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1	IN THE COURT OF COMMON PLEAS
2	CUYAHOGA COUNTY, OHIO
3	ZACHARY HAMMON, et al.,
4	Plaintiffs,
5	-vs- <u>JUDGE POKORNY</u> CASE NO. 209957
6	MARYMOUNT HOSPITAL,
7	et al., $Doc 456$
8	Defendants.
9	
10	Deposition of MAX WIZNITZER, M.D., taken as if
11	upon direct examination before Lynn D. Thompson,
12	a Notary Public within and for the State of
13	Ohio, at Rainbow Babies & Childrens Hospital,
14	2101 Adelbert Road, Cleveland, Ohio, at 4:50
15	p.m. on Friday, January 15, 1993, pursuant to
16	notice and/or stipulations of counsel, on behalf
17	of the Defendants El-Mallawany, Abrams and Brown
18	in this cause.
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20	MEULED & UACESTDOM
21	Court Reporters
22	Cleveland, Ohio 44115
23	FAX 621.0050
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1	<u>APPEARANCES</u> :
2	Christopher M. Mellino, Esq. Charles I. Kampinski Co. I. P.A
3	1530 Standard Building Cleveland Obio 44113
4	(216) 781-4110,
5	On behalf of the Plaintiffs;
6	Lisa Cerino Cabi, Esq. Habn Loeser & Parks
7	3300 BP America Building 200 Public Square
a	Cleveland, Ohio 44114 (216) 621-0150.
9	On behalf of the Defendant
10	Marymount Hospital;
11	Robert C. Seibel, Esq. Jacobson, Mavnard, Tuschman & Kalur
12	1001 Lakeside Avenue, Suite 1600 Cleveland, Ohio 44114-1192
13	(216) 736-8600,
14	On behalf of the Defendants El-Mallawany, Abrams and Brown.
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MAX WIZNITZER, M.D., of lawful age, 1 2 called by the Defendants El-Mallawany, Abrams and Brown for the purpose of direct examination, 3 4 as provided by the Rules of Civil Procedure, 5 being by me first duly sworn, as hereinafter certified, deposed and said as follows: 6 7 DIRECT EXAMINATION OF MAX WIZNITZER, M.D. BY MR. SEIBEL: 8 9 Q. Would you state your full name for the record, 10 please. Max Wiznitzer. 11 Α. Doctor, my name is Bob Seibel. We were 12 Q. 13 introduced briefly before, but I am from Jacobson, Maynard, Tuschman & Kalur, and along 14 with Jerry Kalur of our firm, I represent 15 Dr. El-Mallawany and his firm. Dr. El-Mallawany 16 is an obstetrician/gynecologist. I was just 17 18 curious if you know him at all? 19 No, I don't. Α. What is your professional address? 20 Ο. 2101 Adelbert Road, Cleveland, Ohio 44106. 21 Α. 22 Q. That's University Hospital? Rainbow Babies & Childrens. 23 Α. 24 Do you have any other offices? Q. I see outpatients at an office in Beachwood and 25 Α.

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1		at an office in Lakewood on an intermittent
2		basis. I mean this is the home headquarters, if
3		you want to think of it that way.
4	Q.	Those other offices, are they associated with
5		Rainbow Babies & Childrens Hospital?
6	A.	We rent space. Out in Beachwood, it's the
7		Rainbow Subspecialty Center. I've forgotten the
8		exact name.
9	Q.	How about Lakewood?
10	Α.	Lakewood just has my name on the door, when I'm
11		there.
12	Q.	What's your date of birth?
13	Α.	March 4th, 1953.
14	Q.	And what is your Social Security number?
15	Α.	331-44-4521.
16	Q.	Doctor, you understand that your testimony is
17		being recorded today?
18	Α.	Yes.
19	Q.	And you understand that your testimony is also
20		under oath?
21	Α.	Yes.
22	Q.	Do you understand that we'll be relying on the
23		answers that you give as we analyze this case
24		and prepare for trial?
25	Α.	Yes.

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1	Q.	Do you further understand that this is my only
2		opportunity to discover your opinions under oath
3		in this setting?
4	A.	Yes.
5	Q.	And would you agree not to answer any question
6		unless you understand it?
7	Α.	Yes.
8	Q.	What is your position here at Rainbow Babies $\&$
9		Childrens Hospital?
10	Α.	I'm the chief of child neurology.
11	Q.	How long have you held that position?
12	Α.	Since July 1st, 1992.
13	Q.	How many other child neurology physicians are
14		there here at Rainbow?
15	Α.	One-and-a-half.
16	Q.	Dr. Horwitz is the other?
17	A.	Dr. Horwitz is one, and we have another person
18		who is the head of the division of
19		rehabilitation and developmental disorders, who
20		is also a child neurologist who works with us.
21	Q.	Who is that?
22	A.	Dr. Mark Cohen.
23		THE WITNESS: I'm going to ask a
24		favor.
25		MR. SEIBEL: Sure.

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1 (Thereupon, a discussion was had off 2 the record,) 3 4 (Thereupon, Defendants' Exhibit 1, 5 6 4-5-91 Wiznitzer letter to Kampinski, was mark'd 7 for purposes of identification.) 8 9 Q. Would you describe your medical education, training, experience beginning with college? 10 11 Α. I went to Northwestern University and, first of all, was in Evanston, Illinois in their honors 12 13 program in medical education. I was entered from 1971 through 1977. The last four years, I 14was in the medical school there. In 1975, I got 15 a bachelor of science in medicine, and in 1977, 16 17 I got my M.D. After that, I did a pediatrics internship 18 19 and residency at the Children's Hospital & Medical Center in Cincinnati. 20 That was from 21 1977 to 1980. From 1980 to 1981, I did a 22 developmental pediatrics fellowship at the Cincinnati Center For Developmental Disorders. 23 From 1981 through 1984, I did my neurology 2.4 25 training, which basically is my pediatric

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neurology fellowship, although I'm boarded in 1 2 neurology, at the Children's Hospital of 3 Philadelphia and at the University of 4 Pennsylvania neurology program in Philadelphia. 5 And that went through '84. 6 From 1984 through 1986, I did a National 7 Institute of Health fellowship in higher 8 cortical functions in children at the Albert 9 Einstein College of Medicine in Bronx, New 10 York. 11 Q . Where did you go after you finished your 12 fellowship at Albert Einstein? 13 Α. I came here. 14 Q. Are you employed by University Hospital? 15 Α. No. 16 Ο. So yours is a private practice of pediatric 17 neurology? 18 Α. We are employees of Case Western Reserve No. 19 University School of Medicine. Do you maintain any private practice at all? 20 Q. 21 Α. No. 22 Besides the medical training that you just Q. 23 described for me, have you begun any other 24 residencies or fellowships that you didn't 25 ultimately finish?

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1	A.	No.
2	Q.	And did you attend any other medical schools,
3		for instance?
4	Α.	No.
5	Q.	Are you licensed in any other states besides
6		Ohio?
7	Α.	Yes. To be honest with you, I can't remember if
8		my license is inactive or active, but I have
9		licensure in Pennsylvania and in New York.
10	Q.	And how about hospital privileges; anywhere
11		besides University Hospital?
12	A.	I have consultative privileges at Lakewood
13		Hospital and at Geauga Hospital.
14	Q.	Has your license to practice medicine ever been
15		revoked, suspended, modified, restricted in any
16		way?
17	Α.	No.
18	Q.	And have your hospital privileges ever been
19		revoked, suspended, modified or restricted in
20		any way?
21	Α.	Except for not dictating my charts on time,
22		where you get a death notice. Other than that,
23		the answer is no.
24	Q.	Doctor, I'm going to hand you what we've marked
25		for purposes of this deposition as Defendants'

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1		Exhibit 1 and ask if you would identify it for
2		the record, please.
3	Α.	Defendants' Exhibit 1 is a letter dated
4		April 5th, 1991 to Mr. Charles Kampinski from me
5		regarding Zachary Berardinelli,
6	Q.	Have you issued any other reports besides this
7		one to Mr. Kampinski or anyone from his office?
8	A.	Not to my knowledge.
9	Q.	Do you maintain a separate file for these types
10		of reports apart from your patient file?
11	A.	No.
12	Q.	Was this the one and only draft of this report?
13	A.	You want an honest answer?
14	Q.	Sure.
15	A.	I couldn't tell you if it was or if it wasn't.
16	Q.	Well, my question is did you discuss your report
17		with Mr. Kampinski before you put it in final
18		form?
19	Α.	No. I mean the only other drafts that I can
2 c		think of would have been with typos or I wasn't
21		happy with the grammatical structure of
22		sentences.
23	Q.	What issues did Mr. Kampinski ask you to address
24		that led you to writing this report to him dated
25		April 5th, 1991?

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1	A.	Maybe I don't understand the question.
2	Q.	Sure. Well, something had to happen to prompt
3		you to write this report.
4	A.	Yes.
5	Q.	And I assume that it was some discussion with
6		Mr. Kampinski about Zachary?
7	A.	Yes.
8	Q.	So getting back to the question then, what
9		issues did Mr. Kampinski want you to address in
10		report form to him which led to your creation of
11		this April 5th, 1991 report?
12	Α.	I can only, you know, guess from the letter.
13		Basically, it was, number one, what kind of
14		neurologic deficits does Zachary Berardinelli
15		have and, number two, when did they occur.
16	Q.	And does your report here address those two
17		issues to the best of your abilities as a
18		specialist in pediatric neurology?
19	A.	It addressed it to the best of my ability at the
20		time that I wrote the letter.
21	Q.	Do you now have information available to you
22		that affects your statements in this letter one
23		way or the other?
24	A.	No, not really.
25	Q.	So have your views changed at all since

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April 5th, 1991? 1 2 Α. They've only been more refined. We'll get into those in more detail. 3 Ο. Do you know when your first contact was 4 5 with Mr. Kampinski or someone from his office? 6 Α. To be honest with you, no. I can guesstimate 7 for you. 8 All right. What's your best guess? 0. 9 Α. 1990. 10 Q. Why do you say that? 11 Because I have a letter in my file asking for my Α. records in 1990. 12 13 What's the date of the letter asking for your Q. 14 records? 15 Α. March 13th, 1990. That's from Mr. Kampinski? 16 Ο. Yes. He also asked to meet with me at the time. 17 Α. Did you meet with him? 18 Ο. 19 Α. Yes. 20 Do you know when? Q. 21 It was between March and April of 1990. Α. No. Do you remember what you discussed? 22 Q. 23 Probably the same things that are in the Α. 24 letter. I have no independent recollection of 25 the conversation, but I'll make that

1 assumption. 2 Have you given deposition testimony before? Ο. Yes. 3 Α. 4 Q. About how many times? I'll be honest with you. That's a guess. 5 Α. Ten. 6 I really don't keep a count, 7 Q. How many times have you given a deposition as an 8 expert witness? 9 Define "expert witness" for me. Α. 10 Ο. Well, from your position as a pediatric 11 neurologist rendering opinions about any aspect 12 of a case. See, I see "expert witness" more as a person 13 Α. when I'm not involved in the child's care but 14someone asks for my opinion. 15 16 Q. All right, fine. In those situations, for depositions? 17 Α. Six, 18 seven. Now, you've been deposed six times in cases 19 Q. 20 where you have not been involved with the 21 patient? Where I was not involved in treatment or the 22 Α. care of the child. 23 Where you've just looked at the records 24 Q. independently and drawn certain conclusions? 25

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1	A.	Yes.
2	Q.	And so then approximately four other times where
3		you actually have had involvement with the
4		patient?
5	Α,	Yes.
6	Q.	Like this case?
7	Α.	Yes. And I'm to be very honest with you,
8		these are wild guesses, because I really just
9		don't keep a count on depositions. My business
10		is the practice of medicine, not to give
11		depositions.
12	Q.	In those cases where you testified having not
13		been involved with the patient's care, on whose
14		behalf did you render opinions?
15	Α.	Primarily defense.
16	Q.	And how would that break down in terms of
17		percentages?
18	Α.	Oh, at least at least 65, 70 percent defense.
19	Q.	Describe your current practice, if you would.
20	Α.	I'm an academic physician, and as an academic
21		physician, I have responsibilities in three
22		areas. Area number one is clinical care of
23		children, since I'm obviously a pediatric
24		neurologist. And that subsumes the greatest
25		amount of my time. Both on an inpatient basis

