the nerve
 18 roots innervating her bladder were being
 19 compressed.
 20 A. Well, my understanding is, to lose
 21 bladder function you have to involve the S2
 22 level bilaterally. That if you have intactness
 23 of S2 on one side you should not lose bladder
 24 function. So you should have absence of S2

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1 bilaterally and, in general, absence of S2
 2 bilaterally you lose bladder control. It may
 3 also require, you know, 3, but generally 3
 4 alone, 4 alone you don't lose bladder control. 2
 5 you lose bladder control. 1, you will not lose
 6 bladder control. It's usually S2, is the key
 7 level, and it has to be bilateral.
 8 Q. So it would be your assumption in
 9 this case that the free fragment was compressing
 10 the S2 nerve root bilaterally.
 11 A. Free fragment or fragments. I mean,
 12 it may not just be one -- I don't know his
 13 actual description, but it's -- the compression
 14 requires -- it was a requisite that both sides
 15 were compressed.
 16 Q. When did the compression occur?
 17 A. When the disc herniated, and I
 18 believe the disc herniated at the time of the
 19 manipulation.
 20 Q. What is the basis for that belief?
 21 A. Which belief?
 22 Q. That the compression began at the
 23 time of manipulation?
 24 A. That's when the symptoms developed.

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1 Q. What symptoms?
 2 A. The retention, primarily.
 3 Q. Is it your belief that the perineal
 4 numbness would have began at the same time?
 5 A. It's generally -- it could generally
 6 be coincident with that, yes.
 7 Q. I want to be --
 8 A. Certainly I think that the bladder
 9 retention is documented with a time onset, to my
 10 knowledge, and that's -- that clearly, to me,
 11 required both nerves involved to a significant
 12 degree, and numbness alone could have been
 13 pre-dating that. Numbness alone could be a
 14 little difficult to recognize on some patients'
 15 parts, but clearly the retention at 26 hours or
 16 the onset of that retention suggests to me
 17 that's when those nerve roots became
 18 functionally impaired.
 19 Q. What's required in the way of
 20 compression to cause perineal numbness?
 21 A. What's required -- some element of
 22 compression.
 23 Q. At what level?
 24 A. It could be variable, because -- I

1 don't know what side the numbness is on, I don't
 2 know how extensive the numbness is. It doesn't
 3 necessarily even require nerve compression.
 4 People sit on -- will tell you they sit on
 5 themselves for a long time and they get
 6 numbness, so --
 7 Q. In Bonnie Pikkell's case do you
 8 believe the compression that was causing the
 9 bladder incontinence most probably also caused
 10 the perineal numbness?
 11 A. Yes, I **think** -- you know, putting it
 12 all together, certainly.
 13 Q. And that both the perineal numbness
 14 and the bladder incontinence would have begun at
 15 the time of compression.
 16 A. No, I didn't say that. I **think** -- I
 17 know the time of onset of the bladder
 18 difficulty, that's documented, you know, in a
 19 statement in the records. The numbness may have,
 20 to some degree, pre-dated it or may have --
 21 pre-timed it or come on a little afterwards. I
 22 don't know.
 23 Q. So --
 24 A. I don't recall. I'd have to see if

1 there's a reference to that timing. But the --
 2 the numbness I would put together with all of
 3 that. I don't recall the exact -- but it is a
 4 statement as to the onset of that.
 5 Q. Just from a mechanical and
 6 neurosurgical standpoint, wouldn't you have them
 7 beginning at the same time? Isn't that the more
 8 reasonable explanation for perineal numbness
 9 and incontinence in a woman with cauda equina
 10 syndrome like Bonnie Pikkell?
 11 A. Well, I think that's a reasonable
 12 assumption. The question is, does the patient
 13 recognize it as being of simultaneous onset,
 14 because, again, one is somewhat more -- is a
 15 sensory thing, the other **thing** is, obviously, a
 16 very obvious motor problem, and they may or may
 17 not recognize that they have numbness. I would
 18 recognize it on an examination. A lot of people
 19 don't recognize the numbness or the loss of
 20 sensation that they actually have until you
 21 examine them. So --
 22 Q. That's why it's important to conduct
 23 a physical examination of somebody presenting
 24 with cauda equina syndrome symptoms like Bonnie

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1 Pikkel did on September 4, 1996, correct?
 2 A. I think it's always important to do a
 3 physical examination.
 4 Q. Because the patient may not
 5 subjectively be able to feel whether they still
 6 have numbness or whether their numbness
 7 persists.
 8 A. Well, I think I already stated that.
 9 Q. correct?
 10 A. Correct. Mm-hmm.
 11 Q. What symptoms would you expect to
 12 have developed with the disc herniation that
 13 Bonnie Pikkel had causing her cauda equina
 14 syndrome?
 15 MR. ROSMAN: Could you give that
 16 question over again?
 17 MR. LINTON: Sure.
 18 Do you want to read that back,
 19 please?
 20 (Record read.)
 21 A. What symptoms would I expect her to
 22 have or what did she have?
 23 Q. Start, first of all, what would you
 24 expect her to have?

1 Q. Would you agree that cauda equina
 2 syndrome is a medical emergency?
 3 A. It depends on the context of the
 4 presentation.
 5 Q. In the context of Bonnie Pikkel's
 6 presentation?
 7 A. I think it's an acute presentation
 8 which represents, you know, medical/surgical
 9 emergency.
 10 Q. So in your opinion it's both a
 11 diagnostic emergency as well as a surgical
 12 emergency?
 13 MR. MALONE: He said if it's an acute
 14 presentation.
 15 Q. In Bonnie Pikkel's case this is acute
 16 cauda equina syndrome, isn't it?
 17 A. Yes.
 18 Q. And is that both a diagnostic
 19 emergency as well as a surgical emergency?
 20 A. You mean that it should be diagnosed
 21 with -- as -- in an emergency fashion?
 22 Q. Yes.
 23 A. Is that what you mean by a diagnostic
 24 emergency?

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1 A. I think one of the things I would
 2 have expected for her to have is a lot of back
 3 pain, or acute, severe back pain.
 4 Q. And is that something that can
 5 resolve or remains?
 6 A. I would generally think that would be
 7 very persistent.
 8 Q. Okay. What else besides persistent
 9 back pain?
 10 A. For the level of this, I think then
 11 the main things you look -- as far as symptoms,
 12 are the bladder and, you know, potentially bowel
 13 complaints and possibly leg pain complaints.
 14 Q. Okay. And perineal numbness?
 15 A. Well, then the numbness would be a
 16 complaint potentially, so that they could have.
 17 Q. Anything else?
 18 A. I mean, it's possible they complain
 19 of difficulty walking either secondary to their
 20 pain -- but the main -- you know, that would be
 21 the main complaints, would be back pain,
 22 potentially leg pain as complaints, the
 23 difficulty that they recognize with the bladder,
 24 potentially some numbness around the buttocks.

1 Q. Yes, sir.
 2 A. I'm not familiar with that term.
 3 Yes.
 4 Q. In fact, you noted in this case the
 5 MRI was ordered emergently?
 6 A. It was ordered through the emergency
 7 room, yeah and done pursuant to that request.
 8 Q. And Dr. Bell's surgery was likewise
 9 performed as emergency surgery.
 10 A. correct.
 11 Q. What would be the expected outcome in
 12 a patient like Bonnie Pikkel if she did not have
 13 any surgery with her -- following her cauda
 14 equina syndrome?
 15 A. I think she would have permanent
 16 neurological deficit of the nature she presented
 17 with.
 18 Q. And that being loss of bowel and
 19 bladder, permanent perineal numbness, loss of
 20 sexual function?
 21 A. I'm not sure -- what do you mean by
 22 "sexual function"?
 23 Q. Ability to have orgasm, engage in
 24 sexual activity because of perineal numbness in

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1 the vaginal area.
 2 A. I'm not aware -- I don't know about
 3 the orgasm part. I don't really know much about
 4 the physiology of the female orgasm. I
 5 understand the male orgasm and erection. I don't
 6 know about the female orgasm.
 7 The difficulties that I've understood
 8 in women With cauda equina syndrome or deficits
 9 thereof with regard to sexual function are
 10 generally at least related to me as due to the
 11 difficulties with the social interaction from
 12 stool and -- stooling and that sort of thing. I
 13 don't know the physiology of the female orgasm.
 14 Q. You're not familiar with the
 15 literature that reports loss of sexual function
 16 due to cauda equina syndrome in a female?
 17 A. No, I'm familiar with that as a
 18 problem. I don't know -- I'm not familiar with
 19 it being specifically addressing the female
 20 orgasm.
 21 Q. Just so we can go back, in terms of
 22 if Bonnie Pikkel never has surgery, in your
 23 opinion she's going to have permanent bowel and
 24 bladder dysfunction and permanent perineal

1 that -- about that, except what is -- that she
 2 was found to have chronic cystitis, and I just
 3 -- I guess I was speculating in my own mind was
 4 there any -- could this have been pre-existing.
 5 Q. And it was just a speculation?
 6 A. Yes.
 7 Q. Your opinion with reasonable medical
 8 probability is that her permanent bowel and
 9 bladder incontinence is due to her cauda equina
 10 syndrome.
 11 A. Yes.
 12 Q. And you also agree With reasonable
 13 medical certainty that those are permanent
 14 conditions.
 15 A. At this point in time, you mean?
 16 Q. Yes, sir.
 17 MR. MALONE: He's never examined the
 18 patient. We have no idea how she's doing today.
 19 A. I don't have any records of that. If
 20 the documentation is that it's still present
 21 now, you know, four, five years subsequent, I
 22 would believe it's permanent.
 23 Q. At what point in time would you
 24 expect there to be a recovery? Up to what point

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1 numbness, correct?
 2 A. Correct. And as far as sexual
 3 dysfunction, yes, but I don't know in that --
 4 purely an orgasm --
 5 Q. Is mechanical or secondary to the
 6 incontinence.
 7 A. I mean, I -- right.
 8 Q. By the way, in terms of your review,
 9 you also reviewed Dr. Spaner's deposition, is
 10 that right?
 11 A. Yes.
 12 Q. Did you review any other depositions?
 13 A. No.
 14 Q. I'm looking at the report of
 15 operation by Dr. Kondray, K-o-n-d-r-a-y, dated
 16 9/27/96, again a green stick-urn. That says what?
 17 A. "Could cystitis have been
 18 pre-existing? Chronic suggests perhaps greater
 19 than three and a half weeks. 9/3 to 9/27."
 20 Q. You're not able to state with
 21 reasonable medical probability that that was a
 22 pre-existing condition that caused or aggravated
 23 the cauda equina syndrome, are you?
 24 A. I don't recall what I was thinking at

1 in time?
 2 A. Well, that's difficult for me -- you
 3 know, I **think** certainly by a year or two if
 4 there's no recovery it's unlikely. Anytime you
 5 start seeing recovery it will probably continue
 6 for some time, but I don't **think** I have anything
 7 beyond -- there may have been something later. I
 8 don't -- I don't recall. But I have no reason to
 9 doubt that this could be, you know, a permanent
 10 thing. This letter from Dr. Bell is 1999. He
 11 references --
 12 Q. He states it's permanent. Would you
 13 have any reason to dispute that?
 14 A. No.
 15 Q. In fact, in your report didn't you
 16 say that a compression resulted in permanent
 17 neurological deficits of incontinence and
 18 perineal numbness?
 19 A. Right, based on his report, not any
 20 independent records on it.
 21 Q. Right. And you would agree -- you
 22 would not disagree with Dr. Bell's finding that
 23 the condition is permanent, correct?
 24 A. No, he's been taking care of her.

