Page

STATE OF OHIO
COUNTY OF CUYAHOGA

IN THE COURT OF COMMON PLEAS

BONNIE PIKKEL, et al.,
Plaintiffs
VS. C.A. NO. 326207
MARK ZANNETTI, D.C., et al.,
Defendants

DEPOSITION of BENNETT BLUMENKOPF, M.D., taken at the request of the plaintiffs, before Michael Gruber, a notary public in and for the Commonwealth of Massachusetts, on March 27, 2001, commencing at 2:30 p.m., at the UMass Memorial Medical Center, 119 Belmont Street, Worcester, Massachusetts.

APPEARANCES:

FOR THE PLAINTIFF:

ROBERT F. LINTON, JR., ESQ.
LINTON & HIRSHMAN, ESQ.
Hoyt Block Building Suite 300
100 West St. clair Avenue
Cleveland, Ohio 44113
-and-
MARK RUF, ESQ. (Telephonically)
Hoyt Block Building
700 West St. Clair Avenue
Cleveland, Ohio 44113

Page

FOR THE DEFENDANT SPANER:

WARREN ROSMAN, ESQ.
WESTON, HURD, FALLON,
PAISLEY & HOWLEY, ESQS.
2500 Terminal Tower
50 Public Square
Cleveland, Ohio 44113-2241

FOR THE DEFENDANT MERIDA HILLCREST HOSPITAL:

JAMES L. MALONE, ESQ.
REMINGER & REMINGER, ESQS.
The 113 St. Clair Building
Cleveland, Ohio 44114

INDEX

DEPONENT: BENNETT BLUMENXOPF, M.D.

Page

EXHIBITS

Page 4

Bennett Blumenkopf, M.D., SWORN

(Whereupon, Exhibits 1 and 2 were marked, for Identification.)

EXAMINATION BY MR. LINTON:

Q. Dr. Blumenkopf, good afternoon. We met a few minutes ago. My name is Bob Linton. Mark Ruf and I represent Mr. and Mrs. Pikkel in a lawsuit that is pending in the Court of Common Pleas against various parties.

I understand you have been retained as an expert neurosurgeon on behalf of the hospital, is that correct?

A. That's my understanding, yes.

Q. We're here to take your deposition. I assume you've been deposed before, Doctor?

A. I have, yes.

Q. How many times have you been deposed before, approximately?

A. For proceedings such as this or including workers' compensation?

Q. Let's start first for proceedings

Page 5

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

Page 6

understand that?
A. Yes.
Q. Do you agree it would be unfair to my clients if you fail to disclose to us today all of your opinions?
A. Absolutely.
Q. And do you agree that since we want everything you based your opinions on it would likewise be unfair to Mrs. and Mrs. Pikkel if you fail to tell us today everything you based your opinions on?
MR. MALONE: Let me just object.
He'll answer all of your questions. This isn't meant to be an open narrative by him to explain everything he's done and everything he thinks. You have to ask questions. That's why we call it a deposition.
MR. LINTON: I understand that.
MR. MALONE: He's going to give you full answers to your questions.
MR. LINTON: I understand that.
Q. I just want to make it clear, Doctor, I'm here today to find out all your opinions and everything you based your opinions on.

Page 7

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

Page 8

will move to exclude any new opinions that are not expressed in your report or are not expressed today at this deposition. Do you understand that?
MR. ROSMAN: Objection.
MR. MALONE: Objection.
A. I understand that. I think that maybe it's different in Ohio, I don't know, but there are times when new information becomes available subsequent to the deposition, so you reserve the right to maybe either expand or espouse differing opinions pursuant to new information. That's the only exclusion I've heard previous.
Q. I'm not going to ask you to necessarily know what the rule is in Ohio. I'm just making it clear we will move to exclude any opinions that were not expressed in your report or in your deposition today. Do you understand what I'm saying?
A. I certainly understand it, yeah.
Q. Okay.
A. And I don't know if it's my job to agree or disagree with that.
MR. MALONE: It's not. It's neither.

Page 9

Q. Have you done everything you need to do to provide your opinions in this case?
A. With the information provided me, yes.
Q. Have you reviewed everything necessary to provide us your opinions in this case?
A. I believe so, yes.
Q. Is there any additional information that you've requested but not received?
A. No.
Q. Does anything else need to be done to provide us with your final opinions in this case?
A. Not to the best I can understand the situation, no.
Q. Let's talk, if we can, about billing, Doctor.
What do you charge for your deposition?
A. I just charge for my time, which is at $350 per hour, whether it's doing this or reviewing the records or going to trial, whatever the process is.

Page 1

it, or have. With the report on here.
(Handed to Mr. Linton.)
A. And then there would be the retainer for this. I don't know exactly how we -- how we communicated, may have called me, but this is just a statement from him with a check for the retainer for this -- or, actually, it's from you.
(Handed to Mr. Linton.)
Q. Do you owe me any money back yet?
A. Huh?
Q. Do you owe me any money back yet?
A. Idon'tknow.
Q. $1,400. Am I correct, just in all seriousness, that you'll be charging for your actual time spent today at the rate of $350 an hour?
A. As opposed to what?
Q. As opposed to if I walk out of here after an hour, that you'll be charging me an amount in addition to that.
A. No, the retainer was for the four hours of time, so if you leave early it's your hard luck.

Page 10

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

Page 1

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

Page 1

you to the Reminger law firm showing how much time spent for your initial case review. Two hours?
A. That's correct.
Q. Would that be to review all the written materials that you have in your file?
A. I believe I received everything at once, yeah.
Q. In addition to that, Exhibit 4 shows additional time of an hour and 20 minutes?
A. A 20-minute telephone call, conference, and then an hour to prepare a report.
Q. And that would be for the report that you prepared in this case, which we have marked as Exhibit 2?
A. Correct.
Q. In addition to that, Exhibit 5 shows the amount for your trial testimony, eight hours at 350 an hour, for a total of $2,800.
A. That's the retainer for that time if it proceeds to trial on that date, yes.
Q. Thank you. We'll make copies of all of these so can you keep the original in your

Page

Q. The bottom of the stack.
A. Not on the bottom. Just in the middle.
MR. LINTON: Let's mark that, please.
(Document marked.)
Q. Okay, Doctor, I've had a chance to have a look at Exhibit 6. Exhibit 6 is a letter from the Reminger law firm to you, dated June 25, 1999, is that right?
A. Yes.
Q. And attached to that also is a, looks like an E-mail from Donna C-z-e-r-w-i-n-s-k-i, at the Reminger law firm, as well, dated June 23, 1999, is that right?
A. Yes.
Q. As best we can tell, it would have been Donna, the paralegal from the Reminger law firm, that first contacted you about this case on June 23, 1999, is that right?
A. I don't recall if there was maybe a phone call prior to the E-mail. I don't have a recollection how she would have gotten my E-mail or anything like that.
Q. Would you --

Page 14

file.
A. I do request that if you're going to do that, put it on the record, that my Social Security number be blacked out on the copy, since that was provided for tax purposes, and not for this proceeding.
Q. Sure.
Is there anything else that constitutes part of your file that we don't have in front of you?
A. Everything that I know that relates to this case is on this table.
Q. Okay. Has anything been removed from your file at any time?
A. Not that I'm aware of.
Q. How about any correspondence with counsel?
MR. MALONE: It's in there.
A. Not that I'm aware of.
Q. Did you receive an initial engagement letter from the Reminger law firm?
MR. MALONE: It's all in there, Bob. Notes on it, everything. It's a dream for you.
(Handed to Mr. Linton.)

Page 1

A. Certainly the date of the E-mail precedes the date of the letter, but --.
Q. Have you reviewed cases for the Reminger law firm before this one?
A. I believe so, yes.
Q. And how many other cases had you reviewed for the Reminger law firm aside from this one?
A. I would say more than one, but I couldn't give you an exact figure.
Q. Do you have any records you could check to confirm that?
A. No.
Q. I assume that the other case or cases you were involved in were for the defense of health care providers as opposed to representing the patient?
MR. MALONE: The other cases he was involved in on behalf of my law firm.
MR. LINTON: correct.
MR. MALONE: Not all the other cases he has been involved in.
MR. LINTON: Correct.
A. Yeah, I believe that's true. I can't

Page 17

recall -- I believe all of them were on the defense side, yes.
Q. Do you recall any other cases in terms of what the issues were?
A. No.
Q. Do you recall how long before June 23, 1999 you had last consulted with the Reminger law firm?
A. Consulted, you mean discussed any situation?
Q. Correct.
A. I don't recall that.
Q. Have you worked on any previous cases with Mr. Malone?
A. No.
Q. Mr. Scott?
A. I believe this was the first time I worked with Mr. Scott.
Q. The handwriting that appears on Exhibit 6, I assume that's your handwriting?
A. With the exception of Mr. Scott's signature block, yes.
Q. And, likewise, on the E-mail, as well?

