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DOROTHY BARBAGALLO,  
Mother and Next Friend of  
JOSHUA BARBAGALLO, Infant,  
et al.,

) Before the  
) Health Claims  
) Arbitration  
) Office of  
) Maryland

4

Claimants,

5

- vs -

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HCA No. 92-361

7

ANONG LEKAGUL, M.D., et al.,

Defendants.

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DEPOSITION OF: MARK S. SCHER, M.D.

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12

13

DATE: January 25, 1995  
Wednesday, 9:25 a.m.

14

15

PLACE: The Holiday Inn  
University Center  
100 Litton Avenue  
Pittsburgh, PA

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TAKEN BY: Claimants

19

REPORTED BY: Janette Dukic, RPR  
Notary Public

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**CERTIFIED TRANSCRIPT**

1 DEPOSITION OF MARK S. SCHER, M.D.,  
2 a witness, called by the Claimants for examination, in  
3 accordance with the Federal Rules of Civil Procedure,  
4 taken by and before Janette Dukic, RPR, a Court Reporter  
5 and Notary Public in and for the Commonwealth of  
6 Pennsylvania, at the The Holiday Inn, University Center,  
7 100 Lytton Avenue, Pittsburgh, Pennsylvania, on Wednesday,  
8 January 25, 1995, commencing at 9:25 a.m.

9 - - - -

10 APPEARANCES:

11 FOR THE CLAIMANTS:

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## \* I N D E X \*

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1 MARK S. SCHER, M.D.,  
2 having been duly sworn,  
3 was examined and testified as follows:

4 - - - -

5 EXAMINATION

6 - - - -

7 BY MR. FEDERICO:

8 Q. Doctor, your full name for the record.

9 A. Mark Steven Scher, with V.

10 Q. Your current professional address?

11 A. Children's Hospital of Pittsburgh, and Magee-Womens  
12 Hospital.

13 Q. Do you work with Dr. Bergman?

14 A. Yes.

15 Q. Are you in the same department?

16 A. Yes. There are eight of us, and he is one of my  
17 colleagues in child neurology.

18 Q. He does a little forensic work, doesn't he?

19 A. From what I understand, yes.

20 Q. I understand we have met before, and I have a copy  
21 of your CV, I think, back at my office, but it is  
22 probably two or three years old. Would you be kind  
23 enough to send counsel a copy of your CV, and he  
24 will send it along to me?

1 A. I would be happy to.

2 Q. Good. When were you first contacted in this case?

3 A. Sometime in either early '94 or late '93.

4 Q. Do you have everything that you have reviewed in  
5 this case in front of you?

6 A. Yes, I do.

7 Q. When you were contacted initially what did you  
8 receive?

9 A. I received the medical records for the Barbagallo  
10 family, both mother and child, and some follow up  
11 records, although not all, obviously.

12 Q. Based on your review of that initial material, did  
13 you formulate the opinions you now hold in this  
14 case?

15 A. Yes.

16 Q. Did any of the subsequent material that you reviewed  
17 significantly impact upon the opinions that you  
18 currently hold?

19 A. No.

20 Q. You have some notes there, correct?

21 A. Yes.

22 Q. And you made these when you initially reviewed the  
23 case?

24 A. Correct.

1 Q. We will mark them Deposition Exhibit No. 1, and I  
2 would like to attach a copy of that to the  
3 transcript.

4 - - - -

5 (Document marked for identification  
6 Deposition Exhibit No. 1.)

7 - - - -

8 BY MR. FEDERICO:

9 Q. In terms of materials that you have reviewed, why  
10 don't we put all of the medical records in one pile,  
11 all of the depositions in another pile, and sort of  
12 just --

13 A. There are Volumes 1 through 5 that I believe were  
14 the initial pieces of information that were sent to  
15 me related to Holy Cross, and John's Hopkins records  
16 for the child.

17 Q. Let me stop you there.

18 A. Okay. Do you want to see it all?

19 Q. No. Just leave it right there.

20 A. Okay.

21 Q. If you don't mind, I am just going to come around.

22 What I would like to do, Denise, if it is  
23 all right with you, is just mark as Deposition  
24 Exhibit 2 --

1 MS CLARK: map index?

2 MR FEDERICO: Yes map indexes from tapes  
3 volumes 1 through 5 of tapes records

4 Can we do that?

5 MS CLARK: I don't have any problem with  
6 that. Actually, this is tape index that covers all

7 MR FEDERICO: Does it cover all of tapes?  
8 That's perfect. Thank you. It is tapes pages, and  
9 that is number two

10 - - -

11 (Document marked for identification)

12 Deposition Exhibit No. 2 )

13 - - -

14 BY MR FEDERICO:

15 Q And then in addition to tapes records, Volume 1

16 through 5, have you reviewed any other records?

17 A Subsequently, under tapes different mailings, I have  
18 reviewed oppositions and more recent updated medical  
19 records.

20 Q Why don't you just tell me what tapes have

21 A On October 6th, I received a series of depositions,  
22 and I can name tapes by person, if you would like

23 Q Please.

24 A Doctors Branca, Vincent, Herowans, Fields, Michael

1 Alexander, a life plan for Joshua, Ed Myer. That  
2 was out of that mailing of the 6th of October of  
3 '94.

4 On October 20th, I received updated  
5 medical records regarding Joshua that included  
6 Kennedy-Krieger records, Dr. Singer's records, Mount  
7 Washington Hospital records, Dr. Lazor's records,  
8 John's Hopkins GI and Nutrition Service records, and  
9 Dr. Baroody's records.

10 Finally, January 18th of '95, I received  
11 three depositions, Dr. Collela, C-o-l-l-e-a,  
12 Dr. Worthmann, with two n's; and John Freeman, and  
13 that's it.

14 Q. Now with regard to your CV, do you have any  
15 publications that you believe relate to the issues  
16 in this case?

17 A. I think indirectly. I think the subject matter in  
18 the publications deal with neonatal seizures, deal  
19 with persistent hypertension of the newborn, deal  
20 with hydrops fetalis, and deal with anti-partum  
21 onset of injury, **so** in general, those themes.

22 Q. Would you be kind enough before you send us your CV  
23 to circle any publications you believe in any way  
24 relate to the issues in this case?



1 A. Sure.

2 MS. CLARK: Do you want him to make a  
3 notation as to whether they -- I think he said that  
4 all of them are indirectly related, but upon review,  
5 if he finds something else --

6 MR. FEDERICO: Absolutely.

7 MS. CLARK: -- indicate which ones are.

8 MR. FEDERICO: Absolutely.

9 BY MR. FEDERICO:

10 Q. I wouldn't expect that sitting here today without  
11 your CV in front of you. You probably have many,  
12 many publications and you can't remember.

13 A. Well, you should also know that I have not published  
14 specifically on lupus, maternal lupus and its  
15 association with children. Although I have seen the  
16 kids in practice, I have no publications of that.

17 Q. Have you published on hypoxic ischemic  
18 encephalopathy?

19 A. Not as a major topic of itself. These are clinical  
20 reports or studies, of which should have included  
21 hypoxia or ischemia.

22 Q. Any publications that relate to the issues in this  
23 case?

24 A. Sure.

1 Q. I would like to talk to you about the amount of the  
2 forensic work you have done over the past two years.  
3 Can you estimate the number of cases that you have  
4 looked at in the last two years?

5 A. Yes, I have probably see 10 to 12 cases a year.

6 Q. And of those 10 to 12 cases a year, how many are on  
7 behalf of the plaintiff, how many are on behalf of  
8 the defendant?

9 A. It will vary, but I would say it has been pretty  
10 steady that about three quarters are defense and  
11 about a quarter are plaintiff.

12 Q. Have you ever looked at any plaintiff's cases for  
13 any lawyers in Maryland or the District of Columbia?

14 A. Not to my recollection.

15 Q. Can you give me the names of any plaintiff's lawyers  
16 you have ever reviewed cases for?

17 A. In the state of Washington I am looking at a case  
18 now, which is transferred from one plaintiff to  
19 another plaintiff lawyer. The original plaintiff  
20 lawyer I do remember. Her name is Judy Massong,  
21 M-a-s-s-o-n-g.

22 Q. Where in the state of Washington?

23 A. I think she is out of Seattle, but she is a very  
24 recent one. I don't keep files on this stuff, but I

1 have reviewed the case recently. It has been moved  
2 over to another attorney's office, Paula Vera.

3 Q. Are there any other plaintiff's attorneys that you  
4 remember having ever reviewed a case for or  
5 testified for on behalf of their clients?

6 A. I don't remember names. I remember states.

7 In Iowa, I looked at a case that was  
8 plaintiff. I have looked at several in New  
9 Hampshire and several in Florida, but I don't  
10 remember the names of these guys.

11 Q. Do you remember the names of the firms?

12 A. No, I am sorry, I don't.

13 Q. Now have you ever looked at a case for Wharton,  
14 Levin, Ehrmantraut, Klein & Nash?

15 I think that is it for now.

16 A. Over a fair number of years, I think probably three  
17 or four.

18 Q. And what other firms in Maryland have you reviewed  
19 cases for?

20 A. There are other firms. I don't recall them. At  
21 least one other I have reviewed for -- I don't  
22 remember their names, but I know there is at least  
23 one of them in Maryland, a firm that I reviewed.

24 Q. In the past two years, can you estimate the number

1 of depositions that you have given per year?

2 A. Probably over the two years, a dozen, maybe six a  
3 year.

4 Q. And have you made any court appearances or  
5 arbitration appearances in the last two years?

6 A. Maybe on one or two occasions, and they were  
7 defense. In Ohio, I believe. I know I was out in  
8 Maryland for a case as well, and it may even have  
9 been for this firm, and that's about it.

10 Q. The case in Maryland, do you remember the name of  
11 either the plaintiff or the defendant or any of the  
12 lawyers involved?

13 A. No, I don't. I am sorry, I don't. It was an  
14 arbitration. It was not a trial.

15 Q. Where was the arbitration held?

16 A. Baltimore.

17 Q. Can you recall anything about the case, the issue?

18 A. It was not lupus in the mother, but it was issues of  
19 examples, giving causation issues of when the injury  
20 occurred, and I thought it was more chronic, and,  
21 obviously, the opposing arguments by plaintiff's  
22 experts was it was more acute.

23 Q. Do you remember any of the plaintiff's experts in  
24 the case --

1 A. No.

2 Q. -- or any of the defense experts in the case?

3 A. No.

4 Q. And in the Ohio case you testified in, what city was  
5 that in?

6 A. Cleveland.

7 Q. Do you remember the names of either of the parties  
8 or any of the parties or any of the lawyers involved  
9 in that case?

10 A. I am sorry I don't, no.

11 Q. When did you last testify in arbitration or court?  
12 How long ago?

13 A. It might have been that case in Maryland. That was  
14 the last time.

15 Q. 1994?

16 A. No. No, I do not believe it was in '94. It may  
17 have been just the beginning of '94 or the end  
18 of '93. Actually, it may have been right in the  
19 beginning of the year, because it was wintertime.

20 Q. When did you last give a deposition?

21 A. In the fall. Sometime September or October, that  
22 area.

23 Q. Where was that case from?

24 A. North Carolina.

1 Q. Were you for the plaintiff or the defendant?

2 A. Defense.

3 Q. Do you remember the names of any **of** the parties or  
4 any of the lawyers?

5 A. That lawyer was Creech, C-r-e-e-c-h, and this was a  
6 video deposition. That's why it stands out, because  
7 I couldn't make the trial.

8 Q. What is your current charge for your review of  
9 cases?

10 A. Hourly charge is \$350 an hour.

11 Q. How many hours do you think you have into this file,  
12 given all these medical records, and I am sure you  
13 have reviewed them more than once?

14 A. About of all of the total hours ever since I looked  
15 at it?

16 Q. From the time you first were contacted until now,  
17 can you estimate the number of hours you have in  
18 this case?

19 A. Between 10 and 20.

20 Q. Have you sent a bill yet for your time?

21 A. An initial bill, yes. At least one, maybe two,  
22 because I have had several instalments, but probably  
23 two bills.

24 Q. Would you send copies of those to counsel, and I

1 would ask that counsel send me copies?

2 A. Yeah. I will try to locate them, sure. I may have  
3 copies of them.

4 Q. Now, can you estimate for me if you look at 12  
5 cases, plus, minus the year, can you estimate for me  
6 on either a weekly basis or a monthly basis about  
7 how many hours you spend reviewing in your free time  
8 medical legal matters?

9 A. It really varies. It is weekend and night stuff.  
10 It could be none for the week or it could be five or  
11 six hours on a weekly basis, at the most.

12 Q. On a monthly basis, would it be fair to say that you  
13 average somewhere around 10 to 15 hours a month?

14 A. Without thinking off the top of my head, I would say  
15 that is a reasonable estimate, yes.

16 Q. And is your charge for a deposition or court  
17 appearance? What is that?

18 A. The same.

19 Q. If you come to Baltimore, do you charge 300 an hour  
20 essentially portal to portal or how did you do that?

21 A. I haven't done that that often, but I usually  
22 discuss it with the attorney for courtesy, but  
23 usually not. If I am working, that's \$350 an hour.  
24 If it is travel time, I think I have charged in the

1 past a hundred dollars an hour for just travel.

2 Q. The last time you came to Maryland, can you estimate  
3 for me what the charge was for that trip?

4 A. Probably a couple thousand, because it is the same  
5 day in and out.

6 Q. Now that 1994 is over and we are into '95, can you  
7 estimate for me approximately during the calendar  
8 year how much you earned doing forensic work?

9 A. A range.

10 Q. Yes.

11 A. Probably between 25 and 50,000, depending upon the  
12 urgency of reviewing a case and how long the case is  
13 requires my assistance.

14 Q. Have you ever been a defendant in a malpractice  
15 case?

16 A. As a resident at Cornell, I was named as one of four  
17 residents with a child who died, and that case was  
18 dismissed or settled. Presently, there is a case  
19 pending against -- most of the members of our  
20 division with a child's seizures.

21 Q. Dr. Bergman told me about that case.

22 A. He may have been named or may not have been named,  
23 and I think that's it.

24 Q. You mentioned Cornell. Do you know Abe Katorian?



1 A. Very well.

2 Q. Do you respect him and consider him an expert in  
3 pediatric neurology?

4 A. I respect him. He is a very smart man. It would  
5 have to be depending on his particular opinion  
6 whether I agree with everything he says, because I  
7 don't think we can possibly agree on everything.

8 Q. Well, I wouldn't think that you would agree with  
9 everything he says, necessarily. Do you know Ed  
10 Myer?

11 A. I know him less well. I say "hello" at meetings,  
12 but we are not drinking buddies.

13 Q. Is he a well respected pediatric neurologist in the  
14 pediatric neurology community?

15 A. I would assume **so**. He runs a division in Virginia  
16 in Richmond, so I am sure he is a competent child  
17 neurologist.

18 Q. Did you look at any literature as it would relate to  
19 the issues in this case?

20 A. Not specifically. I look at literature all the  
21 time, but for this case I didn't need to, but I am  
22 aware **of** various literature regarding issues that  
23 are in this case.

24 Q. Let's talk about that literature. What literature

1 are you aware of which addresses the issues in this  
2 case?

3 A. The issue of timing of neurologic insult based on  
4 clinical and laboratory information. The entity of  
5 hydrops fetalis and persistent fetal circulation.  
6 Those two clinical diagnoses. The medical, the  
7 maternal prenatal problem of lupus erythematosus,  
8 systemic lupus erythematosus, and, in general,  
9 vascular diseases of the mother and baby, which may  
10 have potential damaging effects on baby. Seizures  
11 and asphyxia, and their relationship to the  
12 presentation of a child at birth clinically.

13 Those general -- that's a lot of  
14 literature, but in general, those are the things  
15 that impinge on Joshua Barbagallo.