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1 Q. Bid you perform any literature search
2 in connection with this case?

3 A. I think you asked that previously. I
4 said no.

5 Q. Did you review any textbooks or any
6 medical publications of any kind in connection
7 with this case?

8 A. No.

9 Q. Are you familiar with any specific
10 medical textbooks that address the diagnosis and
11 treatment of cauda equina syndrome?

12 A. I'm sure, you know, all the standard
13 neurosurgical texts, neurological texts,
14 probably urological texts.

15 Q. Which standard neurosurgical texts
16 would you expect to address the issue?

17 A. There are many. The most common ones
18 nowadays are, there's a multi-volume by Youmans.
19 I don't even know who the current editor is.
20 There's a multi-volume by Wilkins & Rengacherry
21 that I'm sure reference that. There's some
22 neurological -- neurology books. I don't use --
23 I frankly don't use those much any longer. I'd
24 be talking about things that I used when I was

1 talking about textbooks, you're not talking
2 about literature. You're talking about specific
3 publications that would be generated addressing
4 cauda equina syndrome.

5 A. Like I say, there are different types
6 of publications. There are review articles,
7 there are, you know -- what we call new
8 contributions types things. I don't have any
9 specific citation I could give you, but
10 generally cauda equina syndrome could be
11 discussed in the context of a review article in
12 a primary source journal or it could be
13 discussed as a symptom complex in the context of
14 other issues that are being published or
15 presented.

16 Q. What neurosurgical journals do you
17 subscribe to?

18 A. Journal called "Neurosurgery" and
19 then "The Journal of Neurosurgery". Those are
20 the two that I more regularly relate to.

21 Q. Has the standard of care in terms of
22 the diagnosis and treatment for cauda equina
23 syndrome changed during the time in which you
24 have been practicing neurosurgery?

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1 in training and in school.

2 Q. Do you --

3 A. They all reference those things.

4 Q. What neurosurgical literature do you
5 subscribe to that you would expect would address
6 cauda equina syndrome and the treatment of cauda
7 equina syndrome?

8 A. Well, I generally now, you know,
9 relate to primary source, meaning new
10 publications. That syndrome or that problem will
11 be addressed insofar as some publication that is
12 looking at something that it's part of. Maybe
13 occasionally they'll have a review article on
14 the subject, but in general primary sources is
15 looking at other things of which this might be
16 one of the symptoms, complexes in the patient
17 presentations.

18 Q. Do you have any medical publications
19 that you know of that would address that, that
20 issue of cauda equina syndrome?

21 MR. MALONE: You mean that he's
22 written, Bob? Are you asking about his
23 publications?

24 Q. As I understand it, you're not

1 A. Well, it has insofar as the
2 technology has changed in that time frame. You
3 know, it's -- it's whether you eat on paper
4 plates, glass plates or china, it's still a
5 plate, so we still go to an investigative study,
6 but I go back to the era of myelography, then we
7 had CT myelography, and now we have MRI scans,
8 so I *think* the standard of care changes or is
9 influenced by the technological changes, too,
10 but the fundamentals I don't believe change very
11 much.

12 Q. The fundamentals in terms of making a
13 clinical diagnosis haven't changed, have they?

14 A. No, the fundamentals of making a
15 clinical diagnosis addressing whether there's
16 structural pathology and then dealing with it
17 surgically. Again, all those things may change
18 due to technology or some technique change, but
19 the fundamentals are the same.

20 Q. And you have been a practicing
21 neurosurgeon since when?

22 A. You'd have to define a little better
23 maybe "practicing", but I've been doing
24 neurosurgery, from my training, now, it's going

1 on 25 years.

2 Q. And you're measuring that 25 years

3 going back to when?

4 A. My residency.

5 Q. When was it you were an independently

6 practicing neurosurgeon?

7 A. I completed my residency, I guess is

8 what you're asking, in 1983, so it's almost 18

9 years. A long time.

10 Q. Time flies?

11 MR. ROSMAN: That's about as long as

12 you've been practicing law, Bob, isn't it?

13 Q. Doctor, we've marked as Exhibit

14 number 1 your CV. Is that a current copy of your

15 CV?

16 A. I **think** it's reasonable -- it's

17 current with regard to the information.

18 Q. Is there anything that needs to be

19 added to that to make it current, or anything

20 taken off of it?

21 A. I -- I mean, the best answer to that

22 is, I print the one that's in the computer now,

23 and if there's any differences, those would be

24 the changes.

1 Q. To the best of your knowledge --

2 A. I mean, the substance is the same.

3 Q. Who are you presently employed by?

4 A. We have what's called a -- I forget

5 -- a split employment. The University of

6 Massachusetts Medical School, and what's called

7 UMass Memorial Health Care. One is, obviously,

8 the school. The other is a health system

9 corporate, so we get two checks, two W-2s, that

10 sort of thing,

11 Q. You're currently licensed to practice

12 neurosurgery in the state of Massachusetts?

13 A. I'm licensed to practice medicine in

14 the state of Massachusetts. You're not licensed

15 in a specific sub-specialty or specialty.

16 Q. But you are board-certified in

17 neurosurgery?

18 A. I'm board-certified, that's correct.

19 And I'm credentialed, but I'm not licensed.

20 Q. Do you have continuing medical
education requirements?

21 A. Fortuitously I just recently filled

22 out my licensure renewal, yesterday, so I know

23 the state has that, yes.

1 Q. What is required to keep your

2 license?

3 A. They have a minimum number of hours.

4 I **think** it's a hundred total and 40 Category 1,

5 it's called, and I think it's in the interval of

6 renewal, which is either two or three years.

7 Q. And who is it that keeps track of

8 your CME requirements? Does your secretary do

9 that?

10 A. Well, the state doesn't have any

11 requirement that you produce documentation.

12 Generally when you go to meetings they send you

13 these little slips. I just keep those slips. I

14 don't give them to anybody.

15 Q. Do you have a file that would have

16 your CME course requirements showing that, in

17 fact, you attended various courses to maintain

18 your certification?

19 A. Maintain my licensure, you're saying?

20 Q. Yes.

21 A. I'm sorry. Say that again?

22 Q. Do you have a file that would keep a

23 listing of the courses you attended to keep your

24 license?

1 A. I have a file I put those papers in.

2 It just says, "You attended such and such a

3 meeting," and how many hours it was, but I know

4 from the standpoint of the requirements, that I

5 always exceed that, so I really don't -- and I'm

6 not asked -- the licensure doesn't ask that you

7 provide that documentation, so I really haven't

8 kept any kind of annotation or record of that. I

9 just kind of throw them in a file.

10 Q. Have you attended any CME courses

11 that address cauda equina syndrome?

12 A. I'm sure in the context of the

13 proceedings of the meetings that I've gone to

14 someone may have been discussing that. I don't

15 know what time frame you're talking about, but

16 at some point I'm sure they discussed that. I

17 don't have a specific recollection of hearing a

18 paper, you know, addressing that other than the

19 one I mentioned earlier from Indiana.

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1 Q. Where was that presented?

2 A. It was at the -- I believe it was at
3 the spine section meeting and it was, you know
4 --I've gone to the spine section meeting pretty
5 regularly since it started, which is about 14
6 years ago, and I would be guessing it was
7 probably in the last five to eight years. I
8 don't recall exactly when I heard it. But I
9 recall going and hearing that.

10 Q. But that's the only presentation you
11 can think of that you've attended that
12 specifically relates to surgical outcomes and
13 cauda equina syndrome?

14 A. Well, I -- that I recall. I mean, it
15 impressed upon me -- you know, you come away
16 from these things trying to learn something, and
17 at every meeting you may find one or two things
18 that really stick in your mind as something
19 valuable to come away, and that was one of those
20 times that I thought this was very valuable to
21 come away with.

22 Q. What was the impression that you left
23 with that was so valuable?

24 A. Well, the content and really the

1 Q. In all fairness, you haven't
2 performed any scientifically-reliable studies of
3 your own patients regarding surgeries and
4 outcomes?

5 A. With cauda equina syndrome?

6 Q. Yes, sir.

7 A. I haven't had that interest or
8 opportunity.

9 Q. Likewise, I assume, you have not
10 published, authored or edited any
11 medically-reliable publications or writings
12 relating to surgical outcomes and cauda equina
13 syndrome?

14 A. I know I haven't done the two former.
15 I am on an editorial board, and maybe there was
16 an article that came along about that. I don't
17 have a recollection of it.

18 Q. None that you have written?

19 A. No.

20 Q. So the basis, again, for your belief
21 of this 24-hour window would have been this
22 paper that was presented at the spine clinic
23 that talked about a 24-hour time frame for
24 successfully treating cauda equina syndrome?

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1 message of that discussion, which related to the
2 time frame of addressing cauda equina syndrome
3 from acute disc herniation, which is exactly
4 what was presented, as I recall, but it would
5 also relate to other possible mechanisms of
6 cauda equina syndrome.

7 Q. What was the message that you left
8 with regarding the time frame?

9 A. With -- most importantly with regard
10 to recovery, that if decompression was
11 accomplished within 12 hours there was very good
12 recovery generally. If it was accomplished
13 within 24 hours you still had the chance for
14 recovery. If it was not accomplished within 24
15 hours, that the chance for recovery was very
16 poor.

17 Q. And that's the time frame you relied
18 on in giving your opinions in this case?

19 A. That's the best knowledge base, plus
20 my own experience to some extent, but my
21 experience didn't really look at it specifically
22 from a, you know, absolute hour standpoint, as
23 well as this group looks specifically at the
24 hours.

1 MR. MALONE: And his own experience.
2 That's what he testified to, Bob.

3 A. The spine meeting, not spine clinic,
4 and I thought that was a very seminal
5 presentation.

6 Q. Which was the basis for your opinion
7 in this case.

8 A. Very primary basis, yes.

9 Q. Could you define for me -- first of
10 all, do you have any sub-specialties or areas of
11 research interest within neurosurgery?

12 A. Yes.

13 Q. What are those?

14 A. Well, in the past and currently my
15 areas of most interest would be complex spine
16 and pain, and in the past I also had involvement
17 with epilepsy. I don't have the time currently
18 to be that involved with that. But I'm still
19 very much involved with chronic pain management
20 and complex spinal management.

21 Q. Could you divide for us your
22 professional time in terms of how much is with
23 surgery, how much is with clinical practice, how
24 much is with teaching, how much is with

1 administrative responsibilities?
 2 A. Well, again, fortuitously, we have to
 3 put in our -- on the licensure form they ask you
 4 just that kind of stuff, so I gave them an
 5 answer. I put down that my outpatient work was
 6 16 hours, my inpatient work, which I would
 7 include surgical time and all the paperwork
 8 associated with the care of those patients, as
 9 44 hours, and et al., kind of administrative
 10 stuff pursuant to my position as chief of the
 11 division, about ten hours.

12 Q. Are you currently --

13 MR. ROSMAN: What was that last
 14 figure, Doctor?

15 THE WITNESS: Ten hours.

116 MR. ROSMAN: Thank you.

117 Q. Are you currently teaching medical
 18 students or residents in the form of classes?

19 A. No, we have very limited involvement
 20 with medical students. Our involvement with
 21 house staff would be of the general surgical
 22 house staff and orthopedic house staff, and most
 23 of that is done kind of in the apprenticeship of
 24 -- on the wards and in the operating room.