Page 18

A. Yes.
Q. Just read for me what this handwriting is, so we can decipher it.
A. "7/1/99," July 1, 1999, "Two hours. Called Mr. Scott. Left answering machine message, 7/8/99," July 8, '99, "20 minutes, report."
Q. Can you read, then, the second page, if you could?
A. Second page, "Delay 34 H," for 34 hours 13 minutes, "47 hours 15 minutes."
Q. Let me stop you there.
What did you base those numbers on?
A. My understanding of the time line on the case.
Q. Time line from onset of symptoms?
A. Correct.
Q. And what were the original symptoms that -- what symptoms did Bonnie Pikkel first have showing cauda equina syndrome?
A. The urinary retention.
Q. Anything else?
A. That was the one I was timing it from by my review of the record.

Page 19

Q. Would that have been based on the statement in the ER record of being unable to void for 26 hours?
A. Correct.
Q. And what did you use to determine the time on which the 47 hours 15 minutes --?
A. That was the interval from the time of the treatment, chiropractic treatment, to the incision at surgery.
Q. Incision at 3:15?
A. Correct.
Q. Are you able to tell, based on the information provided, when the procedure was done to the point that all compression was taken off the nerve?
A. I'd have to look at the operating room record. I could -- I could estimate that to see how long --
Q. Just give me, first of all, your estimates. It was a two and a half hour procedure, according to the records.
A. Mm-hmm. Well, I -- I would assume that that's the incision time.
Q. It was.

Page 20

A. I would say if the -- the total surgical time was what you say, it would probably be within the hour, I would think. Opening and closing is, you know, probably some of the time, and then maybe an hour.
Q. So an hour from the point of incision, from 3:15 to 4:15, by that point you would expect all the compression to have been removed from the nerve?
A. I would think, from the nerves. I think that's reasonable.
Q. In terms of a time line, is it important to start from the time of incision or the time in which all the -- from the point in which the decompression is completed?
A. Well, I think to be more specific or more pure about it, probably from the decompression, but I was just taking it to the time of incision, which is, you know, kind of more specific point in time and certainly an earlier point in time from that standpoint.
Q. If we were to be more precise and take it to the time of compression you would then adjust that 47 hours 15 minutes by an hour

Page 2

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

Page 22

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

Page

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

Page 24

minutes total, so the surgical incision, assuming that time line from the first presentation, I have surgery start at 0213. And then I calculated, then, the time interval from the injury to that kind of hypothetical incision after the first emergency visit, and that's the 34 hours 13 minutes versus the true incision, which was 47 hours 15 minutes, resulting in the 13 hour two minutes delay of the hypothetical to the real incision time.
Q. Okay. And if we were to revise that to reflect the point at which decompression was completed, would you once again change that time frame to 35 hours and 13 minutes and 48 hours and 15 minutes?
A. Yeah, I don't *think* the net changes, but the absolute changes, correct.
There's some other little notations here.
Q. I'msony.
A. I think it was just where I was doing my mathematics. I think at some point it occurred to me whether I forgot about the time for the MRI, but that was encompassed in that

Page 25

other time. So that's why there's some scratchings.
Q. In terms of what you've reviewed, what I would like to be able to do is make -- do you have access to a color copy machine, or you can provide these to the court reporter and we can get color copies of things that you've highlighted?
A. The answer to your first question is no. The answer to your second question is, fine with me.
Q. It will help speed things up that way.
In terms of what you've reviewed, if we could just go to the index, you were provided with medical records from the Reminger law firm, correct?
A. Yes.
MR. MALONE: I would say medical records by the Reminger law firm. We don't provide medical care. At least we used to, but we've stopped.
MR. LINTON: Have you stopped that?
MR. MALONE: Yeah.

Page

A. I wrote, "I agree with his impression/diagnosis, but 80 percent is not supported by any literature I'm aware of," and then I put, "Indiana study". I-n is Indiana study.
Q. What did you mean by that last part?
A. By which last part?
Q. The Indiana study.
A. I'm familiar with a study regarding this kind of syndrome that came from a group, I believe, in Indiana.
Q. That you believe supports or refutes Dr. Bell's position?
A. I believe it refutes his position, or supports my position.
Q. Okay. So your note was that you don't believe there's any literature that supports it and, in addition, you think there's an Indiana study that refutes his position?
A. In regard to the 80 percent statement he makes in his letter.
Q. What did you mean when you said you agree with his impression regarding diagnosis?
A. I said I agree with his

Page 26

MR. LINTON: Okay. Maybe you ought to start again.
MR. MALONE: We may, we may. We have some people who know what they're doing. We can perhaps help some folks out.
THE WITNESS: It's his time.
MR. MALONE: Yeah.
Q. Those records consist of, number 1, our expert reports; number 2, discharge summary from Hillcrest Hospital dated 1/22/80; number 2, 9/13/90 ER visit; number 3, a 9/4/96 -- the first ER visit involved in this case, is that right?
A. Yes.
Q. Number 4, the second ER Visit, from 9/5/96; number 5, the 9/5 through 9/10/96 admission; number 6 is the 9/27 through 9/28/96 admission; number 7 is miscellaneous radiology reports; number 8 is miscellaneous lab reports.
There's a stick-um that I assume has your handwriting on it at page 4 of Dr. Bell's report?
A. Correct.
Q. And can you read that for us, please?

Page 2

impressions/diagnosis.
Q. What was his impressions/diagnosis?
A. Well, basically his impression of the clinical scenario, syndrome, and then his diagnosis as to what -- basically everything he's discussing in the letter up to that point.
Q. So the only thing you really disagree with in his report is his finding that there would have been an 80 percent likelihood of improvement had surgery been done after her first presentation as opposed to after her second.
A. Based on the time line that I was provided, that's correct.
Q. You agree, I saw in your report, that she did present on September 4, 1996 with cauda equina syndrome.
MR. ROSMAN: Objection.
A. I'm sorry. I agree what?
Q. That on September 4 of 1996 Bonnie Pikkel presented with cauda equina syndrome.
MR. ROSMAN: Objection.
A. Findings consistent with that, yes.
Q. Okay.

Page 29

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

Page 30

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

Page 3:

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

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

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

Page 3

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

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

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

Q. Anything else that would be on your list?

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

Page 34

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

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

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

Q. On September 4, 1996.

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

Page 3

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

A. I'm not saying it is --

Q. Prior to 36 hours --

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

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

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

MR. LINTON: Same case.

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

A. I'm sorry. Say again?

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

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

Page 3'

Q. So you're going to see if there is something going on in the spinal cord or in the nerve roots that are interfering with bladder function.

A. On the basis of my ability to examine the nervous system and try to put all the pieces together, so to speak.

Q. And assuming she is your patient and presents with an inability to void for *26* hours following chiropractic manipulation, what do you do to test her to see if there is a neurological basis for this?

A. Well, I generally would do a neurologic exam, which would include as part of, I think, the neurologic exam, a rectal exam.

Q. And is that a difficult examination to do?

A. It's not difficult for me to do, no.

Q. Does it take a lot of time?

MR. MALONE: Would you like him to do one on you? He can show you.

A. Well, I think that in my hands at least I could do what I would think is a competent exam in 15 minutes, and if I was

Page 38

finding things that I was concerned about I may have to extend that another ten, 15 minutes just because if things are normal you can exclude a lot of things. If you start finding abnormalities there may be additional exam findings you may want to pursue. But I *think* as part of a -- I *think* I can do a reasonably thorough exam to rule in or rule out a neurological issue within maybe a 15-minutetime frame, and then extend that if I need to.

Q. Are you talking now total exam or time for a rectal exam?

A. I'm talking about total exam. Rectal exam--

Q. How long would the rectal exam take?

A. I mean, you know, probably a couple of minutes. Just getting the people involved and doing it and --

Q. What you'd be looking for in that couple of minutes would be whether there was rectal tone?

A. Well, you can test rectal tone and you can test the rectal reflexes. This lady at some point did have a catheterization, and one

Page 3

can use that to your exam benefit by testing reflexes.