16 Q. Now in terms of the literature, can you give me the  
17 names of any text or journal articles that you are  
18 familiar with which would address timing of injury?

19 A. Offhand, I can't. Not any one article, unless I  
20 actually went and did a careful literature search,  
21 off the top of my head.

22 a. Could you give me the name of any texts or journal  
23 article that deals with any of those issues that you  
24 have just enumerated for me in this case?

1 A Not specifically.

2 I keep thinking back to the Technical  
3 Bulletin in '92 by ACOG which describes post  
4 asphyxial syndrome, hypoxic ischemic syndrome. That  
5 is not directly relevant to this case, but everyone  
6 mentions that all the time, *so* I remember that one,  
7 but not specifically, no.

8 Q. What are your three favorite child neurology texts?

9 A. **As** long as we understand that I might have a  
10 favorite in that I find it a useful source for  
11 comparison in my experience, but I don't understand  
12 necessarily have to be the be all and end all.

13 Q. Did you know in Maryland they changed the rules a  
14 little bit?

15 A. No.

16 Q. I don't have to get you to say it is authoritative  
17 any more.

18 A. Good.

19 Q. But I can have one of my experts say it is reliable  
20 and I get to use it.

21 A. Okay.

22 Q. I am just curious as to what your three favorite  
23 child neurology texts are, understanding they are  
24 not the end all and be all.

1 A. Joe Volpe's texts have been mentioned, and he has  
2 just put out a new edition. I don't agree with  
3 everything he says, but that's one.

4 Ken Swaiman's. I am biased, because I am  
5 a contributor in that, among many, but that's a very  
6 encyclopedic and useful source, and that's about it  
7 for secondary sources.

8 There are others, but I choose not to  
9 highlight them.

10 Q. Are you an editor for any journals?

11 A. I am a reviewer. I have not reached the level of an  
12 editor, I don't think, but I review for about six or  
13 seven journals.

14 Q. What journals?

15 A. Pediatric Neurology, Pediatrics, Epilepsia, Sleep,  
16 EEG, and Clinical Neurophysiology, Brain and  
17 Development, Neuropediatrics in Europe, and a couple  
18 others that I have reviewed.

19 Q. Do you have any area in child neurology in which you  
20 have a particular interest?

21 A. Yes.

22 Q. What is that?

23 A. Neonatal and fetal neurology, based on what I have  
24 published.

1 Q. What about neonatal and fetal neurology, anything  
2 more specific?

3 Epilepsy in the neonate?

4 A. Well, it wouldn't be the epilepsy, but it would be  
5 seizures in the neonate.

6 Q. Okay.

7 A. Injury that is acute versus chronic or a combination  
8 of the two reflected in the clinical practice I  
9 provide at Magee and at Children's.

10 **a.** You are not an expert in obstetrics?

11 A. No.

12 Q. You are not an expert in perinatal medicine?

13 A. Correct, I am not.

14 Q. You are not an expert in neonatology?

15 A. No.

16 Q. You are a child neurologist?

17 A. Correct.

18 Q. I take it you are not an expert in life care  
19 planning?

20 A. No.

21 I mean, I could give an opinion based on  
22 my practice, but I do not give official economic  
23 life care reports.

24 Q. When was the last time you drafted a life care plan

1           for a patient?

2    A.     I have never drafted a life care plan. I have been  
3           verbally asked how long a child might live, based on  
4           my opinion as a neurologist.

5    Q.     Are you from the Herb Grossman school?

6    A.     He has a useful article that everyone quotes, as I  
7           seem to think you are aware of, but one has to rely  
8           on your own experience, too.

9    Q.     Well, that's nice to hear.

10                   I take it you have never been -- and don't  
11           be offended by these questions, because I have to  
12           ask them -- I take it you have never been convicted  
13           of a crime while you were an adult and while you  
14           were represented by an attorney?

15   A.     No, I have not.

16   Q.     Nor pled guilty?

17   A.     No.

18   Q.     I take it that you have never been treated for drug  
19           or alcohol abuse?

20   A.     **No**, I have not.

21   Q.     And I take it you have also never had your  
22           privileges or license in any **way** suspended or  
23           restricted or in a revoked condition?

24   A.     No, I have not.

1 Q. And I take it you have never worked for an expert  
2 witness service or had your name listed with one?

3 A. I worked initially when I reviewed back in the early  
4 '80s. I never got listed with them, as far as I was  
5 aware, but Sapanarro is the last name in Ohio, and  
6 through a neonatologist at Magee, my name was given  
7 to him, and he would send me cases, but I asked Jim  
8 Sapanarro to stop sending me cases.

9 Q. Why?

10 A. It was a year or two of adult neurology cases, and I  
11 told him look I am a child neurologist. I think  
12 this is inappropriate. It is all plaintiff, and I  
13 would rather deal directly with the attorney.

14 Q. Who was the neonatologist who introduced you?

15 A. Ross Milli. He is now in Utah.

16 Q. Do you know Marc Hermansen?

17 A. Yes, Marcus recently left Pittsburgh.

18 Q. Right.

19 A. He was at Allegheny General Hospital, and when my  
20 director of neonatology, Mark Guthrie, went to  
21 Allegheny General, he left.

22 Q. Do you know where he went?

23 A. Kentucky. Hampton Roads, Norfolk, to set up a  
24 neonatology program there for a number of hospitals.

1 Q. Have you worked with Marcus Hermansen in the past?

2 A. There may have been a case. I do remember one time  
3 we spoke, because we were both experts on a case,  
4 and I believe it was plaintiff, but I don't remember  
5 specifically.

6 Q. Do you know any of the experts in this case on  
7 either side, putting aside Dr. Hermansen?

8 A. John Freeman.

9 Q. We told you about Freeman. Do you know him?

10 A. Yes.

11 Q. How well do you know him?

12 A. Over the years, better, although it still is cordial  
13 and just professional.

14 Q. Sure, but I mean, if you ran into him in the  
15 airport, would he recognize you?

16 A. Yes.

17 Q. Would you recognize him?

18 A. Yes.

19 Q. Would you have a beer?

20 A. We may have a beer, yes.

21 I was at Hopkins where he was visiting in  
22 the lecture hall where I was giving my lectures, so  
23 I have recently seen him.

24 Q. And you have recently read his deposition in this



1 case?

2 A. Yes.

3 Q. How recently?

4 A. Last weekend.

5 Q. Is there anything you remember about his testimony  
6 that you disagree with?

7 A. No.

8 Q. Do you think that if he made a statement in this  
9 deposition of some significance that you disagreed  
10 with, you would remember, having read the deposition  
11 only a week ago?

12 A. I think there was only one issue that I am not  
13 disagreeing with him, but you spent time asking him  
14 about hours of life when a seizure was noted.

15 Q. Right.

16 A. And I think the notations in the records are  
17 limiting in terms of the details, but I am not -- as  
18 it is not as important to me to know the exact  
19 hours, although I think it is important in general  
20 to know when the seizure occurred in the context of  
21 other issues, but that's not an area of disagreement  
22 with John.

23 Q. I understand. I guess what I am really hinting at  
24 is, if there was something in his deposition of

1 relative significance that you disagreed with,  
2 having read the transcript less than a week ago, do  
3 you think you would probably remember?

4 A. Yeah, if there was nothing of significance that I  
5 disagreed with.

6 Q. Are you going to be addressing any issues beyond  
7 which Dr. Freeman addressed?

8 You both are pediatric or child  
9 neurologists. Are there any issues that you are  
10 going to address in this case that he didn't  
11 address?

12 A. There are some issues that were not brought up, such  
13 as the lung disease problem that Joshua had, as an  
14 example.

15 Q. Okay.

16 A. So that the answer is yes.

17 Q. What issues were not covered in Dr. Freeman's  
18 deposition that you anticipate covering, other than  
19 the hydrops issue?

20 A. Hydrops, persistent fetal circulation.

21 Q. Okay.

22 A. The association of SLE or lupus in the mother, and  
23 its effect on the baby.

24 Q. Okay.

1 A. The laboratory findings of Joshua, particularly the  
2 cellular blood count and how that might reflect  
3 chronicity.

4 The exam findings that Joshua reflected  
5 neurologically at birth I think are important to  
6 bring out that were not mentioned in his deposition;  
7 more specifically, the baby's tone and fisting. And  
8 although not of a greater importance, features of --  
9 I think he did mention the loss of fetal movements  
10 for several days.

11 Q. He did?

12 A. And there are some findings that are because the  
13 official reading was normal, but I have not thought  
14 about that in the context of other issues.

15 Q. You are not going to be addressing standard of care?

16 A. No.

17 Q. You are going to be addressing causation?

18 A. Correct.

19 Q. With regard to that, you are going to be addressing  
20 etiology and timing?

21 A. Correct.

22 Q. I don't know that there could be anything, but is  
23 there anything other than etiology and timing that  
24 you are going to be addressing under the umbrella of

1 causation in this case?

2 A. No.

3 Q. Okay. Now moving to damages, are you going to be  
4 addressing life expectancy?

5 A. Yes.

6 Q. You haven't seen the child?

7 A. Correct.

8 Q. And I take it if you were going to be expressing  
9 opinions as to the child's current condition and  
10 prognosis, you would want to see the child?

11 A. That would be preferable, yes.

12 Q. So is it fair for me to assume that with regard to  
13 damages in this case, you will be addressing the  
14 issue of life expectancy and pretty much nothing  
15 else?

16 A. I would only be able to address generic issues  
17 related to what I know from the records on the  
18 child's current condition, and I think even without  
19 seeing the child I would feel comfortable about how  
20 long Joshua would live and what kind of care Joshua  
21 will need in general, and I will let the details be  
22 handled by those who have not only seen him, but  
23 also are more economic planners.

24 MS. CLARK: For your information, Phil, at

1 trial we are going to ask him questions regarding  
2 causation and life expectancy.

3 MR. FEDERICO: That helps. Then I can  
4 dispense with any long term care questions. I will  
5 limit my questions to causation and life expectancy.

6 Thank you.

7 BY MR. FEDERICO:

8 Q. Have you discussed this case with anyone other than  
9 counsel?

10 A. No.

11 Q. And have you ever testified in a case similar to  
12 this?

13 A. Yes. Not specifically the lupus, but to the issue  
14 of chronic versus acute, and data that I felt were  
15 in the records that supported chronic over acute.

16 Q. Have you done **so** in the last five years?

17 A. Yes.

18 Q. Do you have copies of any depositions you have  
19 given?

20 A. No.

21 Q. Never?

22 A. Well, whatever cases finished, I certainly don't,  
23 because I discard them.

24 Q. How many cases do you have that are not finished?

1 A. I don't know. Probably a dozen.

2 Q. Have you been deposed in any of those cases?

3 A. I might have, but I don't recall offhand.

4 Q. Is it your testimony that you are not in possession  
5 of any deposition you have ever given in any case?

6 A. That's right. The only one that I mentioned,  
7 Creech. Since that was a video, I know I looked at  
8 it recently, and I know the trial is probably over  
9 now.

10 Q. Do you have a copy of the video?

11 A. No, not the video, because that was not sent to me.

12 Q. Do you have a copy of the transcript?

13 A. The transcript I sent back with my corrections.

14 Q. Did you maintain a copy for yourself?

15 A. No.

16 Q. Joshua was born at Holy Cross Hospital, was he not?

17 A. Yes.

18 Q. And you are not an obstetrician. His mother  
19 suffered with SLE, correct?

20 A. Correct.

21 Q. When was the last time that you treated a child or  
22 evaluated a child within 48 hours of birth?

23 A. Yesterday. Evaluated. Not treated, but evaluated.

24 Q. You wouldn't treat such a child, typically, correct?

1 A. Other than management of seizure care, and which I  
2 still don't write the primary orders, no.

3 Q. Typically, who treats a child within 48 hours of  
4 birth?

5 A. A neonatologist.

6 Q. Within what period of time does the neonatologist  
7 stop treating the child and you begin treating a  
8 child, in general?

9 A. In general, after discharge from the NICU care, I  
10 would essentially be the doctor of record, depending  
11 upon the problem.

12 Q. In this particular case, you probably would not have  
13 treated Joshua at Holy Cross Hospital, correct?

14 A. Correct.

15 Q. And you probably would not have treated him at  
16 Children's Hospital, where he was from September 7th  
17 through September 26th, 1988?

18 A. Correct, except perhaps as a consultant advising the  
19 neonatologist.

20 Q. Now how often are you called in as a consultant on  
21 neonatal patients like Joshua?

22 A. If we are not limiting it to SLE problems.

23 Q. No, just neonatal patients.

24 A. On a weekly basis, it can be several times a week.

1 Q. How many times a month or a year?

2 A. I would say on a monthly basis, I probably see  
3 anywhere from 10 to 30 patients in consultation.

4 Q. That have not gone home for the first time?

5 A. That's right.

6 Q. How many months a year?

7 Your professional time currently -- let me  
8 ask you this -- how much of it is spent clinically?

9 A. Over 50 percent. I mean, it depends on whether you  
10 want to call it a seven-day week or a five-day week,  
11 but for my clinical responsibilities, it is at least  
12 five out of the seven days when I am not on call and  
13 I am seeing patients every day.

14 Q. Now getting back to Dorothy Barbagallo's SLE, can we  
15 agree that people with SLE are prone to placental  
16 insufficiency or vascular compromise?

17 A. In general, that's correct.

18 Q. And can we agree that, in general, the way the fetus  
19 receives its oxygenation is via the mother, by way  
20 of the placenta and the vasculature within the  
21 placenta?

22 A. Yes.

23 Q. And can we agree that many patients are delivered  
24 early, many patients with SLE are delivered earlier,



1           38 weeks plus minus, because of concerns with regard  
2           to placental insufficiency or problems with the  
3           vasculature of the placenta, secondary to the SLE?

4    A.    That may or may not be true. It is getting into the  
5           area of obstetrical issues, and I have seen both  
6           full term and preterm, **so** I would rather let the

7  
8    Q.    There are many causes for decreased fetal movement,  
9           are there not?

10   A.    Yes.

11   Q.    Hypoxia is one of them, isn't it?

12   A.    One of many.

13   Q.    Sleep pattern is one?

14   A.    Very good. That's right.

15   Q.    **So**, some of these causes are benign?

16   A.    Yes.

17   Q.    And some of them are potentially harmful?

18   A.    Correct.

19   Q.    Other than hypoxia and sleep cycle, what are the  
20           other more common causes of decreased fetal movement  
21           in a term patient?

22   A.    Once again, I think it is out of my purview to  
23           comment on it. I don't **look** at the scores or scales  
24           of fetal movements to give an expert opinion.

1 Q. Fair enough.

2 A. I would like to add, I might use the information  
3 that is interpreted for me by one who does and  
4 incorporate that as I have begun using this child's  
5 case, but I don't look at the tests that assess  
6 movements.

7 Q. There was some decreased fetal movement reported in  
8 this case?

9 A. Subjectively there was, that's correct.

10 Q. But you can't say with reasonable medical certainty  
11 what the etiology of the decreased fetal movement  
12 was?

13 A. That's correct.

14 It only hangs into the story because of  
15 everything else I feel more comfortable looking at  
16 as neurologist.

17 Q. That decreased fetal movement in this case could  
18 have been associated with a sleep pattern; could it  
19 not?

20 A. That's correct.

21 Q. And you can't say with reasonable medical certainty  
22 whether or not it was related to a benign condition  
23 or a potentially --

24 A. That --

1 MS. CLARK: Object.

2 THE WITNESS: That piece alone is not  
3 helpful. When taken in concert with other  
4 information, it is supportive, but not nature.

5 BY MR. FEDERICO:

6 Q. Listen to my question very carefully. Can we agree  
7 that you cannot say with reasonable medical  
8 certainty in this case that the decreased fetal  
9 movement was associated with something harmful?

