IN THE STATE COURT OF CHATHAM COUNTY
STATE OF GEORGIA

RYAN MacADAMS, A MINOR, BY AND THROUGH HIS NATURAL GUARDIAN AND PARENT AS NEXT FRIEND, DAWN MacADAMS,

Plaintiffs,

vs.

BLAKE CHRISTOPHER POLEYNARD, M.D., AND SAVANNAH SOUTHSIDE CLINIC, P.C.,

Defendants.

CIVIL ACTION NO. I-97-1091-G
[JURY DEMANDED]

DEPOSITION OF MICHAEL S. RADETSRY, M.D.
January 25, 1999
2:30 p.m.
500 Marquette Avenue, Northwest, Suite 280
Albuquerque, New Mexico

PURSUANT TO THE GEORGIA CIVIL PRACTICE ACT, this deposition was:

TAKEN BY: **MR. FREDERICK S. BERGEN**
Attorney for the Plaintiffs

REPORTED BY: DANNA SCHUTTE EVERETT, RPR, NM CCR #139
Bean & Associates, Inc.
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500 Marquette Avenue, Northwest, Suite 280
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JOB NO. 5500-6 (DSE)

A P P E A R A N C E S

For the Plaintiffs:

MR. FREDERICK S. BERGEN
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Savannah, Georgia 31401-4603

For the Defendants:

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BY: **MR. PETER D. MULLER**

I N D E X

PAGE NUMBER

MR. BERGEN: This will be the deposition of Michael Radetsky, M.D., taken in the MacAdams vs. Poleynard case. The deposition is taken pursuant to notice and agreement of counsel, if any, for all purposes allowed under the Georgia Civil Practice Act.

Reserve all objections except as to form and responses, if that's agreeable.

MR. MULLER: Yes.

MR. BERGEN: Dr. Radetsky, I assume you want to read and sign your deposition?

THE WITNESS: I would like to.

MR. BERGEN: It's agreeable to sign before a notary here in this state or if you're traveling.

THE WITNESS: That's fine.

MR. BERGEN: No problem.

THE WITNESS: Did you want me sworn in?

MR. BERGEN: We'll do that in just a minute.

We're going to stipulate to the qualifications of the court reporter and the means and manner of taking deposition.

Are there any other qualifications that need to be stated?

MR. MULLER: That's fine.

* * * * * * * * * * *

MICHAEL S. RADETSRY, M.D.,

after having been first duly sworn under oath, was questioned and testified as follows:

EXAMINATION

BY MR. BERGEN:

Q. Dr. Radetsky, as you know, I'm Fred Bergen. I represent Mrs. MacAdams on behalf of her son in this lawsuit that's been filed in Savannah.

I sent you a notice to take your deposition, and I understand you brought your file materials connected with this case. Is that what you brought with you today?

A. Yes, sir.

Q. Let me just do this. Let's go through the Notice to Take Deposition, which I'll attach as Exhibit 1 to this deposition.

(Exhibit 1 marked.)

Q. And do you have with you all letters you have received from Mr. Muller or any member of his law firm or any representative of the Illinois National Insurance Company related to your review of materials relative to this case?

A. Yes.

Q. Where is that correspondence?

A. They're all in my working file. In fact, just

to orient you, these are the records I was sent, including depositions, and then my working file has everything else in it.

Q. It might be easier, instead of going through each and every one, I'll just look at what you have, and if 1 have any questions --

MR. MULLER: Actually, I think, Fred, I think to speed things up, I think there's probably a -- Well, actually, is this all one thing?

THE WITNESS: That's Johns Hopkins.

MR. MULLER: I thought everything was mixed in.

Q. That's the Johns Hopkins records you've been provided. Depositions? Deposition *of* Dawn MacAdams, Harvey Kessinger, Gail Kessinger, Blake Poleynard, M.D., Fernando Perez, M.D., Dr. Meislin, M.D., Charles Schleien, M.D. Okay. So those are the depositions you reviewed in this case?

A. Yes, sir.

Q. And then some document production, Schleien hospital records; it looks like more Schleien hospital records; Dr. Cohn's records of Ryan MacAdams. This is from the Greater Baltimore Medical Center records, the Memorial records. Anything else?

A. And then in my working file, what I did was to take out certain records so that there would be more

available to me. Here's all the St. Joseph's records here for the two emergency department visits, and then selected records from Memorial Hospital and from Johns Hopkins, which I pulled out just to have in my working file.

Q. Okay. And then there's also Montgomery General Hospital records. Also, I see some literature search, some articles. What else?

A. Yes. Well, your request of me was to bring all medical or scientific literature or sources that I used in my analysis of Ryan. I must tell you, sir, in all frankness, since my area is infectious disease, issues regarding severe infections, meningococcal infections, and children with fevers are part of my daily scholarly life, and, therefore, I brought to bear much more in terms of general literature than is in this folder.

But I did bring what I thought were either the leading articles or articles which I felt shed light on the case. But I just want to make the statement that this is not an exclusive compiling of articles. These are the articles I felt were most relevant.

Q. I understand. I take it, then, because of your area of interest and expertise, you have like a working file on pediatric fevers and things of that nature, but case specific for this file, would these be the articles

that you have referenced?