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1		as well as on an outpatient basis.
2		I also do things. I read EEG's, and I run
3		the evoked potentials lab at University
4		Hospitals. That's number one.
5		Number two, I have a responsibility for the
6		education of medical students and of residents
7		as well as of my colleagues in various aspects
8		of medicine. In terms of continuing education
9		programs.
10		And number three are my endeavors in
11		research. And, unfortunately, I would say the
12		latter is not as much time as I would like it to
13		be.
14		In addition to that, I also lecture to
15		parents groups and things like that when the
16		request arises, because I think it's important
17		to have a well-informed public.
18	Q.	So all your compensation for the clinical care
19		of patients comes from Case Western Reserve
20		University?
21	A.	Yes. Yes. I mean there's I have grants for
22		my research, if that's what you mean.
23	Q.	Not necessarily.
24	A.	But I do not no, I don't have a private
25		practice set up on the side where I see patients

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1		in the evening or on weekends, No, I don't do
2		that.
3	Q.	Why did you choose this particular specialty?
4	Α.	Why did you choose to be a lawyer?
5	Q.	I asked you first,
6	A.	Okay. Then I'll wait for an answer from you
7		afterwards.
8	Q.	Yes, all right.
9	A.	I chose pediatrics because I enjoy working with
10		children. If you want the story, I'll give it
11		to you.
12	Q.	I do.
13	Α.	I don't mind giving it to you.
14		When I did my pediatrics training, I was
15		interested in going into developmental
16		pediatrics. I always had an interest in
17		learning disabilities and developmental
18		disorders in children, and my mentors at the
19		Cincinnati Center For Developmental Disorders
20		told me that you're not going to get any respect
21		unless you're trained not only in developmental
22		pediatrics but also in pediatric neurology. And
23		I took their advice seriously, and I went into
24		pediatric neurology with as you will notice,
25		with my NIH fellowship, which was in higher

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1		cortical functions in children.
2		I'm interested in you might want to say the
3		cognitive aspects of my subspecialty. I mean I
4		have a wide range of interests, but that's one
5		of them. And I hate to say it. It's fun. I
6		enjoy my work, And I enjoy my research and
7		things like that.
8	Q.	What is your fee for giving a deposition?
9	A.	\$350 an hour.
10	Q.	What is your fee for reviewing a case?
11	A.	\$250 an hour.
12	Q.	And how about for testifying at trial?
13	Α.	\$350 an hour. Including transit time.
14	Q.	Do you intend to testify live at the trial of
15		this case?
16	Α.	If I'm requested to.
17	Q.	And I say live at trial in contrast to
18		videotape.
19	A.	I understand.
20	Q.	All right. Still if you're requested to testify
21		live at trial, you will come down to court?
22	Α.	And if I'm around.
23	Q.	What materials did you review before you wrote
24		your report on April 5th, 1991?
25	Α.	I reviewed Zachary Berardinelli's hospital chart

1		and my records, my office records, to that time,
2	Q.	When you say "hospital chart," what do you mean?
3	Α.	He was admitted to the hospital. He was a
4		newborn. So his newborn records.
5	Q.	"Hospital" meaning University Hospital?
6	Α.	Yes, University Hospital of Cleveland records.
7	Q.	So before you wrote your report I just want
8		to summarize, make sure we have a clear record.
9		Before you wrote your report, you reviewed
10		the University Hospital/Rainbow Babies &
11		Childrens records for Zachary and his September,
12		'88 admission and then the records you had
13		available in your own office up to that point,
14		April 5th, 1991?
15	A.	Yes.
16	Q.	Any other records that you had reviewed before
17		your wrote your report?
18	A.	Whatever was in the University Hospitals records
19		up to that point in time.
20	Q.	Do you have a copy of those records in your
21		office here today?
22	Α.	Not here, but I have the original records right
23		here to refer to in case I need to.
24	Q.	When was the last time you looked at those?
25	Α.	Earlier this week.

- Q. Have you reviewed any further material since you wrote your report?
- A. Only whatever has been clinically relevant. I think that's the best way of saying it. Maybe I don't understand what you mean. I've also looked at -- I have seen some expert reports. Let me think if I have this right. From Dr. Chalhub, Dr. Redline, Dr. -- there's a doctor at Metro --
- Q. Dierker?
- A. -- Health Hospital. Yes. That's right. It would be Dr. Dierker. And I looked at
   Dr. Edelberg's deposition.
- Q. Do you have copies of those documents here in your office?
- A. Not here, no.
- Q. Where are they?
- A. In my home.
- Q. Any other further materials?

MR. MELLINO: I don't understand what you're asking him. If he's looked -what he's looked at since he's written his report?

## MR. SEIBEL: Yes.

A. Let me think. Rita Berardinelli's deposition I

1 briefly glanced through. But other than those 2 papers which have to do with the legal aspect, the only things that I have looked at were any 3 reports that had to do with Zachary's medical or 4 5 neurologic care, That's it. What about the records of his pediatricians? б Q. I haven't seen those. 7 Α. No. 8 Ο. What about any Marymount Hospital records? 9 Α. If there were any records from Marymount 10 Hospital that were in the University Hospitals of Cleveland chart, I would have seen them. 11 12 Have you developed any new opinions since you Q. 13 wrote your report in April of 1991? 14 In what way? Α. Any opinions that you didn't have in April of 15 Ο. '91 that you do have now relative to this case. 16 17 Α. As I said, I've refined my opinions as to, you know, what I wrote there. To be getting more 18 19 specific. When did you first see Zachary? 20 Q. 21 I saw Zachary in September of '88. Α. What date? 22 Ο. 23 Α. Oh, I'll be honest with you. It had to be the 24 same date that the child neurology note was put 25 in the chart.

1	Q.	Why do you say that?
2	Α.	Because a note wouldn't get put in the chart
3		without me seeing the child. More important
4		question is did I sign anything? The answer was
5		probably not. My first written note in the
6		chart is from September 19th, 1988.
7	Q.	That's in the progress notes?
8	Α.	Yes. That I can find.
9	Q.	That would be the first progress note on
10		September 19th, 1988?
11	A.	Yes.
12	Q.	Begins "Zachary is awake but not totally alert"?
13	Α.	Yes.
14	Q.	That's your first entry in this chart, doctor?
15	Α.	That's the first entry in my handwriting, yes.
16	Q.	Who wrote the September 6, 1988 child neurology
17		consult note?
18	Α.	Had to be one of my residents.
19	Q.	Can you find it and tell me specifically.
20	A.	I think the name is Neger, N-e-g-e-r. And ${f I}$
21		just don't have any independent recollection of
22		who this person is.
23	Q.	You don't know Dr. Neger?
24	A.	I can't remember. I am sure I know Dr. Neger,
25		but you know how many people come through here

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all the time? 1 2 No, I don't. Q. I mean I have on the average two to six 3 Α, 4 residents on service with me, or medical 5 students, at any one time. We've had a lot of 6 trainees. We have 20 trainees, 20 residents per Most of whom rotate through our service. 7 year. 8 So that means since I've been here, which is 9 six-and-a-half years, we've just -- you know, in and of itself, we've had 10 trainees that I've 10 11 known, minimum. Plus the neurology residents, of which there's six per clinical year. 12So 13 there's 18 altogether. And they also rotate through. So there's a large number of people 14 that come through. 15 Do you know what level of training Dr. Neger had 16 Q. 17 reached by the time he or she wrote this 18 September 6th --It has to be at least a second-year resident. 19 Α. 20 It has to be. 21 In neurology? Second-year neurology resident? Q. 22 I just can't tell you, sir. I just don't Α. 23 remember. I'll be happy to find out if you'd 24I mean I have access to those records. like. 25 Your September 19th progress note, was that the Q.

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1		first progress note written by a pediatric
2		neurology attending physician?
3	Α.	The first note that I can see, yes.
4	Q.	You actually have very legible handwriting, but
5		just in the chance that I'm misreading it, would
6		you go ahead and read your handwritten note for
7		September 19th, please.
8	A.	Sure.
9	Q.	And if you've used abbreviations, go ahead and
10		tell me what those abbreviations stand for.
11	Α.	The note says "Neurology. Zachary is awake but
12		not totally alert. Extraocular movements full.
13		Follows face/voice with his eyes." Or "with
14		eyes. Preference for head turn to right.
15		Moving right arm/hand better although tone and
16		grasp still low. Deep tendon reflexes brisk
17		with five to six beat right ankle clonus. Gag
18		intact. Suck moderately abnormal. No prolonged
19		effort. Question mark, increased lower
20		extremity tone, especially in hips. Poor cry.
21		"Impression. Exam, including brachial
22		plexus injury, is improved. Right arm movements
23		suggests good recovery potential. Central
24		nervous system exam still abnormal and outcome
25		still not clear. Will follow. M. Wiznitzer,
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1		M.D."
2	Q.	When's the next note in this record by either
3		you or another pediatric neurology attending
4		physician?
5	Α.	September 26th, 1988.
6	Q.	That's you again?
7	A.	Yes.
a	Q.	Would you read your note, please?
9	Α.	"Neurology. Zachary is feeding better, having
10		taken 70 cc today, although he still does not
11		have a strong suck. Gag intact. Has sleep-wake
12		cycles.
13		"Physical examination. Head circumference
14		equals 37.4 centimeters. Positive moro.
15		Negative asymmetric tonic neck reflex. Trunk
16		tone decreased. Moves all extremities well with
17		normal tone. Opens and closes hands.
18		"Deep tendon reflexes 3/4 with unsustained
19		ankle clonus. Briefly visually fixates and
20		tracks other 45-60 degrees.
21		"Impression. Improved but still not
22		functioning at age-expected level. Will
23		follow. M. Wiznitzer, M.D."
24	Q.	And that's the last note by a pediatric
25		neurology attending in this record?

1 Α. Yes, it is. Do you remember Dr. Wolff, W-o-l-f-f? 2 0. First name initial D.? 3 Dr. Wolff is listed here as a pediatric 4 Α. No, I wouldn't know him. 5 surgeon. What role did you play in the review or approval 6 Ο. 7 of the discharge summary for Zachary's 8 admission? 9 I had no role. Α. Did you review it? 10 Q. Recently. The only person who has a role in 11 Α. that is the attending physician who dictates 12 13 it. In going through the progress notes, do you 14 Q. recall the names of any of the pediatric 15 neurology residents that might have been 16 involved in Zachary's admission? 17 There are no names of any of my residents in 18 Α. First of all, I don't think I had any of 19 here. 20 my trainees writing this note. And any 21 neurology note would be labeled "neurology." Ιt 22 just wouldn't be written. 23 Q. That's really why I asked. Is it fair to assume 24 that the other residents who have written notes 25 in the progress notes are not involved with the

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l		pediatric neurological aspects of Zachary's
î		care?
C)	Α.	Not unless I was walking through the nursery and
4		they asked me to look at him with them. We
5		discussed it a bit, and then I walked on. That
E		happens many a time, and I don't write an
5		independent note, but then they'll write down
Е		what we went over together.
9	Q.	Did it happen here?
1 C	Α.	I couldn't tell you yes or no.
11	Q.	Doctor, could you give me you have your
12		original records for Zachary here in front of
13		you. Could you hand them to me, and we're just
14		going to mark them as an exhibit.
15	Α.	You can't take the originals. You know that.
16	Q.	Oh, I don't intend to take them.
17	Α.	Oh, okay.
18		
19		(Thereupon, Defendants' Exhibit 2,
2 c		child neurology office chart, was mark'd for
21		purposes of identification.)
22		
23	Q.	Doctor, I'm going to hand you what's been marked
24		as Defendants' Exhibit 2 and ask whether you
2 5		would identify it for the record, please.