Q. How do you do that?

A. In a woman you would just pull on the catheter and see if she has a rectal reflex.

Q. What would you do to check for perineal numbness?

A. Well, I don't check for perineal numbness. I check for the intactness, if you will, of perineal sensation. And that could be to touch, that could be generally to pin-prick, which is another sensation. I *think* that's generally what one limits oneself to. So I would just, myself, tactilely examine the patient and see if they perceive that as anything abnormal, and then also check their perception of pin-prick as to its sharpness, and certainly comparing it to areas that don't seem to be clinically involved by any stretch of the imagination.

Q. Is that a difficult examination for you to do?

A. No, I wouldn't think that's difficult.

Page 4(

Q. How long would it take?

A. Well, again, if you start finding abnormalities you may have to expand upon it but, you know, a couple, five minutes for a sensory exam is probably a reasonable ballpark figure, for a focus sensory exam such as that.

Q. When did you first learn how to do a pin-prick examination to check for sensation in the perineal area?

A. Well, I don't have a specific date of recollection. Generally in medical school you do physical diagnosis, which includes the physical examination. I think at the end of your second year, because you're preparing for your third year clerkship.

Q. So you would have known back in medical school how to do a routine examination that would have included a rectal as well as a pin-prick sensation of the perineal area.

A. Well, as I say, that's when you're instructed how to do it. You may perfect your examination over time, but that was, I think, our first introduction to physical examination.

Q. It would be fair to say all medical

Page 41

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

Page 42

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

Page 43

you know, shortly immediately after that.
Q. What specifically caused the incontinence in Bonnie Pikkel's case?
A. She had loss of nerve input to her bladder.
Q. Caused by what?
A. Caused by the compression on those nerve roots that go to the bladder.
Q. What specifically was compressing what **part** of the nerve?
A. I think the big ruptured disc fragment was compressing the nerve root.
Q. Do you know how much of the nerve roots that go to the bladder were being impinged by that large disc fragment?
A. I don't know what you mean by "how much".
Q. Is there any way that you can determine how large of an area of nerve root was being compressed by the disc fragment?
A. Well, no, I don't think -- it doesn't take -- I mean, a nerve is a fiber, and a fiber only has to be functionally disrupted at a point to be dysfunctional. What I do know is, in order

Page 44

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

Page 45

bilaterally and, in general, absence of S2 bilaterally you lose bladder control. It may also require, you know, **3,** but generally 3 alone, 4 alone you don't lose bladder control. **2** you lose bladder control. 1, you will not lose bladder control. It's usually S2, is the key level, and it has to be bilateral.

Q. So it would be your assumption in this case that the free fragment was compressing the S2 nerve root bilaterally.

A. Free fragment or fragments. I mean, it may not just be one -- I don't know his actual description, but it's -- the compression requires -- it was a requisite that both sides were compressed.

Q. When did the compression occur?

A. When the disc herniated, and I believe the disc herniated at the time of the manipulation.

Q. What is the basis for that belief'?

A. Which belief?

Q. That the compression began at the time of manipulation?

A. That's when the symptoms developed.

Page 46

Q. What symptoms?

A. The retention, primarily.

Q. Is it your belief that the perineal numbness would have began at the same time?

A. It's generally -- it could generally be coincident with that, yes.

Q. Iwantto be --

A. Certainly I think that the bladder retention is documented with a time onset, to my knowledge, and that's -- that clearly, to me, required both nerves involved to a significant degree, and numbness alone could have been pre-dating that. Numbness alone could be a little difficult to recognize on some patients' parts, but clearly the retention at 26 hours or the onset of that retention suggests to me that's when those nerve roots became functionally impaired.

Q. What's required in the way of compression to cause perineal numbness?

A. What's required -- some element of compression.

Q. At what level?

A. It could be variable, because -- I don't know what side the numbness is on, I don't know how extensive the numbness is. It doesn't necessarily even require nerve compression. People sit on -- will tell you they sit on themselves for a long time and they get numbness, so --

Page

Q. In Bonnie Pikkel's case do you believe the compression that was causing the bladder incontinence most probably also caused the perineal numbness?

A. Yes, I ***think*** -- you know, putting it all together, certainly.

Q. And that both the perineal numbness and the bladder incontinence would have begun at the time of compression.

A. No, I didn't say that. I **think** -- I know the time of onset of the bladder difficulty, that's documented, you know, in a statement in the records. The numbness may have, to some degree, pre-dated it or may have -- pre-timed it or come on a little afterwards. I don't know.

Q. So --

A. I don't recall. I'd have to see if

Page 4

there's a reference to that timing. But the -- the numbness I would put together with all of that. I don't recall the exact -- but it is a statement as to the onset of that.

Q. Just from a mechanical and neurosurgical standpoint, wouldn't you have them beginning at the same time? Isn't that the more reasonable explanation for perineal numbness and incontinence in a woman with cauda equina syndrome like Bonnie Pikkel?

A. Well, I think that's a reasonable assumption. The question is, does the patient recognize it as being of simultaneous onset, because, again, one is somewhat more -- is a sensory thing, the other **thing** is, obviously, a very obvious motor problem, and they may or may not recognize that they have numbness. I would recognize it on an examination. **A** lot of people don't recognize the numbness or the loss of sensation that they actually have until you examine them. So --

Q. That's why it's important to conduct a physical examination of somebody presenting with cauda equina syndrome symptoms like Bonnie

Page 4

Pikkel did on September 4, 1996, correct?
A. I think it's always important to do a physical examination.
Q. Because the patient may not subjectively be able to feel whether they still have numbness or whether their numbness persists.
A. Well, I think I already stated that.
Q. correct?
A. Correct. Mm-hmm.
Q. What symptoms would you expect to have developed with the disc herniation that Bonnie Pikkel had causing her cauda equina syndrome?
MR. ROSMAN: Could you give that question over again?
MR. LINTON: Sure.
Do you want to read that back, please?
(Record read.)
A. What symptoms would I expect her to have or what did she have?
Q. Start, first of all, what would you expect her to have?

Page 5

Q. Would you agree that cauda equina syndrome is a medical emergency?
A. It depends on the context of the presentation.
Q. In the context of Bonnie Pikkel's presentation?
A. I think it's an acute presentation which represents, you know, medical/surgical emergency.
Q. So in your opinion it's both a diagnostic emergency as well as a surgical emergency?
MR. MALONE: He said if it's an acute presentation.
Q. In Bonnie Pikkel's case this is acute cauda equina syndrome, isn't it?
A. Yes.
Q. And is that both a diagnostic emergency as well as a surgical emergency?
A. You mean that it should be diagnosed with -- as -- in an emergency fashion?
Q. Yes.
A. Is that what you mean by a diagnostic emergency?

Page 5C

A. I think one of the things I would have expected for her to have is a lot of back pain, or acute, severe back pain.
Q. And is that something that can resolve or remains?
A. I would generally think that would be very persistent.
Q. Okay. What else besides persistent back pain?
A. For the level of this, I think then the main things you look -- as far as symptoms, are the bladder and, you know, potentially bowel complaints and possibly leg pain complaints.
Q. Okay. And perineal numbness?
A. Well, then the numbness would be a complaint potentially, so that they could have.
Q. Anything else?
A. I mean, it's possible they complain of difficulty walking either secondary to their pain -- but the main -- you know, that would be the main complaints, would be back pain, potentially leg pain as complaints, the difficulty that they recognize with the bladder, potentially some numbness around the buttocks.