A. well, these are the article's I feel are most relevant.

Q. Okay.

A. But I do use information contained in other articles because they're part of my daily scholarly life.

MR. MULLER: Also, I got the impression from his answer there are articles that may not be in a file out there that he's seen that could come to bear on it, but, obviously, he couldn't have all of them with him today because he reads them.

Q. There is a vast amount of literature on the subject matter. I understand that. Let's just look at ones that you've got with you today.

A. Sure. I'll just give you the lot of them, and then you can certainly go through.

Q. In one of the copied articles, you have some handwriting on the "Epidemic Meningococcemia and Purpura Fulminans with Induced Protein C Deficiency."

A. Yes.

Q. Is that relative to this case, or is that just some general working knowledge, you had your handwriting on top of that article?

A. When I first reviewed that case, I took notes on the article for myself, and they're, of course, on the

original, so they copied when I made a Xerox copy of them.

Q. Why don't we do this, if you don't mind. I'd like to get a copy of these. And why don't I just get you to read the titles and lead authors, and then we can move on. Okay?

A. Okay. Sure.

Q. I'll get a copy before we leave today.

A. "Osteonecrosis Following Meningococcemia and Disseminated Intravascular Coagulation in an Adult: Case Report and Review"; lead author, Wayne N. Campbell. "Epiphysiometaphyseal Changes in Children after Severe Meningococcic Sepsis"; lead author, Francisco Fernandez. "Late Sequelae of Infantile Meningococcemia in Growing Bones of Children"; lead author, Heidi Patriquin. "Skeletal Lesions Following Meningococcemia and Disseminated Intravascular Coagulation"; lead author, Minhard Robinow. "Incidence of bacteremia in infants and children with fever and petechiae"; lead author, Kenneth Mandl. "Epidemic Meningococcemia and Purpura Fulminans with Induced Protein C Deficiency"; lead author, Darlene Powars. "Experimental treatments of meningococcal sepsis"; Michael Levin.

Then there is a series of slides which I compiled for a talk some time ago that recount

information from a number of other articles, and I just gave you a copy of the handout.

Q. Okay.

A. "Febrile children with no focus of infection: a survey of their management by primary care physicians"; lead author, Ronald Jones. "Practice Guideline for the Management of Infants and Children 0 to 36 Months of Age With Fever Without Source"; lead author, Larry Baraff. And finally, "The febrile infant and the assumption of risk," and I'm the author.

Q. You've got some correspondence in your next section of your file?

A. Well, actually, to begin with, I had some notes that I took that you wanted me to bring.

Q. All right. Thank you.

All right. The notes appear to be your notes taken from the ER admissions -- the two ER admissions at St. Joseph's.

A. That's correct.

Q. We'll just get a copy marked as an exhibit. If you need to refer to them in the deposition, that's fine

A. The remainder are invoices, correspondence, and a canceled check.

Q. When were you first contacted in this case? Was it May of 1998?

A. I honestly don't know, sir. It would be around the time of the first correspondence.

Q. Okay. That's what I was trying to make out. It may be May 14th. It says, "I appreciate your willingness to look at the file for me." For Mr. Muller.

A. Yes.

Q. The only invoice that you have submitted so far is one -- it looks like May 27th of 1998. Is that the only invoice so far to date?

A. Yes, that's the only one.

Q. I take it there's been additional work since then?

A. Yes.

Q. And your charge was $350 per hour for case review?

A. It is.

Q. Does it change in any degree for depositions?

A. Deposition time itself is $400 an hour, and trial testimony at $450 an hour.

Q. What about travel?

A. Travel is $350 an hour with a maximum of 12 hours per day.

Q. So it's not portal-to-portal, but it could be for travel, I take it?

A. That's correct.

Q. So during travel and trial testimony, it's generally 12-hour days?

A. Yes. What I do is, actually, I bill door-to-door with a maximum of 12 hours a day, and that's in addition to the actual time I spend testifying. And it usually works out that way.

Q. Okay. Let's put this aside. I'll get copies of these letters, as well, later when we take a break or after the deposition.

At the time of your first invoice, May 27th of 1998, were your opinions final in this case?

A. Let me just look at that first invoice, if I could.

Q. Sure.

A. No. My opinions weren't final in the sense that I had not read the depositions of any of the participating individuals, both the family and the doctors, so my expression of an opinion was based, really, just on my record review, And then I think I nentioned at the time that I would like to reread the further depositions, and if there were a revision in my opinions, then **I** would certainly be contacting them if chat took place, based on a review of depositions, which I had not at that time received.

Q. Okay. You provided me a copy of your CV. I

understand the one I have in my hand is the most current one. Correct?

A. That's correct.

Q. Let me see if it compares to the one that I have, if I can find it. This one was apparently faxed -- it was probably a little bit out of date. It was May of 1998 -- from you, I guess to Mr. Muller. Would the only additions be with regard to publications?

A. I think there's been an addition in publications. I think I've gotten a couple more honors. I haven't gotten the Nobel Prize or anything like that.