1 of the medical school is a research effort
 2 that's under the auspices of the medical school,
 3 and we have faculty involved in, you know,
 4 laboratory research.

5 So my position as chief and professor
 6 kind of involves and oversees those efforts done
 7 under the academic commission, which involves a
 8 limited degree of undergraduate, some
 9 postgraduate, and then research involvement.

10 Q. When you listed on your application
 11 the hours that you're spending do you list any
 12 hours being spent in your academic position?

13 A. I put that in the ten, I think. I
 14 just --.

15 Q. Of the ten hours how much would be
 16 dedicated to academic responsibilities versus
 17 administrative responsibilities, being chief of
 18 neurosurgery?

19 A. Well, you know, I -- these would be
 20 gross estimates, because we're involved with
 21 residents, you know, on an ongoing basis. That's
 22 part of the inpatient, clinical and all. But I
 23 like to think that we ~~try~~ to teach and be
 24 involved in the academic mission all the time,

1 Q. Are you still a professor?

2 A. Yes.

3 Q. What do you do as professor of, I
 4 assume, University of Massachusetts?

5 A. What do I do?

6 Q. First of all, you are a professor at
 7 the University of Massachusetts Medical School?

8 A. Yes.

9 Q. What do you do as a professor?

0 A. Well, the medical -- well, again, the
 1 medical school or the -- you know, also involves
 2 the post-graduate education, which is the house
 3 staff.

4 We do have limited involvement with
 5 medical students. I have other faculty in the
 5 division that I've delegated some of those
 7 responsibilities. But neurosurgery has a very
 3 small, you know, didactic lecture, probably,
 3 with the medical school. We have the grand
 3 rounds which primarily involves other house
 1 staff and other faculty. And then we have, as I
 3 said, the on-the-ward people with the general
 3 surgery and the orthopedic residents, which is
 1 part of the postgraduate education. Also, part

1 but, I mean, specific didactic things, me
 2 personally it's very, very limited because I
 3 don't have the amount of time to do it.

4 Q. "Limited", less than an hour a week?

5 A. Yeah, at most.

6 Q. You said something earlier. Am I
 7 correct you do not have a neurosurgical
 8 residency program here?

9 A. That's correct.

0 Q. How many other professors of
 1 neurological surgery are there at the University
 2 of Massachusetts besides yourself?

3 A. You mean full professors or full-time
 4 faculty? Some people just use "professor" as a
 5 generic term. You have assistant professor,
 6 associate professor and professor, so --

7 Q. Professors of any level.

8 A. There are four full-time faculty.

9 Q. And you're one of the four.

0 A. Correct. Then there are two clinical
 1 faculty that have appointments.

2 Q. How much of your time is spent doing
 3 legal work such as this case?

4 A. Percentage-wise, hour?

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1 Q. However you can quantify it.

2 A. You know, I would --just -- probably
3 less than two percent, two percent maybe.

4 Q. How many cases, medical malpractice
5 cases, do you review on a monthly basis or on a
6 yearly basis?

7 A. It probably generally comes in at
8 about one case a month. It comes in spurts and
9 then --.

10 Q. Are you currently a member of any
11 service that markets your services?

12 A. Yes.

13 Q. What services?

14 A. The names of them, you mean?

15 Q. (Nodding.)

16 A. There's a service out in San
17 Francisco -- I believe it's San Francisco, or
18 Oakland -- I believe it's called American
19 Medical Forensics, or something like that. Then
20 there's a place in, I believe it's Bluebell,
21 Pennsylvania, called Medical, I think, Advisors,
22 Inc., and then a lady in the Chicago area who
23 called her service Expert Medical. It's very
24 limited on my part.

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1 Q. What about Comprehensive Medical
2 Consultants, Inc?

3 A. In the past. He's no longer involved.
4 He's been out of that for about four, five
5 years.

6 Q. Do most of the cases that come to you
7 come through a referral source?

8 A. No.

9 Q. Do the outfits you've identified
10 refer primarily one type of case, that is a
11 patient versus a health care provider?

12 A. Well, just -- Comprehensive was
13 usually --

14 Q. That's defense?

15 A. -- defendants, right. The others --
16 I've only gotten one case from the place in San
17 Francisco, I believe, and that was a plaintiff
18 case, and the other two services have been
19 plaintiff cases.

20 Q. Did your involvement in this case
21 involve a service?

22 A. Not to my knowledge.

23 Q. Do you track the number of surgeries
24 that you do in a year?

1 A. It's tracked for me. I also keep a
2 record, yes.

3 Q. How many procedures do you do a year?

4 A. About 300.

5 Q. Do your records break those down by
6 type of procedure?

7 A. It could be done that way,

8 Q. Do you know what percentage of your
9 surgeries involve spine versus brain?

10 A. Oh, as I said, my interest is, you
11 know, chronic pain and spine, so it's probably
12 95 percent spine, because most of the brain I do
13 either emergency procedures or occasional
14 procedure when I'm on-call.

15 Q. Am I correct that you've made no
16 effort to put together a reliable study of
17 outcomes for acute cauda equina syndrome in your
18 own practice for purposes of this case?

19 A. For any purpose.

20 Q. Okay.

21 A. Haven't done that yet. Maybe in my
22 next life.

23 Q. If you had a few more hours in a day?

24 A. Mm-hmm.

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1 Q. Are you able to tell us specifically
2 how many surgeries you've done for acute cauda
3 equina syndrome?

4 A. No.

5 Q. Can you give us an estimate?

6 A. Acute cauda equina syndrome? Can you
7 define that?

8 Q. How would you define it?

9 A. I would define it as symptoms with,
10 you know, less than 24 to 48 hours
11 symptomatology, frankly. That's very few.

12 Q. "Very few" being less than three?

13 A. Well, less than six. I mean, I've
14 seen many more that have been subacute or
15 chronic, I'm sure, than acute.

16 Q. When was the last one that you had?

17 A. Of an acute one?

18 Q. (Nodding.)

19 A. It's been a couple of years. A
20 couple, three years. I don't think I've had --
21 from a ruptured disc or in general, but I don't
22 think I've done one since I've relocated to
23 Massachusetts. That would be at least maybe
24 three years.

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1 Q. And you came here in '98?
 2 A. Summer of '98, yeah.
 3 Q. So it would have been while you were
 4 still at Vanderbilt?
 5 A. correct.
 6 Q. Do you remember when while you were
 7 at Vanderbilt?
 8 A. No.
 9 Q. Are you able to remember any details
 10 about that surgery?
 11 A. You mean clinical details, technical
 12 details? What do you mean?
 13 Q. Clinical details.
 14 A. I remember two people. I remember
 15 being called by a woman in the middle of the
 16 night who had that syndrome, and I operated
 17 upon. I remember another fellow, an Oriental
 18 fellow, came to the emergency room. A young guy,
 19 that it was kind of unusual that I operated
 20 upon. Those are the two that I recall.
 21 Q. Would those have been sometime during
 22 the 1990s?
 23 A. I would think so, yeah.
 24 Q. The Oriental man was through the

1 Q. You said it was the middle of the
 2 night.
 3 A. No, I don't recall that he was the
 4 middle of the night. The other one was the
 5 middle of the night.
 6 (Ten-minute recess.)
 7 Q. Doctor, I want to go back to the
 8 acute CES cases that you have been involved in.
 9 You mentioned the one involved a call from the
 10 emergency room to the neurosurgeon resident to
 11 you, and you came in for emergency surgery. In
 12 that case what were the patient's presenting
 13 symptoms?
 14 A. I honestly don't remember
 15 specifically.
 16 Q. Can you say --
 17 A. I know he had a lot of back pain. I
 18 remember he was in excruciating back pain with
 19 terrible spasm.
 20 Q. Did he also have incontinence?
 21 A. I -- I would be speculating. I know
 22 he had significant concerns about neurological
 23 function. I don't recall the specifics on this
 24 one.

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1 emergency room?
 2 A. Yeah, he was a young fellow. It was
 3 kind of unusual for having a ruptured disc.
 4 Q. Do you know how long after onset you
 5 performed the surgery?
 6 A. I don't recall that. I know I
 7 performed it, you know, within hours of his
 8 presentation to the emergency room. I don't
 9 recall the actual context, but I think it was
 10 very soon, he came to the emergency room, after
 11 his -- certainly his symptoms appeared.
 12 Q. I assume you were consulted by the
 13 emergency room in that case?
 14 A. Yes.
 15 Q. Did the emergency room physician call
 16 you?
 17 A. No, called the resident.
 18 Q. The neurosurgical resident?
 19 A. Right.
 20 Q. Who then called you?
 21 A. Right.
 22 Q. And you treated it as a surgical
 23 emergency?
 24 A. Correct.

1 Q. Is the *urinary* incontinence the red
 2 flag in cauda equina syndrome?
 3 A. Either incontinence or retention.
 4 Q. Is there a difference?
 5 A. Well, I think there's a difference
 6 definitionally, sure.
 7 Q. But I mean a difference in terms of
 8 -- both are neurological deficit resulting from
 9 the compression.
 10 A. Could be, yes.
 11 Q. Are you able to tell us how long
 12 after onset of symptoms you performed the
 13 surgery in this Oriental man?
 14 A. Generally if I'm presented with that
 15 I'm going to proceed, you know, as soon as I
 16 can. The only restriction generally being
 17 whether they've had **any** food, which then delays
 18 you, you know, six hours, so generally we try to
 19 get those done from the time of presentation
 20 within about six hours, because -- unless they
 21 haven't eaten, and then I'll do them even
 22 sooner.
 23 Q. But you don't know how long before he
 24 came to the ER he had had those symptoms.