10 A. I agree.

11 Q. Okay. Now in the material that you reviewed or the  
12 fetal monitoring tracings, I take it that you do not  
13 consider yourself an expert in the interpretation of  
14 fetal monitoring tracings; is that correct?

15 A. That's correct.

16 Q. And you did not review -- you are not basing your  
17 opinions in this case on the fetal monitoring  
18 tracings?

19 A. I certainly have to look at what others interpreted.  
20 I am not concerned as a neurologist that the  
21 particular pattern described is relevant to the  
22 cause of injury in this child's brain.

23 Q. You wouldn't look at the tracing yourself; you would  
24 simply **look** at other people's interpretation of the

1 tracing?

2 A. Correct.

3 Q. And again, like decreased fetal movement, there can  
4 be decelerations on a tracing or decreased beat to  
5 beat variability on a tracing, which can be  
6 associated with benign conditions as well as harmful  
7 conditions?

8 A. I would agree with that as long as you understand  
9 harmful does not mean necessarily damaging to baby's  
10 brain, and that's a major issue, obviously --

11 Q. Okay.

12 A. -- based on my expertise. But to have abnormal  
13 heart rate tracings in utero during labor, to my  
14 reading as a neurologist, is in general not helpful  
15 for predicting brain injury or outcome.

16 Q. Would you agree about if one is experiencing fetal  
17 stress or fetal distress secondary to placental  
18 insufficiency that the utilization of Pitocin can  
19 make the stress or distress worse?

20 A. I would rather pass on that, since I am not -- I  
21 don't administer Pitocin. I am not an obstetrician  
22 or perinatologist.

23 Q. I am just talking about the effect which it has on  
24 the fetus. In other words, if you have a fetus

1           experiencing placental insufficiency and hypoxia  
2           manifesting itself in fetal stress or distress, and  
3           you take that patient and you give them Pitocin,  
4           which augments contractions, can we agree that that  
5           would tend to make the hypoxia worse?

6    A.    I don't agree. I don't think that the studies are  
7           clear enough to indicate a link between increased  
8           distress, which I agree might happen, and whether  
9           that is affecting oxygenation in utero all the time  
10          or to an irreversible degree.

11   Q.    Can we agree that, generally speaking, with hypoxic  
12          ischemic encephalopathy, if we go back in time, the  
13          fetus has what is called fetal reserve? Are you  
14          familiar with that term?

15   A.    It is a generalization that I am familiar with.

16   Q.    And at some point in time whatever the stressor is  
17          which is causing stress **or** distress, the fetal  
18          reserve gets used up to the point where the ongoing  
19          hypoxia, if you will, sort of crosses the line,  
20          there is no longer fetal reserve, and permanent  
21          damage begins to occur. **Do** you agree generally with  
22          that scenario in a patient who has sustained a  
23          hypoxic ischemic brain injury?

24   A.    I will in general agree to that.

1                   However, I do not think we have the tools  
2                   necessary to quantitate that. It is unfortunately  
3                   only a generalization, and we do not have fetal  
4                   surveillance techniques that measure and detect an  
5                   onset **of** irreversible injury and its degree and  
6                   longevity.

7    Q.    I just want to see if I understand physiologically  
8           how this works. If we have a baby in utero and  
9           there is stress or distress and it is reflective of  
10          ongoing hypoxia, can we agree that if the hypoxia is  
11          continued to, is permitted to continue, and the  
12          child is diagnosed with hypoxic ischemic  
13          encephalopathy after the child is born, that at some  
14          point in time the child depleted its fetal reserve  
15          and began to experience permanent brain injury,  
16          secondary to hypoxia?

17   A.    That is hypothetically possible. However, it is  
18          probably more likely than not that it is reversible  
19          even in the context of encephalopathy.

20   Q.    If we have a patient -- let's just take a patient  
21          where it is not reversible, okay?

22   A.    Okay.

23   Q.    Take a patient who has severe cerebral palsy  
24          secondary to hypoxic ischemic encephalopathy. Are

1           you with me so far?

2       A.       Sure.

3       Q.       Can we agree that generally what happens is that  
4               there is an onset of hypoxia, the fetus uses up its  
5               fetal reserve, and then in the face of ongoing  
6               hypoxia, permanent brain injury begins to occur,  
7               which eventually manifests itself in a hypoxic  
8               ischemic encephalopathy and severe cerebral palsy.  
9               Assuming that that is diagnosed after birth --

10      A.       That is still hypothetically a reasonable  
11               generalization. The problem I have in saying a  
12               simple yes or no is we do not have tools **to** assess  
13               when that injury occurred nor distinguish it from  
14               the signs and symptoms that may simply reflect a  
15               previous injury that just becomes symptomatic.

16      Q.       For purposes of my question, **I** am not interested in  
17               timing right now. We will get into timing. I am  
18               sure we will spend a lot of time on timing in this  
19               deposition, since that's the defense to the case.  
20               My question does not relate to timing. My question  
21               is different. Okay.

22                       **I** am just trying **to** understand  
23               physiologically the mechanism by which we get to  
24               severe cerebral palsy secondary to hypoxic ischemic

1           encephalopathy, and I think I understand it okay.  
2           **So** putting timing aside, can we agree that with a  
3           patient who has cerebral palsy secondary to hypoxic  
4           ischemic encephalopathy or birth asphyxia, what  
5           happens is that there is ongoing hypoxia, the fetus  
6           uses up its fetal reserve to the point where  
7           permanent brain injury begins and continues, which  
8           gets us to a hypoxic ischemic encephalopathy and  
9           severe cerebral palsy?

10                       Is that an accurate understanding of  
11           physiologically **of** what happens under those  
12           circumstances, putting timing aside?

13    **A.**   Hypothetically, that is a reasonable beginning  
14           discussion.

15                       The problem is most cerebral palsy is not  
16           due to asphyxia. If we take the minority of kids  
17           who have an asphyxial process, we have little ways  
18           of detecting anti-partum before labor and delivery  
19           asphyxia which may be ongoing to decreased reserve  
20           as well. I guess I am trying not to be sticky about  
21           this, but I agonize over this all the time. Just  
22           because a child has findings of distress, such as  
23           Joshua had during labor and delivery, is not  
24           synonymous with injury, and I think my experience,



1 as well as what the literature is saying in general,  
2 is pushing that point now. It has to be what it  
3 hangs with in terms of the child's clinical and  
4 laboratory findings.

5 Q. Really what the literature says, because I read the  
6 literature all the time, is that the literature says  
7 that just because you have fetal distress doesn't  
8 mean you are going to get a bad baby. Do you agree  
9 with that?

10 A. That's a true statement, another generalization, but  
11 that's a true statement.

12 Q. I am going to get back to my question, okay --

13 A. Okay.

14 Q. -- and try to get an answer to it, okay?

15 A. Okay.

16 Q. A direct answer, and I am not being critical and I  
17 understand your reservations, but with all due  
18 respect, I don't think I have got an answer yet.

19 If we take a child who we know, for  
20 purposes of the question, has cerebral palsy  
21 secondary to hypoxic ischemic encephalopathy or  
22 birth asphyxia -- okay, take that as a given. Are  
23 you with me **so** far?

24 A. Sure.

1 Q. Can we agree that based on reasonable medical  
2 probability, what has happened is there had been a  
3 period of hypoxia, which is continued, the fetal  
4 reserve has been depleted, and after the fetal  
5 reserve has been depleted, the ongoing hypoxia began  
6 to cause permanent brain injury, which afterwards  
7 manifests itself in severe cerebral palsy secondary  
8 to hypoxic ischemic encephalopathy or birth  
9 asphyxia?

10 A. Yes, as long as we don't limit ourselves to  
11 anti-partum versus intrapartum, yes.

12 Q. Now can we agree, Doctor, this child was born on  
13 September 6th at what time?

14 A. 2:00 p.m. or thereabouts, yes.

15 Q. You are right.

16 Okay. And a note was written by  
17 Dr. Lekagul, I believe at 11:00 a.m. where she says  
18 she needs C section ASAP, and then there is a  
19 subsequent progress note. I believe it is written  
20 by Dr. Chapman, which says right after that: Baby  
21 appears to be somewhat stressed in utero and that  
22 baby seems to be right on the edge of the oxygen  
23 supply and demand curve, and that baby does not seem  
24 to be getting enough oxygen to meet its base

1 requirements at this point in time.

2 Would you agree with that?

3 A. Well, I think those are statements that are  
4 speculative.

5 Q. I have to finish reading. I apologize.

6 A. Okay.

7 Q. At this point in time -- in time, it does not appear  
8 that baby will be able to tolerate any stress  
9 including labor.

10 Now we can agree, can we not, that you are  
11 not an obstetrician?

12 A. Sure, I agree.

13 Q. And we can agree, can we not, that you don't  
14 evaluate patients during the course of labor to  
15 determine whether or not the fetus is able to  
16 withstand the forces of labor and the oxygen supply  
17 associated with the fetus during labor, correct?

18 A. That's correct. I have only been a passive listener  
19 to the discussion as it **is** going **on**.

20 Q. Can we agree that you are not in a position to  
21 disagree with this statement by Dr. Chapman **as**  
22 reflected in his progress notes of September  
23 **6, 1988**, that I have just read?

24 A. I certainly would not at the time. I would after I

1           see the child as a neurologist be able to comment on  
2           whether those concerns are now consistent with what  
3           the child is reflecting after birth, independent of  
4           obstetrical care, which I can't give an opinion on.

5   Q.   Do you agree with Dr. Chapman's conclusions as  
6           stated in his progress note?

7   A.   I don't disagree with the concerns. From the point  
8           of view of worrying about the baby, that's the whole  
9           idea of monitoring babies closely during labor and  
10          delivery. I am not sure my opinion is relevant. I  
11          am not sure I can give you an answer, because I am  
12          not an obstetrician on a practicing basis.

13   Q.   Well, he says: Baby appears to be somewhat stressed  
14          in utero and that baby seems to be right on the edge  
15          of the oxygen supply and demand curve.

16   A.   I will stop you right there. I don't know where  
17          that is coming from. We have a cord pH of 7.09. We  
18          have no other evidence objectively of what this  
19          concern in general is stating in the record.

20   Q.   He is reviewing the fetal monitor and tracing?

21   A.   But the fetal monitor and tracing doesn't look at  
22          oxygen acid based pH or oxygenation capabilities.  
23          He is looking at the baby's hearbeat relative to  
24          contractions and relative to descent down the birt

1 canal. That's different.

2 Q. I understand that's different. But from an  
3 obstetrician's prospective, he states that the baby  
4 appears to be somewhat stressed in utero and that  
5 baby seems to be right on the edge of the oxygen  
6 supply and demand curve, and that baby does not seem  
7 to be getting enough oxygen to complete its base  
8 requirements at this point in time. It does not  
9 appear that baby would be able to tolerate any  
10 stress, including labor.

11 Now, do you agree with his statement or do  
12 you disagree with it?

13 A. Portions I disagree with -- the ones related to on  
14 the edge of oxygen reserve, all of the things  
15 referable to issues that he has no measurement to  
16 quantify.

17 Q. Baby appears to be somewhat stressed in utero?

18 A. That's fine. Based on the heart rate monitoring,  
19 that's their expertise to consider.

20 Q. And certainly it is their expertise to determine  
21 whether the baby prospectively is on the edge of the  
22 oxygen supply demand curve, because the whole idea  
23 is to deliver the child before the child goes over  
24 the edge, if you will?

1 MS. CLARK: Objection.

2 BY MR. FEDERICO:

3 Q. Is that fair? I mean, that's what they are trying  
4 to do.

5 A. I think over the edge is the problem. I think the  
6 issue is, what are the accuracy of our fetal  
7 surveillance techniques? And they are very limited  
8 in terms of the issue you are asking me to think  
9 about, which is if you are going to decide that  
10 there is a precipice, a cliff between the dividing  
11 line between reversible and irreversible based on  
12 oxygenation, there is no measure as to what this  
13 kid's current level was at the time this note was  
14 written let, alone the edge.

15 Q. Well, there certainly is. I don't know if you can  
16 put your finger on it or anybody can put their  
17 finger on the exact minute when a kid crosses the  
18 line, but if we have a child who has severe cerebral  
19 palsy, which is secondary -- first of all, you can  
20 have severe cerebral palsy which is secondary to  
21 hypoxic ischemic encephalopathy or birth asphyxia,  
22 can't you?

23 A. I don't use the term birth asphyxia, but, yes, from  
24 asphyxia you can have cerebral palsy. It is a

1 minority of kids.

2 Q. But we can have cerebral palsy secondary to  
3 encephalopathy or asphyxia?

4 A. Any duration of any onset, that's correct.

5 Q. Now in those kids, at some point in time they cross  
6 the edge of the oxygen supply and demand curve, and  
7 that's when the permanent damage begins to occur,  
8 correct?

9 A. Hypothetically, that's correct.

10 Q. Okay. Now with regards to this note, progress note  
11 written I believe it is by Dr. Chapman, he says that  
12 the baby seemed to be right on the edge of the  
13 oxygen supply and demand curve.

14 Do you agree or disagree with that?

15 A. I disagree with that phrase, as I mentioned to you  
16 earlier.

17 Q. Now he certainly felt that the baby was right on the  
18 edge of the oxygen supply and demand curve, correct?

19 MS. CLARK: Objection. The record speaks  
20 for itself.

21 THE WITNESS: I think I can only assume  
22 what he wrote in the chart, so, obviously, I have to  
23 assume he believes that, since he wrote it.

24 BY MR. FEDERICO:

1 Q. And he wrote that based on his treatment of the  
2 mother, his interpretation of the fetal monitoring  
3 tracing, his evaluation of the patient, correct?

4 MS. CLARK: Objection.

5 THE WITNESS: Correct.

6 BY MR. FEDERICO:

7 Q. You weren't there to do that, correct?

8 A. No, I was not.

9 Q. And the goal of not just him as an obstetrician, but  
10 every obstetrician is that if they have a patient  
11 who is in labor and they believe that they are  
12 approaching the edge of the oxygen supply demand  
13 curve, the goal, generally speaking, for any  
14 obstetrician would be to deliver the baby before  
15 they go over the edge, true?

16 MS. CLARK: Objection. He is not here to  
17 testify on the standard of care.

18 MR. FEDERICO: And I accept that. I am  
19 not asking him about standards of care.

20 I am asking him about, as a pediatric  
21 neurologist, his familiarity with kids like that  
22 there.

23 BY MR. FEDERICO:

24 Q. The goal is -- if you are called in to consult or if



1           you are looking at it afterwards, the goal is, if  
2           you have a patient in labor and you think the  
3           patient is on the edge or the oxygen supply demand  
4           curve -- I mean it is pretty rhetorical or it is a  
5           self fulfilling prophecy to a certain extent -- but  
6           the goal is, if you believe that you are on the edge  
7           of the curve, you want to deliver the child before  
8           you go over the edge?

9                       MS. CLARK:  Objection.

10                      THE WITNESS:  Belief is one thing.  Facts  
11                      are another.

12                      I believe this kid was over the edge  
13                      already, and we haven't gotten to it, but I think  
14                      this child occurred injury before labor and delivery  
15                      even started, and I don't particularly think that  
16                      Dr. Chapman's comment changed my opinion one iota.

17                      I think the child certainly is reacting in  
18                      a suboptimal way to the birth process by a heart  
19                      tracing abnormality, but that in no way is  
20                      synonymous to oxygenation status.

21    BY MR. FEDERICO:

22    Q.       Can we agree that the longer a child suffers with  
23               hypoxia or asphyxia, the more likely it is that the  
24               child will sustain permanent brain injury?

1 A. Yes.

2 Q. **Now** Dr. Chapman, first of all, you wouldn't be in a  
3 position as a pediatric neurologist to tell us  
4 whether or not a baby is getting enough oxygen  
5 during labor or in utero?