Page 5

Q. Yes, sir.
A. I'm not familiar with that term.
Yes.
Q. In fact, you noted in this case the MRI was ordered emergently?
A. It was ordered through the emergency room, yeah and done pursuant to that request.
Q. And Dr. Bell's surgery was likewise performed as emergency surgery.
A. correct.
Q. What would be the expected outcome in a patient like Bonnie Pikkel if she did not have any surgery with her -- following her cauda equina syndrome?
A. I think she would have permanent neurological deficit of the nature she presented with.
Q. And that being loss of bowel and bladder, permanent perineal numbness, loss of sexual function?
A. I'm not sure -- what do you mean by "sexual function"?
Q. Ability to have orgasm, engage in sexual activity because of perineal numbness in

Page 53

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

Page 54

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

Page 5

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

Page 5

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

Q. Bid you perform any literature search in connection with this case?
A, I think you asked that previously. I saidno.
Q. Did you review any textbooks or any medical publications of any kind in connection with this case?
A. No.
Q. Are you familiar with any specific medical textbooks that address the diagnosis and treatment of cauda equina syndrome?
A. I'm sure, you know, all the standard neurosurgical texts, neurological texts, probably urological texts.
Q. Which standard neurosurgical texts would you expect to address the issue?
A. There are many. The most common ones nowaday are, there's a multi-volume by Youmans. I don't even know who the current editor is. There's a multi-volume by Wilkins & Rengacherry that I'm sure reference that. There's some neurological -- neurology books. I don't use -- I frankly don't use those much any longer. I'd be talking about things that I used when I was

talking about textbooks, you're not talking about literature. You're talking about specific publications that would be generated addressing cauda equina syndrome.
A. Like I say, there are different types of publications. There are review articles, there are, you know -- what we call new contributions types things. I don't have any specific citation I could give you, but generally cauda equina syndrome could be discussed in the context of a review article in a primary sourcejournal or it could be discussed as a symptom complex in the context of other issues that are being published or presented.
Q. What neurosurgical journals do you subscribe to?
A. Journal called "Neurosurgery" and then "The Journal of Neurosurgery". Those are the two that I more regularly relate to.
Q. Has the standard of care in terms of the diagnosis and treatment for cauda equina syndrome changed during the time in which you have been practicing neurosurgery?

in training and in school.
Q. Do you --
A. They all reference those things.
Q. What neurosurgical literature do you subscribe to that you would expect would address cauda equina syndrome and the treatment of cauda equina syndrome?
A. Well, I generally now, you know, relate to primary source, meaning new publications. That syndrome or that problem will be addressed insofar as some publication that is looking at something that it's part of. Maybe occasionally they'll have a review article on the subject, but in general primary sources is looking at other things of which this might be one of the symptoms, complexes in the patient presentations.
Q. Do you have any medical publications that you know of that would address that, that issue of cauda equina syndrome?
MR. MALONE: You mean that he's written, Bob? Are you asking about his publications?
Q. As I understand it, you're not

A. Well, it has insofar as the technology has changed in that time frame. You know, it's -- it's whether you eat on paper plates, glass plates or china, it's still a plate, so we still go to an investigative study, but I go back to the era of myelography, then we had CT myelography, and now we have MRI scans, so I *think* the standard of care changes or is influenced by the technological changes, too, but the fundamentals I don't believe change very much.
Q. The fundamentals in terms of making a clinical diagnosis haven't changed, have they?
A. No, the fundamentals of making a clinical diagnosis addressing whether there's structural pathology and then dealing with it surgically. Again, all those things may change due to technology or some technique change, but the fundamentals are the same.
Q. And you have been a practicing neurosurgeon since when?
A. You'd have to define a little better maybe "practicing", but I've been doing neurosurgery, from my training, now, it's going

Page 61

on 25 years.
Q. And you're measuring that 25 years going back to when?
A. Myresidency.
Q. When was it you were an independently practicing neurosurgeon?
A. I completed my residency, I guess is what you're asking, in 1983, so it's almost 18 years. A long time.
Q. Time flies?
MR. ROSMAN: That's about as long as you've been practicing law, Bob, isn't it?
Q. Doctor, we've marked as Exhibit number 1 your CV. Is that a current copy of your CV?
A. I think it's reasonable -- it's current with regard to the information.
Q. Is there anything that needs to be added to that to make it current, or anything taken off of it?
A. I -- I mean, the best answer to that is, I print the one that's in the computer now, and if there's any differences, those would be the changes.

Page 62

Q. To the best of your knowledge --
A. I mean, the substance is the same.
Q. Who are you presently employed by?
A. We have what's called a -- I forget -- a split employment. The University of Massachusetts Medical School, and what's called UMass Memorial Health Care. One is, obviously, the school. The other is a health system corporate, so we get two checks, two W-2s, that sort of thing,
Q. You're currently licensed to practice neurosurgery in the state of Massachusetts?
A. I'm licensed to practice medicine in the state of Massachusetts. You're not licensed in a specific sub-specialty or specialty.
Q. But you are board-certified in neurosurgery?
A. I'm board-certified, that's correct. And I'm credentialed, but I'm not licensed.
Q. Do you have continuing medical education requirements?
A. Fortuitously I just recently filled out my licensure renewal, yesterday, so I know the state has that, yes.

Page

Q. What is required to keep your license?
A. They have a minimum number of hours. I think it's a hundred total and 40 Category 1, it's called, and I think it's in the interval of renewal, which is either two or three years.
Q. And who is it that keeps track of your CME requirements? Does your secretary do that?
A. Well, the state doesn't have any requirement that you produce documentation. Generally when you go to meetings they send you these little slips. I just keep those slips. I don't give them to anybody.
Q. Do you have a file that would have your CME course requirements showing that, in fact, you attended various courses to maintain your certification?
A. Maintain my licensure, you're saying?
Q. Yes.
A. I'm sorry. Say that again?
Q. Do you have a file that would keep a listing of the courses you attended to keep your license?

Page 6

A. I have a file I put those papers in. It just says, "You attended such and such a meeting," and how many hours it was, but I know from the standpoint of the requirements, that I always exceed that, so I really don't -- and I'm not asked -- the licensure doesn't ask that you provide that documentation, so I really haven't kept any kind of annotation or record of that. I just kind of throw them in a file.
Q. Have you attended any CME courses that address cauda equina syndrome?
A. I'm sure in the context of the proceedings of the meetings that I've gone to someone may have been discussing that. I don't know what time frame you're talking about, but at some point I'm sure they discussed that. I don't have a specific recollection of hearing a paper, you know, addressing that other than the one I mentioned earlier from Indiana.

Page 65

Q. Where was that presented?
A. It was at the -- I believe it was at the spine section meeting and it was, you know --I've gone to the spine section meeting pretty regularly since it started, which is about 14 years ago, and I would be guessing it was probably in the last five to eight years. I don't recall exactly when I heard it. But I recall going and hearing that.
Q. But that's the only presentation you can think of that you've attended that specifically relates to surgical outcomes and cauda equina syndrome?
A. Well, I -- that I recall. I mean, it impressed upon me -- you know, you come away from these things trying to learn something, and at every meeting you may find one or two things that really stick in your mind as something valuable to come away, and that was one of those times that I thought this was very valuable to come away with.
Q. What was the impression that you left with that was so valuable?
A. Well, the content and really the

Page 66

message of that discussion, which related to the time frame of addressing cauda equina syndrome from acute disc herniation, which is exactly what was presented, as I recall, but it would also relate to other possible mechanisms of cauda equina syndrome.
Q. What was the message that you left with regarding the time frame?
A. With -- most importantly with regard to recovery, that if decompression was accomplished within 12 hours there was very good recovery generally. If it was accomplished within 24 hours you still had the chance for recovery. If it was not accomplished within 24 hours, that the chance for recovery was very poor.
Q. And that's the time frame you relied on in giving your opinions in this case?
A. That's the best knowledge base, plus my own experience to some extent, but my experience didn't really look at it specifically from a, you know, absolute hour standpoint, as well as this group looks specifically at the hours.

Page (

Q. In all fairness, you haven't performed any scientifically-reliable studies of your own patients regarding surgeries and outcomes?
A. With cauda equina syndrome?
Q. Yes, sir.
A. I haven't had that interest or opportunity.
Q. Likewise, I assume, you have not published, authored or edited any medically-reliable publications or writings relating to surgical outcomes and cauda equina syndrome?
A. I know I haven't done the two former. I am on an editorial board, and maybe there was an article that came along about that. I don't have a recollection of it.
Q. None that you have written?
A. No.
Q. So the basis, again, for your belief of this 24-hour window would have been this paper that was presented at the spine clinic that talked about a 24-how time frame for successfully treating cauda equina syndrome?