Q. Okay. I understand. Let me ask you this now. What's your present address now, home address?

A. My home address?

Q. Yes.

A. 1217 Rockrose Road, Northeast, in Albuquerque, 87122.

Q. And you're still at Lovelace Health Syseems, I take it?

A. Yes. Actually, we say Lovelace.

Q. Lovelace, I'm sorry.

A. It's the way the founder pronounced his name.

Q. He's the one that gave the bread, so you do it the way he wants to hear it.

A. That's right. That's the way.

Q. I see you went to law school at some point. It looks like you graduated from Harvard in 1967. Is that correct?

A. Yes. And I went to law school for one year, in 1967 to 1968.

Q. Why is that? What happened there?

A. Well, I went to law school because I thought that that's what I was going to be doing with my life. At the end of that first year *of* law school -- And it was a tumultuous year because *of* the fact that Martin Luther King and Robert Kennedy were both shot during thac year, It was the only year in the history of Harvard Law School that final examinations were not given because of the multiple murders of esteemed people, and it was a time of some disillusionment for some *of* us, so I took a leave of absence and enlisted in the United States Peace Corps.

Q. And you went into the Peace Corps. And you're going to have to help me with this word.

A. I was a malariologist in the Peace Corps.

Q. Was that for malaria or something?

A. Yes, there was a malaria eradication campaign run by the World Health Organization in Thailand, and I was a middle-level bureaucrat from this particular system.

Q. How old were *you* then?

A. Twenty-one, twenty-two.

Q. And then you went -- What is this? What is the Alternative National Service (Conscientious Objection)?

A. I was drafted after I left the Peace Corps, but there was a provision in the Selective Service law that was passed after the Second World War that if, in relationship to a supreme being, an individual was conscientiously opposed to war in any form, and if thac belief was validated by their local draft board, they would be granted alternative service in the national interest outside of the military, and that was my situation.

Q. So, in other words, you objected to the Vietnam War?

A. No, I objected to my participation in war in any form.

Q. Regardless of whether it was Vietnam or any type of war?

A. That's correct.

Q. Were you drafted?

A. I was drafted, but rather than going into the military then, I worked at the Children's Hospital in Boston.

Q. Did you avoid the draft?

A. I didn't avoid the draft. The way the Selective

Service law read was that if you were drafted but you were a conscientious objector, you would perform national. service in a nonmilitary capacity for the duration of your obligation.

Q. Would law school grant you a college deferment for the Vietnam War?

A. Yes, education granted you a deferment as long as you were continuously in an educational institution. But when you were not, then, of course, you were fully eligible to be drafted.

Q. And so when you took your leave of absence from the Harvard Law School, was that on good standing?

A. Yes, it was. And, in fact, I was invited to come back, but as one thing leads to another thing, I saw the light and went into medicine instead.

Q. But that leave of absence was a voluntary decision by you?

A. It was.

Q. If you did not go into the Peace Corps or the conscientious objection program, then you would have been required to serve a military commitment?

A. Well, I was drafted, and if I had not been granted the status of conscientious objection, then I would have served military service rather than alternative service. In either case, I was drafted.

Q. Why did you go to school in Canada in 1973?

A. Right. When I was applying to medical school, I was accepted both in the United States and in Canada, and Canada being the only country which has total reciprocity with the United States, so you're not a foreign medical graduate, and Americans would go to Canadian schools, and Canadians would go to American schools My decision to go to Canada was that the tuition was $800 a year

Q Was it anything to do with avoiding the draft at all?

A No I had already been drafted and had served my obligation, but as a conscientious objector in alternative service So this was after my draft obligation.

Q. Did you have to take the FLEX exam if you go to Canada?

A. No. You take the national examinations just the way American students do. It's not considered to be a separate system from the poin of view of licensure

Q Then I take it, it appears that after medical school and your rotating internship, your focus became in the area of pediatrics and in infectious diseases

A. That's correct.

Q. What did you do as the malariologist in Thailand? Obviously, you worked not -- you weren't a

doctor at that time. What were you doing, exactly? I'm trying to get a feel for that.

A. The program I was involved in was run by the World Health Organization, and we were given three months of training in Manila at the WHO center for malaria eradication there to acquire the organizational and laboratory skills whereby we could be put into an existing program and contribute to the work of eradication of malaria.

In my area of Thailand, which was up near the Laotian border where Laos, Burma, and Thailand come together, i supervised DDT spraying crews, supervised crews that would obtain blbod samples from villagers to see who had malaria, and then the distribution of malaria medication to eradicate the infection. And this was the three-pronged attack that the World Health Organization had used successfully in other countries.

Q. And that was satisfying the conscientious objection issue?

A. No. When you were in the Peace Corps, you were given a deferment for the draft. The minute I left, the Peace Corps, I was drafted.

Q. And then you went into the alternative national service?

A. That's correct. I worked in a hospital in

Boston.

Q. And that was a -- Was there a local draft board that had to approve that or --

A. Yes, the local draft board, which for me was in Denver, had to do two things. They had to grant you the status of being a conscientious objector -- and I was the first, and to my knowledge the only, one ever granted by my draft board -- and secondly, once you were drafted, you had to work in a civilian capacity in a way that contributed to the national service, really, and so they had to approve your site where you found work that was acceptable under the guidelines that they published.