6 A. Correct.

7 Q. That would be something the obstetrician would do  
8 based on his evaluation **of** the mother and the fetus,  
9 correct?

10 A. It hadn't been done in the Barbagallo mom or the  
11 baby, but, potentially, they could do a scan to look  
12 at oxygenation, a cordocentesis to measure blood  
13 through the umbilical cord. Potentially, those  
14 things could give you oxygen or acid based status,  
15 and I couldn't do that.

16 Q. Right.

17 A. But that wasn't done here.

18 Q. I understand that, but obstetricians **do look** at  
19 fetal monitoring tracings to determine fetal  
20 well-being, do they not?

21 A. Sure.

22 Q. And one of the things that can adversely affect  
23 fetal well-being is ongoing hypoxia, correct?

24 A. Sure.

1 Q. And fetal monitoring tracings can be used to  
2 determine to a certain extent, based on other  
3 clinical factors, the potential presence **or** absence  
4 of hypoxia and its severity?

5 A. That's one of many possibilities, but without having  
6 concurrent measures of acid base and oxygenation  
7 capability or levels, that is speculation. That's  
8 probably the essential problem with what fetal heart  
9 tracings do and don't tell you.

10 Q. Dr. Chapman said that the baby does not seem to be  
11 getting enough oxygen to meet its base requirements  
12 at this point in time. Now, I take it you disagree  
13 with that?

14 A. Correct.

15 Q. Now he also goes on to say that it does not appear  
16 that the baby will be able to tolerate any stress,  
17 including labor.

18 Can we agree that since you are not an  
19 obstetrician, you would not be able to agree or  
20 disagree with that?

21 A. Correct.

22 I guess that's an opinion he holds, a  
23 belief he holds, and since I don't practice  
24 obstetrics, I won't comment further.

1 Q. Dr. Lekagul at eleven a.m. wanted to do a C-section  
2 ASAP. Can we agree that that's because Dr. Lekagul  
3 most likely was concerned with fetal well-being?

4 MS. CLARK: Objection.

5 BY MR. FEDERICO:

6 Q. Based on your review of the records?

7 A. I would assume so, but talking as a neurologist, not  
8 as an obstetrician.

9 Q. And Dr. Chapman concurs in the note that. He writes  
10 right after that.

11 Can we agree that Dr. Chapman, he says:  
12 Wanted to do in the interest of the baby. It would  
13 be prudent to do a C-section ASAP.

14 Can we agree that, given Dr. Chapman's  
15 note -- and we have read most of it now -- that he  
16 wanted to do a C-section ASAP or not, it would be  
17 prudent to do a C-section ASAP because of his  
18 concerns about fetal well-being specifically related  
19 to oxygen supply?

20 MS. CLARK: Objection. The records speaks  
21 for itself.

22 THE WITNESS: Yeah. As he speaks for  
23 himself in the record, I think that is all I need to  
24 concede. If he wrote that down and if he testifies

1 to that -- that is clearly in his handwriting, but I  
2 disagree with the statements regarding oxygenation,  
3 as I have mentioned.

4 BY MR. FEDERICO:

5 Q. Now can we agree that there was meconium in this  
6 case?

7 A. Yes.

8 Q. Can we agree that meconium is consistent with  
9 hypoxia or asphyxia?

10 A. No, it can be from distress. It may be in the  
11 subheading under distress asphyxia.

12 Q. Let me clean this up then. Can we agree that  
13 meconium is consistent with fetal distress secondary  
14 to hypoxia or asphyxia?

15 A. That is one form. That's one reason for meconium  
16 passage into the amniotic fluid.

17 Q. Now in this particular case, Doctor, do you have an  
18 opinion based on reasonable medical certainty as to  
19 the etiology or cause, if you will, of the presence  
20 of meconium?

21 A. No, I don't to a reasonable probability, based on  
22 your earlier questions. It is due to distress.  
23 Whether it is due to a specific category of  
24 distress, such as asphyxia, I don't know, because we

1 don't have enough monitoring. It may have been from  
2 the general lupus condition or the vasculopathy you  
3 talked about that is associated with that without  
4 asphyxia.

5 Q. Just **so** the record **is** clear, can we agree that based  
6 upon reasonable medical probability, the meconium  
7 here is due to fetal distress of some kind?

8 A. Correct.

9 Q. Can we agree that you cannot say with reasonable  
10 medical certainty what the etiology of the fetal  
11 distress was which caused the meconium passage?

12 A. Well, the etiology is not to a reasonable medical  
13 certainty.

14 Q. **Now** there was a decreased heart rate, fetal heart  
15 rate variability, and variable decelerations and  
16 abnormal fetal monitoring tracing. Can we agree,  
17 based on reasonable medical probability, that that  
18 was as a result **of** fetal distress?

19 A. Yes.

20 Q. And can we agree that you do not have an opinion  
21 based on reasonable medical certainty as to the  
22 cause of fetal distress?

23 A. Correct.

24 Q. **Now** there were calcifications grossly noted on the

1           placenta, correct?

2       A.     If I remember correctly, on the pathology report  
3           they said patchy calcifications.

4       Q.     And on the labor and delivery summary, under  
5           "placenta," it says "calcifications." Can we agree,  
6           Doctor, that calcifications in the setting of **SLE**

7  
8           placental dysfunction?

9       A.     Potentially, that's correct. It is a marker. It  
10          doesn't actually get to the physiology of how the  
11          placenta is functioning in utero.

12      Q.     If you have a patient who has **SLE**, if you have a  
13          patient who has placental calcifications and  
14          placental insufficiency, can we agree that that  
15          would increase the likelihood of fetal distress  
16          secondary to hypoxia?

17      A.     Yes.

18      Q.     Okay.

19      A.     **As** long as we are limiting it -- not limiting it to  
20          any time interval, because it could have been before  
21          labor and delivery.

22      Q.     One who is experiencing fetal -- excuse me. One who  
23          is experiencing placental insufficiency in the  
24          setting of **SLE** is more likely to experience hypoxia

1           during labor as a result of the forces of labor than  
2           they are prior to labor?

3    A.     I would agree that is more of a fear or concern by a  
4           physician rather than whether it has been proven in  
5           all cases, but I think that's a general concern.

6    Q.     Let me ask you this. I think I understand how this  
7           labor process works. Either the mother has  
8           contractions on her own or she is induced and you  
9           cause her to have contractions, which causes the  
10          uterus, which is a muscle, to press down on the  
11          baby, and, thereby, push the baby towards the birth  
12          canal.

13                           Is that pretty good for a layman?

14   A.     Sure.

15   Q.     Now when you go through labor or they go through  
16          labor, not us.

17   A.     We all did at one point.

18   Q.     That's true. When labor is occurring, can we agree  
19          that the forces of labor, the contractions cause a  
20          temporary decrease in perfusion to the fetus,  
21          generally speaking?

22   A.     Oh, if I say yes to that, which I think is a  
23          generalization as a nice discussion starting point,  
24          that's a slippery slope, because I am not sure we



1 have measurements for that.

2 Yes, there are probably, in general blood  
3 flow, alterations that occur to different organs as  
4 the baby is descending through the birth canal with  
5 contractions.

6 Q. And since the baby gets its oxygen through that  
7 blood flow, there can be some degree of change in  
8 the oxygenation of the fetus during labor?

9 A. Yes.

10 Q. And generally speaking, if we have a mother who has  
11 SLE who is experiencing placental insufficiency, can  
12 we agree that she is more likely to experience  
13 hypoxia during labor than she is before labor,  
14 because of the forces of labor?

15 A. Hypothetically, that is possible.

16 Q. And if she has experienced some hypoxia before  
17 labor, can we agree that she is more likely to  
18 experience more severe hypoxia during labor again,  
19 because of the forces of labor?

20 A. It is speculative, but that's hypothetically  
21 possible.

22 Q. Okay. There was a cord pH in this case of 7.09,  
23 correct?

24 A. Correct. I mentioned that earlier, yes.

1 Q. Do you know where the blood came from?

2 A. No, I don't think it was recorded specifically where  
3 it came from, Venous versus arterial, I guess you  
4 are asking.

5 Q. Yes. Does it make a difference?

6 A. Yes.

7 I still think the child was probably  
8 acidotic, but I think you would be more tolerant of  
9 a lower pH if venous versus arterial, but I don't  
10 know where it came from.

11 Q. In any event, can we agree that this child at birth  
12 was acidotic?

13 A. Yes.

14 Q. Can we agree that at birth this child was hypoxic?

15 A. We have to assume that. That's speculation.

16 There was no -- I don't recall as part of  
17 the cord pH that there was an oxygen determination.  
18 I am not recalling it, and it wasn't the hypoxic  
19

20 Q.  
21 present, that tends to suggest a more acute injury  
22 than if we have thin meconium, because heavy  
23 meconium means more recent passage, thin meconium  
24 means that has had an opportunity to dilute over

1 time?

2 A. I agree generally with that description, as long as  
3 you understand that we now look more critically at  
4 other tissues that are stained with meconium and  
5 know its limitations and its importance for etiology  
6 of stress. Having it around in fresh versus being  
7 thin and darker green are general descriptions that  
8 I have heard many times.

9 Q. If now the wonderful people at Holy Cross Hospital  
10 in discharging Joshua Barbagallo listed a principal  
11 diagnosis of perinatal asphyxia, you certainly  
12 wouldn't disagree with that, would you?

13 A. I don't disagree, as long as we both understand the  
14 definition of "perinatal."

15 Q. What is --

16 A. I don't think it is very helpful, because perinatal  
17 is a very broad time line, starting with the first  
18 trimester, ending with the first 28 days of a full  
19 term birth.

20 Q. What is your definition of perinatal asphyxia?

21 A. Asphyxia occurred during that time interval. Some  
22 hypoxic ischemic distress occurred during a very  
23 long period of time, as defined by perinatologists.

24 Q. Can we agree that Joshua Barbagallo has severe

1 cerebral palsy; is that correct?

2 A. Sure.

3 Q. Can we agree that the severe cerebral palsy more  
4 likely than not is due to asphyxia at some point in  
5 time?

6 A. I think *so*. I think that is speculative.

7 I don't have objective evidence to argue  
8 from the anti-partum, which is what I am arguing  
9 with. It is probably asphyxia.

10 Q. And the rub, if you will, between you and I in this  
11 case is, when did that asphyxia occur?

12 A. Yes, I think ultimately that's what it is.

13 Q. Now the child had persistent -- was diagnosed by the  
14 people at Holy Cross with persistent pulmonary  
15 hypertension?

16 A. Yes.

17 Q. Can we agree that more likely than not, that was due  
18 to asphyxia?

19 A. Yes.

20 Q. The child was diagnosed with meconium aspiration.  
21 Can we agree that that more likely than not was  
22 related to asphyxia?

23 A. I think so, yes.

24 Q. The child was diagnosed with suspected seizures as

1           opposed to seizures. Can we agree that the  
2           suspected seizures more likely than not were due to  
3           asphyxia?

4   A.     Yes.

5   Q.     Now they have down here, suspected sepsis. Can we  
6           agree that sepsis -- this child was worked up for  
7           sepsis, and sepsis was ruled out?

8   A.     Bacterial causes primarily were ruled out, but I  
9           agree that is not a leading diagnosis.

10   Q.     Now this child had hypoglycemia. Can we agree that  
11           that more likely than not is due to asphyxia?

12   A.     Asphyxia is one component, yes.

13   Q.     This child was diagnosed with acidosis. Can we  
14           agree that the acidosis more likely than not was due  
15           to asphyxia?

16   A.     Yes.

17   Q.     Thrombocytopenia, correct, diagnosed?

18   A.     Yes.

19   Q.     Can we agree that the thrombocytopenia was more  
20           likely than not related to asphyxia?

21   A.     That's one of several components that's possible,  
22           yes.

23   Q.     The oliguria, decreased urine output, can we agree  
24           that that more likely than not was due to asphyxia?

1 A. Yes.

Q. Obstetricians can and have from an obstetrical  
3 standpoint timed the onset of a hypoxic or asphyxic  
4 brain injury based on the evaluation of the fetus.  
5 I am sure you have read depositions. You have  
6 probably read them in this case, and I am sure you  
7 are familiar with that just in general, correct?

8 A. Well, I have seen obstetricians do it, yes.

9 Q. Okay.

10 A. How relevant the data is by which they make that  
11 conclusion I question, but yes, it is done.

12 Q. Well, certainly they look at the timing, if you  
13 **will**, of the hypoxic ischemic encephalopathy from  
14 their eyes as an obstetrician, which is different  
15 than your eyes as a pediatric neurologist, correct?

16 A. Well, it may be different, yeah, but it also may be  
17 complimentary rather than disagree.

18 I think you are leading to a question of  
19 disagreements.

20 Q. No, I am not.

21 A. Okay.

22 Q. I guess what I am really getting at is, as a  
23 pediatric neurologist, you and really every  
24 pediatric neurologist looks at the onset of

1 permanent brain injury in the setting of hypoxia or  
2 asphyxia from a different setting than  
3 obstetricians, because of your training and from  
4 your expertise?

5 A. And you have missed probably the most important. I  
6 think the Monday morning quarterback who has more to  
7 examine than the obstetrician has to examine.

8 Q. But the obstetrician does have things to examine,  
9 which, with all due respect to you, you are not  
10 competent to examine, because it is outside your  
11 field?

12 A. That is true, but I also have learned from the  
13 obstetricians I have worked with and the articles I  
14 read that fetal testing has severe limitation to  
15 assessing well-being of the fetus, particularly  
16 during the anti-partum period, and that's not a  
17 knock to their testing. It is just the nature of  
18 the art of medicine for them at this point in time.

19 Q. Is it your opinion that the neonatologist or  
20 pediatric neurologist is in a better position to  
21 tell us when the onset of hypoxic ischemic  
22 encephalopathy occur?

23 A. Yes, I think that there is more available for  
24 clinical assessment and laboratory assessment.

1 Q. Now what, generally speaking, are the criteria which  
2 go into your general evaluation of a case for  
3 purposes of timing a hypoxic ischemic  
4 encephalopathy?

5 A. Okay.

6 Q. Before I ask you that, let me just see, can we agree  
7 that Joshua Barbagallo has hypoxic ischemic  
8 encephalopathy, more likely than not?

9 A. **As** long as we don't argue that it reflects an acute  
10 problem, yes, I am willing to accept that. I think  
11 the child had a transient acute depression during  
12 the immediate labor and delivery period, but I do  
13 not agree that this is a classical profile of a  
14 hypoxic ischemic post asphyxial brain disorder.

15 Q. Well, I am not concerned with timing for purposes of  
16 this question and we are -- believe me, if your  
17 opinion was anything other on the timing issue other  
18 than what I know it is, you wouldn't be here and I  
19 wouldn't be here today, **so** I know your opinion is  
20 that the timing happened before she got to the  
21 hospital on the 6th.

22 A. That's correct.

23 **a.** We are going to explore that. I knew that before I  
24 came here.



1 A. Okay.

2 Q. I have done this before once or twice, but my  
3 question is, can we agree, putting the issue of  
4 timing aside, that Joshua Barbagallo has severe  
5 cerebral palsy, which is more likely than not due to  
6 hypoxic ischemic encephalopathy?

7 A. Yes.

8 Q. Getting to timing in general, the question that I  
9 was at before, what are the factors, generally  
10 speaking, that you take into consideration regarding  
11 dating, if you will, a hypoxic ischemic  
12 encephalopathy?

13 A. On exam, it would be the tone of the child, muscle  
14 tone, as reflecting in brain control over muscle  
15 tone. Level of arousal, seizures presence or  
16 absence, as well as timing, profile over the first  
17 week of life, first several days particularly.  
18 Reaction of other nonbrain organs, such as heart,  
19 liver, kidneys that give me a suggestion of timing.