Page 6

MR. MALONE: And his own experience. That's what he testified to, Bob.
A. The spine meeting, not spine clinic, and I thought that was a very seminal presentation.
Q. Which was the basis for your opinion in this case.
A. Very primary basis, yes.
Q. Could you define for me -- first of all, do you have any sub-specialties or areas of research interest within neurosurgery?
A. Yes.
Q. What are those?
A. Well, in the past and currently my areas of most interest would be complex spine and pain, and in the past I also had involvement with epilepsy. I don't have the time currently to be that involved with that. But I'm still very much involved with chronic pain management and complex spinal management.
Q. Could you divide for us your professional time in terms of how much is with surgery, how much is with clinical practice, how much is with teaching, how much is with

Page 69

administrative responsibilities?
A. Well, again, fortuitously, we have to put in our -- on the licensure form they ask you just that kind of stuff, so I gave them an answer. I put down that my outpatient work was 16 hours, my inpatient work, which I would include surgical time and all the paperwork associated with the care of those patients, as 44 hours, and et al., kind of administrative stuff pursuant to my position as chief of the division, about ten hours.
Q. Are you currently --
MR. ROSMAN: What was that last figure, Doctor?
THE WITNESS: Ten hours.
MR. ROSMAN: Thank you.
Q. Are you currently teaching medical students or residents in the form of classes?
A. No, we have very limited involvement with medical students. Our involvement with house staff would be of the general surgical house staff and orthopedic house staff, and most of that is done kind of in the apprenticeship of -- on the wards and in the operating room.

Page 7

of the medical school is a research effort that's under the auspices of the medical school, and we have faculty involved in, you know, laboratory research.
So my position as chief and professor kind of involves and oversees those efforts done under the academic commission, which involves a limited degree of undergraduate, some postgraduate, and then research involvement.
Q. When you listed on your application the hours that you're spending do you list any hours being spent in your academic position?
A. I put that in the ten, I think. I just --.
Q. Of the ten hours how much would be dedicated to academic responsibilities versus administrative responsibilities, being chief of neurosurgery?
A. Well, you know, I -- these would be gross estimates, because we're involved with residents, you know, on an ongoing basis. That's part of the inpatient, clinical and all. But I like to think that we try to teach and be involved in the academic mission all the time,

Page 70

Q. Are you still a professor?
A. Yes.
Q. What do you do as professor of, I assume, University of Massachusetts?
A. What do I do?
Q. First of all, you are a professor at the University of Massachusetts Medical School?
A. Yes.
Q. What do you do as a professor?
A. Well, the medical -- well, again, the medical school or the -- you know, also involves the post-graduate education, which is the house staff.
We do have limited involvement with medical students. I have other faculty in the division that I've delegated some of those responsibilities. But neurosurgery has a very small, you know, didactic lecture, probably, with the medical school. We have the grand rounds which primarily involves other house staff and other faculty. And then we have, as I said, the on-the-ward people with the general surgery and the orthopedic residents, which is part of the postgraduate education. Also, part

Page 7

but, I mean, specific didactic things, me personally it's very, very limited because I don't have the amount of time to do it.
Q. "Limited", less than an hour a week?
A. Yeah, at most.
Q. You said something earlier. Am I correct you do not have a neurosurgical residency program here?
A. That's correct.
Q. How many other professors of neurological surgery are there at the University of Massachusetts besides yourself!
A. You mean full professors or full-time faculty? Some people just use "professor" as a generic term. You have assistant professor, associate professor and professor, so --
Q. Professors of any level.
A. There are four full-time faculty.
Q. And you're one of the four.
A. Correct. Then there are two clinical faculty that have appointments.
Q. How much of your time is spent doing legal work such as this case?
A. Percentage-wise, hour?

Page 73

Q. However you can quantify it.
A. You know, I would --just -- probably less than two percent, two percent maybe.
Q. How many cases, medical malpractice cases, do you review on a monthly basis or on a yearly basis?
A. It probably generally comes in at about one case a month. It comes in spurts and then --.
Q. Are you currently a member of any service that markets your services?
A. Yes.
Q. What services?
A. The names of them, you mean?
Q. (Nodding.)
A. There's a service out in San Francisco -- I believe it's San Francisco, or Oakland -- I believe it's called American Medical Forensics, or something like that. Then there's a place in, I believe it's Bluebell, Pennsylvania, called Medical, I think, Advisors, Inc.. and then a lady in the Chicago area who called her service Expert Medical. It's very limited on my part.

Page 74

Q. What about Comprehensive Medical Consultants, Inc?
A. In the past. He's no longer involved. He's been out of that for about four, five years.
Q. Do most of the cases that come to you come through a referral source?
A. No.
Q. Do the outfits you've identified refer primarily one type of case, that is a patient versus a health care provider?
A. Well, just -- Comprehensive was usually --
Q. That's defense?
A. -- defendants, right. The others -- I've only gotten one case from the place in San Francisco, I believe, and that was a plaintiff case, and the other two services have been plaintiff cases.
Q. Did your involvement in this case involve a service?
A. Not to my knowledge.
Q. Do you track the number of surgeries that you do in a year?

Page

A. It's tracked for me. I also keep a record, yes.
Q. How many procedures do you do a year?
A. About 300.
Q. Do your records break those down by type of procedure?
A. It could be done that way,
Q. Do you know what percentage of your surgeries involve spine versus brain?
A. Oh, as I said, my interest is, you know, chronic pain and spine, so it's probably 95 percent spine, because most of the brain I do either emergency procedures or occasional procedure when I'm on-call.
Q. Am I correct that you've made no effort to put together a reliable study of outcomes for acute cauda equina syndrome in your own practice for purposes of this case?
A. For any purpose.
Q. Okay.
A. Haven't done that yet. Maybe in my next life.
Q. If you had a few more hours in a day?
A. Mm-hmm.

Page 7(

Q. Are you able to tell us specifically how many surgeries you've done for acute cauda equina syndrome?
A. No.
Q. Can you give us an estimate?
A. Acute cauda equina syndrome? Can you define that?
Q. How would you define it?
A. I would define it as symptoms with, you know, less than 24 to 48 hours symptomatology, frankly. That's very few.
Q. "Very few" being less than three?
A. Well, less than six. I mean, I've seen many more that have been subacute or chronic, I'm sure, than acute.
Q. When was the last one that you had?
A. Of an acute one?
Q. (Nodding.)
A. It's been a couple of years. A couple, three years. I don't think I've had -- from a ruptured disc or in general, but I don't think I've done one since I've relocated to Massachusetts. That would be at least maybe three years.

Page 77

Q. And you came here in '98?
A. Summer of '98, yeah.
Q. So it would have been while you were still at Vanderbilt?
A. correct.
Q. Do you remember when while you were at Vanderbilt?
A. No.
Q. Are you able to remember any details about that surgery?
A. You mean clinical details, technical details? What do you mean?
Q. Clinical details.
A. I remember two people. I remember being called by a woman in the middle of the night who had that syndrome, and I operated upon. I remember another fellow, an Oriental fellow, came to the emergency room. A young guy, that it was kind of unusual that I operated upon. Those are the two that I recall.
Q. Would those have been sometime during the 1990s?
A. I would think so, yeah.
Q. The Oriental man was through the

Page 78

emergency room?
A. Yeah, he was a young fellow. It was kind of unusual for having a ruptured disc.
Q. Do you know how long after onset you performed the surgery?
A. I don't recall that. I know I performed it, you know, within hours of his presentation to the emergency room. I don't recall the actual context, but I think it was very soon, he came to the emergency room, after his -- certainly his symptoms appeared.
Q. I assume you were consulted by the emergency room in that case?
A. Yes.
Q. Did the emergency room physician call you?
A. No, called the resident.
Q. The neurosurgical resident?
A. Right.
Q. Who then called you?
A. Right.
Q. And you treated it as a surgical emergency?
A. Correct.

Page 7

Q. You said it was the middle of the night.
A. No, I don't recall that he was the middle of the night. The other one was the middle of the night.
(Ten-minute recess.)
Q. Doctor, I want to go back to the acute CES cases that you have been involved in. You mentioned the one involved a call from the emergency room to the neurosurgeon resident to you, and you came in for emergency surgery. In that case what were the patient's presenting symptoms?
A. I honestly don't remember specifically.
Q. Can you say --
A. I know he had a lot of back pain. I remember he was in excruciating back pain with terrible spasm.
Q. Did he also have incontinence?
A. I -- I would be speculating. I know he had significant concerns about neurological function. I don't recall the specifics on this one.