		2 6
1	Α.	Defendants' Exhibit 2 is the office chart in
2		child neurology for Zachary Berardinelli, later
3		Zachary Hammon.
4	Q.	Have you removed anything from that record?
5	Α.	No.
6	Q.	When was the last time you saw Zachary?
7	A.	The last time I saw Zachary was November 2nd,
8		1992.
9	Q.	What was his condition at that time?
10	Α.	In what way?
11	Q.	From a neurological standpoint.
12	A.	He had an abnormal neurologic exam.
13	Q.	What was abnormal about his neurological exam?
14	Α.	He had I guess what could be summarized as an
15		ataxic cerebral palsy with increased deep tendon
16		reflexes in the legs,
17	Q.	I want you to list specifically all the abnormal
18		neurological findings that you detected at that
19		November, 1992 visit.
20	A.	Well, I would say it's not only detected but
21		also elicited from history.
22	Q.	Well, I want to know all the ones that you were
23		able to observe during your examination at that
24		time. We're going to go back and talk about the
25		historical features.

l	Α.	Okay. Oromotor movements are slow. This is
2		both jaw and tongue movements. He has mild
3		weakness in the shoulder girdle. He walks with
4		hip and knee flexion, which is abnormal. He has
5		adduction, or the knees coming close together.
6		He has ataxia, both of his arms and/or of his
7		extremities and his trunk. He has a tremor.
8		His speech is ataxic. His deep tendon reflexes
9		are brisk with three beats of clonus at the
10		ankle, and he has a mildly hyperactive jaw
11		jerk.
12	Q.	Any others?
13	A.	That's all that's in my note for that date.
14	Q.	From the time of Zachary's birth, what has been
15		the progress of his neurological problems?
16	A.	Why don't you be specific. I mean that's a very
17		broad question.
18	Q.	All right. Well, let's go back then and examine
19		his neurological status by the time of his
20		discharge from University Hospital in September
21		of '88. Do you know what it was?
22	A.	Whatever I wrote in the chart at that time.
23	Q.	Did that change?
24	A.	Yes.
25		Tell me how it changed and when it changed.

1	A.	Going through my records, I next saw him in
2		followup on January 9th, 1989.
3	Q.	What was his condition at that time?
4	Α.	His truncal tone was decreased. He had brisk
5		deep tendon reflexes. He had persistent
6		asymmetric tonic neck reflex. Especially with
7		rightward gaze. He had some problems with
8		truncal tone. And he had some delay in his
9		motor development with a functional level of
10		approximately three months.
11	Q.	What treatment did you provide to him while he
12		was a patient at University Hospital in
13		September of 1988?
14	Α.	I just monitored his neurologic status.
15	Q.	Did you prescribe any treatment for him in
16		between his discharge in September of '88 and
17		your next visit with him in January of 1989?
18	Α.	No.
19	Q.	What was the purpose of your visit with him in
20		January of 1989?
21	Α.	To see how he was doing.
22	Q.	And how was he doing?
23	Α.	He was he had a neurologic problem.
24	Q.	Had it gotten better or worse or changed in any
25		way since his discharge?

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1 A. That's not a good question,

2 Q. Why is it not a good question?

3 Neurologic status in children is not the same as Α. 4 in adults because the nervous system in children 5 is maturing and developing. So we track the 6 children simply because there may be portions of 7 the nervous system that are supposed to kick in 8 at a certain age that don't, and that's when 9 you're going to start finding problems, even 10 though the injury damage or structural 11 abnormality, whatever it would have to be, 12 occurred a long time in the past.

13 But as I explain to people, if you cut a 14 wire in the back of a TV set, you're not going to know if the TV set works or doesn't work 15 16 until you try to flip the switch on. So that's why I'm saying it's not a fair question. 17 The only thing I can tell you with Zachary is there 18 19 was no obvious regression in skills. I think 20 that's an important point to be brought out 21 here.

Q. Well, one of the reasons I ask is because in your January 26th letter to Dr. Bennet -- is that what you're referring to there in your record?

1	A.	Yes, from the visit of January 9th.
2	Q.	You use the word actually, you state the
3		phrase "he has shown developmental progression."
4		What did you mean by that?
5	Α.	What it means is that Zachary is continuing to
6		gain developmental milestones. Not to gain
7		developmental milestones either implies a severe
8		neurologic insult or some sort of a progressive
9		neurologic disorder that is making you regress
10		in your skills. Zachary did not show that. But
11		he wasn't showing the developmental progression
12		at the rate that I would expect for a child of
13		his age.
14	Q.	And for a child with severe neurological insult,
15		you would have expected him not to be making the
16		severe milestones that he had made by then?
17	Α.	You're talking about severe, really bad ones?
18		Yes. The severe ones don't.
19	Q.	When is it going to be possible to evaluate the
20		prognosis for Zachary over his lifetime?
21	Α.	In terms of?
22	Q.	His neurological developmental delays,
23	A.	You can have a problem with cognitive skills,
24		because in my impression, I mean Zachary is not
25		severely delayed cognitively. I thought he's

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actually doing pretty well cognitively, but, 1 again, it's a coarse measure of what I see in 2 the office. I don't know what he's going to do 3 in terms of his reading and writing skills, in 4 terms of math skills, in terms of academic 5 skills and things like that. 6 As of right now, today, do you have any 7 0. information that he has any cognitive 8 9 impairment? 10 I stated that I thought that he looked pretty Α. 11 good to me. Now, that was just to me. During 12 the office visit. 13 0. I understand. 14 And you have to remember it's a coarse measure. Α. 15 It's a very coarse measure. What I am using 16 that measure to tell me is are there any significant impairments, and there's not. 17 Mild 18 I'm not really there to judge. 19 But do you have any information that he even has 0. 20 a mild cognitive impairment? I'd have to go check. Hold on one second. 21 Α. 22 At the present time, I don't have any 23 information to point to anything big time, no. During the course of your involvement with 24 0. 25 Zachary, has he continued to make developmental

А.	progression?
A.	
	Sure has.
Q.	And has he had any what you call regression?
Α.	No.
Q.	What is the prognosis for his motor problems?
Α.	In terms of?
Q.	Well, are they going to get better, are they
	going to get worse or are they going to stay the
	same?
Α.	They may get somewhat better. His big problem
	with his motor skills is his ataxia.
Q.	What is ataxia?
Α.	You can think of it coarsely as unsteadiness.
yn ac ferrau yn a'r ar ywar yw a'r ar ywar yw a'r ar ywar yw a'r ar yw	And that is what's really interfering mostly
	with his function.
	The second problem with his motor skills is
	that he also had an underlying element of some
	spasticity, as shown by how he walks and also by
	his increased reflexes. That will also
	interfere with his motor function. But I mean
	he walks for me, which is good. I like that.
Q.	It's an encouraging sign?
Α.	Of course, it is.
Q.	What are Zachary's current needs for special
	equipment to enable him to function?
	Q. A. Q. A. Q. A. Q. A.

1 A. In terms of?

2 Q. Anything.

- 3 A. I would recommend that you probably talk to the4 therapists about that.
- Q. Well, I need to know, doctor, whether you have
  an opinion one way or the other whether he --
- 7 A. At the present time in terms of what?

Q. Whether he currently needs any sort of special
 equipment and for how long in the future he's
 going to need special equipment.

A. He has had appliances in the past in terms of
for stabilization. I really can't tell you
right now. We'd have to see more of where he
goes developmentally.

And in terms of his motor skills, to see whether he needs -- you know, whether he'll walk faster using, you know, some sort of supportive device, which he doesn't want to do. But that's typical for children of his age.

Q. When you saw him in November of 1992, was heusing any devices?

A. I have no recollection that he was. There may
have been an insert in his shoe, but I just
didn't mark it.

25 Q. Now, in terms of whether he will need special

1		devices of any nature in the future, would that
2		be speculation at this point?
3	A.	We'd have to see how he goes.
4	Q.	Do you have an opinion that he will need such
5		devices?
6		MR. MELLINO: You already asked him
7		this. He told you that he would defer to
e		the therapist,
9	A.	I would tell you what I'd do here. I can answer
10		your question much better if I can sit with this
11		therapist and sit with the orthopedic surgeon
12		and come up with a common consensus for this
13		kind of help. Then I can answer your question.
14	Q.	Well, what is your role in that meeting?
15	A.	My role in the meeting is partially as a
16		moderator, partially because I have some insight
17		into his neurology in terms of, for instance,
18		what the ataxia will do for him, how much you
19		can give in terms of stabilization and support.
2 c		The therapist's role is to make suggestions
21		for various kinds of devices if they are
2 2		needed. The orthopedic surgeon would be the
23		same way. It's basically a group thing.
2 4	Q.	Has that taken place?
25	A.	No. I am just saying if that's what you wanted.

MR. MELLINO: Well, he's been given 1 a report from a rehabilitation expert that 2 3 sets forth what his needs are going to be. 4 Α. Very well may be, I haven't seen that report. 5 If you show me that report, I can comment 6 whether things make sense or not. 7 Ο. Well, doctor, my understanding is in fact this 8 meeting has already taken place, hasn't it? 9 Well --Α. 10 A meeting with the rehabilitation people? Q. The rehabilitation people asked me general 11 Α. 12 questions. 13 Q. What did they ask you? 14 Α. I can't remember. That was a long time ago. 15 Q. How long ago? 1991? 16 Α. 17 MR. MELLINO: There's a letter I 18 think in there. 19 Α. 1991. 20 Do you remember who you met with? Q. 21 Two names I have in here. Maureen Van Weenus Α. 22 and George Cyphers. 23 Do you know those people? Q. I've met them once. 24 Α. 25 At that meeting? Q.

35

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1	Α.	Yes.
2	Q.	Have you had any followup with them at all?
3	Α.	No.
4	Q.	Do you remember what input you gave to them
5		during that meeting?
6	Α.	They asked me questions. And I have no
7		recollection, no independent recollection
8		whatsoever,
9	Q.	Do you have any notes from that meeting other
10		than a bill for your time?
11	A.	No.
12	Q.	What is ataxic cerebral palsy?
13	Α.	Cerebral palsy is a nonprogressive actually,
14		that's the wrong word to use. Cerebral palsy is
15		an impairment in tone, strength or coordination
16		that is due to a static process. In other
17		words, it's not due to a progressive neurologic
18		disorder such as an enzyme deficiency that will
19		make you worse over time. Basically, it's like
20		a brain tumor or things like that.
21		We normally will use words to identify the
22		major component of what we find on examination
23		for the cerebral palsy. So, for instance, the
24		most common type we see is a spastic cerebral
25		palsy in which they have increased tone and they
1		have spasticity, which is an exaggerated
----	----	--
2		clasp-knife reflex, And there's various forms
3		of that. Then there are
4	Q.	Those would be the more severe forms of cerebral
5		palsy?
6	Α.	No. No. No, those are not. Severity can only
7		be judged on the child's functioning. So, for
8		instance, I have patients with extrapyramidal
9		forms of cerebral palsy like a choreoathetotic
10		form where the movement disorders had so
11		severely impaired them that they can't walk even
12		though they have decent strength, but they are
13		just bedridden because the movements are so
14		severe.
15		In my opinion, at the time that I saw
16		Zachary last, what he had was he was
17		significantly ataxic. He had truncal
18		instability and extremity instability, or
19		unsteadiness. That was part of this whole
20		picture, which has also been described as ataxic
21		cerebral palsy, if you want to think of it as an
22		ataxic component, because he has increased deep
23		tendon reflexes. And I guess that's what I mean
24		by that.
25		But it's a nonprogressive neurologic

1		disorder in that I don't expect him to look
2		horribly worse at age 20 than he does at age 4,
3		unless something else comes up, for instance,
4		and he develops another extrapyramidal quality
5		to his movements that would interfere with his
6		functioning.
7	Q.	Do you anticipate that that will happen?
8	A.	I don't anticipate it, but you can never exclude
9		it. Kids fool me all the time.
10	Q.	So it's a possibility rather than probability?
11	A.	Definitely.
12	Q.	The ataxia of Zachary's cerebral palsy is the
13		chief feature of his neurological problem?
14	Α.	It's the major feature. I mean there's other
15		things. There's weakness and everything else.
16		But if you are going to look at Zachary and
17		watch him in movement, you'd say that, you know,
18		you'd be most impressed with the ataxia. But
19		that doesn't mean other things aren't there.
20	Q.	In your report to Mr. Kampinski on April 5th,
21		1991, you say that "Zachary's most recent exam
22		is consistent with an ataxic cerebral palsy."
23		Is that still the case today?
24	Α.	Yes,
25	Q.	What do you mean by "consistent with"?