Q. Okay. Then in 1982/1987 you were the associate director of infectious disease at Denver General?

A. Actually, the Denver Children's Hospital.

Q. Did you have any interaction with Dr. -- Is it Barkin?

A. Well,, I knew Dr. Barkin during the time that I was in Denver. He's still in Denver, but I moved away.

Q. Then you moved on to Tucson?

A. Well, I was engaged to be married, and my wife, who is a pediatrician, was going to do her internship in Tucson, so I certainly wanted to be near her, and made the move.

Q. Right. I understand. Did you know Dr. Harvey

Meislin out there then?

A. Yes, I did know him.

Q. Have you kept up with him since?

A. No, I haven't.

Q. Did you always get along with Dr. Meislin in working out in Tucson?

A. I think, in all honesty, we probably only met a few times. He primarily worked at University Hospital. I primarily worked at Tucson Medical Center, although I did work some at the University Hospital. He was primarily in the emergency department. I was primarily in the pediatric intensive care unit. So there weren't a bot of places in which our practice lives overlapped.

Q. How about by consults?

A. Again, it was only infrequent, I must say, in all honesty.

Q. And then back to Denver in 1989?

A. Well, yes. It was my hometown, and my wife was able to transfer her training back to Denver, so we were able to move back home.

Q. Then I see where you went to California for a couple years. What was the reason for that?

A. Well, my wife, after she finished her pediatric training, went to Johns Hopkins to get her master's in public health. She then got a job in Sacramento at the

State Department of Public Health, which was one of the two plum jobs in the United States The other one being in Atlanta at the Centers for Disease Control So I think I've spent most of my life following my wife around, and I went to California

Q. And then back here to Albuquerque?

A Yes In 1993, there was a budget crisis in California. You may have read

Q. Right.

A They have a balanced budget amendment to their state constitution. She was last in/first out of her job And we started looking for some other position in the west, where we were both from, and found it in Albuquerque.

Q. You were searching, and this is where you landed, so to speak?

A. That's correct.

Q Have you ever had any problems at any hospitals where your privileges were denied, suspended, or revoked in any way?

A Never.

Q Have you ever been arrested or convicted of any crime of any type?

A Never.

Q Has any state ever revoked or suspended your

privileges --

A. Never.

Q. -- or your licenses?

A. Never.

Q. What family do you have here in Albuquerque?

A. None. Well, we have two children, but there are just the four of us here.

Q. How old are your children?

A. Five and seven.

Q. First marriage?

A. First and only, I hope.

Q. Got around to having children eventually?

A. Well, we're late bloomers.

Q. I've got you. No family in Chatham County? Some fellow we knew had the same last name, but no family members from your side or your wife's side in Chatham County?

A. No. My wife has a cousin who lives in Savannah.

Q. Who is that?

A. I'm trying to think of her name. I'm sorry. It's Susan something, but I can't remember her last name. Her husband is in real estate. I believe she is, as well. But I just can't think of their last name. I'm sorry.

Q. If you would ask your wife and maybe tell

Mr. Muller, he can let me know, or if it comes to you later today in the deposition. Okay?

A. Sure.

Q. Have you ever practiced in Georgia?

A. No.

Q. I know you've spoken in several lectures. Have you ever lectured in Georgia?

A. I don't believe I have.

Q. Have you ever been a party to a lawsuit before?

A. Is that a way of asking if I have been sued?

Q. Well, it doesn't matter. Either way. Have you ever sued anybody, or has anybody ever sued you for any reason? I'm going to boil it down to where it might --

A. I've been sued for medical negligence twice in my life, but I've sued no one.

Q. Have you had any other type of litigation? Like contract disputes, anything like that?

A. No.

Q. Where were the two cases where you were sued regarding medical negligence?

A. These were two cases which arose during the time that I was a pediatric resident in my training in Denver. Both of them occurred in the early 1980s. And I was named along with a large number of other people in each of them, and I was discharged in both of them early on in

the proceedings of the lawsuit.

Q. What was the nature *of* the complaint?

A. The complaint in one of them was concerning a seven-year-old girl who had kidney failure who was admitted to the pediatric intensive care unit in which I was working as a pediatric resident who, in the early morning hours after her admission, had a cardiac arrest, and the allegation was that it should have been anticipated and it should have been conducted in a more expeditious manner.

The second one was a child who had an unusual condition, called hemolytic uremic syndrome, who was at the Children's Hospital of Denver and who went into kidney failure and needed to be transferred to the University of Colorado where the dialysis unit was. I dictated the transfer summary. Later on, he developed a blood clot in his hand, and it was thought that the catheter that he had in his radial artery contributed to the blood clot, and he lost a portion of a finger, as I recall. And I was named along with everyone else who had ever cared for him.

Q. Those are the only two times a claim has ever been made against you?

A. That's right.

Q. That includes any sort *of* notice *of* claim,

regardless of whether it concluded in suit or not?

A. I've never been noticed.

Q. Now, you've had experience in testifying in medical/legal cases serving as an expert witness before, have you not?

A. Yes.

Q. Let's talk about -- On how many occasions have you?

A. Well, I started reviewing cases in 1982 when I first went into the faculty of the Children's Hospital, and in the 17 years I have probably reviewed 200 to 250 cases overall.