Page 8

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

Page 81

A. My recollection is it was very brief. That's why I considered it acute. But I don't know the number of hours --
Q. "Brief" being within 24 to 48 hours.
A. correct.
Q. Do you know what the outcome was following surgery?
A. I don't recall.
Q. The other call came in the middle of the night?
A. Right. That I recall a little better.
Q. What do you recall about that?
A. I recall it because it was in the middle of the night.
Q. Right.
A. But that was a woman with acute urinary retention or difficulty voiding. And had a big ruptured disc.
Q. And how was that case referred to you?
A. I believe -- in Nashville we had a city hospital. I believe she originally went to the city hospital and was transferred over to Vanderbilt Hospital. The resident saw that

Page 82

patient, called me about it in the middle of the night.
Q. Did she present originally to the emergency room?
A. Yes, she was originally, I believe, an emergency room presentation.
Q. Do you know how long after the onset of symptoms you did your surgery?
A. I was called about two o'clock in the morning. We were in the operating room physically about six o'clock in the morning.
Q. Do you know from the onset of symptoms when it was, other than within 24 to 48 hours?
A. I don't recall how long she may have been having back pain, but certainly the urinary difficulties were from that previous day, afternoon, through that evening, into the early morning hours. So within that day.
Q. Within 24 hours?
A. Yes.
Q. So you would have operated on her within 24 hours?
A. From at least a urinary problem. I

Page 8

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

Page 84

exceptionally bad.
Q. I hear you, and I don't expect you to, but do you have any other recollection of your other acute cauda equina syndrome cases that we haven't discussed?
A. Not of the acute. I just -- you know, I've had a couple of sub-acutes since I've been here and some sort of chronic ones since I've been here, but not acute.
Q. How about sub-acute -- would you agree that acute cauda equina syndrome has a different surgical outcome than a chronic or sub-acute?
A. You know, I think in general acute processes will have different outcomes than sub-acute and chronic, because of that very nature. You know, I don't know specifically the difference between an acute presentation of cauda equina syndrome and outcome, particularly with regard to timing of surgical management, and the subacute and chronic, because there the timing of surgical management is going to be much less materially significant in my mind.
Q. Why is that?

Page E

A. Because I think that in the sub-acute or chronic contexts a few hours or even a day is of much less significance than in the acute context.
Q. And why is that?
A. Well, I mean, fundamentally because of our anticipation of either, you know, some recovery or no recovery potential, and the urgency of surgical management is much different in acute presentation than in a sub-acute or chronic because of the impact you feel you're going to make with regard to outcome.
Q. And the acute is the surgical emergency whereas the sub-acute and the chronic are not necessarily surgical emergency?
A. Certainly that's correct.
Q. And you can't transfer your experience in terms of surgical outcomes with the sub-acute and the chronic to the acute cauda equina syndrome cases, can you?
A. Well, I mean, you can transfer some of that experience, but --
Q. Aren't we talking apples and oranges?
A. Sorry?

Page 8

A. No. That's just a generic understanding of what we do neurosurgically.
Q. Okay. So getting back to your opinion concerning this 24-hour Window, what you relied on solely in this case is that one presentation of the Indiana study at that spine meeting that you attended. Isn't that fair?
A. I think with regard to the significance of the 24 hours, I *think* that's a very -- as I say, a seminal presentation. It certainly is consistent with my experience and it's consistent with a lot of what we think about in neurosurgery, but I think that the message there and the take-home information was very significant, yes. And that's -- that's, I think, the best knowledge base that I can provide in looking at this case, and what I think is the most important issue that I can address in this case.
Q. Is the window of opportunity for neurosurgical intervention.
A. With regard to outcome.
Q. And, again, you're basing it on that interest and that study.

Page 8(

Q. Aren't we talking apple and oranges?
A. I don't know if we're talking apple and oranges. Maybe apples and baked apple. And I'm not trying to be facetious, but I think there are some things you can relate, but specifically with regard to timing and urgency of surgery I think it's a different process possibly, and certainly has a different experience or outcome parameters, I guess.
Q. So the timing of surgery with respect to the sub-acute and chronic as relates to surgical outcome is different than in the acute context.
A. Yeah, I think that the timing of surgical management in the acute I think is of paramount importance. I think the timing of surgical management in a sub-acute and chronic presentation has much less paramount importance.
Q. Have you done any formal studies or medically reliable studies with respect to the chronic and sub-acute cauda equina syndrome cases and surgical outcomes?
A. Myself?
Q. Yes.

Page 81

MR. MALONE: Bob, you've got to stop that.
MR. LINTON: I'm not going to stop --
MR. MALONE: No, I'm going to make an objection. You're trying to torture his testimony. You're not going to convert his opinion into hearsay because he read a report and now he's recanting it. This is a board-certified neurosurgery professor for many, manyyears.
MR. LINTON: Jim, I don't need you to testify.
MR. MALONE: Well, I don't need you to distort his testimony.
MR. LINTON: I've asked the doctor --
Q. What other experience, Doctor, do you have with surgical outcomes in acute cauda equina syndrome cases?
MR. MALONE: He's answered those questions as far as you've gone with them. He told you on three occasions this report is not the sole basis of his opinion, that he's including his own knowledge, his own training, his own experience, but that it was a seminal

Page 89

presentation. You're not going to convert his testimony into some kind of hearsay, because he's not reading a report and then sitting here being paid to recite it back.
Q. Doctor, tell me what specific experience you have with surgical outcomes that you can recall besides the two acute cauda equina syndrome cases that we talked about.
A. I don't have any individual specific recollections. I mean --
Q. So you can't --
MR. MALONE: Let him finish his answer, please.
A. We don't recall every case we do.
Q. Do you have --
A. We have many cases of dealing With acute pathology in an urgent or emergent way, and we know that's the way acute pathology best responds to surgical management, and we have good results from that. The timing of how we approach things neurosurgically is based upon the timing, in essence, of the presentation, and the value to me of the presentation that I heard and the information that it provided me was to

Page 90

give me a parameter that made a lot of sense as to how we generally approach things, and actually defined it very well €or all of us, and it's not inconsistent with anything else in neurosurgery that we do, and it's very consistent with my own understanding of things, but it actually took the time to look at and define that time parameter, and I think that's why I said it's a very valuable piece of information,
Q. what you know clinically is that acute cauda equina syndrome is an emergency, correct?
A. Correct.
Q. And it's a neurosurgical emergency that must be dealt with as quickly as possible, correct?
A. Within that window of opportunity, you know, it gives you the -- within the -- and the logistics, that suggests that you -- as long as you're within that window of opportunity you might be able to wait from two o'clock to five o'clock in the morning, but if you're close to that Window of opportunity you certainly can't

Page !

wait until Monday morning. So --
Q. And the 24-hour window of opportunity that you talk about is based on the study. Correct?
A. Well, that's --
MR. mom: Same objection.
A. That's how the study looked at it and that certainly provided a good statistical parameter for me, based -- and it's very consistent with everything I understood and, in fact, it also provided a parameter whereby we might say, well, it's not as urgent as we -- you know, we could wait a couple of hours because we still have an opportunity. So, you know, we're often presented with a situation of, you know, do I got to go right now? Like I say, if the patient eats, you know, when are we going to -- when are we going to feel comfortable -- we never feel comfortable waiting when we're in an acute situation. This was a very valuable parameter to know, and there was a great significance to that parameter that you had a very good outcome within 12 hours, you had some outcome still at 24 hours, but beyond that was

Page 9

pretty dismal, and the message was, as I recall, the message -- one of the messages was, you know, you can't wait 'til Monday morning if they come in, you know, over the weekend kind of thing. And that's important for me and it's important for us, not that I ever thought we should wait 'til Monday morning, but the value of primary source material like that is people who do sit down, take the time and collate the data and present it in a way that all of us can then utilize in, you know, a respectable and valuable fashion. It's data, it's true. It's not opinion, in my mind. It's true.
Q. And you did not compile any similar data from your own clinical experience.
A. No, I never had, as I said, the interest or the opportunity. I just based it on my -- I mean, how I generally practice in that regard is what you're taught and what you then understand as you proceed. I never took the time to go back and look at all that, and somebody else did, and I think it was very valuable information that I would feel is true.
Q. Did you keep a copy of the materials

Page 9:

he presented at that meeting?
A. I would often keep those things for a while, but in the course, certainly, of the move that we made, if I kept it I don't know where it is, and I don't know that I kept it, frankly.
Q. Do you presently have any materials that you can produce for us that have a 24-hour window in written form?
A. No.
Q. Do you know of any published standards or published studies or literature that addressed the window of opportunity for neurosurgical intervention with cauda equina syndrome?
A. No.
Q. Are you aware of studies that show that even after 24 hours there can still be recovery in neurological function if surgery is done on cauda equina syndrome?
A. I'm not aware of any studies, but I don't -- I don't doubt that there exists and I don't doubt that that's a possibility. The message from the study that I'm relating is the fact that there's a significant difference in