1	A.	That's what he has,
2	Q.	Is it consistent with anything else?
3	A.	No. That's what he has.
4	Q.	What is encephalopathy?
5	A.	Encephalopathy is dysfunction of the brain.
6	Q.	What is the relationship between the term
7		"encephalopathy" and "ataxic cerebral palsy"?
8	Α.	By definition, ataxic cerebral palsy is an
9		encephalopathy. It's a chronic encephalopathy.
10	Q.	What area of Zachary's brain is affected?
11	Α.	Good question. Thalamus. Definitely.
12	Q.	Why do you say "definitely"?
13	Α.	Because it's shown on neuroimaging studies as
14		being abnormal.
15	Q.	Which ones?
16	Α.	His MRI.
17	Q.	Do you have a copy of that in your file?
18	Α.	Which?
19	Q.	The report, the MRI that shows the thalamus
20		dysfunction?
21	Α.	No. I'll be honest with you. I'd have to go
22		let me see what the report says.
23		I don't have a copy of it there. I know
24		I've reviewed the MRI.
25	Q.	When was that MRI taken?

39

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1	A.	If I am not mistaken, it was taken about 1990.
2	Q.	Was it taken here?
3	A.	Yes.
4		10-16-90.
5	Q.	Well, don't put it away. I want you to read me
6		what the report says.
7	A.	Be more than happy to.
8	Q.	All right.
9	Α.	MRI of head, clinical data two-year old male
10		with developmental delay. There's clinical
11		concern for abnormal myelination. Multiecho
12		that's one word images of the head were
13		obtained in the axial projection. Additional T1
14		weighted images were obtained in the coronal
15		projection. There was normal myelination for a
16		two-year-old infant. No mass effect or shift is
17		identified, No extra axial collections are
18		seen. Impression, normal MRI of the head.
19	Q.	Why does that lead you to conclude that there
20		are some abnormalities of his thalamus?
21	A.	Because it was misread. I've reviewed it
22		subsequently with the neuroradiologists, who
23		agree that there's an abnormality in the
24		thalamus.
25	Q.	Which neuroradiologist?

1	A.	Both the man who read it, Charles Lanciery as
2		well as Alison. Smith.
3	Q.	And when did you review that study with them?
4	Α.	I've reviewed it several times. Most recently
5		today.
6	Q.	You actually looked at the film itself?
7	Α.	Yes, I did.
8	Q.	Who did you review it with today?
9	Α.	Dr. Smith.
10	Q.	And it's a she?
11	Α.	Yes.
12	Q.	What's her first name?
13	Α.	Allison.
14	Q.	And she's a neuroradiologist here at University
15		Hospital?
16	A.	Yes, she is,
17	Q.	Tell me about your conversation with Dr. Smith
18		today.
19	Α.	That's just it. I put the films up, and I said
20		"What do you think?"
21	Q.	And what did she think?
2 2	Α.	And she says increased signal in the thalami.
23		There may be something in the centrum semiovale
24		bilaterally. And we do not have adequate
25		projections to be consistent with to try to

		42
1		identify certain other areas of the brain. I
2		mean when the study was done, it was done in a
3		certain way.
4		And then I said to her, "It's not worth it
5		to put him through the study again just to get
6		this information."
7		And then we went off and discussed various
8		and sundry topics which have little pertinence
9		to you.
10	Q.	Did she give you any explanation as to why this
11		was not reported back in October of 1990?
12	Α.	No.
13	Q.	What specifically about the film that you
14		discussed today with the neuroradiologist leads
15		you to conclude that there's an abnormality in
16		the thalamus?
17	Α.	I just told you.
18	Q.	Tell me again.
19	Α.	There is abnormal signal from the thalamus.
20	Q.	To what extent is it abnormal?
21	A.	In what way? You can see it. I mean I can
22		bring the films into this room, show you what a
23		normal MRI looks like, show you what this MRI
24		looks like, and you'd see the abnormality.
25	Q.	Tell me is there a difference in quality of the

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signal? 1 2 Α. That's what I said. There's increased signal intensity. I can't remember, to be honest with 3 4 you, if it was a T1 or T2 weighted study. It was probably the T2 weighted study. Because if 5 I'm not mistaken in this situation, the white 6 matter was dark, which is what you get in T2 7 weighted studies. 8 9 Did Dr. Smith say that it may be present or that Q. 10 it probably is present? 11 Α. Dr. Smith said it is present. 12 MR. SEIBEL: Do you need to get 13 that? 14 THE WITNESS: Yes. 15 (Thereupon, a discussion was had off 16 the record.) 17 18 When was your first discussion with the 19 Q. 20 neuroradiologist about the October, '90 MRI? Had to be sometime after the October, '90 MRI 21 Α. was done. Because I usually try to look at all 22 23 neuroimaging studies that are done on patients 24of mine. 25 Q. Is it your testimony, sir, that they have agreed

1		that their report showing no abnormalities has
2		been in error from the first time you reviewed
3		the actual MRI film with them?
4	Α.	Yes.
5	Q.	Does the abnormality in the thalamus that you
6		believe was evidenced by the October, '90 MRI
7		explain Zachary's neurological problems?
8	Α.	It is associated with it. Is that what you
9		mean? I don't think it explains everything, no.
10	Q.	Which problems does it explain?
11	Α.	I don't know which problems it explains. I will
12		be honest with you. I've seen scans like this
13		of this in the past with the children with
14		extrapyramidal cerebral palsy, of which he has
15		one type, the ataxic. So I've seen lesions of
16		this type before.
17		Is it associated with his ataxia? It could
18		be. What we might be doing is catching fibers
19		that are coming from the cerebellum and are on
20		their way up somewhere else, and they could have
21		been interdicted, if you want to think of it
22		that way. So it can explain that. If there are
23		abnormalities in the white matter, and it looks
24		like there are, then that could explain his
25		motor weakness and increased deep tendon

REPORTERS & MFG. CO 313

reflexes.

2	Q.	Well, do you have an opinion to a reasonable
3		medical certainty as to whether the abnormality
4		that you say is present on this MRI explains
5		Zachary's neurological problems?
6	A.	It's the other way around. That's not a fair
7		question. What you're saying is that one little
8		area, does that explain everything. I couldn't
9		say yes or no. Is it part of the picture? The
10		answer is yes.
11	Q.	So if
12	A.	It is not a coincidental finding that has
13		nothing to do with Zachary.
14	Q.	But it doesn't alone explain what his problems
15		were?
16	Α.	Maybe it does.
17	Q.	But you can't say one way or another whether it
18		does or doesn't?
19	Α.	I just know it's associated with his problems.
20	Q.	Were there any other abnormalities that you
21		believe are present on that October, '90 MRI?
22	Α.	Nothing other than what I've just told you.
23	Q.	Are you aware of any other imaging tests or
24		objective test that would suggest that Zachary
25		has a problem with a specific area in his brain?

1 Α. No. 2 And by that, I mean EEG, CAT scan? Q. EEG would be useless in this situation. 3 Α. CAT scans that have been done have not shown these 4 abnormalities, which is not unusual for his type 5 6 of cerebral palsy, 7 Ο. Or any other laboratory data, anything that --8 Α. All the other laboratory data that has been done has been to look for alternate causes, and all 9 10 of them have come back negative. 11 0. What are some of those other alternate causes 12 that you were looking for? 13 Α. Looking for an underlying metabolic disorder, 14 which was not there. Looking for a disorder 15 known as ataxia telangiectasia. 16 But the tests that we did, which were 17 immunoglobulins and an Alpha fetal protein, were both normal, which basically excludes that 18 19 disorder. And there may have been some other 20 tests that we have sent off in the past. I know when he was in Health Hill Hospital, I had 21 conversations with the doctors taking care of 22 him there to look for any alternate reasons for 23 24 his problem, and any of the other tests that we 25 did could not identify any alternate reasons.

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- Q. Do you believe that any other parts of Zachary's brain are affected besides this area in the thalamus?
- A. There may be. But if you're really asking me short of doing an autopsy, I mean I couldn't put it down on a piece of paper. I mean he may have injury or damage to the Purkinje cells in the cerebellum, but you'd never see that in a million years on the scan, There may be small little areas perhaps in the basal ganglia or other nuclei, deep nuclei of the brain that may be dysfunctional, but we just don't have the resolution to see those. But you're just asking me.
- Q. Right.
- A. And that's what I'm saying. That that would just be, you know, guesswork on my part.
- Q. Tell me, if you would, the areas of the brain that you feel are likely to be affected and causing Zachary's problems.
- A. Areas of the brain that are definitely affected are if you want to call it the motor coordination centers, which means either the cerebellum or outflow or inflow tracts going into the cerebellum, which is what leads to his

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1		ataxia. There are also probably white matter
2		tracts that are affected because of his
3		weakness, as well as his increased deep tendon
4		reflexes.
5	Q.	Now, are you able to specifically identify those
6		areas other than generically that are damaged in
7		Zachary's brain?
8	Α.	Just from what I've told you before in terms of
9		what ${f I}$ see in the MRI. Unfortunately, I have
10		patients with other types of cerebral palsy who
11		have normal-looking MRI, CT scans and as such,
12		but they still have the neurologic deficit,
13		which means there has to be dysfunctional parts
14		of the brain. We are just not sophisticated
15		enough to identify where it is.
16	Q.	What is the perinatal period?
17	Α.	You know, everyone asks me that, and I always
18		forget. It goes through portions of the
19		pregnancy through the beginnings of after birth,
20		and I'll be honest with you, I can't remember
21		the exact demarcations of when they are. I can
22		look it up and give you a number.
23	Q.	Well, you put it in your report. That's why I
24		asked.
25	A.	I know that. I know that. But that basically

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1 meant -- I was talking about an abnormality in the brain close to -- you know, close to around 2 the time of birth. 3 Why did you characterize Zachary's 4 Q. ۲ encephalopathy as due to problems in and around the time of birth'! E 7 In what way? Α. 8 Q. Well, put it in your report. 9 Right. You want me to expand on that? Α. 10 Ο. T do. At the time that I wrote the letter, I knew 11 Α. definitely in my mind that his brachial plexus 12 problem was due to, if you want to say it, a 13 birth event. I had major suspicions that his 14 15 other neurologic problems were due to events that occurred at the time of birth. 16 Unfortunately, I don't speculate and I hate 17 18 to speculate so I had to be a bit vague in my letter, and that's why I was saying I've refined 19 2 c my opinion later on as new medical information has come available to make me much more 21 comfortable in my view that his problems 22 23 occurred as a consequence of events during the birth process. 24 25 Q. What information has come to your attention that

49

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1		allows you to make that to have confidence
2		now in that conclusion?
3	A.	Well, it's more of just my generic reading, and
4		I really can't tell you from where I pulled
5		things out.
6	Q.	Not reading anything about this case?
7	A.	No. No. I mean I read all the time. I just
8		try to keep up, Most of it's garbage. Some of
9		it's pearls.
10	Q.	Can you remember any specific publication or
11		piece of medical literature that you read that
12		gives you confidence now to say that this
13		encephalopathy occurred during the perinatal
14		period?
15	A.	No. As I said, I already said that if there
16		to start with, remember what I said here was
17		that just now that it was occurring during
18		the birth process. And it's more of my
19		accumulated knowledge.
20	Q.	Well, what records have you reviewed that lead
21		you to conclude that Zachary's encephalopathy
22		occurred during the birth process?
23	A.	Zachary showed evidence of an acute neurologic
24		syndrome after birth.
25	Q.	"Acute" meaning what?