Q. So a little bit more than -- What's that come out to a year?

A. Averages 10 to 15 a year.

Q. That's what I was going to say. Ten is a little light, and 15 is about -- Between 10 and 15 a year? And where have those cases -- To your knowledge, which states have they been in?

A. Well, they've arisen from many states, frankly. I think the bulk of them have been in the western states, but I have been consulted by attorneys who represented clients from many states, both in the east and in the southeast.

Q. Let's talk about which states you recall

particularly

A. I'm going to compose a mental map of the United States, and then I'll go through.

Q. Okay.

A Hawai·i, Washington state California Idaho Nevada Arizona New Mexico Colorado Wyoming Montana I can·t recall Texas Kansas South Dakota Wisconsin, Illinois, Missouri, Mississippi, Tennessee, Kentucky Florida, Georgia, North Carolina, New Jersey, Connecticut.

Q. Okay.

A Oh, and Ohio. I'm sorry, sir.

Q. Thank you.

A. And I may have missed something in there, but I tried to do my best.

Q I appreciate it And in each of those states have you testified by deposition as well?

A I don·t think in each of those states I've testified by deposition necessarily. But I can't recall specifically which

Q. How about trials? In which states have you testified in courtrooms?

A Hawai·i, California, New Mexico, Idaho, Colorado, Kansas, Illinois, Florida, Georgia, North Carolina, Kentucky, and New Jersey, I believe, are the

only ones.

Q. In Georgia, where did you testify in Georgia?

A. In Atlanta.

Q. Okay. And do you know what the name of the case was?

A. Yes, Adams versus Kaiser.

Q. Which side were you on?

A. I was retained by the attorneys representing the defendant Kaiser-Perrnanente.

Q. Mr. Pound in Austin appeared in that case?

A. Excuse me?

Q. Was that Mr. Pound, Ted Pound?

A. I believe he was involved. That was the law Eirrn. But the lead attorney was a female attorney, and I just don't remember her name. I'm sorry.

Q. Was that a meningitis case?

A. No, it was a meningococcemia case in a child :hat had a cardiac arrest in a car going to the hospital.

Q. And that was in favor of the plaintiff for like a hundred --

A. A considerable verdict.

Q. Yeah. Do *you* remember Mr. Malone?

A. Oh, yes.

Q. Was that the only case you've testified in in Georgia?

A. I think so, sir.

Q. And what were you testifying -- What issues did you testify to in that case?

A. The main issue was the issue of causation in that case. The allegation on the part of the plaintiffs was that the cardiac arrest that occurred meaningfully led to the limb damage that this child suffered. I tried to point out that the disease itself could have and probably did cause all of the limb injury and that the cardiac arrest itself did not increase the risk of limb injury.

Q. Is that the only time you've testified in Georgia?

A. I think it is, sir.

Q. How many cases are you currently reviewing?

A. I honestly don't know.

Q. Would it be on the 10-to-15-a-year range?

A. I think so. Sometimes there is a case that I haven't heard about for a year or more, and I don't know whether it's settled or not settled -- sometimes people don't have the courtesy to let me know -- so it's hard to estimate how many cases are truly active.

Q. Okay. But has that been your general case review load, 10 to 15 a year?

A. I think that's the way it's averaged. I think,

as with all things, there are probably times that it's been more and times that it's been less.

Q. Do you know how Mr. Muller got in touch with you in this case, how he learned of you, or anything?

A. i don't know.

Q. Do you advertise your services in any way?

A. i do not.

Q. Have you generally had a reputation within your area of expertise as someone who does get involved in medical/legal cases?

A. I don't quite know how to answer that.

Q. Well, i mean, like if you may know someone who reviews cases that you see at meetings and you might say, "Well, you know, that guy reviews cases"?

A. Actually, I never know who is involved in case reviews unless I've encountered them in the context of a lawsuit. It's not the sort of thing that's talked about at professional meetings, at least not the ones that I go to.

Q. What's your annual income regarding medical/legal cases a year?

A. Well, I can't give you a -- I cannot give you a dollar figure, but I would say that over the years it's averaged, now, about 20 percent, perhaps in some years as high as 25 percent of my total income.

Q. well, I mean, what would it be on the range of an average year? Dollar figures?

A. I don't think I can give you that figure, sir.

Q. Well, do your tax returns report 1099's or a different source of income per year?

A. Well, I will receive 1099's in any given tax year, which I send to my accountant.

Q. I understand. But what I'm try to understand -- I'm just throwing numbers out. I mean, do you make $25,000? $50,000 a year? A hundred thousand?

MR. MULLER: I don't think this is relevant.

MR. BERGEN: Sure is.

MR. MULLER: I don't think it is.

MR. BERGEN: Well, we can take it up with the

Q. I'm just trying to get a range of what your annual income has been in medical/legal cases.

A. Well, I think the only way I can really answer it is the percentage answer that I gave you, sir. I can't give you any numbers.