20 Laboratory data that also reflect other  
21 organs response to stress, such as asphyxia, imaging  
22 findings, if relevant, that might have a bearing on  
23 timing issues, depending on the imaging that was  
24 obtained.

1 Pathologic diagnosis from the placenta,  
2 obstetrical information, such as the ones we have  
3 discussed that have to do with movements of the  
4 fetus or findings during labor and delivery with  
5 respect to fetal heart rate monitoring. Follow-up  
6 information that assessed the child's medical  
7 condition at the present time that may shed light on  
8 stress at the time of fetal life or at birth.

9 Q. Okay.

10 A. That's pretty broad, but that covers it.

11 Q. It is pretty good. Now what about tone would  
12 suggest that the injury **is** acute in nature?

13 A. For Joshua?

14 Q. Just in general.

15 A. Oh, in general, it would be easiest for me, as in  
16 Joshua's case, but generically it would be increased  
17 tone at birth, and I don't mean every single exam.  
18 But if the overall profile of nurses and doctors are  
19 that the fists were tight and the tone was  
20 increased, this is a chronic finding.

21 Q. A chronic finding?

22 A. A finding that suggests long standing stress to the  
23 central nervous system.

24 This is just common knowledge that

1           neurologists think about all the time when they see  
2           a tight child.

3       Q.     Can you have a child who has experienced a hypoxic  
4           ischemic encephalopathy where they have gone over  
5           the edge, if you will, within three hours **of**  
6           delivery?

7       A.     Okay.

8       Q.     And have them be hypertonic within the first 24  
9           hours of life?

10      A.     **If** it is a mild asphyxia. If it turns out to be of  
11           no consequence for the risk for cerebral palsy,  
12           there is a state of post asphyxial brain disorder  
13           that has been described by Harvey Sarnan, initially,  
14           where it is a hyper, alert, hypertonic, jittery  
15           baby. Always a concern when I see this sort of  
16           problem is that, is it a mild acute problem or a  
17           mere severe chronic problem?

18                   **So** your question is respected, but that's  
19           my response.

20      Q.     I understand. Can you have a baby who goes over the  
21           edge within three hours of delivery which who  
22           subsequently manifest severe cerebral palsy  
23           secondary to hypoxic ischemic encephalopathy, where  
24           within the first 24 hours of life they appear to be

1           somewhat hypertonic?

2     A.     No.

3     Q.     It is impossible?

4     A.     It is not, in my experience.

5     Q.     What is your understanding of Joshua Barbagallo's --  
6           first of all, the time frame for tone, what are you  
7           concerned about? Are you concerned about the first  
8           24 hours?

9     A.     That's a good question. First you have to look at  
10           the immediate delivery period.

11                   The child is obviously being resuscitated.  
12           Joshua had an Apgar of only 2.

13                   You have **to** look at the resuscitative  
14           period to see how to respond, and he did respond to  
15           resuscitation, but the tone may be a less reliable  
16           notation after notation. The note mentioned  
17           increased tone probably the first hour on. The  
18           child got Phenobarbital, which makes for changes of  
19           tone. Once you got out of that first hour, if you  
20           still had increased tone, predominantly that **is**  
21           important for me to suggest chronicity.

22     Q.     When you say increased tone, there are certainly  
23           varying degrees of increased tone. I mean, you can  
24           have a fist so tight you couldn't wedge a penny out

1 of it and you can have a hand that is in the shape  
2 of a fist, which --

3 A. Uh-huh.

4 Q. -- would indicate increased tone, but wouldn't be  
5 nearly as severe, correct?

6 A. That's right.

7 Q. **So** increased tone can be -- generally speaking, you  
8 can have hypotonic?

9 A. Decreased.

10 Q. Decreased tone. You can have, I guess, what is  
11 normal, and then in terms of hypertonic, you can  
12 probably have mild, moderate or severe. Is that  
13 fair?

14 A. Oh, sure. We do that all the time.

15 Q. I would think. And in this case, Doctor, you can't  
16 tell me with reasonable medical certainty whether or  
17 not the child at delivery was mildly hypertonic or  
18 the degree of increased tone at any time after  
19 delivery?

20 A. Not immediately after delivery. You have to define  
21 what you mean by immediate, but I do believe that I  
22 could operate, based on the review of the records,  
23 that this was severe hypertonia.

24 Q. That's your opinion?

1 A. Yes.

2 Q. Okay.

3 A. On two descriptive points by multiple people.

4 One is the cortical fisting. That tells  
5 me they couldn't break this closed fist. That is  
6 very abnormal.

7 And the second finding was the PMR, the  
8 physical medicine rehabilitative consultation at  
9 about five or six days of age. Contractures from  
10 the limbs. You don't get that from something acute.  
11 That is something chronic. Useful information that  
12 doesn't always come out of the record, but from this  
13 particular child, that came out. Grading is  
14 difficult. I would agree with that in general.

15 Q. You wouldn't base your opinion with regard to timing  
16 in this case on tone alone, would you?

17 A. No, but as a neurologist who exams babies, that's  
18 real high up there.

19 Q. And there are entries in the chart which suggest  
20 that the child just is not experiencing increased  
21 tone during the first five days of life, correct?

22 A. There are several entries, and there are not many of  
23 actually hypertonia, if that's what you are  
24 referring to.

1 Q. Right.

2 A. There are very few entries of that compared to  
3 others that are increased tone. If you look at  
4 entries of nurses and doctors, not all of them  
5 consistently describe tone every time they write a  
6 note.

7 Q. And when they do write a note and describe tone,  
8 those entries aren't consistent?

9 A. I think they are. I think the consistency is  
10 predominantly in the increased tone arena of  
11 cortical fisting and increased tone, rather than the  
12 decrease.

13 Once again, this child has gotten  
14 medication, and also cycles through sleep or state,  
15 which is going to change tone, too, so it depends on  
16 the time in which different examiners see the kid.

17 Q. Can we agree that the records are somewhat  
18 inconsistent with regard to this child's tone during  
19 the first five days of life?

20 A. Explain consistent, but it may be a reflection of  
21 the process I have mentioned of either normal state  
22 cycling or a pharmacologically altered baby on the  
23 drugs.

24 Q. At birth was there a description of the child's

1 tone?

2 A. I don't know what you mean by at birth. There was  
3 mention of increased tone, fisting early on, and I  
4 would have to **look** at -- it was a nursing entry,  
5 too.

6 Q. **Do** you remember when it was that the tone was first  
7 described at or after birth?

8 A. Offhand, I don't. I would have to look at the  
9 records.

10 Q. **Do** you remember whether it was described -- wen it  
11 was described for the first time, do you remember  
12 what the description was?

13 A. It was called fisting. It was by a nurse's notes,  
14 and it was prior to transport.

15 Q. Now the second thing you told me about in terms of  
16 timing after tone was level --

17 A. **Of** arousal, I think.

18 Q. I got the "A."

19 A. Well, that's important.

20 I mean we can't assess mental status real  
21 accurately in the newborn. I will admit that up  
22 front, but what we are looking for in terms of the  
23 potential of timing is how unconscious is the child.

24 And I am impressed with paradoxically how



1           awake -- I won't say alert -- Joshua was after  
2           several hours. This is not a child who has had such  
3           a severe acute metabolic disturbance from asphyxia  
4           where he was comatose, unresponsive and needing a  
5           ventilator.

6                       I am throwing in the ventilator, because  
7           that is part of level of arousal. If you can't  
8           breathe on your own, you are really deep in coma,  
9           and Joshua just did not reflect that.

10    Q.     Joshua had an Apgar of 2, correct?

11    A.     At one minute he did, yes.

12    Q.     That Apgar of 2 is consistent with an acute asphyxic  
13           event, is it not?

14    A.     Yes.

15                       I mean in the context of Joshua, he had a  
16           cord pH of 7.09. He was acidotic. There is no  
17           question about the metabolic arrangements. Whether  
18           that is relevant to injury is obviously why I am  
19           sitting here.

20    Q.     There is no question that Joshua at birth was  
21           asphyxic and had an Apgar of 2, which is consistent  
22           with an acute asphyxic event, right?

23    A.     Yes.

24    Q.     With regard to his Apgar score, Apgars are something

1           you don't ignore in terms of timing, correct?

2                       They are important?

3       A.     In terms of brain injury, they are misleading, but  
4       as John pointed out in his deposition, and others as  
5       well, when you get beyond ten minutes and the Apgar  
6       is depressed, then the Apgar takes on more than --  
7       more of a prognostic indicator, but not for timing.

8       Q.     With regard to the Apgars, they evaluate tone?

9       A.     Uh-huh.

10      Q.     What do they evaluate?

11     A.     Heart rate and respiration first. Those are the  
12     most important two.

13     Q.     Right.

14     A.     Then there is muscle tone, grimace or cry, and  
15     color.

16                       And muscle tone probably, in my mind, is  
17     the next important, and then there is probably cry,  
18     and then color, but that's kind of arbitrary.

19                       Virginia Apgar designed this with **no**  
20     grading **of** which was more important than the other,  
21     and they are irrelevant for preemies, but it is  
22     clearly a measure of the need for resuscitation, and  
23     that's all.

24     Q.     It is a modality by which one can evaluate the

1 condition of the child at birth, correct?

2 A. Correct.

3 Q. And you can evaluate the degree of depression at  
4 birth, correct?

5 A. Correct.

6 Q. And you can evaluate if the child is experiencing  
7 depression secondary to hypoxia or asphyxia, the  
8 degree of that at birth?

9 A. In concert with what you know metabolic about the  
10 child, that's correct.

11 Q. And we know metabolically that this child was  
12 acidotic secondary most likely to asphyxia?

13 A. Initial core pH was acidotic yes. And if we talk to  
14 Apgars, we have got to go to the five-minute Apgar,  
15 which I guess you will get to.

16 Q. We will. Now can you find for me where the Apgar  
17 scores were broken down? I have **got** them.

18 A. Okay.

19 Q. Now you indicated previously that respirations at  
20 birth were indicative of the level of arousal,  
21 correct?

22 A. Yes.

23 Q. Being able to breathe on your own?

24 A. Yes.

1 Q. If I understand, the inability to be able to breathe  
2 on your own at birth would indicate a more acute  
3 injury, and the ability to be able to breathe on  
4 your own at birth would indicate a more chronic  
5 injury, generally speaking?

6 A. Not injury. I guess you used the proper term for  
7 me, depression. I think the depression of  
8 respiration is a more acute finding of level of  
9 arousal.

10 Q. Right.

11 A. I don't make that equivalent to injury.

12 Q. Maybe I misspoke. I will ask it to you this way:  
13 Can we agree that level of respiration, which is  
14 associated in your mind with arousal, if you have no  
15 respirations at birth or an inability to be able to  
16 breathe on your own, that is consistent with acute  
17 asphyxia, and the ability to be able to breathe at  
18 birth, which would be consistent with increased  
19 arousal, would be associated with a more chronic  
20 asphyxia?

21 A. Or reversible asphyxia. I mean, maybe not even  
22 brain damage.

23 I mean, after birth is the issue. How far  
24 after birth? I have already conceded that that

1 transitional period of the first hour is a pretty  
2 tumultuous time, and Joshua was having a lot of  
3 problems. I am not denying that, but the trends of  
4 where he was going -- Joshua was breathing on his  
5 own and was extubated before the PPHN, the lung  
6 disease came over.

7 Q. I am looking at Joshua's condition of birth for the  
8 moment.

9 A. Okay.

10 Q. We will get to it down the road, because I am  
11 talking about Apgars.

12 A. All right.

13 Q. When you have a child who has no respirations at  
14 birth, that is consistent with a decrease or  
15 impaired level of arousal which is consistent with  
16 an acute asphyxia or hypoxia, correct?

17 A. That's correct. Not synonymous with brain injury.

18 I have seen many kids, more kids than not,  
19 who have reversible asphyxial depression, post  
20 asphyxial depression, which then wake up and are  
21 fine.

22 Q. Joshua Barbagallo's asphyxia, whatever the curve --

23 A. Yes.

24 Q. -- obviously, it was not reversible, correct?

1 A. Yeah.

2 I think we are speculating on the  
3 asphyxia, as I have admitted to you. I think it is  
4 anti-partum. I don't have a measurement of that,  
5 but I know, in general, the lupus condition can lead  
6 to vasculopathy, which leads to asphyxia.

7 Q. Joshua Barbagallo's asphyxia got to the point where  
8 it wasn't reversible; isn't that a correct  
9 statement?

10 A. Yes.

11 Q. Now let's talk about seizures and their timing. Can  
12 we agree that seizures which occur within the first  
13 12 to 48 hours are consistent with or suggestive of  
14 an acute asphyxic event?

15 A. As long as we leave out injury, yes. As long as we  
16 leave out injury.

17 However, I have a provisio based on my own  
18 experience, which is now published, that most full  
19 term babies will seize -- 90 percent will cease  
20 within the first two days, irrespective of timing.  
21 I don't know whether we are dealing with the  
22 lowering of thresholds from a previous injury which  
23 led to seizures or the seizures are a reflection of  
24 an acute brain injury, which I reject.

1 Q. Let me ask you this: What is your opinion, in  
2 general, regarding how seizures relate to a child  
3 who has experienced hypoxic ischemic brain injury?

4 A. In general, the presence of seizures suggest a more  
5 severe depression or brain disorder.

6 Q. Okay.

7 A. It potentially can be from either acute **or** chronic  
8 injury or no injury at all.

9 Q. Okay.

10 A. And the earlier the seizures in general -- and I  
11 know you and John fenced about this -- the more  
12 potential it may hang true with a chronic versus  
13 acute problem, and I don't have the hours that I can  
14 say to you. At this point in my practice, to a  
15 reasonable degree of medical certainty, I think the  
16 earlier it is, the more likely chronic.

17 Q. Let's try to get some hours, in general, to the  
18 extent that we can.

19 Can we agree -- I think I understand what  
20 you are saying -- the closer it is that you have  
21 diagnosable seizure to the time **of** birth, the more  
22 likely it is that it is a chronic asphyxia?

23 Is that fair --

24 A. Yes.

1 Q. -- generally speaking?

2 A. Keeping in mind how long labor and delivery was. I  
3 mean, in looking at all of the other factors, yes.

4 Q. And then would it also be fair to assume that if you  
5 don't have diagnosable seizures within the first so  
6 many hours -- and I will let you put a number on  
7 that if you can --

8 A. Uh-huh.

9 Q. -- that that is more consistent with an acute  
10 asphyxic event?

11 A. I --

12 Q. Let me ask it to you this way.

13 A. **Just** I have seen **so** many of both sides of the street  
14 that I am becoming less and less confident.

15 Q. Does timing of seizures help you time the asphyxic  
16 event?

17 A. Not alone, but in general with other things, it can  
18 be helpful.

19 Q. How so?

20 A. A child seizing in the delivery room. That helps,  
21 in the absence of anything acute like a bleed that I  
22 think is happening at that time.

23 Q. Let me stop you, and I apologize, but maybe **I** can  
24 save some time here. Let me ask this question: If



1           you had an acute asphyxia which resulted in hypoxic  
2           ischemic encephalopathy and severe cerebral palsy --

3   A.     Yeah.

4   Q.     -- have you ever seen that?

5   A.     Yeah, sure.

6   Q.     It happens, doesn't it?

7   A.     It does. Less common than you would think from what  
8           you said, but it does happen.

9   Q.     Okay. From the standpoint -- given that scenario --

10   A.    Right.

11   Q.    -- from the standpoint of the timing of seizures,  
12           what would you expect?

13   A.    Later seizures, as you phrased earlier, and I would  
14           expect to see --

15   Q.    What do you mean by later, generally?

16   A.    Generally, you know. You have read it as well as I  
17           have. If you look at kids with asphyxia, you will  
18           see them during the first two to three days  
19           clinically. Are they truly seizures, and did you  
20           verify them electrically? But during that first few  
21           days that is published, if it is acute it would be  
22           later than earlier, and I tend to see that first 12  
23           to 24 hours being less likely to see them than in 24  
24           to 48 hours. That's my general impression.