Page !

frame of 12 versus 24 or greater than 24 hours.
Q. But you can't say how much.
A. I don't recall the gross percentage number, but it was a statistically significant difference.
Q. What would be a significantly statistical difference in your mind?
A. Oh, no, I'm saying statistically it was significant. I mean, I *think* it was -- I don't recall the gross numbers, but based on the number of patients they had and the outcome results, there was a statistically significant difference between those patients who presented and were operated upon in less than 24 hours and those patients who presented and were operated upon at greater than 24 hours. That's a mathematical statistical fact. I don't recall whether it was 90 versus five percent. It could be 90 versus 80 percent and still be statistically significant.
Q. But you --
A. But my recollection was that you had a very poor chance of recovery, and I don't know the number, but a poor chance of recovery if it

Page 94

those time frames. Not that it cannot occur, but there's a significant difference in outcome between or among those three time frames. And that's what generally presentations are discussing. Not that one cannot happen, but statistically and significantly there's going to be a difference in either two or three or any number of groups based on treatment, timing, whatever you're looking at. So it's not an either/or or absolute. It's a statistical significance, and that's what the message was out of that study.
Q. From that study, the Indiana study, what was the percentage of recovery for those patients operated on for acute cauda equina syndrome within 24 hours?
A. I don't recall the exact number, but there was -- there was -- it was -- there was a significantly greater difference if it was before than after 24 hours and much better if it was within 12 hours, and I don't remember the gross number, but the gross number wasn't, in essence, the significant message. It was that there was a major statistical change in the time

Page 9(

was over 24 hours, a very good chance of recovery if it was under 12, and still a reasonably good chance at under 24, and it was statistically significant at 24 hours.
Q. You can't tell us what those numbers axe.
A. I don't recall the specific numbers.
Q. You can't estimate what those numbers are.
A. I would be speculating.
Q. Fair enough. As a neurosurgeon you're not critical of anything Dr. Bell did in this case, are you?
A. Other than the statement of the 80 percent, in that sense, no.
Q. In fact, if you were called in you would have done the precise surgery that Dr. Bell did, would you not?
A. I'm sure I would have, yes. I haven't looked at the specific details of how he did it, but, again, what he did is entirely appropriate.
Q. Why would you have come in to do the second surgery? Excuse me. Why would you have come in to do the surgery after Bonnie Pikkel

Page 97

presented for the second time after the ER?
A, Because she had neurological deficit secondary to structural pathology, and it ought to be taken out.
Q. And it would be taken out for what reason?
A. To provide the maximum environment for recovery.
Q. Because you would believe even at that point, at 48 hours, there was still a statistical chance for further recovery.
A. Well, I would -- I would present the situation as I do in all cases, that she's got -- I think she's got a better chance of recovery with the surgery than certainly without the surgery. Then it's a matter of fact, the risks of the surgery, which should be reasonably low in a 47-year-old lady, so I'm trying to provide her with the -- with the environment, as I said, for -- conducive to recovery. The best environment conducive to recovery.
Q. Based on your --
A. I'm not going to deny her that opportunity in any way.

Page 98

Q. Based on your clinical experience, what would be her percentage of recovery if you did the surgery when Dr. Bell did it?
A. Well, With the deficit of that duration, my understanding was that it would be very, very small.
Q. Meaning what?
A. An absolute number?
Q. Or a range.
A. I -- I -- like I say, I would just tell her that my understanding was that for a deficit of that duration, I think it -- it's apparently small or unlikely that she's going to have full recovery.
Q. And what would be the specific percentage range?
A. I don't quote specific numbers. I just try to give them an understanding of possibility, but I think the chance of that is probably -- the chance of the recovery is greater than the risk of the surgery, so, therefore, the risk-reward ratio I would hope is in her favor.
Q. What would be the risk of

Page

complications for that surgery?
A. I think in an otherwise healthy woman it should be less than, you h o w , one percent, of anything profound.
Q. And what do you expect her chance of recovery to be? Five percent, ten percent, 25 percent? What would be the range of expected recovery at 48 hours post-onset of symptoms?
A. I don't know that I would -- like I said, that I would give her a number, but I think I could tell her that her chance of recovery without surgery is zero. So I would think that if she wants to, you know, get the most benefit we could possibly give, then I think surgery can provide that, and the risk seems to be very low.
Q. Would you agree that time is of the essence in treating cauda equina syndrome, acute cauda equina syndrome?
A. Acute, certainly, yes.
Q. And the sooner the surgery is done the better?
A. All things --
MR. MALONE: You already went through

Page 10(

that page, Bob, You asked all those questions.
A. All things being equal, yes.
Q. Would you agree the longer the disc compresses the nerve the less likely the damage is reversible?
A. Well, particularly in the acute syndrome that's true, yes.
Q. In acute cauda equina syndrome, likewise, the longer the disc compresses the nerve the more likely the damage will be permanent.
A. Was that a different question than the previous one?
Q. Yes.
MR. MALONE: Didn't sound it. I think it's the same question.
A. Could you repeat that last question again?
Q. Sure. With acute cauda equina syndrome the longer the disc compresses the nerve the more likely the damage will be permanent.
A. Well, I think that the longer the -- I think that -- if you're talking about

Page 101

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

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

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

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

A. Well, it --

MR. ROSMAN: Objection.

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

Page 102

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

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

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

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

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

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

A. I'msorry?

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

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

Page 1

four times.

MR. LINTON: With your help he has.

This will be five.

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

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

MR. MALONE: I am.

A. Can you ask the question again?

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

(Record read.)

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

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

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

Page 10

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

Q. Would there be a difference --

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

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

A. Between 35 hours and --

Q. Forty-eight hours.

A. -- 48 hours?

Q. Yes.

MR. ROSMAN: Objection. Asked and answered.

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

Page 10

-- I mean, statistically there may be a difference at 35 versus 48 hours, but the big significance with regard to outcome is at 24 -- less than versus greater than 24 hours.

Q. So I'm clear, based on your own clinical experience, Doctor, you can't tell us what the outcome would be between 35 hours and 48 hours, correct?

A. I haven't looked at that specifically, at those time frames, so I couldn't tell you specifically.

Q. Likewise, based on your own clinical experience, you couldn't tell us the difference between 30 hours and 50 hours.

A. Not an absolute number. It would just be an impression. It would be less but, again, I don't have a specific number.

Q. And any difference in outcome between 35 hours and **48** hours would be based on the Indiana study.

A. Any difference in outcome -- I'm --

Q. If you were to give any opinions concerning difference in outcomes at 35 hours versus 48 hours you would be relying on the

Page 10

correct?

A. That information that was presented, that's correct.

Q. You can't tell us who it was who presented it, correct?

A. I don't have a recollection of his name.

Q. Do you remember the title of the presentation?

A. No,

Q. And have you no Written materials that show us what was covered during that presentation.

A. Do I infer you're questioning my truthfulness? I swore to tell the truth here.

Q. Not at all, Doctor.

A. So what are you asking?

Q. I may want to get ahold of that study.

A. You can Write to the Spine Section and ask for every brochure of the program committee for the last 15 years and look through it. I don't have those --

Q. In what specific year was this

Page 106

Indiana study for your opinion.

A. To tell me that the possibility for a good -- for recovery at 35 hours was poor, and it's poor at whatever number you said -- 48 hours? -- compared to the window of opportunity of 24 hours.

Q. And that would be based on the Indiana study, correct?

A. Well, the Indiana study and, you know -- with specific reference to the timing of surgery for cauda equina syndrome they set that parameter.

Q. Right, and that's what you're relying on to give us an opinion concerning a difference in outcomes between 35 hours and 48 hours.

A. I think that's a very valuable parameter to have, yes.

Q. Right. That's what you're basing that opinion on, correct?

A. That's the *only* information I know to -- that addresses that specifically with regard to the likelihood of outcome of surgery of acute cauda equina syndrome.

Q. That being the Indiana study,

Page 10

seminar covered?

A. I ***think*** it was sometime in the Nineties, as I told you. I've gone to every meeting in the last 15 years, or almost every meeting.