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1 A. My recollection is it was very brief.
 2 That's why I considered it acute. But I don't
 3 know the number of hours --
 4 Q. "Brief" being within 24 to 48 hours.
 5 A. correct.
 6 Q. Do you know what the outcome was
 7 following surgery?
 8 A. I don't recall.
 9 Q. The other call came in the middle of
 10 the night?
 11 A. Right. That I recall a little better.
 12 Q. What do you recall about that?
 13 A. I recall it because it was in the
 14 middle of the night.
 15 Q. Right.
 16 A. But that was a woman with acute
 17 urinary retention or difficulty voiding. And had
 18 a big ruptured disc.
 19 Q. And how was that case referred to
 20 you?
 21 A. I believe -- in Nashville we had a
 22 city hospital. I believe she originally went to
 23 the city hospital and was transferred over to
 24 Vanderbilt Hospital. The resident saw that

1 don't remember whether she had antecedent
 2 complaints, back pain.
 3 Q. How long did you follow that patient
 4 for?
 5 A. I don't have the specific
 6 recollection. I generally see them in a
 7 postoperative follow-up six weeks or so, and
 8 then depending on how they're doing I may not
 9 see them again, so I don't recall the follow-up.
 10 Q. Do you have a specific memory of how
 11 she did after surgery?
 12 A. No, I don't.
 13 Q. Aside from those two cases can you
 14 recall any other details about any of your other
 15 acute cauda equina syndrome cases?
 16 A. I'm not sure what you mean. You know,
 17 I don't have specific cases in mind. I -- I know
 18 of some just in a general sense of, you know, to
 19 put my background in the back of my mind as to
 20 what I'm going to do any time I'm presented with
 21 it, but not -- I don't have a great recollection
 22 of specific cases. When you do 300 or so cases a
 23 year it's hard to remember individual ones
 24 unless they're exceptionally good or

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1 patient, called me about it in the middle of the
 2 night.
 3 Q. Did she present originally to the
 4 emergency room?
 5 A. Yes, she was originally, I believe,
 6 an emergency room presentation.
 7 Q. Do you know how long after the onset
 8 of symptoms you did your surgery?
 9 A. I was called about two o'clock in the
 10 morning. We were in the operating room
 11 physically about six o'clock in the morning.
 12 Q. Do you know from the onset of
 13 symptoms when it was, other than within 24 to 48
 14 hours?
 15 A. I don't recall how long she may have
 16 been having back pain, but certainly the urinary
 17 difficulties were from that previous day,
 18 afternoon, through that evening, into the early
 19 morning hours. So within that day.
 20 Q. Within 24 hours?
 21 A. Yes.
 22 Q. So you would have operated on her
 23 within 24 hours?
 24 A. From at least a urinary problem. I

1 exceptionally bad.
 2 Q. I hear you, and I don't expect you
 3 to, but do you have any other recollection of
 4 your other acute cauda equina syndrome cases
 5 that we haven't discussed?
 6 A. Not of the acute. I just -- you know,
 7 I've had a couple of sub-acute since I've been
 8 here and some sort of chronic ones since I've
 9 been here, but not acute.
 10 Q. How about sub-acute -- would you
 11 agree that acute cauda equina syndrome has a
 12 different surgical outcome than a chronic or
 13 sub-acute?
 14 A. You know, I think in general acute
 15 processes will have different outcomes than
 16 sub-acute and chronic, because of that very
 17 nature. You know, I don't know specifically the
 18 difference between an acute presentation of
 19 cauda equina syndrome and outcome, particularly
 20 with regard to timing of surgical management,
 21 and the subacute and chronic, because there the
 22 timing of surgical management is going to be
 23 much less materially significant in my mind.
 24 Q. Why is that?

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<p>1 A. Because I think that in the sub-acute 2 or chronic contexts a few hours or even a day is 3 of much less significance than in the acute 4 context.</p> <p>5 Q. And why is that?</p> <p>6 A. Well, I mean, fundamentally because 7 of our anticipation of either, you know, some 8 recovery or no recovery potential, and the 9 urgency of surgical management is much different 10 in acute presentation than in a sub-acute or 11 chronic because of the impact you feel you're 12 going to make with regard to outcome.</p> <p>13 Q. And the acute is the surgical 14 emergency whereas the sub-acute and the chronic 15 are not necessarily surgical emergency?</p> <p>16 A. Certainly that's correct.</p> <p>17 Q. And you can't transfer your 18 experience in terms of surgical outcomes with 19 the sub-acute and the chronic to the acute cauda 20 equina syndrome cases, can you?</p> <p>21 A. Well, I mean, you can transfer some 22 of that experience, but --</p> <p>23 Q. Aren't we talking apples and oranges?</p> <p>24 A. Sorry?</p>	<p>1 A. No. That's just a generic 2 understanding of what we do neurosurgically.</p> <p>3 Q. Okay. So getting back to your opinion 4 concerning this 24-hour Window, what you relied 5 on solely in this case is that one presentation 6 of the Indiana study at that spine meeting that 7 you attended. Isn't that fair?</p> <p>8 A. I think with regard to the 9 significance of the 24 hours, I think that's a 10 very -- as I say, a seminal presentation. It 11 certainly is consistent with my experience and 12 it's consistent with a lot of what we think 13 about in neurosurgery, but I think that the 14 message there and the take-home information was 15 very significant, yes. And that's -- that's, I 16 think, the best knowledge base that I can 17 provide in looking at this case, and what I 18 think is the most important issue that I can 19 address in this case.</p> <p>20 Q. Is the window of opportunity for 21 neurosurgical intervention.</p> <p>22 A. With regard to outcome.</p> <p>23 Q. And, again, you're basing it on that 24 interest and that study.</p>
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<p>1 Q. Aren't we talking apple and oranges?</p> <p>2 A. I don't know if we're talking apple 3 and oranges. Maybe apples and baked apple. And 4 I'm not trying to be facetious, but I think 5 there are some things you can relate, but 6 specifically with regard to timing and urgency 7 of surgery I think it's a different process 8 possibly, and certainly has a different 9 experience or outcome parameters, I guess.</p> <p>10 Q. So the timing of surgery with respect 11 to the sub-acute and chronic as relates to 12 surgical outcome is different than in the acute 13 context.</p> <p>14 A. Yeah, I think that the timing of 15 surgical management in the acute I think is of 16 paramount importance. I think the timing of 17 surgical management in a sub-acute and chronic 18 presentation has much less paramount importance.</p> <p>19 Q. Have you done any formal studies or 20 medically reliable studies with respect to the 21 chronic and sub-acute cauda equina syndrome 22 cases and surgical outcomes?</p> <p>23 A. Myself?</p> <p>24 Q. Yes.</p>	<p>1 MR. MALONE: Bob, you've got to stop 2 that.</p> <p>3 MR. LINTON: I'm not going to stop --</p> <p>4 MR. MALONE: No, I'm going to make an 5 objection. You're trying to torture his 6 testimony. You're not going to convert his 7 opinion into hearsay because he read a report 8 and now he's recanting it. This is a 9 board-certified neurosurgery professor for many, 10 many years.</p> <p>11 MR. LINTON: Jim, I don't need you to 12 testify.</p> <p>13 MR. MALONE: Well, I don't need you to 14 distort his testimony.</p> <p>15 MR. LINTON: I've asked the doctor --</p> <p>16 Q. What other experience, Doctor, do you 17 have with surgical outcomes in acute cauda 18 equina syndrome cases?</p> <p>19 MR. MALONE: He's answered those 20 questions as far as you've gone with them. He 21 told you on three occasions this report is not 22 the sole basis of his opinion, that he's 23 including his own knowledge, his own training, 24 his own experience, but that it was a seminal</p>

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1 presentation. You're not going to convert his
2 testimony into some kind of hearsay, because
3 he's not reading a report and then sitting here
4 being paid to recite it back.

5 Q. Doctor, tell me what specific
6 experience you have with surgical outcomes that
7 you can recall besides the two acute cauda
8 equina syndrome cases that we talked about.

9 A. I don't have any individual specific
10 recollections. I mean --

11 Q. So you can't --

12 MR. MALONE: Let him finish his
13 answer, please.

14 A. We don't recall every case we do.

15 Q. Do you have --

16 A. We have many cases of dealing with
17 acute pathology in an urgent or emergent way,
18 and we know that's the way acute pathology best
19 responds to surgical management, and we have
20 good results from that. The timing of how we
21 approach things neurosurgically is based upon
22 the timing, in essence, of the presentation, and
23 the value to me of the presentation that I heard
24 and the information that it provided me was to

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1 give me a parameter that made a lot of sense as
2 to how we generally approach things, and
3 actually defined it very well for all of us, and
4 it's not inconsistent with anything else in
5 neurosurgery that we do, and it's very
6 consistent with my own understanding of things,
7 but it actually took the time to look at and
8 define that time parameter, and I think that's
9 why I said it's a very valuable piece of
10 information,

11 Q. what you know clinically is that
12 acute cauda equina syndrome is an emergency,
13 correct?

14 A. Correct.

15 Q. And it's a neurosurgical emergency
16 that must be dealt with as quickly as possible,
17 correct?

18 A. Within that window of opportunity,
19 you know, it gives you the -- within the -- and
20 the logistics, that suggests that you -- as long
21 as you're within that window of opportunity you
22 might be able to wait from two o'clock to five
23 o'clock in the morning, but if you're close to
24 that Window of opportunity you certainly can't

1 wait until Monday morning. So --

2 Q. And the 24-hour window of opportunity
3 that you talk about is based on the study.

4 Correct?

5 A. Well, that's --

6 MR. m o m : Same objection.

7 A. That's how the study looked at it and
8 that certainly provided a good statistical
9 parameter for me, based -- and it's very
10 consistent with everything I understood and, in
11 fact, it also provided a parameter whereby we
12 might say, well, it's not as urgent as we -- you
13 know, we could wait a couple of hours because we
14 still have an opportunity. So, you know, we're
15 often presented with a situation of, you know,
16 do I got to go right now? Like I say, if the
17 patient eats, you know, when are we going to --
18 when are we going to feel comfortable -- we
19 never feel comfortable waiting when we're in an
20 acute situation. This was a very valuable
21 parameter to know, and there was a great
22 significance to that parameter that you had a
23 very good outcome within 12 hours, you had some
24 outcome still at 24 hours, but beyond that was

1 pretty dismal, and the message was, as I recall,
2 the message -- one of the messages was, you
3 know, you can't wait 'til Monday morning if they
4 come in, you know, over the weekend kind of
5 thing. And that's important for me and it's
6 important for us, not that I ever thought we
7 should wait 'til Monday morning, but the value
8 of primary source material like that is people
9 who do sit down, take the time and collate the
10 data and present it in a way that all of us can
11 then utilize in, you know, a respectable and
12 valuable fashion. It's data, it's true. It's not
13 opinion, in my mind. It's true.

14 Q. And you did not compile any similar
15 data from your own clinical experience.

16 A. No, I never had, as I said, the
17 interest or the opportunity. I just based it on
18 my -- I mean, how I generally practice in that
19 regard is what you're taught and what you then
20 understand as you proceed. I never took the time
21 to go back and look at all that, and somebody
22 else did, and I think it was very valuable
23 information that I would feel is true.

24 Q. Did you keep a copy of the materials

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1 he presented at that meeting?

2 A. I would often keep those things for a
3 while, but in the course, certainly, of the move
4 that we made, if I kept it I don't know where it
5 is, and I don't know that I kept it, frankly.

6 Q. Do you presently have any materials
7 that you can produce for us that have a 24-hour
8 window in written form?

9 A. No.

10 Q. Do you know of any published
11 standards or published studies or literature
12 that addressed the window of opportunity for
13 neurosurgical intervention with cauda equina
14 syndrome?

15 A. No.

16 Q. Are you aware of studies that show
17 that even after 24 hours there can still be
18 recovery in neurological function if surgery is
19 done on cauda equina syndrome?

20 A. I'm not aware of any studies, but I
21 don't -- I don't doubt that there exists and I
22 don't doubt that that's a possibility. The
23 message from the study that I'm relating is the
24 fact that there's a significant difference in

1 frame of 12 versus 24 or greater than 24 hours.

2 Q. But you can't say how much.

3 A. I don't recall the gross percentage
4 number, but it was a statistically significant
5 difference.

6 Q. What would be a significantly
7 statistical difference in your mind?

8 A. Oh, no, I'm saying statistically it
9 was significant. I mean, I *think* it was -- I
10 don't recall the gross numbers, but based on the
11 number of patients they had and the outcome
12 results, there was a statistically significant
13 difference between those patients who presented
14 and were operated upon in less than 24 hours and
15 those patients who presented and were operated
16 upon at greater than 24 hours. That's a
17 mathematical statistical fact. I don't recall
18 whether it was 90 versus five percent. It could
19 be 90 versus 80 percent and still be
20 statistically significant.