1 I am studying that now and I have no  
2 statistics published, but my general feeling is it  
3 is later than. That's --

4 Q. Can we agree that your opinion is -- I am going to  
5 jump back in time for a minute.

6 A. Okay.

7 Q. Can we agree, Doctor, that in this case, your  
8 opinion is that this child's tone after birth and  
9 after birth is consistent with a more chronic  
10 asphyxic event?

11 A. Correct.

12 Q. Why is that?

13 A. Increased tone, as we pointed out, and the  
14 contractors.

15 Q. Now with regard to this child's level of arousal --

16 A. Yes.

17 Q. -- is it your opinion that this child's level of  
18 arousal is consistent with a more chronic injury or  
19 is it not very helpful one way or the other?

20 A. It is less helpful, because of the disease entity of  
21 PPHN that developed in the lung and the drugs on  
22 board, but I felt that this child during the first  
23 couple of hours was arousing and becoming more awake  
24 paradoxically faster than I would have expected from

1 an acute severe hit from asphyxia.

2 Q. Can you say with reasonable medical certainty that  
3 this child did not have -- that this child's level  
4 of arousal was inconsistent with an acute asphyxic  
5 event?

6 A. It was inconsistent. Looking over the serial exams  
7 of multiple people, I would say yes. To a  
8 reasonable degree of medical probability, yes.

9 Q. To a reasonable degree of medical probability, could  
10 this child's level of arousal at birth and  
11 thereafter be consistent with an acute asphyxic  
12 event, given the fact that the child got --

13 A. Alone.

14 Q. -- got zero for respirations at birth?

15 A. How far are we going? Are we limited to zero at  
16 birth and two at one minute?

17 Q. No.

18 A. I would say it was inconsistent the way an acute  
19 asphyxial event.

20 Q. Certainly the child's level of arousal at birth and  
21 within the first minute was consistent with an  
22 acute?

23 A. I will even give you the first hour. I think there  
24 is a transition period from fetal to neonatal life

1           that Joshua did not negotiate real well, and I think  
2           the level of arousal was evolving. If I was sitting  
3           there looking at the baby, I wouldn't know where we  
4           are going yet.

5    Q.    So the child's condition, generally speaking,  
6           general overall condition within the first hour of  
7           life would be consistent with an acute asphyxic  
8           event?

9    A.    At that time, I would probably say that is a  
10          potential possibility.

11   Q.    Now let's go back to seizures. Can we agree that  
12          once the seizures were eventually diagnosed, in this  
13          case that the timing of the seizures or the onset of  
14          seizures in this case were consistent with an acute  
15          asphyxic event?

16   A.    No.

17   Q.    Why not?

18   A.    Because they were too early, and in the context of  
19          other things on exam, such as the tone and the  
20          arousal and the other laboratory findings. So the  
21          seizures alone helped me only in the context of  
22          everything else I am putting together.

23   Q.    I understand. Let's see how much these seizures  
24          help you. Why don't we play the game and play with

1 Dr. Freeman to see if you had more luck than he did.  
2 Hopefully, you will.

3 Can you find for me documentation in this  
4 child's chart prior to transfer?

5 First of all the child was born at 2:00  
6 p.m. on the 6th and transferred that day to Holy --  
7 I guess transferred on the 7th to Holy Cross,  
8 correct?

9 MS. CLARK: Transferred to Children's  
10 Hospital on the 7th.

11 BY MR. FEDERICO:

12 Q. Thank you. Do you know what time of the transfer  
13 was?

14 A. I don't remember offhand.

15 MS. CLARK: I don't remember offhand.

16 BY MR. FEDERICO:

17 Q. Well, let me see if we can find out. It looks like  
18 on the 7th, according to the Children's record. It  
19 says admission time 1:30, so let's assume that  
20 Joshua was at Holy Cross for 24 hours **plus** minus.

21 A. Right.

22 Q. Can you find in the Holy Cross record when it was  
23 that Joshua first experienced a diagnosable  
24 documented seizure? At what point in time after

1 birth?

2 A. Let me look through it and see if I can find some  
3 notation here that helps.

4 MR. FEDERICO: We will take a quick break.

5 - - - -

6 (Whereupon, there was a recess in the  
7 proceedings.)

8 - - - -

9 BY MR. FEDERICO:

10 Q. The first diagnosis of seizures in this child, based  
11 on the records you have reviewed, is when?

12 A. About 11:30 p.m. on the 6th is the earliest  
13 notation. I see nothing mentioned earlier than  
14 that.

15 Q. That would be at how many hours of life?

16 A. Well, approximately nine.

17 Q. What specifically is recorded at that point in time?

18 A. I will get that out here. I have a notation dated  
19 9-6, 11:50 p.m. hospital, and it says:

20 (Reading) Awake, eyes open, with  
21 movements of extremities, chewing motions **of** the  
22 mouth, thumbs positioned under fingers, and that's  
23 really all.

24 But by that time the child is **on**

1 Phenobarbital, so I don't know exactly when before  
2 that movements in question were considered possible  
3 seizures and the child treated, so the maximum was  
4 nine hours.

5 Q. Let me ask you this: Under these circumstances with  
6  
7 would not be uncommon nor would it be inappropriate  
8 to put the child on prophylactic Phenobarbital?

9 A. Now I guess we wouldn't do that.

10 Q. In 1988?

11 A. Unfortunately, they did it then.

12 Q. They did it?

13 A. Right.

14 Q. And in this case, essentially what we are looking  
15 at, you can't nor would you in 1988 make the  
16 assumption that this child had seizures before they  
17 put this child on Phenobarbital?

18 They may have very well put this child on  
19 Phenobarbital as a precautionary measure, correct?

20 A. Well, it is possible, but it is not implied by the  
21 records, which indicate that they put the kid on  
22 meds because of seizures. Everyone who made the  
23 mention that seizures were mentioned and documented  
24 and Phenobarbital started, I have seen those type of

1 injuries, and that was not in this particular  
2 child's injury.

3 Q. There is no mention of seizure in this chart prior  
4 to 11:50 p.m., correct?

5 A. As far as I can see, that's correct.

6 Q. And the activity that is mentioned at 11:50 p.m. is  
7 not a diagnosis of seizure, correct?

8 A. Certainly the writer, who was a nurse, did not even  
9 document them and say, I think these are seizures.  
10 They simply describe what seem to be a seizure in a  
11 child already on anti-epileptic medication.

12 Q. What she is observing may or may not be seizures,  
13 correct?

14 A. True, but the child was already on Phenobarbital,  
15 and even in 1988, I would say that it was not  
16 general practice to prophylactically put children on  
17 Phenobarbital, just in my understanding of the  
18 diagnosis of even clinical seizures, because I think  
19 doctors are concerned about Phenobarbital's level of  
20 arousal.

21 Q. But in this chart, we can agree prior to 11:50 p.m.  
22 on the 6th, nobody diagnosed, as best you can tell,  
23 the presence of seizures?

24 A. Correct.



1 Q. And at 11:50, there is no diagnosis of seizures?

2 A. Correct.

3 Q. And can we agree that -- prior to transfer can we  
4 agree that there is no place in the Holy Cross  
5 record for Joshua Barbagallo where somebody actually  
6 observes and diagnoses seizure?

7 A. There are mentioned on the 7th of seizures, if I  
8 remember, but --

9 Q. Okay.

10 A. I am not sure I -- I am not sure. I have to  
11 disagree with you, because I don't think.

12 Q. There may have been some mention **of** seizure activity  
13 on the 7th?

14 A. Yes.

15 Q. Let me ask you: The evaluation of this child that  
16 was done -- first of all, can we agree that a  
17 neonatologist, generally speaking, is in a better  
18 position than a pediatric neurologist to rule in or  
19 rule out the presence of birth asphyxia?

20 A. That's a tough one. We are both pediatricians. We  
21 both can look at clinical exam findings and  
22 laboratory findings. I would say we are both  
23 synonymous in our abilities for diagnosis.

24 Q. The neonatologist is charged with the evaluating and

1           treating the newborn, and the pediatric neurologist,  
2           if involved, is generally involved as a consult,  
3           correct?

4    A.     That's true. You didn't ask that before. The  
5           comfort or the diagnosis depends how often you see  
6           the kids.

7    Q.     Can we agree that since the neonatologist deals with  
8           the baby from the delivery room until discharged  
9           from the hospital more often, and more commonly and  
10          really exclusively doesn't deal with the child after  
11          that, generally speaking?

12   A.     Right.

13   Q.     Can we agree that the neonatologist is in a better  
14          position, generally speaking, to rule in or rule out  
15          the presence of birth asphyxia?

16                   MS. CLARK: Objection, asked and answered.

17                   THE WITNESS: Yes.

18   BY MR. FEDERICO:

19   Q.     Now the neonatologist in this case from the  
20          defendant Holy Cross Hospital, do you know who that  
21          person was or is?

22   A.     Offhand, I don't remember his name.

23   Q.     The neonatologist's assessment is a term infant  
24          male. Do you agree with that?

1 A Yes

2 Q And number two is birth asphyxia Do you agree with  
3 that?

4 A No I don't use the term birth asphyxia, but I  
5 think asphyxia I agree with

6 Q What is birth asphyxia?

7 A. It is a misleading term. I mean, I think it  
8 implies --

9 Q If I look it up in a medical dictionary or a  
10 neonatology textbook what would the definition of  
11 birth asphyxia be?

12 A The definition of asphyxia that is birth related  
13 would be the clinical and laboratory evidence of  
14 asphyxia at birth.

15 Q And doesn't that tend to imply that if there is  
16 injury -- if you have a child who has severe  
17 cerebral palsy secondary to hypoxic ischemic  
18 encephalopathy, if that is associated with birth  
19 asphyxia, doesn't that tend to imply an acute  
20 injury?

21 A Unfortunately yes, even when there is no proof, but  
22 yes, that's the implication.

23 Q With regard to timing of HHE, the next factor  
24 that you have on your list after seizure, was

1           profile in the first several days. What do you mean  
2           by that?

3       A.   Well, clinically how did the baby maintain its level  
4           of arousal, maintain its resting tone, evolve its  
5           seizure like activity, and respond to other organ  
6           disorders during those first several days?

7       Q.   Let's talk about reaction of other organs.  
8           Essentially, multi-organ failure is what we are  
9           talking about or multi-organ dysfunction?

10      A.   Dysfunction is better, and what type of dysfunction,  
11           because I am pointing to particularly the bone  
12           marrow, and the response of the cellular blood  
13           products that **do** not fit this acute profile that you  
14           are asking me to consider; namely, the nucleated red  
15           blood cell count, together with I think the **DIC**  
16           picture, but most importantly, the **NRBC's** reflect  
17           stress on an organ that I would not expect to have  
18           an abnormal response if we were, hypothetically,  
19           saying this was acute.

20      Q.   In layman's terms, you are saying the  
21           thrombocytopenia is more than you would expect with  
22           acute?

23      A.   **No.** It is -- the **NRBC** is an immature red blood cell  
24           with a nucleus in it, and there were 58 seen in the

1 peripheral blood

2 that's a tremendous amount over the five

3 maximum that I saw suspended to see in normal

4 newborn that takes 48 hours to mount a response

5 that is how five had if it is 3, I would say it

6 is probably closer to me that this is chronic

7 stems to that bone marrow prior to Dorothy

8 Bragaglio entering Holy Cross Hospital to deliver a  
9 baby

10 Q Have you seen a child with a birth asphyxia and

11 hypoxic ischemic brain injury resulting in severe

12 cerebral palsy where there's a head trauma of

13 abnormal blood work?

14 A Which blood work? And on which day?

15 Q The overall picture

16 A If you were to take the nucleated blood cell count  
17 and put it to the fourth or fifth, sixth day of  
18 life, maybe

19 Q Okay.

20 A If you were to take the DIC picture alone, without

21 the NRBC's, maybe. Absolutely. But I am talking

22 about Josquin and it does not ring true that the

23 organ systems that would be involved would be the

24 bone marrow -- and then I wouldn't even gotten to

1 the lung -- but the bone marrow right now suggests a  
2 chronic problem.

3 Q. Other than the blood work and bone marrow,  
4 production of red blood cells, what other organs  
5 does one normally look at for multi-organ  
6 dysfunction secondary to acute or chronic asphyxia?

7 A. Well, for the acute picture, you are looking for  
8 multi-organ involvement with lung and kidney  
9 probably being the more likely two organs that would  
10 be affected if there was an acute component. There  
11 may have been an acute component if we are looking  
12 at the dropoff in urine output, the oliguria that  
13 you mentioned earlier, although there are drugs that  
14 can cause a dropoff in urine output, such as  
15 Phenobarbital, but the lung and the kidney would be,  
16 in response to your question.

17 Q. We can agree, can we not, that decreased urine  
18 output is consistent with an acute asphyxic event?

19 A. As one possibility that's correct, but I have  
20 mentioned others.

21 Q. And what are you looking for in the lungs which  
22 would be consistent with an acute asphyxic event as  
23 opposed to a chronic one?

24 A. Well, I think it is limited, and in Joshua's case,

1           fortunately, from my interpretation of the facts,  
2           the persistent fetal dilation diagnosis for me says  
3           it is a chronic anti-partum condition. That's a  
4           lung condition that, although aggravated probably by  
5           the meconium aspiration, is a condition that has to  
6           have its onset with stress, probably asphyxial in  
7           utero, to cause the abnormal function of lung and  
8           heart after birth, leading to that diagnosis.

9       Q.     But you could have severe asphyxia within three  
10           hours of delivery where the asphyxia was **so** severe  
11           and lasted so long that the child was born dead?

12    A.     Yes.

13    Q.     I mean, it doesn't take long in the setting of  
14           severe asphyxia to cause permanent brain injury,  
15           does it?

16    A.     That's correct.

17    Q.     Now if you have severe asphyxia within three hours  
18           of delivery, you can have persistent fetal  
19           circulation in the neonatal time frame, can you not?

20    A.     Well, that's how it is diagnosed in the neonatal  
21           time frame. I guess I am not understanding your  
22           question.

23    Q.     Well, you can have persistent fetal circulation,  
24           which is consistent with or even the result of a

severe asphyxia within three hours **of** delivery?

A. No, no, no. You are mixing up. I see what you are asking. You are saying, well, the onset **of** the event occurred within three hours of life and, therefore, it is an acute problem.

Is that what you are saying?

Q. No, I am saying you have severe asphyxia --

A. Yeah.

Q. -- within three hours of delivery.

A. Yes.

Q. Okay.

A. Such as an arrest or what has happened to the child.

Q. Within three hours **of** birth, the child has experienced severe asphyxia, okay?

A. Okay.

Q. And the child is asphyxic at birth, acidotic at birth, depressed at birth, okay?

A. Okay. **Go** ahead.

Q. The onset **of** persistent fetal circulation after delivery is consistent with that, is it not?

A. No.

Q. Why not?

A. I mean, the whole purpose of diagnosis **of** that disorder implies a chronic change to the pulmonary



artery, which affects the hemodynamics of blood flow to the lung and ultimately aeration of the lung.

Based on our current knowledge of PPHN, which is persistent pulmonary hypertension in the newborn that is a chronic anti-partum. It used to be thought acute, but the literature now suggests it is not. You may have lung disease which is asphyxia which --

Q. You can have persistent pulmonary hypertension which is chronic or acute asphyxia, depending on the severity of it?

A. No, I would not agree with that based on my current knowledge of what the literature says about PPHN. I am using that as part of my chronicity.

That particular lung diagnosis in the absence of heart malformations, which you have to rule out, suggests a more chronic stress in utero, which we know this child had.