Q. Who's your accountant?

A. I don't think I'm going to provide you with that information, sir.

Q. So you refuse to tell me that information?

A. I'm not going to provide you with that

information.

Q. Do you know how many hours you spend a year in medical/legal cases, review and otherwise?

A. Well, not exactly. This is all done on my own time pretty much, either in the early morning or weekends or whatever, or on a day off, like today.

Q. Are you able to estimate? That's all.

A. No, I can't give you a real estimate.

Q. As to your professional life, how do you break it down into academics, hands-on, clinical, things of that nature?

A. The Lovelace Clinic that I'm associated with was founded in the 1920's by a fellow from the Mayo Clinic. He wanted to make it the Mayo Clinic of the Southwest. And it has always been an independent entity without the strong presence of medical students or house staff, so we do not have any intermediary individuals between us and the patients. Consequently, of my 120 percent time, I will spend about two-thirds of my time directly seeing patients, both -- actually doing all three things: ambulatory pediatrics -- I have my own clinic, my own patients who grow up in my office; I do their primary -- hospital pediatrics, including a busy nursery, a busy hospital ward; and I'm the only one trained to do intensive care medicine.

Q. Is it a PIC unit, or is it considered a nursery?

A. It's a level 2 nursery. It does not -- Let me put it this way. We have not elected to have long-term ventilated patients there.

Q. Okay.

A. And then I do consultations in infectious diseases. I also teach at the university, where I will attend on their pediatric ICU and step-down unit and teach in infectious disease, and then I have some scholarly activities that I'm involved in. But since I'm also the department chair, there's a lot of administrative work that I must do, of course.

Q. So probably two-thirds patient care, one-third academic and administrative?

A. I think that's a good breakdown.

Q. In the cases that you have testified in and appeared as an expert witness, have you testified in any cases where you've expressed an opinion that earlier intervention would have made a difference in the outcome of the patient with meningococcal infection?

A. I don't think I've been involved in a case in which I felt the facts could lead me to that conclusion regarding a meningococcal infection.

Q. Of the cases where you have testified in, how does it break down plaintiff versus defendant, patient

versus doctor or medical center, whatever?

A. Sure.

MR. MULLER: Are you talking about he's testified --

MR. BERGEN: Uh-huh.

MR. MULLER: -- in either deposition or at trial?

MR. EERGEN: Yeah, deposition and trial.

A. Understanding, since I don't advertise, people just call me, and tne proportion in which they call has very little to do with myself, it's just who ends up contacting me, I'd say in terms of review of cases, probably 80 to 85 percent have been sent to me by attorneys representing defendants of one sort of another; 15 to 20 percent injured parties. At deposition, I would say the disproportion increases. I'd say probably 90 to 95 percent of depositions are involved with my expressing opinions supporting defendants in a lawsuit. And I've only testified one out of 20 to 25 times at trial for an injured party.

Q. What type of case was that time when you testified for an injured party?

A. Bacterial meningitis.

Q. Where was that case?

A. Right here in Albuquerque.

Q. Do you remember the style of the case?

A. I do. It was called Little versus Parrino. I think that's P-A-R-R-I-N-0.

Q. And do you know what court it was filed in in Albuquerque?

A. I honestly don't know, sir. It was some years ago.

Q. Of the 20 to 25 times you've actually testified in court, only one occasion is where you testified for the injured patient?

A. That's correct.

Q. And that was the Little case?

A. That's correct.

Q. And has most of your testimony been in cases regarding causation or causal relationship or whether earlier intervention would have changed the outcome? Has that kind of been your area of expertise in testifying?

A. No, I wouldn't say so. As a practicing physician, I'm called upon to express opinions on the standard of care as well.

Q. Okay. Have you ever expressed any concern about the medical/legal system where a plaintiff can sue a defendant medical provider for compensation?

A. By "expressed," what do you mean?

Q. Well, in lectures or writings or letters to

editors, things of that nature.

A. Well, you understand, I've gone to law school for at least a year, and I honor the system by which an injured party can seek compensation. I have expressed in writing in letters or -- primarily letters, I think -- that I feel that there is an untoward amount of litigation directed towards doctors which, at least in my experience, has been ill-founded in truth or science. And I think in one letter I even called it rampant litigation. But I think it is true that there are many lawsuits that don't have merit that are filed. But I certainly honor the lawsuits that do have merit.

Q. I think the rampant litigation statement dealt with timing of meningococcemia treatment. It was a response to a doctor in Texas, an article done by some physicians in Texas, a lady by the name -- I can't remember her first name.

A. Yes, I think you're right, sir. It was a letter written following the publication of a review article regarding the experience of meningococcal disease at Parkland General Hospital in Dallas.

Q. Right, timing of therapy for meningococcal infection. It was a letter that you wrote after a review of an article by Kirsh --

A. Yes.

Q. -- in which you referred to rampant litigation.
A. Yes.
Q. Any other articles or letters that you've expressed this opinion that you can refer to?
A. Not, perhaps, in the same tone of voice, no.
Q. You've provided me a number of articles dealing with the subject matter relative to Ryan MacAdams on your opinions in this case. Is there any other sort of standard textbook or treatise that you consider to be authoritative considering this type of infection that Ryan had?
MR. MULLER: Would you define "authoritative" here?
MR. BERGEN: That he would consider to be gospel. How about that?
MR. MULLER: I mean, because your doctor had a specific feeling about it, and I didn't know whether you were defining it the same way your doctor states if it is an authoritative text, and that means that every single thing in that text is gospel.
MR. BERGEN: That's right. I mean, basically, it's a term *of* art, and it's a term of legal consequence.
MR. MULLER: You're talking about everything, is there a text where everything in that text is gospel?
MR. BERGEN: Right.