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1 Α. Something that came on at that point in time. 2 And that was due to some sort of a systemic insult to the body -- I am just using this now 3 in generic terms -- manifested by the facts that 4 he had blood in the urine, he had elevated liver 5 enzymes, he had elevated muscle enzymes. Не 6 had a relatively elevated uric acid, which was 7 8 three to four days after birth, which, if you look at the later numbers, kept falling further 9 10 down, which makes me think it was on its way down and we just caught it midway on the trip. 11

So he had had multi-organ system 12 He definitely had neurological 13 dysfunction. 14 dysfunction. Not only with the brachial plexus 15 question but also with his central nervous He was classified as a moderate 16 system. encephalopathy. There's multiple descriptions 17 in the records to go along with that. 18

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Number two, there was an event that could easily be related to this, which is the fact that he was born with low Apgar scores, had an Apgar of zero at one minute and at five minutes and three at ten minutes, if I'm not mistaken.

During his resuscitation, his initial blood gas showed an obvious metabolic acidosis. As

1 well as it also showed a respiratory acidosis. But that was corrected with the metabolic 2 acidosis still being there, gradually 3 improving. 4 I think I'll stop there. Those are -- in 5 other words, what I'm saying is something 6 This is not something that 7 happened acutely. happened three weeks prior to birth. 8 9 Q. Do you have an opinion as to what the systematic problem was that led to this? 10 I think it was a combination of two factors. 11 Α. Ι think that he definitely had evidence of a 12 gram-negative infection. If I'm not mistaken --13 14 you'd have to tell me if I'm wrong -- an E. coli 15 infection. I believe you're correct. 16 Ο. And I think of that as having stressed his 17 Α. 18 system. And then he had a cord compression at 19 the time of his delivery that if you want to 20 think of it, led to the acute asphyxial state. 21 He had no energy reserve left or he had very 22 poor energy reserves left because he had already 23 been stressed in utero from the infection and 24 just got pushed over the brink around that time 25 period.

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Q.	The latter event toward his birth, you're
	talking about the shoulder dystocia?
A.	Yes. Getting stuck, That is the layman's term,
Q.	Which was a greater contributing factor to his
	systematic problems, the E, coli sepsis or the
	shoulder dystocia?
A.	The shoulder dystocia.
Q.	Why?
A.	That led to what ${f I}$ consider to be the coup de
	grace. That pushed him over the edge.
Q.	Why?
Α.	If the E. Coli infection was there, and it was
	there for hours maybe you people are arguing
	about this. I have no idea. But this is my
	impression from gleaning through the record.
	If the E. coli infection had done something
	to him before that time, he's still sitting
	there in the milieu of that environment of
	infection, which means I'm making an inherent
	assumption here. And speculation, hypothesis,
	whatever words you want to use.
	Let's assume that the E. coli infection
	started doing something to him four hours before
	birth, that it would start causing irreversible
	brain damage at that point in time. Zachary
	Q. A. Q. A. Q. A.

would not look the way he looks today. 1 He looks too good for a child who has four hours of 2 3 progressive brain damage. It makes more sense 4 that something happened within that little 5 window of time, half an hour, 45 minutes, and 6 again these are Just round numbers, prior to the 7 time he was actually delivered that would have 8 caused this kind of a picture. 9 Can brain damage result from E. coli sepsis in Ο. 10 utero? 11 Α. If you go shocky, it sure can. 12 Q. If who goes shocky? 13 Α. If the child. I mean you can have children who 14 get extremely sick and ill, and you can have 15 stillbirths. Whether it's due to the fact --16 probably what happens in those situations is you 17 have such a rip-roaring infection in the placenta that there's poor nutrition delivery to 18 19 the baby. By "nutrition," you know, I mean 20 glucose, oxygen. Doesn't get rid of the carbon 21 dioxide well. So you still end up with a, 22 quote-unquote, "hypoxic ischemic insult" that 23 occurs as a consequence of the infection. 24 But as I said, I think he looks too good to 25 have that kind of a problem.

1 Q. Good in what respects?

- 2 A. Excuse me.
- 3 Q. Good in what respects?

If he had been -- I mean if you start -- the Α. 4 example I gave before. If you start having 5 irreversible damage occurring to you hours 6 7 before birth because you've got this infection, you're going to get a cumulative worsening of 8 your neurologic damage and it's not going to 9 occur at a slow rate. It's going to occur at a 10 11 qood rate. So that I would expect -- again giving a round number of four hours or even two 12 hours prior to birth, I would have expected him 13 14 to be significantly retarded if this was only due to the infection. 15

Let's assume he never had a shoulder dystocia at all and he had only had the infection. I would have expected him to be much more severely affected from a neurology standpoint both cognitively as well as motorwise.

Q. Are you convinced that there was evidence when he came under the care of University Hospitals that there was multi-organ system involvement systemically? A. During the time he was in the hospital, yes. He
 had blood in his urine.

Q. And you mentioned some other things before?
A. Well, unfortunately, they never checked liver
enzymes. They never did a Chem 20 or 23 until
several days after birth.

But for instance, his calciums dipped between the first and second day of life, which is an event I see in these -- whatever word you want to use. Asphyxia I think is bandied about too much in an irreverent manner, but we'll say a hypoxic ischemic insult just to make it easier.

That that was there, and all the other 14 15 numbers suggested something happened, an improvement was occurring. It's not like he has 16 17 the infection and it's brewing and three days later, you know, it's caused such significant 18 damage that we get problems. Because in that 19 20 case, I'd expect the numbers to be going up 21rather than coming down.

Q. Is Zachary's brain damage irreversible?A. Yes.

Q. Is it your testimony, doctor, that it would be
impossible for the E. coli sepsis alone to be

responsible for Zachary's problems? 1 2 Α. At the state that he's in now, yes, 3 Ο. Why? I think I gave the explanation already. 4 Α. 5 Q. Give to it me again. 6 Α. Assuming that the E. coli infection did him in, 7 it shouldn't have been a progressive problem. 8 Q. What do you mean by that, "progressive problem"? Well, I put you in a pot of boiling oil. 9 Α. Ιf 10 you're in a pot of boiling oil for -- I'm making 11 this up obviously, 12 Q. I hope so. 13 Α. So appease me. That's his vision. 14 MS. CABI: No, that's not my THE WITNESS: 15 There are good lawyers and bad 16 vision. 17 lawyers, and I know I'm in the company of 18 good lawyers. If I put an individual in a pot of boiling 19 Α. oil -- or I'll even use hot water. 20 That's probably a better one to use. And I put a 21 22 baby -- which happens. You know, if a baby gets 23 put in too hot of a bath, the baby gets put in 24the bath for a very short period of time, under 25 a minute, the child may be mildly scalded

perhaps, You'll see a little redness that fades away by the following morning, But keep that baby in there for a longer period of time, you're going to first get a first-degree burn, and then if you wait longer, you get a second-degree burn. And then if you wait longer, you get a third-degree burn. In other words, it's a progression of severity of the damage.

And it's the same way here by being in an 10 environment with E. coli sepsis. If you're in 11 that environment, it's not like -- you don't get 12 damaged at one point in time. The infection --13 I'll say the "infection," which I think is a 14 better word to use here. The infection 15 continues, but no further damage occurs. 16 That 17 does not logically make sense because you are 18 not about to be worse at one second because of the infection and then. without any significant 19 intervention be better at the next. 20

Also, he had a significant insult. Here he comes into the time of delivery with a measurable heart rate. He comes out with no heart rate whatsoever. He has a good circumstance for cord compression because he has

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1		a nuchal cord wrapped around his neck twice
2		going through the canal, which can easily be
3		compressed as he comes through.
4	Q.	When you talk about this progression of damage,
5		you mean progression in utero or in
6	A.	In utero.
7	Q.	progression as long as the infection is
8		present?
9	Α.	I don't think he was sick enough after birth to
10		say that the E. coli did it. He wasn't that
11		sick.
12	Q.	Well, when you talk about
13	Α.	That's what you're asking me I assume.
14	Q.	No, I'm not really asking you that. I'm asking
15		you about a situation where E. coli sepsis
16		causes brain damage.
17	Α.	Yes.
18	Q.	In utero?
19	Α.	Yes.
20	Q.	You said that you'd expect that damage to be
21		progressive in nature?
22	A.	Yes.
23	Q.	Now, progressive in nature up to the point of
24		delivery?
25	Α.	Up to the point of delivery and/or fetal death.

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And what is the basis for your testimony that 1 Ο. 2 you would have expected Zachary's brain damage to be worse at birth if it had been caused 3 strictly by the E. coli sepsis? 4 Because as I stated, it would have had to have 5 Α. 6 been a progressive process. What I don't understand, doctor, is why couldn't 7 Q. it have progressed to the point that it did and a then Zachary was delivered? 9 Because he had another event that occurred in 10 Α. He had a good reason. 11 between. It took over 12five minutes to deliver him. He had -- I don't 13 need to postulate an infection to look at the events that occurred to him at the time of 14delivery. He may have been so bad that he 15 16 had -- you know, he had a circulatory arrest at the time of delivery. Unless he had 17 18 overwhelming sepsis to such a degree that would cause that, that would make him not have a heart 19 rate or anything else, I would expect him in 20 that situation to have required major 21 22 intervention. In terms of the nursery, high doses of presser agents in order to maintain 23 24 blood pressure, things like that. That was not what was going on. 25

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1		You've got another event here that can
2		account for where is the difference. And that's
Э		the event that occurred at the time of birth.
4	Q.	So since that event occurred, you are
5		discounting E. coli sepsis as the cause?
E	Α.	No. No. In fact., the E. coli infection, I
7		already stated I think that stressed him in
E		utero. I think that if the other event had not
ç		occurred, Zachary would not look the way he
10		looks now.
11	Q.	How would he look?
12	Α.	That's a good question. If you're going to say
13		to me, "Doctor, is it possible that he might
14		have a minor motor impairment," I would say
15		"Yes, it is possible," Then you would say,
16		"Doctor, is it probable that he would have the
17		same motor impairment that he has now?" I would
18		say "No."
19	Q.	Why not?
2 c	Α.	For all the reasons as I've $just$ given you
2 1		before. He had a two-hit phenomenon. Got
22		stressed by the infection, got finished off, if
23		you want to think of it that way, pushed over
24		the edge by the events that surrounded his
25	Contract The Provide Bank School Scho	immediate birth.

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		62
1	Q.	Do you attend deliveries?
2	Α.	I used to do so. All the time.
3	Q.	When did you stop?
4	Α.	When my last child was born.
5	Q.	Did you attend deliveries in your practice?
6	Α.	No. I've had to resuscitate babies
7		unfortunately even as a neurologist when there
8		was no one else around with pediatric
9		expertise.
10	Q.	But you do not as part of your practice attend
11		deliveries?
12	Α.	No.
13	Q.	Do you hold opinions to a reasonable medical
14		certainty about the standard of care utilized by
15		my client Dr. El-Mallawany in his delivery of
16		Zachary?
17	Α.	I have no opinion whatsoever.
18	Q.	Do you anticipate giving testimony on that
19		issue?
20	Α.	No, I don't.
21		MR. MELLINO: He's not going to be
22		asked any standard of care opinions for
23		for either one, the hospital or the
24		doctor.
25	Q.	What does "intrapartum" mean?
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1	Α.	The definition I know of is during the birth
2		process.
3	Q.	That means what, from the onset of labor?
4	Α.	Yes.
5	Q.	You've characterized Zachary's encephalopathy as
6		moderate?
7	Α.	Yes.
8	Q.	What are the other gradations of
9		encephalopathy? Is it mild and severe or
10	A.	Yes.
11	Q.	How would you define a mild encephalopathy?
12	Α.	Mild encephalopathy is a child who has a change
13		in his level of consciousness but for the most
14		part, appears hyperalert, not really awake but
15		he's hyperalert, very jittery, can't be consoled
16		easily, can have increased reflexes, have
17		dilated pupils, some increased jitteriness.
18		Lasts for about 24 or 48 hours, goes away, and
19		the baby looks good afterwards.
20	Q.	What about severe?
21	Α.	Coma. With seizures. I think that pretty well
22		puts it together.
23	Q.	What is the body's physiological response to
24		asphyxia or hypoxia to the brain?
25	А.	No. No. That doesn't sound right. Your

63

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question doesn't sound right to me. 1 2 ο. Why? 3 What would you expect as the brain's 4 response to hypoxia? 5 In what way? Α. 6 In a physiological response, In terms of Ο. 7 necrosis, in terms of edema, in terms of 8 anything like that, 9 Α. Maybe you're using the wrong words. 10 Q. Help me then. Are you talking about what anatomic changes 11 Α. 12 would one expect to see? 13 Ο. Yes. If you have a hypoxic ischemic insult? 14 Α. 15 Ο. Sure. Well, you believe that's what happened to 16 Zachary, don't you? 17 Α. Yes. And what would you as a neurologist expect as 18 Q. 19 the brain's response to that? 20 Α. It depends if you have a partial asphyxia or a 21 total asphyxia. 22 What was it in this case do you believe? Q. 23 I believe it was a total asphyxia. Α. 24 Q. So what would you expect the brain's response to 25 be to that?