21 Q. But you --

22 A. But my recollection was that you had
23 a very poor chance of recovery, and I don't know
24 the number, but a poor chance of recovery if it

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1 those time frames. Not that it cannot occur, but
2 there's a significant difference in outcome
3 between or among those three time frames. And
4 that's what generally presentations are
5 discussing. Not that one cannot happen, but
6 statistically and significantly there's going to
7 be a difference in either two or three or any
8 number of groups based on treatment, timing,
9 whatever you're looking at. So it's not an
10 either/or or absolute. It's a statistical
11 significance, and that's what the message was
12 out of that study.

13 Q. From that study, the Indiana study,
14 what was the percentage of recovery for those
15 patients operated on for acute cauda equina
16 syndrome within 24 hours?

17 A. I don't recall the exact number, but
18 there was -- there was -- it was -- there was a
19 significantly greater difference if it was
20 before than after 24 hours and much better if it
21 was within 12 hours, and I don't remember the
22 gross number, but the gross number wasn't, in
23 essence, the significant message. It was that
24 there was a major statistical change in the time

1 was over 24 hours, a very good chance of
2 recovery if it was under 12, and still a
3 reasonably good chance at under 24, and it was
4 statistically significant at 24 hours.

5 Q. You can't tell us what those numbers
6 are.

7 A. I don't recall the specific numbers.

8 Q. You can't estimate what those numbers
9 are.

10 A. I would be speculating.

11 Q. Fair enough. As a neurosurgeon you're
12 not critical of anything Dr. Bell did in this
13 case, are you?

14 A. Other than the statement of the 80
15 percent, in that sense, no.

16 Q. In fact, if you were called in you
17 would have done the precise surgery that Dr.
18 Bell did, would you not?

19 A. I'm sure I would have, yes. I haven't
20 looked at the specific details of how he did it,
21 but, again, what he did is entirely appropriate.

22 Q. Why would you have come in to do the
23 second surgery? Excuse me. Why would you have
24 come in to do the surgery after Bonnie Pikkell

1 presented for the second time after the ER?
 2 A. Because she had neurological deficit
 3 secondary to structural pathology, and it ought
 4 to be taken out.

5 Q. And it would be taken out for what
 6 reason?

7 A. To provide the maximum environment
 8 for recovery.

9 Q. Because you would believe even at
 10 that point, at 48 hours, there was still a
 11 statistical chance for further recovery.

12 A. Well, I would -- I would present the
 13 situation as I do in all cases, that she's got
 14 -- I think she's got a better chance of recovery
 15 with the surgery than certainly without the
 16 surgery. Then it's a matter of fact, the risks
 17 of the surgery, which should be reasonably low
 18 in a 47-year-old lady, so I'm trying to provide
 19 her with the -- with the environment, as I said,
 20 for -- conducive to recovery. The best
 21 environment conducive to recovery.

22 Q. Based on your --

23 A. I'm not going to deny her that
 24 opportunity in any way.

1 Q. Based on your clinical experience,
 2 what would be her percentage of recovery if you
 3 did the surgery when Dr. Bell did it?

4 A. Well, With the deficit of that
 5 duration, my understanding was that it would be
 6 very, very small.

7 Q. Meaning what?

8 A. An absolute number?

9 Q. Or a range.

0 A. I -- I -- like I say, I would just
 1 tell her that my understanding was that for a
 2 deficit of that duration, I think it -- it's
 3 apparently small or unlikely that she's going to
 4 have full recovery.

5 Q. And what would be the specific
 5 percentage range?

7 A. I don't quote specific numbers. I
 3 just try to give them an understanding of
 3 possibility, but I think the chance of that is
 3 probably -- the chance of the recovery is
 3 greater than the risk of the surgery, so,
 3 therefore, the risk-reward ratio I would hope is
 3 in her favor.

3 Q. What would be the risk of

1 complications for that surgery?

2 A. I think in an otherwise healthy woman
 3 it should be less than, you know, one percent,
 4 of anything profound.

5 Q. And what do you expect her chance of
 6 recovery to be? Five percent, ten percent, 25
 7 percent? What would be the range of expected
 8 recovery at 48 hours post-onset of symptoms?

9 A. I don't know that I would -- like I
 10 said, that I would give her a number, but I
 11 think I could tell her that her chance of
 12 recovery without surgery is zero. So I would
 13 think that if she wants to, you know, get the
 14 most benefit we could possibly give, then I
 15 think surgery can provide that, and the risk
 16 seems to be very low.

17 Q. Would you agree that time is of the
 18 essence in treating cauda equina syndrome, acute
 19 cauda equina syndrome?

20 A. Acute, certainly, yes.

21 Q. And the sooner the surgery is done
 22 the better?

23 A. All things --

24 MR. MALONE: You already went through

1 that page, Bob, You asked all those questions.

2 A. All things being equal, yes.

3 Q. Would you agree the longer the disc
 4 compresses the nerve the less likely the damage
 5 is reversible?

6 A. Well, particularly in the acute
 7 syndrome that's true, yes.

8 Q. In acute cauda equina syndrome,
 9 likewise, the longer the disc compresses the
 0 nerve the more likely the damage will be
 1 permanent.

2 A. Was that a different question than
 3 the previous one?

4 Q. Yes.

5 MR. MALONE: Didn't sound it. I think
 5 it's the same question.

7 A. Could you repeat that last question
 3 again?

3 Q. Sure. With acute cauda equina
 3 syndrome the longer the disc compresses the
 3 nerve the more likely the damage will be
 3 permanent.

3 A. Well, I think that the longer the --
 3 I think that -- if you're talking about

1 compression that creates neurological
 2 dysfunction, the longer that exists the more
 3 likely it's permanent. I think that's what
 4 you're suggesting, not that there's some bulging
 5 of a disc pressing on a nerve. But once you
 6 develop the neurological dysfunction attendant
 7 to the compression, the longer that exists the
 8 more likely it's going to be permanent, yes,
 9 until one resolves it, yes.

10 Q. Based on your clinical experience,
 11 would you expect that a patient who had surgery
 12 at 35 hours would have a statistically better
 13 chance of a successful outcome than someone who
 14 had surgery at 48 hours?

15 A. Not based on that study, no. That
 16 study said that the statistical significance, at
 17 least as I recall it, was at 24 hours.

18 Q. So whether the surgery was done at 25
 19 hours or at three weeks wouldn't matter?

20 A. Well, it --

21 MR. ROSMAN: Objection.

22 A. I don't know that they looked at that
 23 insofar as that time versus the prolonged time,
 24 but they looked at the 24 -- when they looked at

1 four times.

2 MR. LINTON: With your help he has.

3 This will be five.

4 MR. MALONE: He doesn't need any help
 5 from me.

6 MR. LINTON: Well, then just let him
 7 answer it, Jim.

8 MR. MALONE: I am.

9 A. Can you ask the question again?

10 MR. LINTON: Would you read back the
 11 last two questions?

12 (Record read.)

13 Q. Doctor, in all fairness, you don't
 14 know what the Indiana study reported concerning
 15 outcomes within 48 hours versus outside 48
 16 hours, true?

17 A. As I said, I don't -- I don't recall
 18 that that was the message of what they reported.
 19 It was 24-hour time frame.

20 Q. Based on any other source, including
 21 your clinical experience, do you know if there
 22 is a difference in outcome between surgery
 23 occurring within 48 hours versus outside of 48
 24 hours?

1 the recovery versus time, there was a major
 2 statistical change at 24 hours.

3 Q. Was there any statistical difference
 4 between surgery done between 24 hours and 48
 5 hours?

6 A. I don't recall. I don't -- I don't
 7 recall that -- what that was, but I don't
 8 believe that there would be, based on what they
 9 were reporting.

10 Q. Would there be any statistical
 11 difference between surgery done within the first
 12 48 hours versus after the first 48 hours?

13 A. Again, I don't think they looked at
 14 that.

15 Q. Again, that's all based on the
 16 Indiana study?

17 A. I'm sorry?

18 Q. Again, you're basing those opinions
 19 all on the Indiana study?

20 MR. MALONE: No, you're asking him
 21 questions about what the Indiana study said and
 22 he's answering those questions. That is not the
 23 basis, the sole basis, of his opinion. That is a
 24 component. He's told you that, I think, three or

1 A. Oh, I think, yeah, I think there
 2 would certainly -- within 48 hours versus
 3 outside 48 hours there would certainly be a
 4 difference.

5 Q. Would there be a difference --

6 A. Based on even the Indiana study. They
 7 found a difference at 24 hours. That would
 8 certainly be true if you brought it to 48 hours
 9 statistically, but --

10 Q. Would there be a difference between
 11 35 hours and 48 hours, in your clinical
 12 experience?

13 A. Between 35 hours and --

14 Q. Forty-eight hours.

15 A. -- 48 hours?

16 Q. Yes.

17 MR. ROSMAN: Objection. Asked and
 18 answered.

19 A. I think -- based on my own clinical
 20 experience? I haven't looked at that. So I can't
 21 -- I, again, based on my understanding of the
 22 significance of the report, there may be a
 23 difference, but the big significance was at 24
 24 hours, not -- there would not be -- there may be

1 -- I mean, statistically there may be a
2 difference at 35 versus 48 hours, but the big
3 significance with regard to outcome is at 24 --
4 less than versus greater than 24 hours.
5 Q. So I'm clear, based on your own
6 clinical experience, Doctor, you can't tell us
7 what the outcome would be between 35 hours and
8 48 hours, correct?
9 A. I haven't looked at that
0 specifically, at those time frames, so I
1 couldn't tell you specifically.
2 Q. Likewise, based on your own clinical
3 experience, you couldn't tell us the difference
4 between 30 hours and 50 hours.
5 A. Not an absolute number. It would just
6 be an impression. It would be less but, again, I
7 don't have a specific number.
8 Q. And any difference in outcome between
9 35 hours and 48 hours would be based on the
0 Indiana study.
1 A. Any difference in outcome -- I'm --
2 Q. If you were to give any opinions
3 concerning difference in outcomes at 35 hours
4 versus 48 hours you would be relying on the

1 correct?
2 A. That information that was presented,
3 that's correct.
4 Q. You can't tell us who it was who
5 presented it, correct?
6 A. I don't have a recollection of his
7 name.
8 Q. Do you remember the title of the
9 presentation?
10 A. No,
11 Q. And have you no Written materials
12 that show us what was covered during that
13 presentation.
14 A. Do I infer you're questioning my
15 truthfulness? I swore to tell the truth here.
16 Q. Not at all, Doctor.
17 A. So what are you asking?
18 Q. I may want to get ahold of that
19 study.
20 A. You can Write to the Spine Section
21 and ask for every brochure of the program
22 committee for the last 15 years and look through
23 it. I don't have those --
24 Q. In what specific year was this

1 Indiana study for your opinion.
2 A. To tell me that the possibility for a
3 good -- for recovery at 35 hours was poor, and
4 it's poor at whatever number you said -- 48
5 hours? -- compared to the window of opportunity
6 of 24 hours.
7 Q. And that would be based on the
8 Indiana study, correct?
9 A. Well, the Indiana study and, you know
0 -- with specific reference to the timing of
1 surgery for cauda equina syndrome they set that
2 parameter.
3 Q. Right, and that's what you're relying
4 on to give us an opinion concerning a difference
5 in outcomes between 35 hours and 48 hours.
6 A. I think that's a very valuable
7 parameter to have, yes.
8 Q. Right. That's what you're basing that
9 opinion on, correct?
0 A. That's the *only* information I know to
1 -- that addresses that specifically with regard
2 to the likelihood of outcome of surgery of acute
3 cauda equina syndrome.
4 Q. That being the Indiana study,