Q. Can you tell us when in the Nineties it was?

A. I didn't go in the most recent ones, so I would say it was probably in the mid-Nineties. The early to mid-Nineties.

Q. And you've seen no other studies that address the issue of the success of surgical outcomes with acute cauda equina syndrome besides that one presentation. Correct?

A. That's the one that I've put in my data bank forever, and I don't know that there's ever been -- maybe there has, but to my recollection that was felt by everyone to be a very, very useful and, as I said earlier, seminal piece of data, because that question comes up all the time.

Q. You would agree, based on everything you know as a neurosurgeon, that if surgery was performed at 35 hours on Bonnie Pikkel, there

Page 109

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

Page 110

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

Page 1

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

Page 11

MR. **ROSMAN:** Objection.
MR. MALONE: Same objection.
A. I would think that's **part** of the process, yes.
Q. In addition to that, they would also be required by the standard of care to do a pin-prick examination for sensation in the perineal area?
MR. **ROSMAN:** Objection.
A. Well, at least some sort of sensory examination.
Q. And the standard of care would likewise require if, in fact, there was a ***urinary*** incontinence in a patient in which cauda equina syndrome was suspected, for an MRI to be performed.
MR. W O N E : This isn't a urinary incontinence case, Bob.
Q. Correct?
MR. ROSMAN: Objection.
MR. MALONE: I'm going to object. There's no suggestion of urinary incontinence in this case.
A. I **think** at some point that's the best

Page 113

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

Page 114

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

Page 11

hundred percent.
Q. So if acute cauda equina syndrome is suspected in a patient does the standard of care require an MRI to be performed if the MRI is available and there's no contraindication in the patient for performing the MRI?
A. If it's acute I think he ought to get it emergently.
Q. Is it appropriate for the physician not to order any diagnostic imaging studies, no MRI, no CAT scan, no myelogram?
MR. ROSMAN: Objection.
A. For an acute presentation?
Q. Yes.
A. I would think it's inappropriate.
Q. Why is that?
A. I mean, absent the fact that the patient is absolutely, you know, a contraindicated surgical candidate, or absolutely refuses to consider surgical management, I *think* you need to, in that clinical context, arrive at a diagnosis and find out if it's a surgical problem.
Q. And the only way to find out if

Page 111

there's a structural pathology involved like a massive disc herniation is to perform an MRI or similar imaging study, correct?
A. Or something, correct.
Q. If they failed to do that that would be below the standard of care.
MR. ROSMAN: Objection.
A. I think the value of coming to a diagnosis in that presentation I would infer to be below the standard of care.
Q. Why is that?
A. Why is -- why is -- do I infer that on --
Q. Why would that be below the standard of care?
A. Because it would result in a misdiagnosis or a delay in diagnosis of a problem that's an acute emergency, and would then, because of that, result in potentially irreparable neurological deficit.
Q. Are you able to quantify the amount of compression that a disc fragment or fragments like that in Bonnie Pikkel actually placed on the nerve?

7

Page 11

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

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

Q. Correct.

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

Q. So if --

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

Page 120

Q. How much --

A. That's significant to me.

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

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

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

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

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

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

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

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

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

Page 121

irrespective of what is done, but --
Q. In the case where you've got a massive disc herniation with cauda equina syndrome that causes perineal numbness which is then resolved, doesn't that suggest if you do surgery at that point in time you will arrest any further perineal numbness?
MR. ROSMAN: Objection.
Q. More likely than not?
MR. ROSMAN: Objection.
A. If it -- if the subsequent progress is due to the compression and you resolve the compression, you know, I would assume that you're going to prevent the recurrence. Like I say, if it's due to swelling, if it's due to some other effect, you know, I don't know, but in general if you're going to try to present that waxing and waning scenario one mechanism might be a concussive effect, but then there's some recovery and then a continued compression that results in the recurrence, sure, if you resolve the compression before the recurrence it's certainly less likely it will be than if you didn't resolve it.

Page 122

Q. Would it be below the standard of care if a physician who is qualified to diagnose cauda equina syndrome who sees a patient with a 26-hour history of urinary retention, who has perineal numbness that may have resolved, to simply place a catheter in that patient, diagnose the patient as having urinary retention, and send her home with no further diagnostic tests or studies?
MR. ROSMAN: Objection.
MR. MALONE: Objection.
A. I *think* that would be inappropriate.
Q. Why would that be inappropriate, in your judgment, Doctor?
A. Because I think that if you're going to -- if you're -- you think that you're having a diagnosis of cauda equina syndrome you need to rule out -- and it's acute, acute cauda equina syndrome -- you need to rule out any potential treatable cause, because we stated earlier that it's a surgical emergency. So I wouldn't think that there's any justification, if that's your diagnosis, for not investigating it further.
Q. How do you investigate it further to meet the standard of care?
A. Well, getting a diagnostic imaging study.
Q. MRI?
A. Well, we said MRI generally, yes.
MR. MALONE: If you have another line of questions we'll have to call this guy. It's now seven minutes past the hour, and he'll be downstairs in three minutes.
MR. ROSMAN: And I've got questions.
MR. LINTON: You do?
MR. ROSMAN: Yes, I do. But I've got maybe about five to ten minutes worth.
MR. LINTON: Probably have him come at 5:30.
(Short recess.)
Q. Doctor, in terms of the -- I'm going to shift focus now and talk about your experience testifying in cases like this.
Can you tell us approximately how many medical malpractice cases you've been involved in where you have provided expert testimony?
A. In court or in deposition, or what

Page 124

are you referring to?
Q. Well, let's talk about, first of all, how many medical malpractice cases have you reviewed?
A. I've been doing it about 15 years. I'd say, you know, about -- on the order initially of maybe five a year. Then more recently I said about maybe one a month, say 12 a year, so maybe on the order of a hundred, 150. I don't know.
Q. Isn't it true that the overwhelming majority of those cases, Doctor, have been for a health care provider, either a doctor or a hospital?
A. No, I don't *think* that's -- initially that was -- that was true. More recently it's, you know, much more balanced. I can't give you the exact balance.
Q. When was it the overwhelming majority of your time?
A. Just early on. Say the first number of years. But then recent -- then I started getting it from the whole plaintiff's side, and that started, so I -- I just review cases on

Page 12:

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

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

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

Q. Stillmore --

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

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

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

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

A. Maybe 30/70.

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

A. I've testified in other cases that

Page 12

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

MR. **ROSMAN:** Objection.

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

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

A. Does it surprise me?

Q. Yes.

A. No.

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

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

Page 12t

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

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

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

Page 12

expertise as to that issue, but --

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

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

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

MR. **ROSMAN:** Objection.

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

Page 129

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

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

MR. ROSMAN: Objection.

Q. Despite suspecting cauda equina syndrome.

MR. ROSMAN: Objection.

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

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

A. I don't recall the specifics there.

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

Page 130

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

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

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

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

Q. So the standard of care --

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

Page 131

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

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

MR. ROSMAN: Okay.

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

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

MR. ROSMAN: Objection.

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

Page 132

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

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

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

MR. ROSMAN: objection.

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

Page 133

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

Page 134

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

Page 13

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

Page 13C

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

Page 137

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

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

(Discussion off the record.)

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

Page 138

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

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

Q. So you think your opinion should be

Page 139

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

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

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

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

MR. LINTON: Objection overruled.

MR. MALONE: Don't answer the question.

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

Page 140

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

MR. LINTON: Let me rephrase it.

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

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

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

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

A. What issue are you referring to?

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

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

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

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

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

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

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

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

A. I don't believe so.

MR. LINTON: Thank you very much.

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

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

MR. MALONE: I don't want color

copies.

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

THE WITNESS: Those are just for tabs, so I know where the other things are, yes.

(Deposition concluded.)

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

BENNETT BLUMENKOPF, MD.

DATE

MI

ERRATA SHEET

I WISH TO MAKE THE FOLLOWING CHANGES IN THE FOREGOING TRANSCRIPT OF MY DEPOSITION

PAGE	LINE	CHANGE	REASON

DATE: _____ _____

MI

BENNETT BLUMENKOPF, M.D.

COMMONWEALTH OF MASSACHUSETTS
WORCESTER, SS.

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

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

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

My Commission Expires
November 19, 2004

Notary Public

The foregoing certification of this transcript does not apply to any reproduction of the same in any respect unless under the direct control and/or direction of the certifying reporter.

-B-

-C-

-D-

-O-

-P-

-Q-

-T-