64

-6313 29-G ERS PAPER & MFG. CO FORM CSR - LASER

1	A.	Damage to deep gray matter. Nuclei.
2	Q.	That's from a cellular standpoint?
3	A.	Yes.
4	Q.	What about from an anatomic standpoint?
5	A.	You may not see edema in that situation, It all
6		depends.
7	Q.	I am asking what is the most likely response?
8	Α.	Well, if you have a severe insult, I've seen all
9		sorts. How about if I say it that way. I've
10		seen severe insults where there's a little bit
11		of brain edema, yet there's and this is with
12		total asphyxia. Yet there's a significant
13		abnormality on later scans.
14		I've seen some kids who don't show any real
15		evidence of edema, yet are left with neurologic
16		devastation. This is acutely on CT scan. And
17		I've seen kids who have a lot of edema.
18		Especially in the white matter regions.
19	Q.	Again, what is the most likely response?
20	A.	It all depends on how severe the insult is.
21	Q.	How about in an insult as severe as it was in
22		Zachary's case?
23	A.	Well, I can tell you that he had a moderate
24		encephalopathy, so I would expect the brain
25		response to be not as bad as with a severe

encephalopathy. 1

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2	Q.	Would you expect there to be some response?
3	A.	I think if I had done an MRI, yes, I think that
4		this CT technology we had would not have shown
5		abnormalities in the deep gray nuclei.
6	Q.	Would it have shown abnormalities or would
7		you have expected it to show abnormalities in
8		any other place?
9	Α.	Perhaps in the white matter. But, again, the
10		technology is not all that good to show that
11		with the CT scan. Even with an MRI, in newborn
12		white matter, abnormalities may be difficult
13		because the water content of the brain is
14		increased to start with.
15	Q.	In most cases, do you see neuroimaging results?
16	A.	In the severe encephalopathies, yes, I see
17		abnormalities on neuroimaging studies. In
18		moderate encephalopathies, I see variables. I
14		may see some mild changes on CT scan or I may
2 c		see none at all.
21	Q.	What are you most likely to see?
22	Α.	I'd have to go back and pull charts and tell you
23		that. I really I'm talking about a moderate
24		encephalopathy.
25	Q.	Well, a moderate encephalopathy is the result?

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No, no, It's not only the result. 1 Α. No. It's 2 the clinical expression of what's going on with the brain. 3 And didn't you tell me that you believe Zachary 4 Ο. 5 had a severe asphyxia? Or total asphyxia? б Α. He had a total asphyxia. 7 Q. What does that mean? Total asphyxia means that there basically 8 Α. 9 is no exchange of oxygen, no delivery of 10 nutrients -- we'll think of it that way -- to the baby for a fixed period of time. 11 The most obvious classical example is you clamp the 12 umbilical cord, just totally clamp it. Nothing 13 can go out, nothing can come in. 14 15 In most cases, what would you expect to see on Ο. neuroimaging studies of children within the days 16 17 or weeks of that type of total asphyxia? 18 It depends how severe the insult is. Α. 19 Can you get anything more than a total asphyxia? Ο. 20 If you pass out, you will have -- the reason you Α. pass out is there's inadequate nutrients 21 22 delivered to your brain. If you're that way for 23 15 seconds, you're not going to be left with any 24 deficit whatsoever. You're going to get right 25 back up and walk away.

67

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If, unfortunately, you pass out because of 1 î a heart arrhythmia and you're still kept a standing up and you're that way for, let's say, five to seven minutes, you're going to have a 4 severe insult to your brain. But if you're 5 going to have something in between, you know, 6 5 you're going to bit a point where you're going Е to get some irreversible injury, which will get ç worse over time. What we're dealing with here with Zachary 10 is that inbetween land. I'm not talking about 11 the severe cerebral edema. This would make it 12 an easy type of a picture. That's not what was 13 here because he didn't have a severe 14 encephalopathy. He had a moderate 15 16 encephalopathy. Does the absence of CT findings showing cerebral 17 Q. edema, for instance, make it more difficult to 18 conclude that this is a birth asphyxia 19 situation? 2 c 21 Α. No. He had an acute neurologic syndrome. He 22 had evidenced multi-organ system dysfunction. There was no doubt about that there was 23 something acutely that occurred there. 24 No doubt 25 about that at all.

The absence of changes on the imaging study 1 2 basically suggests that whatever happened to his 7 brain was not a severe insult. That's all that I think that it tells you. Unfortunately, when 4 5 people write articles nowadays, they only Е describe the most severe form of how kids look. We don't really get into the less severe forms, 5 if you want to think of it that way. Ε 9 Ο. Are you aware of any -- I'm sorry. Go ahead. 1 C Α. No, you go ahead. Are you aware of any medical literature that 11 Q. supports your view that Zachary's problems are 12 attributable to a birth asphyxia? 13 Α. There's a whole bunch of articles written about 14 15 birth asphyxia stating that you've got to have a causation and a clinical picture afterwards. 16 Ι mean that's just the standard thing. 15 Let me refine my question a little bit then. 18 Q. 19 Are you aware of any specific medical literature that would support your conclusion that 2c 21 Zachary's problem is more attributed to the cord 22 compression than it was to the E. coli sepsis'? 23 Your question doesn't make -- people don't write Α. articles like that. I don't understand your 24 25 question, I guess.

69

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Well, are you aware of any commentary in the 1 Ο. 2 medical literature, that you read in the pediatric neurological texts or journals that 3 talk about the greater likelihood that problems 4 like Zachary's were attributed to birth asphyxia 5 rather than E, coli sepsis? Or some other 6 7 systematic problem? I'm just being honest with you. Your question 8 Α. 9 just doesn't make sense to me. First of all, like you have both things going on. 10 That's 11 number one, And, number two, you want to ask how does an in utero infection cause damage. 12 Ιt 13 causes damage because it leads to an asphyxial state. 14 15 All right. So that's why -- I guess that's why Q. I don't understand. I accept that. 16 And he never had -- in my opinion, he never 17 Α. reached that point in time from his E. coli 18 infection. While the cord compression in 19 20 conjunction with depletion of his metabolic reserves from the E. coli infection is more than 21 22 enough to explain his acute neurologic symptom 23 that occurred afterwards and then his subsequent neurologic picture. 24 25 What would Zachary's condition have been had he Q.

1		been born immediately before the shoulder
2		dystocia took place?
3	A.	How long is "immediately before"?
4	Q.	Well, before there was any
5	A.	Before he came down the birth canal?
6	Q.	Yes.
7	A.	More likely than not, probably be normal. From
8		a neurology standpoint.
9	Q.	Completely normal?
10	Α.	More likely than not, yes.
11	Q.	Why do you say that?
12	Α.	Because I don't think that the E. coli infection
13		was severe enough. Now, it's hard I'll be
14		honest with you really hard let me think.
15		Let me back up here.
16		He had decels, decelerations, from what I
17		remember. And it's too bad I can't remember how
18		long they were. So I still would say probably
19		more likely than not, he would have been
20		normal. But if you're going to say to me does
21		the possibility exist today there could have
22		been some neurological impairment, I would never
23		argue with you. Let's give credit where credit
24		is due. Or I think I've answered before that he
25		might have had a smidgen of some neurologic

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1 dysfunction but nothing as severe as what he had 2 It's pure speculation in that regard. now. 3 Can encephalopathy or cerebral palsy like Q. 4 Zachary has occur before labor begins? 5 Α. Yes. 6 What is the mechanism of that? Ο. 7 Α. Great question. What's your next one? 8 You don't know the answer? Ο. 9 Α. In utero events can occur -- as a generic term? 10 Let's use generic statements. Could be due to 11 chromosomal abnormalities. Unfortunately, the 12 videotape of a child that I had -- of a child like that that I had on my desk is not here. 13 It can be due to an in utero infection. 1415 Usually a viral infection. It can be due to an 16 in utero hypoxic ischemic event that was 17 self-limited in nature. It can be due to, you 18 know, a malformation of the brain. But that's not what it's due to here. 19 20 0. Why? 21 Α. Because he shows the rest of the signs and 22 symptoms that go along with it. If it quacks 23 like a duck and looks like a duck and walks like 24 a duck, it's a duck. 25 How is in utero cerebral palsy detected before Q.

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1		birth?
2	A.	I don't know.
3	Q.	Can it be?
4	A.	In what kind?
5	Q.	A kind like Zachary has.
6	A.	No. You can't say hat.
7	Q.	Encephalopathy, ataxic cerebral palsy?
8	Α.	No. No. Moderate encephalopathy is what his
9		acute neurologic picture was after birth.
10	Q.	Ataxic cerebral palsy?
11	Α.	I don't know how you'd detect it before birth.
12		There are some ways. For instance, if children
13		have big ventricles before birth. Or, God
14		forbid, the child dies right after birth and you
15		do an autopsy study and you find out that
16		there's abnormalities of the brain that by a
17		neuropathologic basis occurred weeks ago and it
18		can be dated that way. I mean things of that
19		nature,
20		If I have a child who is born full term
21		with no complications whatsoever, looks
22		perfectly fine, normal labor and delivery
23		history and yet has cerebral palsy afterwards, I
24		can basically conjecture, assuming that it's not
25		a progressive neurologic disorder, that it's a

static process. I can conjecture that whatever 1 2 caused the cerebral palsy, that had to have occurred prior to birth. And I say this in my 3 office all the time to parents. 4 So in other words, I guess what I'm trying 5 to say to you is you've got to look at the 6 7 company it keeps in order to come to a 8 conclusion. 9 You mean the events that surrounded the birth? Ο. 10 Α. Yes. 11 Ο. Did you do any investigation to exclude a prenatal cause of Zachary's cerebral palsy? 12 13 Α. In what way? 14 Ο. In any way. I looked for definable metabolic 15 Α. Yes. disorders. I looked for certain hereditary 16 disorders. 17 Yes, And you looked at the E. coli sepsis? 18 Q. Yes. Well, that's not -- hold it. E. coli 19 Α. 20 sepsis is not really a true prenatal disorder, 21 I mean this is an intrapartum phenomenon. 22 Do you know how long the E. coli sepsis had been Q. 23 present? 24 Α. Couldn't have been there that long. 25 Q. Why?

1	A.	He would have been dead.
2	Q.	You are saying to me it was not there for a
3		week?
4	Α.	No. I can tell you it wasn't there for a week.
5	Q.	How long do you think it was there?
6	A.	I have no idea.
7	Q.	You just know it's not there for a week?
8	A.	I know it's not there for a week. I've read the
9		reports of what people have stated. You can put
10		together perhaps a clinical history and
11		everything else like that and say how long was
12		the mother febrile, what else was going on, boom
13		boom, boom, so forth and so on, and put it all
14		together. A more-likely-than-not scenario, it
15		was probably there within the day. And that is
16		just, you know, a first-shot approximation.
17	Q.	At what point did Zachary's brain injury become
18		probable?
19	Α.	What, when did it happen? Definitely?
20	Q.	Well, to a probability. If you can say
21		definitely, then fine.
22	A.	Well, I am saying what you are saying is when
23		did it happen more likely than not?
24	Q.	Yes.
25	Α.	By the time he was fully delivered. Now, it

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could have been a minute before that or two 1 2 minutes before that. That's also there. Τf 7 you're saying any type of brain injury, might have been there six minutes before that, eight 4 minutes. 5 There was no monitoring going on. 6 I have 7 no idea when his pulse fell out. But the Е probability is that it was definitely there by 9 the time that he was born fully. Without the E. coli sepsis, would Zachary have 10 Q. been born and been normal? 11 12 Α. Probably. 13 By the way, I want to let you know that that's a very difficult question. But that's my 14 viewpoint. 15 16 Q. Is there any connection between Zachary's cerebral palsy and his asthma? 15 No. 18 Α. As of your last encounter with Zachary, did he 14 Q. show any indication of being mentally retarded? 2 c That was asked and answered. 21 Α. I think I asked in terms of cognitive. 25 Q. Well, that's the same thing. What does 23 Α. 24 "cognition" mean? 25 Well, you're the neurologist. Let me ask you. Q .