Q. Can we agree that this child's laboratory data as it relates to asphyxia is consistent with acute asphyxia?

A. I don't mean to be picky, picky, but please point out which laboratory data.

Q. You mentioned as one of the factors --

1 A. I was implying the nucleated red blood cell count.

2 Q. Certainly blood gases, cord blood gases were  
3 something you would want to look at in terms of  
4 timing an injury, correct?

5 A. Timing of stress, yes, but if you notice the first  
6 arterial blood gas of the child, which we haven't  
7 talked about yet, was already 7.2 with a base  
8 deficit of only minus 10. This child was being  
9 adequately resuscitated, and that abnormal 7.09,  
10 which is markedly abnormal, if we agree it is  
11 arterial versus venous, compared to a much better  
12 7.2 at around five or six months of life.

13 Q. Do you agree that the more acute the asphyxia, the  
14 more easy it is to reverse the asphyxia?

15 A. In general, I would think that's probably the case,  
16 yes.

17 Q. Now this child's initial blood gases -- and that may  
18 be somewhat misleading, the cord blood gases, if you  
19 will --

20 A. Yes.

21 Q. -- they are consistent with an acute asphyxic event,  
22 are they not?

23 A. Yes.

24 Q. And when were the blood gases next taken from the

1 child after the cord gas?

2 A. During that first hour of life. I don't exactly  
3 know when.

4 Q. Were they consistent with an acute asphyxic event?

5 A. Yes, that was rapidly resolving.

6 Q. Okay. Now moving to imaging findings --

7 A. Yes.

8 Q. -- have you looked at any films in this case?

9 A. No, I have not.

10 Q. Now if a child experiences an acute asphyxic event,  
11 birth asphyxia, which results in hypoxic ischemic  
12 encephalopathy and severe cerebral palsy, we can  
13 agree, can we not, that very often the ultrasound  
14 within 24 hours of life will be normal, because  
15 there hasn't been sufficient time for cerebral edema  
16 to manifest?

17 A. That is true. It takes a maximum of a couple of  
18 days to see effects of asphyxial stress, causing  
19 cerebral swelling.

20 Q. Well, they did do imaging studies in this case, did  
21 they not?

22 A. Yes.

23 Q. Bear with me.

24 A. I believe on the 7th, there was an ultrasound.

1 Q. There was, and it was normal?

2 A. Yes.

3 Q. And that would be consistent with an acute asphyxic  
4 event?

5 A. Or a chronic asphyxic event. I don't think it helps  
6 either way. I think it is more helpful to me,  
7 because of what else happened on clinical exam  
8 later, which I will get to.

9 Q. It is really not, with all due respect. If we had a  
10 chronic asphyxic event, Doctor, which happened,  
11 whenever you think -- well, first of all, can you  
12 tell me with reasonable medical certainty, in terms  
13 of timing, did -- first **of all**, you believe it was a  
14 chronic asphyxic event that caused this child's  
15 brain injury as opposed to an acute asphyxic event,  
16 right?

17 A. Right.

18 Q. Can you tell me with reasonable medical certainty  
19 whether or not this happened within the first  
20 trimester, second trimester or third trimester?

21 MS. CLARK: Objection, medical  
22 probability.

23 THE WITNESS: I can't reach a medical  
24 probability, but I speculate it is most likely the

1           third trimester.

2                   MR. FEDERICO: I am not interested in  
3           speculation, and I will ask my question again.

4 BY MR. FEDERICO:

5 Q.       Can you tell me, Doctor, based upon reasonable  
6       medical probability, whether or not this child's  
7       asphyxic event which subsequently caused the hypoxic  
8       ischemic encephalopathy and severe cerebral palsy  
9       occurred within the first trimester, second  
10      trimester or third trimester?

11 A.      Third trimester.

12 Q.      Based upon reasonable medical probability without  
13      speculation?

14                   It seems somewhat inconsistent with your  
15      prior answer, with all due respect.

16 A.      Well, I have already given opinion that I am holding  
17      that this is within a reasonable degree of medical  
18      probability prior to labor and delivery. I have to  
19      commit myself to sometime prior to labor and  
20      delivery.

21 Q.      Not really, but you can if you want.

22 A.      And I would choose, given the way you phrased the  
23      question, the third trimester, because of a certain  
24      absence of things in the baby and the presence of

1 other features that make it, more likely than not,  
2 third trimester rather than second or first.

3 Q. The third trimester begins at what week, roughly?

4 A. 28, roughly.

5 Q. Do you have an opinion based on reasonable medical  
6 probability when between the 28th and 38th week the  
7 asphyxic event which caused permanent brain injury  
8 to Joshua Barbagallo occurred?

9 A. No.

10 Q. Okay.

11 A. With the absence of growth retardation, which would  
12 make it much more of a whole trimester process, this  
13 placental insufficiency, which may be part of the  
14 picture of stress to the brain, would have  
15 compromised weight.

16 Q. So if I understand your opinion with regard to  
17 timing, you can say with reasonable medical  
18 probability or certainty that before the mother  
19 arrives on September 6th, 1988, the asphyxic event  
20 which caused permanent brain damage, in your mind,  
21 has already occurred?

22 A. Yes.

23 Q. When before she arrives at the hospital?

24 You can't tell me with reasonable medical

1 probability or certainty?

2 A. Correct.

3 Q. Other than to say sometime in the third trimester?

4 A. Well, that's correct. It is incremental, based on  
5 the chronic condition that the mother suffered which  
6 the baby reacted to.

7 Q. What was that?

8 A. Well, her systemic lupus is the major autoimmune  
9 disease that she suffered, which I believe is  
10 central to why the baby was damaged.

11 Q. How did the lupus cause damage to the baby?

12 A. If I am allowed to give a speculative response, I  
13 think that we don't have proof of that, but there  
14 are vascular changes that occur to the placenta, so  
15 that indirectly affects baby through perfusion.  
16 There are direct effects causing vasculopathy that  
17 may cause strokes or ischemic issues to the baby  
18 because of proteins or substances created by the  
19 mother, but I have no proof of that.

20 Q. The worst the placenta at the time of delivery in  
21 terms of its appearance and in terms of its age and  
22 the degree of calcifications --

23 A. Yes.

24 Q. -- the more likely it is that the injury is chronic

1 as opposed to acute?

2 That's fair, isn't it?

3 A. Not just the worst, but the type of findings, too.

4 Q. Okay.

5 A. I agree with you, the worst it is, and it depends on  
6 what it is. If we are talking about calcifications,  
7 that would be the worst. Calcifications, yes.

8 Q. If we are talking about -- and I think we are in  
9 this case -- this child's injury being secondary to  
10 placental insufficiency associated with the **SLE** and  
11 the vascular vasculitis --

12 A. Yeah.

13 Q. -- the worst the placenta appears at birth, the more  
14 likely it is that it is a chronic injury, correct?  
15 That's fair?

16 A. That is one thing I would look to, but I **also** know  
17 the literature doesn't reflect that.

18 Q. This placenta at birth, according to the  
19 pathologist, didn't look so bad, did it?

20 A. That's correct.

21 **a.** And this placenta at birth would be more consistent  
22 with an acute injury, would it not?

23 A. No, because that's where we differ. We are asking  
24 about degree of abnormalities. The only kind of



1           abnormalities that the placental pathologist or the  
2           pathologist -- I don't know if he is experienced in  
3           placenta or other aspects -- talks about  
4           calcifications, not anything else. The  
5           calcifications is in a chronic category, so, if  
6           anything, the only thing he bothers to mention is of  
7           a chronic import and not acute.

8    Q.    Which leads you to believe that the only abnormality  
9           of the placenta was the presence **of** some  
10          calcifications, correct?

11   A.    Unless I had access to -- that's correct based upon  
12          what is written in the records, correct.

13   Q.    **You** are not a pathologist?

14   A.    No.

15   Q.    And not a placental pathologist?

16   A.    But I use the pathology.

17   Q.    And in this case, you rely on the pathology report?

18   A.    Depending on who is doing it.

19   Q.    You don't have any reason to disagree with this  
20          report, **do** you?

21   A.    Not at the moment.

22                    If there was a chance to look at the  
23                    sections, I would like to have an opportunity with  
24                    someone with more placental experience to take a

1 stab at it.

2 Q. Are you an expert in the placental interpretation of  
3 pathology slides?

4 A. No, of course not, but I do certainly ask my  
5 pathologist's consultation, as I do my obstetrician  
6 of the interpretation of a fetal heart rate strip.

7 Q. Understandable, but you don't have any reason to  
8 disagree with this pathology report?

9 A. No.

10 Q. And with regard to the this pathology report, the  
11 only thing it mentions is patchy -- in terms of  
12 abnormalities is patchy calcification of the  
13 placenta, correct?

14 A. Well, yes. There is also a weight of 610 grams,  
15 which I believe I -- have to look at the means and  
16 standard deviations -- that sounds like a high  
17 placenta above the 90th percentile. He doesn't  
18 mention that, but that is a heavy placenta.

19 The child was hydropic. Joshua had  
20 doughy, swollen subcutaneous tissues, and that large  
21 placenta may be relevant, but he didn't mention  
22 that. I am not there. I can't ask him to look in  
23 more detail what he meant by that.

24 I do know that children's placentas above

1 the 90th and the 10th have an increased risk for  
2 profusion abnormalities. With my discussions with  
3 the pathologist, that's not mentioned in the  
4 clinical report. What I am trying to say is the  
5 placental report by and of itself is only saying as  
6 a marker, and the only marker that the pathologist  
7 is willing to say as chronic, not acute.

8 Q. Hardly. He says patchy calcifications and never  
9 mentions the word "chronic."

10 A. But --

11 Q. Let me finish.

12 A. Sorry.

13 Q. And the presence of patchy calcifications, Doctor,  
14 doesn't lead you one way or other to chronic injury  
15 as opposed to chronic or acute?

16 A. It does. More than 72 hours, in the pathologist's  
17 observation, based on my experience.

18 Q. Now let's get back to the imaging studies. The  
19 ultrasound that was done on the 7th, which was  
20 normal, would be consistent with an acute asphyxic  
21 event, correct?

22 A. In and of itself, yes.

23 Q. And if you had a chronic asphyxic event that  
24 happened that was severe in nature, if the asphyxic

1 event was, let's say, more than **48** hours old and it  
2 was severe in nature, more likely than not, you  
3 would expect to see some abnormality on an  
4 ultrasound of the head?

5 A. No.

6 I think if you were to give me a choice, I  
7 would be more likely to see abnormalities if it was  
8 acute rather than if it was chronic.

9 Q. There is a time frame?

10 A. You are calling something chronic and saying **48**  
11 hours only. I am saying that there is a time course  
12 in cerebral edema, about a 72-hour window, which  
13 maxes out around the first day or so.

14 Q. If you have an asphyxic event which is severe in  
15 nature, severe enough to cause hypoxic ischemic  
16 encephalopathy and severe cerebral palsy -- with me  
17 so far?

18 A. Yes.

19 Q. And then after that event you take an ultrasound of  
20 the head at **24** hours, is that more likely than not  
21 to be normal or abnormal?

22 A. More than **24** hours or less?

23 Q. At **24** hours.

24 A. More likely would be abnormal.

1 Q. Abnormal?

2 A. Yes.

3 Q. If you understand those circumstances, take  
4 ultrasound of the head at 48 hours, is it more  
5 likely than not to be abnormal?

6 A. Abnormal.

7 Q. Now if you have a severe asphyxic event which  
8 results in a hypoxic ischemic encephalopathy and  
9 severe cerebral palsy, if you take an ultrasound of  
10 the head not at 24 hours, but within 24 hours, prior  
11 to 24 hours, can we agree that that's more likely  
12 than not to be normal?

13 A. Depends if it is at 23 versus 6. I am sorry.

14 Q. The closer you get to 24, the more likely it is to  
15 be abnormal?

16 A. Correct.

17 Q. There was a CAT scan of the head done on  
18 September 9th, 1988?

19 A. Yes.

20 Q. Correct?

21 A. Yes.

22 Q. You haven't seen the film?

23 A. No.

24 Q. The impression is multiple regions of cerebral and

1 cerebellar hemorrhage?

2 A. Yes.

3 Q. And that more, likely than not, is related to some  
4 asphyxic event, can we agree?

5 A. If we agree that that indeed is what is there, yes.

6 Since I haven't looked at the films -- I  
7 would like to say I would like to get a crack at  
8 them if they exist, because in the progress notes by  
9 the physicians there is mention of question of  
10 calcifications versus hemorrhage that I don't think  
11 we can unravel today.

12 Q. You are not a radiologist?

13 A. No.

14 Q. You are not a neuroradiologist?

15 A. No.

16 Q. You do look at CAT scans of the head, correct?

17 A. Very often, yes.

18 Q. But generally speaking, would you defer to a  
19 neuroradiologist on the interpretation of a subtlety  
20 such as hemorrhage versus calcifications?

21 A. That is not **so** subtle, and I think that **I** am in a  
22 better position than the radiologist to comment on  
23 its chronicity or not. In general, if they **do** it  
24 every day, I am going to listen to their opinion and

1           it is going to affect me, but there are times when I  
2           sit there with the radiologist and say no, this is  
3           not what I think you think.

4    Q.     Do you know Fitz?

5    A.     He works at our hospital now.

6    Q.     He is supposed to be a hot shot.

7    A.     No, I don't think he is a hot shot, but he is  
8           competent. I have seen many neuroradiologists  
9           through my 20 years. He is competent.

10   Q.     Certainly you have no reason to disagree with him?

11   A.     At this point in time I don't, but I would like to  
12           get a chance to be on even par with him and look at  
13           the scans.

14   Q.     He also says focal, but extensive anoxic damage?

15   A.     Okay.

16   Q.     Do you agree with that?

17   A.     I can't disagree without seeing the films, but I  
18           will say if the child is born at three days and this  
19           is done -- I am sorry -- born on the 6th, and this  
20           is done on day three, if there are extensive changes  
21           only already at 72 hours, I am a little suspicious  
22           of that suggesting a chronic problem, but I need to  
23           see the films.

24   Q.     Okay.

1 A. 72 hours of life, if you are saying let's consider  
3 this acute at birth, doesn't equal what he is  
describing.

4 Q. Can we agree, Doctor, if this kid is born on the 6th  
5 and has a normal ultrasound on the 7th of the head  
6 and has abnormal CAT scan on the 9th --

7 A. Yeah.

8 Q. -- that that would be more consistent with an acute  
9 asphyxic event as opposed to a chronic event?

10 A. Without looking at the CT scan, I can't say and,  
11 also, the ultrasound. They are not synonymous  
12 tests.

13 Q. I know that.

14 A. You can't compare apples and oranges. What you are  
15 looking at is a ventricular outline in the  
16 ultrasound, and you are looking at the whole brain  
17 substance, as well as ventricular substance on the  
18 CT.

19 Q. I understand you haven't looked at the tests. I am  
20 going to ask you to assume that Dr. Fitz did an  
21 adequate job that day.

22 A. I am saying he probably did.

23 Q. And adequately interpreted the ultrasound and the  
24 CAT scan.



1 A. Okay.

2 Q. Can we agree that if Joshua was born on the 6th and  
3 had a normal ultrasound on the 7th and had an  
4 abnormal CT on the 9th, as reflected in the records,  
5 that those findings, though imaging findings are  
6 more likely than not associated with an acute event  
7 as opposed to a chronic event?

8 A. Then the only way I can respond is as I did for the  
9 placenta. It depends on what you are talking about.  
10 If you are talking about hemorrhage and it was  
11 hemorrhage, yeah.

12 Q. Okay.

13 A. In the context of a child with DIC and **low**  
14 platelets, that could have been acute. When talking  
15 about low attenuation, which Fitz is describing, an  
16 additional feature doesn't ring acute. There may be  
17 two types of features there, an acute one and a  
18 chronic one.