1 seminar covered?
2 A. I *think* it was sometime in the
3 Nineties, as I told you. I've gone to every
4 meeting in the last 15 years, or almost every
5 meeting.
6 Q. Can you tell us when in the Nineties
7 it was?
8 A. I didn't go in the most recent ones,
9 so I would say it was probably in the
10 mid-Nineties. The early to mid-Nineties.
11 Q. And you've seen no other studies that
12 address the issue of the success of surgical
13 outcomes with acute cauda equina syndrome
14 besides that one presentation. Correct?
15 A. That's the one that I've put in my
16 data bank forever, and I don't know that there's
17 ever been -- maybe there has, but to my
18 recollection that was felt by everyone to be a
19 very, very useful and, as I said earlier,
20 seminal piece of data, because that question
21 comes up all the time.
22 Q. You would agree, based on everything
23 you know as a neurosurgeon, that if surgery was
24 performed at 35 hours on Bonnie Pikkell, there

1 would have been some increase in success as
 2 compared to 48 hours.
 3 A. Well, that's somewhat intuitive, but
 4 whether that's statistically significant I don't
 5 know. The statistical significance was at 24
 6 hours. And it is certainly intuitive that there
 7 may be a fractional difference, and I wouldn't
 8 dispute that, but the probability of recovery
 9 for surgical management of acute cauda equina
 10 syndrome seemed to have a window of opportunity
 11 of 24 hours, based on the best information that
 12 I know that looked at it from a statistical
 13 standpoint. You know, intuitiveness doesn't
 14 necessarily relate to statistical significance,
 15 and sure it's better to do it at 35 hours than
 16 35 hours and, you know, ten minutes, but
 17 intuitively -- that's why we -- Dr. Bell did I
 18 and that's why I said I would do it as soon as
 19 possible. But whether that translates to a
 20 statistical significant of outcome so that I can
 21 state within the realm of medical probability
 22 that it would have made a difference, the
 23 information I have says it's 24 hours. Not
 24 between 35 and 48, but 24 hours. And so that the

1 A. Only in the interactive -- I've done
 2 a couple of -- on request, you know, lectures to
 3 the emergency room -- emergency department
 4 faculty and their resident staff, but they're
 5 not under my direct supervision.
 6 Q. Does the standard of care require for
 7 a patient in which cauda equina syndrome is
 8 suspected for there to be a rectal examination?
 9 MR. ROSMAN: Objection.
 10 MR. MALONE: He's not a standard of
 11 care witness for an emergency room physician.
 12 Are you talking about somebody in the office,
 13 like a neurosurgeon, who has to evaluate, or are
 14 you talking about what's required of somebody in
 15 the emergency room by a lady with her
 16 complaints?
 17 Q. Let's talk about by any doctor
 18 qualified to diagnose cauda equina syndrome.
 19 A. I think you have to perform -- I
 20 think a comprehensive exam should include the
 21 rectal exam.
 22 Q. So anyone qualified to diagnose cauda
 23 equina syndrome is required by the standard of
 24 care to do at least a rectal exam, correct?

1 probability of the recovery making it -- being
 2 influenced by the timing of surgery
 3 statistically is a 24-hour time frame, to the
 4 best of my understanding of the data that I can
 5 relate to this case. I don't think I can relate
 6 to it on an anecdotal or intuitive way, as well
 7 as through a statistical way.
 8 Q. The statistical way is based on the
 9 Indiana study.
 10 A. Yeah.
 11 Q. Do you still take calls through the
 12 emergency room?
 13 A. Unfortunately, yes.
 14 Q. How often are you on-call?
 15 A. We have six people who rotate the
 16 calls, so it's every sixth weekend, and with the
 17 four days during the week, I -- I generally try
 18 to share in that. It probably works out to -- we
 19 have -- you know, one -- at least one or two
 20 days during the week a month. It's not every
 21 week during a month.
 22 Q. Are you involved in training
 23 emergency room physicians or residents in
 24 emergency medicine?

1 MR. ROSMAN: Objection.
 2 MR. MALONE: Same objection.
 3 A. I would think that's part of the
 4 process, yes.
 5 Q. In addition to that, they would also
 6 be required by the standard of care to do a
 7 pin-prick examination for sensation in the
 8 perineal area?
 9 MR. ROSMAN: Objection.
 10 A. Well, at least some sort of sensory
 11 examination.
 12 Q. And the standard of care would
 13 likewise require if, in fact, there was a
 14 urinary incontinence in a patient in which cauda
 15 equina syndrome was suspected, for an MRI to be
 16 performed.
 17 MR. WONE: This isn't a urinary
 18 incontinence case, Bob.
 19 Q. Correct?
 20 MR. ROSMAN: Objection.
 21 MR. MALONE: I'm going to object.
 22 There's no suggestion of urinary incontinence in
 23 this case.
 24 A. I think at some point that's the best

1 investigative tool. There's other tools if it's
 2 not available.
 3 Q. Let me begin again.
 4 For a patient in which cauda equina
 5 syndrome is suspected the best diagnostic tool
 6 is an MRI.
 7 A. I think that in most contexts that's
 8 the primary diagnostic tool. In point of fact,
 9 in one of the cases that I related to you the
 10 patient could not get an MRI, so he had to get a
 11 CT myelogram. But that's -- again I think you're
 12 just talking technology. You need to get a
 13 definitive diagnosis through a definitive study,
 14 and most often that's the MRI scan.
 15 Q. At least in the 1990s, since the
 16 1990s, MRI has been the gold standard for
 17 diagnosing cauda equina syndrome, hasn't it?
 18 A. I don't like to use -- I mean I
 19 wouldn't fault anybody for getting a myelogram
 20 and showing there's -- you know, and deferring
 21 the MRI scan. That's not inappropriate at all.
 22 If the MRI is available it's generally the best
 23 -- or the screening test, and it's the easiest
 24 to obtain, but if it's not available or there's

1 hundred percent.
 2 Q. So if acute cauda equina syndrome is
 3 suspected in a patient does the standard of care
 4 require an MRI to be performed if the MRI is
 5 available and there's no contraindication in the
 6 patient for performing the MRI?
 7 A. If it's acute I **think** he ought to get
 8 it emergently.
 9 Q. Is it appropriate for the physician
 10 not to order any diagnostic imaging studies, no
 11 MRI, no CAT scan, no myelogram?
 12 MR. ROSMAN: Objection.
 13 A. For an acute presentation?
 14 Q. Yes.
 15 A. I would ~~think~~ it's inappropriate.
 16 Q. Why is that?
 17 A. I mean, absent the fact that the
 18 patient is absolutely, you know, a
 19 contraindicated surgical candidate, or
 20 absolutely refuses to consider surgical
 21 management, I **think** you need to, in that
 22 clinical context, arrive at a diagnosis and find
 23 out if it's a surgical problem.
 24 Q. And the only way to find out if

1 an obese patient or a patient with a pacemaker
 2 that precludes MRI, there's other studies that
 3 can be obtained and are definitive, and I think
 4 you're just trying to get a definitive
 5 diagnosis.
 6 Q. Would you agree in this patient,
 7 given the size of her disc herniation, even a CT
 8 scan would have shown the compression?
 9 A. A plain CT scan?
 10 Q. Yes.
 11 a. Most commonly you can see that. You
 12 know, I -- I -- I think there's a possibility if
 13 -- of a false negative or a confusing picture. I
 14 would **think** not that it takes all that much
 15 time, but I think a CT myelogram would probably
 16 be better if you're going to go to CT than just
 17 limiting it to a plain CT, but at least the
 18 literature on CT diagnosis of disc herniation
 19 was that it had a reliability in the 98 plus
 20 percent, so it might very well show this.
 21 Q. What's the reliability for showing a
 22 cauda equina syndrome on an MRI?
 23 A. It's probably equally **high**, 98
 24 percent. Maybe -- I don't know if anything is a

1 there's a structural pathology involved like a
 2 massive disc herniation is to perform an MRI or
 3 similar imaging study, correct?
 4 A. Or something, correct.
 5 Q. If they failed to do that that would
 6 be below the standard of care.
 7 MR. ROSMAN: Objection.
 8 A. I think the value of coming to a
 9 diagnosis in that presentation I would infer to
 10 be below the standard of care.
 11 Q. Why is that?
 12 A. Why is -- why is -- do I infer that
 13 on --
 14 Q. Why would that be below the standard
 15 of care?
 16 A. Because it would result in a
 17 misdiagnosis or a delay in diagnosis of a
 18 problem that's an acute emergency, and would
 19 then, because of that, result in potentially
 20 irreparable neurological deficit.
 21 Q. Are you able to quantify the amount
 22 of compression that a disc fragment or fragments
 23 like that in Bonnie Pikkel actually placed on
 24 the nerve?

7

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1 resolves, and then returns again. Is there some
2 clinical significant between the fact that the
3 numbness resolves and then re-occurs, in terms
4 of damage to the nerve?

5 A. *You* know, all the while they have the
6 retention, you're talking?

7 Q. Correct.

8 A. I mean, you know, it could be -- I
9 think when a nerve is compressed or injured
10 there could be a -- an impact of such where
11 there's a loss of function that then the nerve
12 has recovery from, and then with the proceeding
13 natural, say, swelling or processes, it can then
14 recede again. I mean, that's a possibility. It's
15 like a concussion, and then you recover, and
16 then you have a secondary decline from, you
17 know, the hemorrhage in your head that initially
18 wasn't big enough, it was really the concussion.
19 So there may be an element of a concussive
20 effect that then you recover from, only to then
21 progress as the compression now continues in its
22 duration.

23 Q. So if --

24 A. I guess that's possible. I --.

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1 Q. So if we have *urinary* retention, we
2 have perineal numbness which then resolves, does
3 that suggest that there's some chance at that
4 point that the nerve can recover, is in the
5 process of recovering?

6 A. Well, maybe some of the nerve. Not
7 all of the nerves. If, you know -- it may
8 suggest something. I don't know.

9 Q. Would that suggest that if you treat
10 it surgically at that point, when the numbness
11 is resolved, that you can have a higher
12 likelihood of success than if you wait until the
13 perineal numbness returns and then do surgery?

14 A. Well, I think just the general tenet
15 is, you know, if you wait until further things
16 develop the chance of the recovery that you have
17 is less than if you involve yourself before
18 those additional things develop, so --

19 Q. Isn't it a general tenet in
20 neurosurgery that if you get them before further
21 damage occurs you can usually prevent the
22 further damage?

23 A. In most cases. It depends the actual
24 mechanism. There are some things that proceed

5 Q. How much --

6 A. That's significant to me.

7 Q. How much of the nerve is being
8 compressed or by what amount of force you
9 wouldn't be able to say.

10 A. Well, how much, again, are you
11 talking longitudinally? It doesn't matter how
12 much longitudinally as long as it's enough to
13 disrupt the function of the nerve. I mean
14 generally in these cases it's a pretty big
15 fragment, so there's somewhat of a longitudinal
16 expanse of a couple, three centimeters where
17 there's actually compression. I mean, the actual
18 pressure that creates or the force of that?
19 Again, I don't know the value of that. You know,
20 I just think of it as whether it's clinically
21 significant or not.