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"Mentally retarded" really means whether you 1 Α, 2 have normal intelligence. "Mentally retarded" means you do not have normal intelligence. 3 I wrote this in my letter. I stated that on my 4 5 quick screen. "He appears to be functioning 6 adequately in the cognitive domain." Although 7 specific learning arrangements were not assessed. And I felt that he should condition 8 with his therapy and so forth and so on. 9 10 Has Zachary recovered from the palsy? Ο. 11Α. Functionally, yes. 12 What other way is there palsy? Ο. 13 I am sure that when he's older, when I test him, Α. I might find some mild dysfunction. 14 But if 15 you're asking me can he use the hand adequately, is it going to interfere with -- you know, from 16 the palsy standpoint, is it got to interfere 17 18 with how he uses that hand, my answer is 1 don't 19 think so. 20 Q. Do you deem him to have recovered from the Erb's 21 palsy at this point? 22 That's what I said. He's functional. Ιf Α. Yes. 23 he has 90 percent function but it's enough to 24 make him do what he's supposed to do, that's 25 That's why I consider it -- even with my great.

patients who have a, quotation marks, 1 2 "recovery,'! end quotation marks, I may find some very mild abnormalities down the road, but 3 what's more important to me is can they do 4 things that children can normally do. And on my 5 most recent examination, I didn't find a major 6 7 asymmetry of function that would suggest that he has the problem. 8 What is a Sarnat level? 9 Q. 10 Α. Dr. Sarnat -- actually, there are two 11 Dr. Sarnats, just to be exact -- wrote a paper 12 on this whole subject of neonatal encephalopathy purportedly due to hypoxic ischemic insults, and 13 they had rated their levels as 1, 2 and 3, which 14 15 are the equivalents of mild, moderate and 16 severe. Where would I find this article? 17 Q. 1970 about. Oh, the journal. That's a good 18 Α. 19 question. Want me to take a wild guess? 20 Ο. Sure. I can see the article in front of me, and I am 21 Α. trying to remember the journal it was in. 22 Ιt had to be in a pediatrics journal. So I say it 23 was probably in Pediatrics. But, you know, I'll 24 tell you where you can find it. If you want me 25

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1		to look it up right now, I'll tell you exactly
2		where it's at.
З	Q.	I can find it. What's Dr. Sarnat's first name,
4		the one who wrote this article?
5	Α.	Both of them wrote it. There's two of them.
6		And I can't tell you which one it is.
7	Q.	Is that a widely accepted and used standard?
8	Α.	No. No. "Standard" is the wrong word. Do
9		people normally score kids with encephalopathy
10		as mild, moderate and severe? The answer is
11		yes.
12	Q.	Using the Sarnat criteria?
13	Α.	Using variations on their criteria on what they
14		initially proposed to the medical community.
15	Q.	Would you pull out the 9-6-88 child neurology
16		consult note, please, from the University
17		Hospital records?
18	Α.	Got it.
19	Q.	Did you sign this note?
20	Α.	No.
21	Q.	Do you remember reading it at the time?
22	Α.	I have no independent recollection.
23	Q.	Have you read it recently?
24	Α.	Yes.
25	Q.	And do you agree with the conclusions reached in

that note?

2 A, No.

1

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4

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Q. And to what extent do you disagree?

A. I wouldn't -- for instance, Impression No. 1 says "Hypoxic encephalopathy (Sarnat level 2)."

I would probably put the words "hypoxic ischemic encephalopathy" because I don't believe personally that hypoxia in and of itself is sufficient to cause the majority of the brain damage that we see in newborns. I mean that's a fine point to differentiate, but that's what it is.

13 Q. Would you contrast "hypoxic" versus "hypoxic 14 ischemic"?

It almost never occurs where you have lack of 15 Α. oxygen but still have good circulation. I mean 16 17 the best model for that would be something like 18 carbon monoxide poisoning. It's a great model for it because the gas displaces the oxygen from 19 20 its binding on hemoglobin, and so you've got 21 good circulation going on, but you've got poor 22 oxygen delivery going to tissues.

There are other ones that you can give, but in these kinds of situations, you almost have a mixture -- now, I'll give you another example.

23

24

1 If I clamped the cord so there's no -- or I stop 2 your heart -- that's even a better example -- so 3 it doesn't beat. You've got adequate oxygen in your blood. It's just not going anywhere. 4 And the oxygen levels of the blood that's in any 5 organ -- you name the organ -- are going to be б 7 rapidly depleted, but there's no circulation going on so the initial event there is 8 9 ischemia.

10 Many people believe that you need the 11 ischemic component in order to really cause 12 problems.

13 Q. Do you?

14 A. Yes. I'm convinced by the patients that I've15 followed in some of my own research work.

16 The second impression, just to continue 17 answering your question, which was a brachial 18 plexopathy, the answer is yes, I agree that the 19 child had a brachial plexopathy.

Q. Reviewing this 9-6-88 child neurology note, what evidence is listed in there that supports the conclusion of hypoxic ischemic encephalopathy?
A. In and of itself? None.

24 Q. Nothing?

25 A. No. No. In and of itself, there's information

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1		in here, the description of the child's initial
2		Apgar scores, the description of his clinical
3		picture, but there were other facts that were
4		not put into this note.
5	Q.	What other facts?
6	Α.	Like I had mentioned before, the fact that he
7		had multi-organ system dysfunction, More
8		details of the resuscitation, including the
9		presence of metabolic acidosis details if you
19		want to think of the whole picture being put
11		together.
12	Q.	When did you get that information about the
13		resuscitation?
14	A.	I may have reviewed it then. I've reviewed it
15		more recently. That's the only answer I can
16		give you. I can't tell you when. It's in the
17		medical records. It's in the chart. It is part
18		of the University Hospitals chart.
19	Q.	Does the absence of any indication of cognitive
20		impairment or mental retardation in Zachary have
21		a bearing on whether his injuries are due to
22		perinatal asphyxia?
23	Α.	No. That just means he wasn't insulted long
24		enough to cause a big-time cognitive loss.
25	Q.	How often do you see brachial plexus injuries in

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1 shoulder dystocia cases? 2 Α. I've never counted. How's that for my answer? Is it in the greater proportion of shoulder 3 Q. dystocia cases? 4 5 Α. No. Let's turn around the question. Fine. б 0. 7 Α. How often do I see brachial plexopathy, and what is the most common associated feature with it. 8 9 Q. Fine. Tell me. In my experience, most recently, it's usually a 10 Α. 11 big baby who gets stuck. That's not the only 12 cause. Do you see those types of deliveries right here 13 Ο. 14 at University Hospital? Yes. 15 Α. Would you expect a child born with E. coli 16 Q. 17 sepsis to be depressed at birth? Could very well be, yes. 18 Α. And difficult to resuscitate? 19 0. 20 Depends on how severe the sepsis is. Α. How severe does it have to be to have 21 Ο. 22 difficulties resuscitating the infant? The child would have to be in overt shock. 233 Α. 244 Ο. No blood pressure? No heartbeat? 25 No heartbeat. Α.

1 Q. Anything else?

2	A.	Excuse me. I would consider the resuscitation
3		to be very difficult from that point forward so
4		that if the child was in such severe shock at
5		that point in time, I would expect that the
6		child would have to get more resuscitation, not
7		only that you'd have to intubate and, you know,
8		do bagging, but you'd have to also give major
9		pressers.
10	Q.	Was Zachary's resuscitation difficult?
11	A.	Yes, it was. But after he was resuscitated, the
12		amount of support that he needed was not as much
13		as I would expect for E. coli sepsis.
14	Q.	Would you expect a child born after five minutes
15		of shoulder dystocia to be depressed?
16	A.	Yes.
17	Q.	And would you expect a child born
18	Α.	Let me back up on that. That's not right. The
19		child can be dependent on if the shoulder
20		dystocia is associated with cord compression.
21	Q.	All right. So I'll rephrase my question. Would
22		you expect a child born after five minutes of
23		shoulder dystocia with cord compression to be
24		depressed?
25	Α.	Yes.

1	Q.	And would you expect a child born after five
2		minutes of shoulder dystocia with cord
3		compression to be difficult to resuscitate?
4	Α.	Dependent on the circumstances.
5	Q.	Did Zachary's brain injury occur in any part
6		during the resuscitation process?
7	Α,	That's a good question. And I really don't have
8		an answer for that one. I would feel if we
9		were doing a good resuscitation, getting
10		circulation on him, giving him pressers and
11		everything else like that that more likely than
12		not, no, as long as that resuscitation was being
13		done in an adequate fashion.
14		See, you have to turn the question the
15		other way around and ask if he's difficult to
16		resuscitate because of the events that occurred
17		in utero, can that difficulty lead to further
18		problems, and the answer is yes, it possibly
19		can.
20	Q.	Well, my question was
21	Α.	That's what I'm saying.
22	Q.	I just want to make sure you're answering the
23		question I asked.
24	Α.	I already answered the first one, and I just
25		gave you the opposite way around to it. You're

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1		asking if he had further brain damage during the
2		time of his resuscitation,
3	Q.	Exactly.
4	Α.	And my real answer to that one is it's always
5		possible, but I don't think that you can give an
6		answer it depends on the quality of the
7		resuscitation and, for instance, if you're doing
8		cardiac compression, how good the compression
9		is, how well it's being done, so forth and so
10		on.
11	Q.	Are you involved in teaching residents here at
12		University Hospital about the difference between
13		possibilities and probabilities?
14	Α.	No.
15	Q.	Is that something you assume they know?
16	Α,	I don't assume it, no, I don't.
17		Let me back up. Can I ask you when you say
18		"possibility" and "probability," in what
19		context? In the legal context or just in the
20		general, you know, writing notes that this is a
21		possible problem, that's a possible problem,
22		things like.
23	Q.	Is there a difference?
24	Α.	I think there is, yes.
25	Q.	What's the difference?

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1	A.	I think you folks use the word "possible" to
2		mean less than 50 percent chance of happening
3		and "probable" meaning more than 50 percent
4		chance of happening,
5	Q.	And how do you folks use the term?
6	Α.	I think we don't use it that way. I really
7		don't. That's all I can tell you. And I think
8		if you went out and polled the residents, you'd
9		find out something very similar when they
10		write when notes are written.
11	Q.	So when they write "possible," they mean
12		"probable," and when they write "probable," they
13		mean "possible"?
14	Α.	No. I don't think they make the fine
15		distinction that you folks make within. the law.
16	Q.	Doctor, through the questions that I've had the
17		opportunity to ask you this afternoon and into
18		this evening, have you had the opportunity to
19		express all your opinions in this case that you
20		expect to testify about at trial?
21	Α.	How about saying you've hit the core.
22	Q.	Is that the right way of saying it?
23	Α.	I can't tell if it's every single itsy-bitsy
24		last one. There's nothing that I can think of
25		right now. You have to ask me more questions

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perhaps -- I mean I could have missed something 1 or there might be something that's lingering 2 back there. 3 4 Q. Are you aware of any areas that I have missed in 5 my questions that are relevant to your opinions in this case? 6 7 MR. MELLINO: I think he just wants to know if he's covered all the areas that 8 9 you're going to testify on. I'll tell you something. As far as I know, 10 Α. you've covered the important questions. 11 At this point in time as we're saying it, that's what I 12 would say, that would be my answer. 13 MR. SEIBEL: Okay. I have nothing 14 further. 15 I just have a few real 16 MS. CABI: 17 brief questions. Maybe two. 18 CROSS-EXAMINATION OF MAX WIZNITZER, M.D. 19 BY MS. CABI: 20 You're aware that the mother in this case was 21 Q. postdate? She was 42 weeks? 22 23 Α. That's what it says in the records? 24 0. Yes. 25 Okay. Α.