19 Q. You don't know because you haven't seen the films?

20 A. Right.

21 Q. You have seen the reports?

22 A. **Yes.**

23 Q. Can we agree that the reports indicating abnormal  
24 ultrasound on the 7th and abnormal CT on the 9th are

1 consistent with an acute asphyxic event?

2 A. No.

3 Given one part of the findings seen on the  
4 CT scan, which is the ultrasound, is not commented  
5 on. The ultrasound, it is meant to **look** at the  
6 ventricular outline and what is in the ventricles,  
7 **so** I can't agree.

8 Q. What about the obstetrical information in this case  
9 leads you to believe that this was either an acute  
10 or a chronic event?

11 A. Oh, that's more general. We have touched upon my  
12 knowledge of SLE and its effects on the fetus as a  
13 chronic problem. I have admitted to the nonspecific  
14 nature of decreased fetal movement over the two days  
15 before, and that alone is not a reasonable degree of  
16 medical probability. I have already discussed that,  
17 but that was a piece of information that was useful.

18 What else?

19 This mother had not delivered successfully  
20 a normal pregnancy, a normal child. She had had an  
21 unsuccessful pregnancy before. That, in general, is  
22 of a concern to me as a neurologist for problems  
23 that are prenatal or anti-partum.

24 Q. What about subsequent pregnancies, would you take

1           those into consideration?

2    **A.**     Of course.

3    **Q.**     Do you know what happened?

4    **A.**     I think she has had other children.

5    **Q.**     Do you think they are okay?

6    **A.**     I think so.

                  I haven't seen the records, but I am  
8           assuming that they are. Before that date she  
9           hadn't, and she had lupus at the time, too.

10                   What concerns me was that she had a  
11           chlamydial infection in the past, a form of venereal  
12           infection. I don't think that is relevant to this  
13           case.

14                   She used drugs, at least by report, and  
15           there is a question of a social worker saying of  
16           trauma **or** abuse by a fiancée.

17                   These are all speculation and hearsay, but  
18           those potentially are concerns to the fetus, all  
19           concerns that were percolating. What I focused in  
20           on after seeing all of that was that the lupus was  
21           the most relevant to what was going on.

22    **Q.**     First of all, there is no reliable evidence of drug  
23           use during the pregnancy, correct?

24    **A.**     Correct.

1 Q. Can we agree that drug use is not relevant in terms  
2 of your opinion with reasonable medical certainty as  
3 to the cause of this child's injuries?

4 A. I would have to agree.

5 Q. Can we agree that trauma, likewise, is not relevant  
6 with regard to your opinions, based on reasonable  
7 medical certainty, as to the cause of this child's  
8 injuries?

9 A. Correct.

10 Q. And the same would apply for the chlamydia  
11 infection. Can we agree that the chlamydia  
12 infection is not relevant with regard to your  
13 opinions, based on the reasonable medical certainty  
14 with regard to this child's brain injury?

15 A. Correct.

16 Q. How does the child's present condition, if at all,  
17 affect your opinion regarding timing **of** the injury?  
18 Strike that.

19 I will ask it this way. You can have an  
20 acute hypoxic ischemic --

21 You can have an acute asphyxic event  
22 within three hours of delivery which manifests  
23 itself in this child's current condition, can you  
24 not?

A. Yes.

Q. So then, this child's current condition doesn't  
3 really reliably help one way or the other?

4 A. Neurologically, that is true.

5 I was given information recently that the  
6 child has cystic fibrosis. That is a non-neurologic  
7 problem.

8 Q. Right.

9 A. That makes me real uncomfortable, based on the fact  
10 that she has got a genetic disorder on top of having  
11 her neurologic problems, which I think are due to  
12 SLE, but I can't put the two together. That's a  
13 piece of information I was just given January  
14 whatever it was, the most recent date -- January  
15 18th.

16 Q. You are going to get some additional records from  
17 John's Hopkins, which I don't think I even have yet,  
18 which rule out cystic fibrosis.

19 MS. CLARK: When you get them, I would  
20 like to see them.

21 MR. FEDERICO: You will get them. I don't  
22 know what is going on either, to be honest with you.

23 THE WITNESS: I think they are more  
24 relevant to life span than to the issues we are

1 talking about today.

2 MR. FEDERICO: Of course, right.

3 BY MR. FEDERICO:

4 Q. Any aspects of your opinion with regard to  
5 causation, etiology, timing, anything that we have  
6 not discussed?

7 A. I didn't touch upon something you asked me in  
8 general, and that's the hydrops that you alluded to  
9 do.

10 Q. What is the deal with the hydrops?

11 A. By definition, when a child has occlusion of fluid  
12 in subcutaneous tissue below the skin, that's called  
13 hydrops, and **if** seen in a newborn, it **is** assumed it  
14 is fetal ischemic or fetal onset.

15 This child had term edema or scleroderma,  
16 not classically what is described as hydrops. It is  
17 more doughy. You press the skin and it stays  
18 depressed sort of thing -- not normally what  
19 children with hydrops tend to have, but it is a  
20 finding. That had to accumulate over time. We know  
21 this baby was under stress in utero.

22 My understanding, in consultation with  
23 kids with hydrops fetalis -- this kid had a  
24 nonimmune form that did not involve blood disorders,

1 and it was most likely due to lupus of the nonimmune  
2 forms. There is a shopping list a mile long, and  
3 lupus or autoimmune disease fits into it.

4 The point I am making to you is that I  
5 think when I see kids with hydrops fetalis, they  
6 have chronic lesions on their autopsy findings, that  
7 I see on their imaging findings if they survive, and  
8 they may have the same EEG findings at birth from a  
9 chronic brain disorder.

10 Q. You can't say with medical certainty that this  
11 child, in fact, had hydrops?

12 A. Yes, I can.

13 If it was seen at birth, and we have an  
14 exam going to Holy Cross of scleroderma, that did  
15 not happen within three hours of labor and delivery.  
16 That was a chronic finding.

17 Q. Hydrops is a significant finding in the neonate, is  
18 it not?

19 A. Yes. It can be reversible, but it is significant.

20 Q. If present, it should be documented?

21 A. And I think it was.

22 Q. Can you show me where on the chart somebody arrived  
23 at a diagnosis of hydrops in this case?

24 A. I can't. It is the term edema and scleroderma that

1 I think is relevant.

2 Q Edema and scleroderma doesn't necessarily mean  
3 hydrops, does it?

4 A It may or may not, but it is a chronic condition  
5 that accumulates fluid under the skin

6 Q There are a lot of things which cause accumulation  
7 of fluid under the skin which may or may not be  
8 related to this child's brain injury You have  
9 children all the time after birth who have a

10 compilation of fluid under the skin that do not have  
11 brain injury?

12 A I would say they tend to be, first of all, diagnosed  
13 as hydrops fetalis. I am not sure how accurate the  
14 diagnostics were in listing them. I would like to  
15 discuss, and you can discuss that with the  
16 neonatologist folks, but it is not a normal feature  
17 to have that.

18 Q. Nobody diagnosed hydrops in this case?

19 A. By the name hydrops fetalis, that was not mentioned  
20 Q. And in terms of the etiology of the edema or the  
21 scleroderma --

22 O Yeah.

23 O -- did anybody document the etiology?

24 A No.



1 Q. And can we agree that you cannot say with reasonable  
2 medical certainty as to what the etiology of the  
3 edema or scleroderma was?  
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1 causation that we have not discussed?

2 A. No, I think we have covered everything.

3 Q. That being the case, let's move on to life  
4 expectancy, which I think is the only other thing  
5 you are going to be addressing at trial.

6 A. Correct.

7 Q. Dr. Freeman in his deposition expressed the opinion,  
8 based on reasonable medical certainty, Joshua  
9 Barbagallo is not going to live a normal life  
10 expectancy. Do you agree with that?

11 A. Yes.

12 Q. He also said that he could not say, based on  
13 reasonable medical certainty, how long Joshua  
14 Barbagallo would live. Do you agree with that?

15 A. For every particular patient, of course, I have to  
16 agree with that. I can't predict that for the  
17 individual child.

18 Q. And you can't predict that for Joshua Barbagallo  
19 being the individual child, right?

20 A. For the specific time of death, no. For a range, I  
21 could give you an estimate, which is why you are  
22 asking me these questions.

23 Q. But Dr. Freeman, I don't think could.

24 Do you have an opinion, based upon

1 reasonable medical certainty, as to not the year  
2 Joshua Barbagallo would die, but the decade in which  
3 he will die?

4 A. Yes.

5 Q. Let's assume Joshua Barbagallo does not have cystic  
6 fibrosis.

7 A. Good, I hope he doesn't.

8 Q. I hope he doesn't, either.

9 What is your opinion, based upon  
10 reasonable medical certainty, as to the decade in  
11 which he will die?

12 A. The end of the second to the beginning of the third.  
13 That's my estimate. That means late teens or early  
14 twenties.

15 That's more from my experience seeing  
16 chronic care kids from residential facilities who  
17 last into their early adulthood. Given his  
18 nonambulatory status or the seizures and pneumonias  
19 he has had and cardiorespiratory applications that  
20 people have, that's what does them in and they die.

21 Q. Can we agree that the better of quality of care he  
22 receives in his life, the longer he is likely to  
23 live?

24 There is a correlation between quality of

1 care and the longevity in children like Joshua  
2 Barbagallo?

3 A. Yes. Although sometimes that can be from the family  
4 rather than an institution, that's correct.

5 Q. Can we agree that, generally speaking, assuming the  
6 family is adequately trained or assuming the family  
7 is in a position to employ adequately trained  
8 personnel, that the child like Joshua who is housed  
9 at home with family care or care from adequately  
10 trained health care providers is going to have a  
11 better life expectancy than the child who is put  
12 into an institution?

13 MS. CLARK: Objection.

14 THE WITNESS: That's not my experience.  
15 In my experience, those kids in a facility already  
16 that have teams that can respond to a code, which I  
17 don't think you can do at home, survive more.

18 I give credit to the individual families I  
19 see who do a good job in caring for the child and  
20 making them comfortable, but in terms of the  
21 emergencies that occur, you can't equate family, who  
22 are not professionals, even if they have their own  
23 live-in care. It is not the same to be at home  
24 versus be in a hospital when you have a code or an

1           arrest.

2       Q.     Kids like this don't live in hospitals?

3       A.     Yes, they do.

4       Q.     They live in hospitals?

5       A.     It depends on the family's wishes, but, yes, they  
6           can.

7       Q.     Do you know if it is more expensive to live in a  
8           hospital or at home?

9       A.     I don't know that. I would rather defer to those  
10           who have been deposed in the economics of it. It  
11           depends on the SSI.

12      Q.     We will defer to somebody else. If this child has  
13           cystic fibrosis, based on reasonable medical  
14           certainty, what is your opinion as to the life  
15           expectancy?

16      A.     It will be shorter. It could be in the same range  
17           of either the second or into the third. I have seen  
18           cystic fibrotics, otherwise healthy, live that long,  
19           but he is not otherwise healthy, so I would say he  
20           would die at a younger age then.

21      Q.     Have you seen the report of Dr. Myer in this case?

22      A.     Yes, I have.

23      Q.     It is a little over a page. Do you have a copy of  
24           it? I will give you mine.

1 A. Thank you.

2 Q. Take a second to read it, and tell me if there is  
3 anything that you disagree with.

4 A. I have reviewed Dr. Myer's report, and I have no  
5 objection with what he has said about Joshua's  
6 condition.

7 Q. Have you reviewed his deposition?

8 A. Yes.

9 Q. Do you have any disagreements with what he says in  
10 his deposition?

11 A. Well, I would say yes, because his overall  
12 impression is different than mine, but you will have  
13 to point specifically to what you mean by that.

14 Q. In the interest of time, I will skip that.

15 Have you seen children like Joshua  
16 Barbagallo live into their 30s?

17 A. I have not.

18 Q. Are there people who are in their 30s who have  
19 severe cerebral palsy?

20 A. Yes.

21 Q. Are there people who are in their 30s who have  
22 severe cerebral palsy secondary to hypoxic ischemic  
23 encephalopathy?

24 A. They may be.

1 Q. Are there people in their forties who have severe  
2 cerebral palsy secondary to hypoxic ischemic  
3 encephalopathy?

4 A. I don't think so.

5 Q. No?

6 A. It is not something I have heard about or seen or  
7 discussed with my adult neurology colleagues.

8 Q. Do you know whether or not there are people who are  
9 alive and in their forties who have severe cerebral  
10 palsy secondary to hypoxic ischemic encephalopathy?

11 A. I do not personally, no.

12 Q. Joshua could die next week?

13 A. Yes.

14 Q. Joshua could live into his 30s?

15 MS. CLARK: Objection to form.

16 THE WITNESS: He could, but he probably  
17 won't.

18 BY MR. FEDERICO:

19 Q. Well, you don't know to a reasonable medical  
20 certainty when he will die, do you?

21 A. Correct.

22 Q. Are there any aspects of your opinion in this case,  
23 any issues you have been asked to address which I  
24 have not covered?

1 A. No.

2 Q. Thank you for your time.

3 MS. CLARK: I have no questions.

4 Doctor, do you want to read?

5 THE WITNESS: Yes, I would like to.

6 - - - -

7 (Whereupon, the proceedings were concluded  
8 at 12:10 p.m.)

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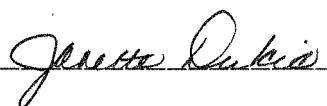
COMMONWEALTH OF PENNSYLVANIA ) CERTIFICATE  
COUNTY OF ALLEGHENY ) SS:

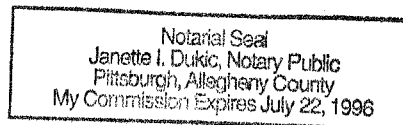
I, Janette Dukic, RPR, a Notary Public in and for the Commonwealth of Pennsylvania, do hereby certify that the witness, MARK S. SCHER, M.D., was by me first duly sworn to testify to the truth, the whole truth, and nothing but the truth; that the foregoing deposition was taken at the time and place stated herein; and that the said deposition was recorded stenographically by me and then reduced to printing under my direction, and constitutes a true record of the testimony given by said witness.

I further certify that the inspection, reading and signing of said deposition were not waived by counsel for the respective parties and by the witness.

I further certify that I am not a relative, employee or attorney of any of the parties, or a relative or employee of either counsel, and that I am in no way interested directly or indirectly in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office this 6th day of February, 1995.

  
Notary Public





AUL, KARLOVITS & FULESDAY, INC.  
312 Boulevard of the Allies  
Pittsburgh, PA 15222  
(412) 261-2323

February 8, 1995

TO: Denise E. Clark, Esq.

RE: DEPOSITION OF MARK S. SCHER, M.D.

NOTICE OF NON-WAIVER OF SIGNATURE

Please have the deponent read his deposition transcript. All corrections are to be noted on the preceding Errata Sheet.

Upon completion of the above, the Deponent must affix his signature on the Errata Sheet, and it is to then be notarized.

Please forward the signed original of the Errata Sheet to Philip C. Federico, Esq. for attachment to the original transcript, which is in his possession. Send a copy of same to **all** counsel, and also a copy to me.

Please return the completed Errata Sheet within thirty (30) days of receipt hereof.

Janette Dukic, RPR  
Court Reporter

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Barbagallo 38 wk ♂ PFC mother = SLE  
loss fetal @, (+) utero test. late decel  
Apgar 21 65. Cord pH 7.09, ant. ABK  
pH 7.22 BE-10 Fetus T bone scleremic  
DIC = ↓ platelets 56 → 49 → 38 wt 3.2

900

322-1987 Mother had SLE, chymotrypsin IV drug abuse.

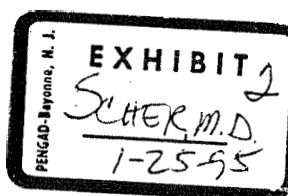
Placenta elongated and patchy calcifications



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