A. I don't think so. Dr. Meislin put it nice when he said textbooks are informative, but not authoritative.

Q. Do you agree with that proposition?

A. I would. He pointed out that many chapters are written with some delay before they get published so they're somewhat out of date, perhaps, and also you're limited in your space and in the depth to which you can probe in a textbook article, so you're always shying away from controversies, and you're always, in a sense, just reinforcing certain standard observations that may not be entirely direct.

Q. It's a good reference source, but there can be -- it can be out of date, things like that?

A. I think it's a good place to start if you know nothing about a subject, but it's not the place to end.

Q. How about as to any literature that you consider to be authoritative -- and I'm talking about literature -- in the management of a febrile infant? And I notice you had Dr. Baraff's article, the guidelines that was in Pediatrics, I think, in 1984 --

A. It was 1993.

Q. I'm sorry' 1993. Excuse me. -- which had been an accumulation of guidelines that had been in the works for years, as I understand. Is that your understanding?

A. Well, Dr. Baraff and his colleagues tried to

create some order out of what they perceived to be disorder, and come out with a viewpoint that could be a source of guidance for practicing physicians, but as you'll notice in the last paragraph of their article, they very specifically state that theirs are not binding recommendations; they're only a starting point, and that every practicing physician should approach the individual patient with individual analysis.

I've written a couple times on the febrile infant. I think that the things that I said in my own publications are my best attempt to approach it. It's an area in which there are now over 800 or 900 separate publications, and, therefore, it's one for which no single publication can stand alone.

Q. Okay. And you anticipated my next question. I guess you saw me look at your journals. I think you did have one of your journal articles which dealt with the clinical evaluation of the febrile infant and certain recommendations that one might want to go through to evaluate the febrile infant.

A, There have been two articles I've written about that subject.

Q. I see one on primary care. What was the other one?

A. I actually provided you a copy of it. Yes. It

was published in the Current in 1996.

Q. Is that the assumption of risk?

A. That is the one.

Q. Have you provided Mr. Muller with any written reports regarding your opinions in this case?

A. No.

Q. Did you consult with any physician in formulating your opinions in this case?

A. No.

Q. Did you discuss it with any other physician or colleague?

A. No.

Q. To date, how much time do you think you have spent in reviewing the materials and formulating your opinions in this case? To date?

A. The only invoice I sent was for a total of seven-and-a-quarter hours. I think that within the additional materials sent to me, the depositions, the preparation for this deposition, the travel time, there's probably an additional 15 to 20 hours involved.

Q. Okay. So 23 hours, 24 hours would be comfortable?

A. I think that order of magnitude, without being held to an exact number.

Q. Sure. I understand. I'm just trying to get a

reference of how much time you've spent.

A. But I must say, in all fairness, there were a considerable number of depositions, and the follow-up hospital records here were quite complex because of the nature of the child's injury.

Q. Did you make any notes in the deposition transcripts or anything?

A. In the mother's deposition, I did some underlining -- excuse me -- highlighting, and I don't think I did it in anyone else's deposition than hers. And then in some of the medical notes here I did some highlighting. This would be an example on the page on which I highlighted just some references to the rash, which, of course, is a matter of contention in the lawsuit.

Q. Okay. As to practice guidelines of a febrile infant, a fever for an infant, I notice Dr. Baraff and contributors talk about a low range of 100.4 rectal as being a fever, and I notice in one of your articles you give 100 degrees by mouth and 101 by rectum. I mean, I'm asking you, where do you consider the cutoff point for fever of an infant, definition *of* a fever of an infant of Ryan's age? Is the scale zero to 36 months? Is that the range you Like to use, or is it a shorter time period?

A. I think the zero to 36 months is too large a

span because a freshly minted newborn you approach differently than a child who's four months of age, that this child almost was, or a child who's three years of age.

But I should tell you, in all fairness, that the definition of fever has no consistency about it, and it has no agreed point. It is truly one of those arbitrary thresholds. I will tell you currently what the two most common breakpoints actually are.

Q. Okay.

A. One is 100.6 degrees Fahrenheit -- that's 38 degrees centigrade -- and the other is 101 degrees Fahrenheit, or 38.3 degrees centigrade. But in truth, I think the only reason that they're chosen is because they are round numbers. One is 101, a round number Fahrenheit number; the other is 38, a round centigrade number.

Q. From what we have in the chart regarding Ryan's first emergency room admission, could you and I agree that, from what's in the chart, at all times Ryan had -- would classify as having a fever?

A. He would.

Q. And by that definition, then, at all times, from what we see in the chart, Ryan was a febrile infant in the emergency room at St. Joseph's Hospital on the afternoon of May 7th, 1992?