1	Q.	You can assume that. If you don't recall that.
2	A.	I will assume that. Okay. What does it mean
3		though?
4	Q.	Would that give you a basis to form an opinion
5		as to the viability of the placenta to support
6		the fetus?
7	Α.	You can't say it in that way.
8	Q.	Why?
9	Α.	There's a difference between the dates and
10		placental insufficiency, and I'm only telling
11		you this from just my general knowledge. It
12		depends on how the baby looks. If you've got a
13		baby that comes out fat and bustling and looking
14		good and everything else like that, you know the
15		placenta's supporting the child well to the very
16		end. It doesn't matter what dates you've got
17		there. If you've got a baby who comes out
18		scrawny, you know, wasted, decreased
19		subcutaneous tissue, excessive peeling of the
20		skin, things like that, I think you can turn
21		around and say the other way, that yes, that
22		event has already started to occur.
23		So just fixating on a number is a fatal
24		error in this situation. Again, you're got to
25		look at the company it keeps.

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1	Q.	In this case, can you form an opinion as to the
2		placenta's viability to support the fetus?
3		I thought it would be short.
4	A.	Excuse me?
5	Q.	I thought it would be short,
6	A.	From the information that I have in my
7		University Hospitals of Cleveland record that
8		I'm looking at now, I mean I see no comment by
9		anyone describing giving the clinical
10		description of a postdate child. Is that a
11		reasonable answer?
12	Q.	So you don't have an opinion?
13	Α.	I just do it's not that. I'm just saying to
14		you the opinion I have is I see nothing here in
15		front of me right now that describes a child who
16		is clinically clinically postdates, which
17		would mean that there's placental insufficiency
18		that's occurring.
19		Now, if you have information that you'd
20		want to share with me and that might make me
21		alter my opinion, I'd be happy to look at it.
22		My mind is always wide open for anything that
23		people are going to say.
24	Q.	No. I just wanted to know if you had an
25		opinion.

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1	A	Okay. I tell you that as a pediatrician. We'll
2		say that way, from my pediatric training.
3		MS. CABI: I don't have any other
4		questions.
5		MR. SEIBEL: I've just got a
6		couple.
7		
8		FURTHER DIRECT EXAMINATION OF
9		MAX WIZNITZER, M.D.
10		BY MR. SEIBEL:
11	Q.	In terms of the prognosis for Zachary's future
12		need, do you have an opinion as to whether or
13		how long he will require physical therapy?
14	Α.	He is going to require it for the foreseeable
15		future.
16	Q.	How long is that?
17	Α.	He very well may require it through adulthood.
18		You know, if you ask me that question in five
19		years, I can answer it better for you. It
2 0		depends on what his motor progression does and
21		how bad his ataxia is.
22	Q.	What will Zachary's getting older have to do
23		with the effect that his ataxia has? Is there
24		any relationship between his aging and the
25		deficits that he has?

1	A.	I've had some children whose extrapyramidal
2		features tend to get worse over time. I gave
<u>7</u>		you the example before, especially to children
4		with choreoathetotic cerebral palsy, that it may
к)		very well take someone and totally physically
6		incapacitate them. More likely than not, I
7		don't think it's going to do that to Zachary.
E	Q.	What about the most likely need into the future
9		for occupational or speech therapy for him as
1 C		well?
11	A.	For the foreseeable future, and I can't go any
12		further than that, for speech, definitely, he
13		has difficulties with expressive language,
14		predominantly because of the ataxia. Has to
15		work with it and has had some good successes
16		with his therapy. I think it's important to
17		continue through the formative years of
18		language. You know, the peak times are the
19		peak times is through age 6 years, but you still
20		have, you know, until you reach adulthood. I
21		mean does he need speech therapy when he's 25
22		years old? Let's see what his language is like
23		at age 20, and I'll tell you. In all
24		seriousness. I mean I can easily answer the
25		question there.

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1		Occupational therapy. I see that also
2		through adulthood, he's going to have motor
3		difficulty and he's going to need help,
4		alterations, appliances. You know, probably
5		adaptive equipment in terms of spoons and things
6		like that.
7		If I am not mistaken I may be. I can't
8		remember if Zachary was the child who at Health
9		Hill Hospital, they actually weighted him down
10		in order to make his walking better, his
11		ambulation better. This is the kind of
12		strategies that as you're followed
13		longitudinally by therapists, things can be
14		done. He actually moved better. If he's the
15		one, he moved better.
16	Q.	What is the actual mechanism of Zachary's brain
17		injury?
18	A.	Hypoxic ischemic incident.
19	Q.	So lack of blood to the brain?
20	A.	Lack of adequate nutrient delivery to the brain.
21		That's the important word to use.
22	Q.	How do you define "ischemia"?
23	Α.	"Ischemia" is an inadequate blood pressure or
24		inadequate delivery of blood in order to support
25		the metabolic functions of the organ.

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1	Q.	So he had both hypoxia and ischemia?	
2	Α,	Assuming he had a total asphyxia. I've seen	
-		stated he has a total asphyxia picture. He has	
4		no blood flow at all. Technically speaking, he	
ц)		uses up his oxygen reserves. He's then hypoxic.	
e		He has no blood flow. He's ischemic because	
7		you're not getting nutrient delivery to the area	
f		in an adequate fashion.	
с	Q.	So that is the description of the mechanism of	
ıc		the actual injury to the brain?	
11	A.	Yes.	
12	Q.	Have you ever talked to Dr. Redline about this	
13		case?	
14	Α.	No.	
15	Q.	Have you ever talked to Dr. Horwitz about this	
16		case?	
15	Α.	From the clinical standpoint? I'm sure we've	
18		talked about Zachary in the past. I'm convinced	
19		we have. So I guess the answer would be yes.	
2c	Q.	Do you remember any specific conversation with	
21		Dr. Horwitz?	
22	Α.	No. There's so much going on with Zachary from	
23		the very beginning till now. There have been	
24		many management issues.	
25	Q.	The only other thing before we conclude, doctor,	

1		is I need a copy of your chart,
2	Α.	My medical record?
3	Q.	Your medical record, What is the best way to
4		get that?
5	A.	Drop me a note.
6		Everyone wants the chart?
7	Q.	Yes, I know that Ms. Cabi and I both need a
8		copy.
9	A.	Just do the standard routine.
10	Q.	Which is what?
11	A.	I don't know. Didn't you folks already request
12		a copy of my chart?
13	Q.	Well, if we did, we didn't get one.
14	A.	See, I'm trying to look and see.
15	Q.	I know that Mr. Kampinski did and he has a copy
16		of your records, but I don't have a copy.
17	Α.	He has a copy of my records through 1990.
18	Q.	And I need a copy up to the current time.
19		MR. MELLINO: Can somebody in your
20		office copy those and send them out?
21		THE WITNESS: Oh, yes. I don't
22		care. Get the right paperwork sent to me,
23		and I'll be more than happy.
24	Q.	It just takes a letter with the address where to
25		send them?

And a release, Always got to have a release. 1. Α. 2 See, that's the problem. Ο. I'll take care of MR. MELLINO: 3 getting you guys copies. 4 5 MR. SEIBEL: All right. Ġ MS. CABI: Okay. I've got to do things right. Can't give away 7 Α. patients' charts without a release. 8 9 Q. No, and I wouldn't want you to. But it's just 10 that I want to make sure I get a copy as current 11 as it is of every piece of paper that you are maintaining in your records for Zachary. 12 13 Sure. As long as you tell me we can do that, I Α. 14can release other people's records. I mean many 15 of the papers in here are other people's 16 records. 17 Ο. I have Dr. Bennet's. I have Dr. McEvoy's 18 record. I have the University Hospitals 19 records. 20 But do you have his therapy records from the Α. 21 achievement center? 22 0. Yes. So you really want my records --23 Α. 24 I want every piece of paper you have in your Q. 25 chart. Whether it's duplicative of other

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1		records I have already I don't care.
î	A.	Okay. I just want to make sure. One of the
a		other things I worry about is giving away other
4		personnel's records without their permission,
5		but if you folks say that's legally okay, then
6		I'll be happy to do so.
7		MR. SEIBEL: Okay. We are done.
8		
9		MAX WIZNITZER M D
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3	<u>C E R T I F I C A T E</u>
4	
5	The State of Ohio, ) SS:
6	councy of cuyanoga.,
7	T Town D Whenness a Netsous Dublis within
E	and for the State of Ohio, authorized to administer oaths and to take and certify
ç	depositions, do hereby certify that the above-named MAX WIZNITZER, M.D., was by me,
1 C	before the giving of his deposition, first duly sworp to testify the truth the whole truth and
11	nothing but the truth; that the deposition as
12	means of stenotypy, and was later transcribed
13	is a true record of the testimony given by the
14	witness, and was subscribed by said witness in my presence; that said deposition was taken at the aforementioned time date and place
15	pursuant to notice or stipulations of counsel;
16	of any of the parties, or a relative or employee
15	this action.
18	IN WITNESS WHEREOF, I have hereunto set my
19	this day of, A.D. 19
2 c	
21	Lynn D. Thompson, Notary Public, State of Ohio
22	My commission expires January 21, 1995
23	
24	
25	

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1	<u>WITNESS INDEX</u>	
2		PAGE
3	DIRECT EXAMINATION	3
4	BY MR. SEIBEL	
5	CROSS-EXAMINATION MAX WIZNITZER, M.D.	88
6	BY MS. CABI	
7	FURTHER DIRECT EXAMINATION MAX WIZNITZER, M.D.	91
8	BY MR. SEIBEL	
9	<u>EXHIBIT INDEX</u>	
10	EXHIBIT	MARKED
11	Defendants' Exhibit 1,	б
12	4-5-91 Wiznitzer letter to Kampinski	
13	Defendants' Exhibit 2,	25
14	child neurology office chart	
15		
16		
17		
18		
19		
20		
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22 22		
⊿⊃ 24		
2.5		

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1	IN THE COURT OF COMMON PLEAS
2	CUYAHOGA COUNTY, OHIO
3	ZACHARY HAMMON, et al., $D\sigma(456)$
4	Plaintiffs,
5	-vs- <u>CASE NO. 209957</u>
6	MARYMOUNT HOSPITAL,
7	et al.,
8	Delendants.
9	
10	Deposition of MAX WIZNITZER, M.D., taken as if
11	upon direct examination before Lynn D. Thompson,
1 2	a Notary Public within and for the State of
13	Ohio, at Rainbow Babies & Childrens Hospital,
14	2101 Adelbert Road, Cleveland, Ohio, at 4:50
15	p.m. on Friday, January 15, 1993, pursuant to
16	notice and/or stipulations of counsel, on behalf
17	of the Defendants El-Mallawany, Abrams and Brown
18	in this cause.
19	
20	MEHLER & HAGESTROM
2:L	Court Reporters
2:}	Cleveland, Ohio 44115
2:3	FAX 621.0050 800.822.0650
2'1	000.022.0000
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1		records I have already I don't care.
2	A.	Okay. I just want to make sure. One of the
3		other things ${f I}$ worry about is giving away other
4		personnel's records without their permission,
5		but if you folks say that's legally okay, then
6		I'll be happy to do so.
7		MR. SEIBEL: Okay. We are done.
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TO THE WITNESS: DO NOT WRITE IN TRANSCRIPT EXCEPT TO SIGN. Please note any word changes/corrections on this sheet only. Thank you.

TO THE REPORTER: I have read the entire transcript of my deposition taken on the 15+h day of <u>Januar</u>, 19.93 or the same has been read to me. I request that the following changes be entered upon the record for the reasons indicated. I have signed my name to the signature page, and I authorize you to attach the following changes to the original transcript:

PAGE	LINE	CORRECTION OR CHANGE AND REASON THEREFORE
61	22	Dr. Warren Cohen
36	19	it's prot like

 $\frac{2/12}{93}$ Today's date