Q. Assume this scenario: Let's say a
patient has urinary retention, has perineal
numbness, but then the perineal numbness

1 irrespective of what is done, but --

2 Q. In the case where you've got a
3 massive disc herniation with cauda equina
4 syndrome that causes perineal numbness which is
5 then resolved, doesn't that suggest if you do
6 surgery at that point in time you will arrest
7 any further perineal numbness?

8 MR. ROSMAN: Objection.

9 Q. More likely than not?

10 MR. ROSMAN: Objection.

11 A. If it -- if the subsequent progress
12 is due to the compression and you resolve the
13 compression, you know, I would assume that
14 you're going to prevent the recurrence. Like I
15 say, if it's due to swelling, if it's due to
16 some other effect, you know, I don't know, but
17 in general if you're going to try to present
18 that waxing and waning scenario one mechanism
19 might be a concussive effect, but then there's
20 some recovery and then a continued compression
21 that results in the recurrence, sure, if you
22 resolve the compression before the recurrence
23 it's certainly less likely it will be than if
24 you didn't resolve it.

1 Q. Would it be below the standard of
2 care if a physician who is qualified to diagnose
3 cauda equina syndrome who sees a patient with a
4 26-hour history of urinary retention, who has
5 perineal numbness that may have resolved, to
6 simply place a catheter in that patient,
7 diagnose the patient as having urinary
8 retention, and send her home with no further
9 diagnostic tests or studies?

3 MR. ROSMAN: Objection.

1 MR. MALONE: Objection.

2 A. I **think** that would be inappropriate.

3 Q. Why would that be inappropriate, in
4 your judgment, Doctor?

5 A. Because I think that if you're going
5 to -- if you're -- you **think** that you're having
7 a diagnosis of cauda equina syndrome you need to
3 rule out -- and it's acute, acute cauda equina
3 syndrome -- you need to rule out any potential
3 treatable cause, because we stated earlier that
it's a surgical emergency. So I wouldn't think
2 that there's any justification, if that's your
3 diagnosis, for not investigating it further.

4 Q. How do you investigate it further to

1 meet ~~the~~ standard of care?

2 A. Well, getting a diagnostic imaging
3 study.

4 Q. MRI?

5 A. Well, we said MRI generally, yes.

6 MR. MALONE: If you have another line
7 of questions we'll have to call this guy. It's
8 now seven minutes past the hour, and he'll be
9 downstairs in three minutes.

10 MR. ROSMAN: And I've got questions.

11 MR. LINTON: You do?

12 MR. ROSMAN: Yes, I do. But I've got
13 maybe about five to ten minutes worth.

14 MR. LINTON: Probably have him come at
15 5:30.

16 (Short recess.)

17 Q. Doctor, in terms of the -- I'm going
18 to shift focus now and talk about your
19 experience testifying in cases like this.

20 Can you tell us approximately how
21 many medical malpractice cases you've been
22 involved in where you have provided expert
23 testimony?

24 A. In court or in deposition, or what

1 are you referring to?

2 Q. Well, let's talk about, first of all,
3 how many medical malpractice cases have you
4 reviewed?

5 A. I've been doing it about 15 years.
6 I'd say, you know, about -- on the order
7 initially of maybe five a year. Then more
8 recently I said about maybe one a month, say 12
9 a year, so maybe on the order of a hundred, 150.
0 I don't know.

1 Q. Isn't it true that the overwhelming
2 majority of those cases, Doctor, have been for a
3 health care provider, either a doctor or a
4 hospital?

5 A. No, I don't **think** that's -- initially
5 that was -- that was true. More recently it's,
7 you know, much more balanced. I can't give you
3 the exact balance.

3 Q. When was it the overwhelming majority
3 of your time?

4 A. Just early on. Say the first number
! of years. But then recent -- then I started
3 getting it from the whole plaintiff's side, and
4 that started, so I -- I just review cases on

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1 request if I **think** I can handle the case from a
2 knowledge-based standpoint, and then I provide
3 an opinion regardless of where it's from or who
4 is involved, unless I know the person. Then I
5 won't do it.

6 Q. Are you saying that now it's equally
7 balanced, patient versus doctor or hospital?

8 A. I don't h o w that it's equally, but
9 it's, you know, maybe 40/60, 30/70 at times.

10 Q. Stillmore --

11 A. I get a number of plaintiff cases,
12 and I don't keep a balance sheet.

13 Q. But still more weighted to the
14 hospital or doctor as opposed to the patient.

15 A. I'd say if you summed it up from the
16 beginning, yes, but --

17 Q. If you were to sum it up from the
18 beginning what would be the percentage total
19 cases of a hundred, 150 --

20 A. Maybe 30/70.

21 Q. Doctor, it's true that you have
22 testified in other cases as to the standard of
23 care of emergency room physicians, haven't you?

24 A. I've testified in other cases that

1 Q. Correct, and did you see in Dr.
2 Spaner's case where he testified at deposition
3 that he, in his own judgment, was qualified to
4 diagnose cauda equina syndrome? Did you see that
5 in his deposition?

6 MR. ROSMAN: Objection.

7 A. I read his deposition. I don't recall
8 specifically that commentary. I have it here if
9 you want to refer me to it.

10 Q. Assume that is in his deposition,
11 Doctor. Does that surprise you, that an
12 emergency room doctor like Dr. Spaner is
13 qualified to make the diagnosis of cauda equina
14 syndrome?

15 A. Does it surprise me?

16 Q. Yes.

17 A. No.

18 Q. Don't you expect that a
19 board-certified emergency room physician should
20 be able to diagnose cauda equina syndrome?

21 A. I **think** he certainly should be able
22 to be cognizant of that concern, and then to, as
23 is often the case, you know, get consultation
24 from people that may be -- have a higher

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1 involved emergency room physicians, and
2 addressed, you know, issues. I don't know that I
3 specifically would say I stated an opinion about
4 an emergency room standard of care. I generally
5 relate that to an emergency room expert. But if
6 it was a neurosurgical issue in the context of
7 the emergency room, I would have opinions who
8 that.

9 Q. Certainly you're qualified to render
10 opinions on neurosurgical issues in the
11 emergency room context given the number of years
12 you've spent working with emergency room
13 physicians in diagnosing and helping to treat
14 neurosurgical issues.

15 A. Correct, and, you know, I -- but if
16 you asked me whether this -- I think it would be
17 my opinion, at least, that there are ER or
18 emergency room doctors that should or would
19 relate better to their own expertise or standard
20 of care than maybe I would, as a neurosurgeon,
21 but the issues themselves I could certainly
22 address and, as I said here, you know, in the
23 generic sense, my opinion about standard of
24 care.

1 expertise as to that issue, but --

2 Q. So the emergency room physician would
3 be required to either do the necessary test to
4 diagnose the condition or consult with a
5 specialist such as yourself.

6 A. That's generally been my interaction
7 in that context, yes.

8 Q. If a doctor fails to do either,
9 conducts no clinical examination of the perineal
10 area or rectal tone and orders no diagnostic
11 studies, such as an MRI, but simply sends the
12 patient home with a catheter in, despite a
13 26-hour history of urinary retention, and never
14 calls any neurosurgeon, that would be below the
15 standard of care of an emergency room physician,
16 would it not?

17 MR. ROSMAN: Objection.

18 A. Again, I **think** that -- you know, I
19 don't want -- I don't want to necessarily
20 address -- I haven't been asked to address or
21 have addressed the standard of care of an
22 emergency room physician. I think I've already
23 testified that the -- if cauda equina syndrome
24 is a concern I think -- acute cauda equina

1 syndrome, needs to be evaluated, needs to be
2 consulted for. Whether this gentleman's
3 performance in this context met his discipline's
4 standard of care I think is best addressed by
5 that discipline's experts.

6 Q. Doctor, did you see any effort by Dr.
7 Spaner in this case to either conduct an
8 appropriate evaluation and examination or call
9 in a specialist?

10 MR. ROSMAN: Objection.

11 Q. Despite suspecting cauda equina
12 syndrome.

13 MR. ROSMAN: Objection.

14 A. Well, I don't see that he suspected
15 cauda equina syndrome in his documentation. I
16 don't see that he sought consultation in his
17 documentation.

18 Q. You didn't see in his deposition that
19 he had cauda equina syndrome on his
20 differential?

21 A. I don't recall the specifics there.

22 Q. I want you to assume that it was his
23 testimony, if he testified he was qualified to
24 diagnosis cauda equina syndrome and he further

1 minutes after. I have told you that I have about
2 ten minutes of testimony, and I intend to do my
3 ten minutes.

4 MR. LINTON: I'll give you as much
5 time as you need to.

6 MR. ROSMAN: Okay.

7 MR. LINTON: I'm not here to cut
8 anybody's examination short.

9 Q. Doctor, again, the standard of care
10 for an emergency room doctor like Dr. Spaner,
11 who admits that he is qualified to diagnose
12 cauda equina syndrome, assuming he says that it
13 was on his differential, is required to either
14 refer or to do further testing, correct?

15 MR. ROSMAN: Objection.

16 A. You know, I think I -- I think I
17 agree with Dr. Bell's opinion that, you know,
18 that's best left, in a sense, to the ER or
19 emergency physicians, to address their standard
20 of care. I think I said that if you have acute
21 cauda equina syndrome it needs to be
22 expeditiously evaluated and, you know, possibly
23 surgically managed. Whether this gentleman, in
24 what he testifies to and evaluates, meets his

1 testified that it was on his differential, did
2 not the standard of care require that he either
3 do further testing and examination or call in a
4 specialist?

5 A. Well, I also recall that he testified
6 that he did a full neurologic exam and it was
7 normal. I don't recall about the rectal exam.
8 But, you know, I think at some point there's a
9 threshold where he has to make a decision
10 whether this is or is not of concern. Again, I
11 think the standard of care for him is his
12 discipline, and if he considered it then I think
13 it needs to be either evaluated -- or if the
14 standard of care says he should consider it I
15 think it needs to be evaluated or it needs to be
16 consulted upon.

17 Q. And the evaluation is to be done by
18 doing the pin-prick examination and the rectal
19 tone --

20 A. Well, I'm talking about -- that --
21 I'm talking about more neurodiagnostically
22 evaluating or consulting.

23 Q. So the standard of care --

24 MR. ROSMAN: Mr. Linton, it's about 18

1 standard of care I think is left to them. He
2 says he had, you know, from my recollection,
3 that there was a normal exam, and he thought
4 about it, and he says he thinks about it, and if
5 he dismisses that, I don't -- you know, I don't
6 know that I could say that is not or is within
7 his discipline's standard of care.

8 Q. Should there be a different standard
9 of care that applies to an emergency room
10 doctor?

11 Let me back up. Isn't the diagnosis
12 of cauda equina syndrome the same whether it's
13 being made by a neurosurgeon or a neurologist or
14 an emergency room physician or a neurosurgical
15 resident, for that matter, isn't it the same in
16 terms of how you make the diagnosis?

17 MR. ROSMAN: objection.

18 A. Oh, I think that's true, but I don't
19 know that the standard of care for the different
20 disciplines is the same. No, I think it must be
21 different. And the context in which you find
22 yourself, I guess, must be different. I, as a
23 neurosurgeon -- otherwise, why do we have such
24 things as specialties and hold ourselves to

1 different levels of expertise? That would be my
 2 understanding.
 3 Q. Because emergency room doctors don't
 4 operate.
 5 MR. MALONE: Sure they do.
 6 Q. Isn't the standard of care for an ER
 7 doctor when faced with an acute cauda equina
 8 syndrome patient to, at a minimum, order
 9 diagnostic tests or consult a specialist such as
 10 yourself?
 11 MR. MALONE: I'm going to object.
 12 You're just getting argumentative now.
 13 MR. LINTON: I'm not getting
 14 argumentative.
 15 MR. MALONE: You are, Bob. He said if
 16 it's considered it should be ruled out. I don't
 17 see where this guy Spaner ever said he would
 18 consider it. It would be really low on his list
 19 because you have pain, and he's agreed as to how
 20 you diagnose it --
 21 Q. If a qualified physician simply has
 22 it low on his differential list, Doctor, is it
 23 acceptable, then, to not order an MRI?
 24 A. I think if you arrive at the

1 who had on his differential diagnosis list acute
 2 cauda equina syndrome, to not perform an MRI or
 3 not to call in a specialist? That would be
 4 appropriate?
 5 MR. ROSMAN: Objection.
 6 A. I didn't say that would be
 7 appropriate.
 8 Q. Would it be inappropriate?
 9 A. I would **think** if he has -- if he has
 10 a concern or a consideration of acute cauda
 11 equina syndrome, as I said, he should proceed
 12 with investigative studies or a consultation.
 13 Q. Investigative study being an MRI.
 14 A. Some investigative diagnostic study,
 15 imaging study, yes.
 16 Q. Or a consultation.
 17 A. Or to get a consultation to see if
 18 that is or isn't appropriate or needed. You
 19 know, and to defer that to the higher expertise.
 20 But whether my standard of care, when I'm
 21 consulted in that context, is the same as his, I
 22 don't know.
 23 MR. LINTON: I may have a few more
 24 questions. In the interest of time --

1 diagnosis of acute cauda equina syndrome you
 2 need to proceed with investigative studies.
 3 Q. Which means taking an MRI, correct?
 4 A. Fine, we've already established that.
 5 I think that the presentation to the emergency
 6 room is urinary retention, and whether in the
 7 context of that presentation and in the findings
 8 that he says he found in his deposition or that
 9 are documented the emergency room physician is
 10 below the standard of care or not, I think is an
 11 issue for the emergency room physicians. You're
 12 telling me it's an acute cauda equina syndrome.
 13 That's not what -- this is a presentation of
 14 urinary retention. Yes, that could be acute
 15 cauda equina syndrome and, yes, in this case it
 16 was acute cauda equina syndrome. That's what
 17 I've come to, in looking at this. But
 18 prospectively, on the presentation, how and what
 19 is the standard for the emergency room doctor of
 20 that complaint, of that presentation, I would
 21 **think** is in the domain of their experts. And I
 22 haven't been asked to look at that.
 23 Q. So it would be acceptable if an
 24 emergency room physician here in your hospital

1 MR. ROSMAN: Mr. Linton, I think
 2 you've covered, in the last couple of minutes,
 3 what I need to cover, so go ahead.
 4 MR. LINTON: I'm just about done. I
 5 would like to consult with my co-counsel --
 6 MR. RUF: Bob, you don't need to talk
 7 to me.
 8 MR. MALONE: Are you still awake, Ruf,
 9 or are you sleeping back there?
 10 MR. RUF: I'm still here.
 11 MR. MALONE: I know you're sleeping. I
 12 know you are. I can hear you snore.
 13 MR. RUF: You don't need to talk to
 14 me, Bob.
 15 (Short recess.)
 16 Q. Doctor, did the standard of care
 17 require Dr. Bell to perform the surgery that he
 18 did when he did it?
 19 A. I think it's entirely appropriate.
 20 Yeah, I think so.
 21 Q. Would it be below the standard of
 22 care for him to not perform it or at least not
 23 to recommend to the patient that it be
 24 performed?

1 A. Well, I think it's the patient's
2 decision, you know. You just can't do it. I
3 think he has to give her the options, and
4 certainly in this case I think it's the
5 surgeon's responsibility to make it clear to the
6 patient the consequences of no surgery, so in
7 that sense I think you have to provide not only
8 information, but advice. And I think the advice
9 should be that, you know, all things being
10 considered, that the best opportunity or the
11 best chance for recovery is to provide that
12 environment, and, you know, "You ought to
13 proceed," but I don't tell patients what to do.
14 They make that decision for themselves.

15 MR. ROSMAN: Could we go off the
16 record for a second?

17 (Discussion off the record.)

18 Q. Doctor, in all fairness, don't you
19 think Dr. Bell is in a better position to talk
20 about this patient's expected outcome, as her
21 treating physician, as the one who examined her,
22 as the one who operated on **her**, as the one who
23 saw her anatomy and followed her after the
24 surgery? Don't you think his opinion should be

1 given actually more weight than Dr. Bell's
2 because you have relied on the outcome analysis
3 by this Indiana study.

4 A. I think the information contained in
5 that Indiana study has a lot greater weight with
6 regard to the likelihood of the recovery and
7 outcome than one individual experience, with
8 regard to probability and likelihood.

9 Q. And, therefore, your reliance on this
10 outcome analysis study should be given more
11 weight than Dr. Bell's opinion in this case?

12 MR. MALONE: Objection. He really
13 can't answer that, because an expert cannot
14 opine **on** that which is a jury question. The jury
15 decides who is to get more weight, upon hearing
16 the testimony, not an expert. An expert can't
17 tell the jury what to do. You're asking him to
18 tell the jury what to do, and I'm going to tell
19 him not to answer it.

20 MR. LINTON: Objection overruled.

21 MR. MALONE: Don't answer the
22 question.

23 MR. LINTON: Would you read back the
24 question, please?

1 given more weight than yourself, as an outsider
2 who has come in and only spent a couple of hours
3 evaluating the case?

4 A. Well, the short answer, then, is no,
5 because what you're asking for is outcome
6 analysis. And we can't come up with a
7 responsible opinion regarding outcome without
8 outcome analysis, based on one case or one
9 impression of one case alone. We rely upon some
10 kind of, you know, study or population analysis
11 to **try** to know what outcome, you know, is more
12 likely than not. So in that sense any individual
13 experience is not really an outcome analysis. We
14 really have a **dirth** of outcome analyses in all
15 of medicine, and particularly in surgery, and I
16 think the value of this proceeding of the
17 information that I'm aware of that I assure you
18 exists somewhere, albeit I don't know exactly
19 where, is that that was a good outcome analysis,
20 and I -- I don't know that an individual case
21 has the value and weight versus a study,
22 particularly in outcome analysis. That's why we
23 have outcome analysis.

4 Q. So you **think** your opinion should be

1 MR. MALONE: You can read it all you
2 want.

3 MR. LINTON: Let me rephrase it.

4 Q. Doctor, do you **think** your opinion,
5 since it's based on the outcome analysis of the
6 Indiana study, is more reliable than Dr. Bell's
7 opinion in this case?

8 A. The reason I articulate that opinion
9 is because I think that information is very
10 germane and very reliable. And the reason I
11 express an opinion that differs, and I said in
12 my little **stickie** that I disagree with his note,
13 is because I think that that's a number that
14 needs to be arrived upon in the context of some
15 outcome analysis study. I don't speculate on
16 that. I don't talk from anecdotal evidence. I
17 don't talk from one experience. I try to
18 articulate an opinion as a, quote, expert,
19 unquote, based on information that I **think** is
20 reliable from an outcome or from a statistical
21 standpoint. So in the sense of weight, I think
22 the weight of evidence that's based on some sort
23 of population study, statistical analysis, is
24 much more valuable to me in expressing my

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1 opinions and in, you know, practicing my
2 medicine than any individual experience I may
3 have or anybody else may have.

4 Q. Who do you **think** would be more
5 competent to testify on the issue? Yourself or
6 the author of the Indiana study?

7 A. What issue are you referring to?

8 Q. The issue in this case concerning the
9 expected surgical outcome of surgery on Bonnie
10 Pikkel had it been performed after she first
11 presented in the emergency room as opposed to
12 waiting until she presented the second time.

13 A. Well, if he had data that was -- that
14 is more specific and significant than my
15 recollection of his data, I would have to
16 address that data and see if that would, you
17 know -- I'm basing it on my knowledge base, my
18 recollection -- my understanding and, you know,
19 the fact that, as I said, I came away from that
20 very clearly with the understanding of that time
21 frame, and, you know, I'm basing it on that
22 data.

23 Q. Doctor, I started at the beginning
24 telling you what I wanted to cover. I probably

1 copies.

2 MR. LINTON: Doctor, you've just
3 placed green stick-ums on -- we're looking at a
4 multi-paged transcript. Pages 30 through 33,
5 pages 38 through 41, pages 54 through 57 and
6 pages 74 through 77, is that correct?

7 THE WITNESS: Those are just for tabs,
8 so I know where the other things are, yes.
9 (Deposition concluded.)

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1 have covered it in more detail than you ever
2 wanted to, but I just want to be sure. Have we
3 covered now all the opinions you hold in this
4 case and everything those opinions are based on?

5 A. I guess the fair answer to that is, I
6 hope so.

7 Q. Is there anything else you need to
8 add to make sure we've covered all of your
9 opinions and everything you base your opinions
10 on?

11 A. That's entirely up to you, sir. I'm
12 here to answer your questions.

13 Q. Is there anything else significant in
14 your mind, Doctor, relating to Bonnie Pikkel's
15 case that we have not covered?

16 A. I don't believe so.

17 MR. LINTON: Thank you very much.

18 MR. ROSMAN: I don't have any
19 questions at this time.

20 MR. LINTON: Just for housekeeping,
21 can we give to the court reporter your original
22 file, and he'll color copy -- or do you want
23 color copies, Jim, or not?

24 MR. MALONE: I don't want color

1 I have read the foregoing, and it is a true
2 transcript of the testimony given by me at the
3 taking of the subject deposition.

3 BENNETT BLUMENKOPF, MD.

15 DATE

16 MI

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1 ERRATA SHEET

2 I WISH TO MAKE THE FOLLOWING CHANGES

3 IN THE FOREGOING TRANSCRIPT OF MY DEPOSITION

4

5 PAGE LINE CHANGE REASON

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20 DATE: _____

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22 BENNETT BLUMENKOPF, M.D.

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24

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1 COMMONWEALTH OF MASSACHUSETTS
2 WORCESTER, SS.

3 I, MICHAEL GRUBER, a notary public in and
4 for the Commonwealth of Massachusetts, do
5 certify that pursuant to appropriate notice of
6 taking deposition, there came before me the
7 subject deponent, who was by me duly sworn; that
8 said witness was thereupon examined under oath
9 and said examination reduced to writing by me;
0 and that the deposition is a true record of the
1 testimony given by the witness.

2 I further certify that I am not a relative
3 or employee or counsel or attorney for any of
4 the parties, or a relative or employee of such
5 counsel or attorney, nor am I financially or
6 otherwise interested in the outcome of the
7 action.

8 Witness my hand and official seal at
9 Worcester, Massachusetts, this 2nd day of April
0 2001.

20 My Commission Expires
21 November 19, 2004

Notary Public

22 The foregoing certification of this transcript
23 does not apply to any reproduction of the same
in any respect unless under the direct control

24 and/or direction of the certifying reporter.

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