A. He was.

Q. And based upon your review of the chart, can we agree that the fever that Ryan had was without known source during that first emergency room visit?

A. Yes.

Q. With infants of Ryan's age that are febrile, isn't there an -- there is a risk of bacteremia?

A. There is.

Q. And am I correct in this statement, that meningitis is almost always preceded by a bacteremia?

A. That's correct.

Q. And isn't it agreed or thought medically in your area of expertise that one of the reasons why you want to determine if the patient may have bacteremia in an infant of Ryan's age is so that you can treat it so it won't go into possible meningitis? Am I making sense there?

A. Yes, although I think there's a broader perspective than just that. Bacteremia most of the time is self-resolving, but there will be children who will have a progressive illness -- that is, septicemia -- or in whom the bacteremia will lead to a focal infection. And the idea there is to either try to terminate the bacteremia before it progresses to a more severe generalized infection or before it actually causes focal infection,

Q. Okay.

A. Understanding that most cases of bacteremia will resolve on their own.

Q. When you talk about a focal infection, you're talking about a specific organism causing the disease?

A. No, what I meant by a focal infection, meaning a focal part of the body or a specific part of the body. For example, meningitis, a bone infection, a series of places in which the infecting organism may lodge and then cause disease in a particular organ.

Q. Well, Ryan had an occult bacteremia, did he not?

A. Well, a blood culture was not performed, as you know, and, therefore, no one can know for sure whether on his first visit he did, in fact, have a bacteremia.

Q. Knowing what we know now, looking back retrospectively, would you agree that more likely than not he did have a bacteremia when he first went to the hospital?

A. I think he had a bacteremia at some point during that three-hour stay in the emergency department, because, as you point out, seven hours after his discharge he's back with septicemia. And I think that in retrospectively weighing the chances of a bacteremia existing at the first ER visit, it would come out greater than 50-percent likelihood.

Q. Would you agree, then, in infants older than two or three months of age the higher the temperature, the higher the risk of bacteremia occurs?

A. Yes.

Q. In the converse, of infants less than two to three months of age, the height of the fever has no relationship to the relationship of bacteremia?

A. I think I have to revise that now and probably say less than one month of age.

Q. Okay.

A. The most recent information -- I think Dr. Baraff talks about this as well. A child who is one month of age or less is really quite different than a child who is older than one month. And probably the three-month differentiating point, which has been used since the early 1970's when the first articles came out about the febrile infant, is probably the wrong differentiating point. It probably should be one month of age.

And I might say in passing, sir, that although I personally feel that the higher the fever the greater the risk of bacteremia, there are some very capable people who have published quite the opposite of that.

Q. But as to what you think, the height of the temperature has a correlation to the increased risk of

bacteremia if the child is three months -- greater than three months?

A. Yes, I believe so. But probably in light of these conflicting publications, it's probably less reliable than I thought it was at one point.

Q. Well, isn't it true that the medical literature talks about that with each increase in degree of temperature in an infant, the increased degree of risk of bacteremia exists in three-to-eight-month age infants?

A. I don't think I understood that, sir. I'm sorry.

Q. Okay. If the temperature -- high temperature in a child who is three to eight months -- using that window there --

A. Three to eight months?

Q. Three to eight months. -- that that puts them at higher risk of bacteremia?

A. I don't know the literature that deals with an age range of three to eight months. I'm just unfamiliar with that.

Q. But greater than three months you're familiar with?

A. Well, I'm familiar with the topic in general at all ages, and it is my personal conclusion that at all ages the height of the fever probably increases the risk

of bacteremia once you're above a month of age, but with less reliability than I thought at a former time due to the publications of articles which do contradict what I've just told you.

Q. Let me ask you this. In 1992, the general thought was greater than one month or greater than three months with temperature increased the risk of bacteremia?

A. I think in 1992 most people thought that as a general proposition the higher the fever, the greater the risk. And understanding that even then it was known that there were certain breakpoints. For example, a temperature of 39 degrees -- greater than 39 degrees seemed to have a distinctly different risk than temperatures less than 39 degrees. That was based on an old study, but a uniquely useful study, published in 1975 from Boston Children's Hospital -- excuse me -- from Boston City Hospital. Of 600 consecutive patients seen with fever, none of them had a bacteremia if their temperature was less than 39 degrees.

And I think people felt somewhere around 104 to 105 there was another breakpoint. Above that break level, the risk went up from the three- to four-percent level to a higher level of maybe five, six, or seven percent. But, of course, no one knew exactly where the breakpoints were at 1992 or even today.

Q. Is cyanosis one of the clinical pictures of toxicity in febrile infants?

A. Well, it's one of the items that people look for in assessing the general state of an infant, but you'd be looking for central cyanosis, not peripheral cyanosis.

Q. Would you agree that the standard of care in 1992 in all children from zero to 36 months with fever without known source and with some toxic appearance requires hospitalization with antibiotic treatment and sepsis workup?

MR. MULLER: Objection to the form of the question. Fails to define "toxic."

A. No, I wouldn't agree with that as a straight statement.

Q. Okay. What do you consider to be toxic appearance of children with bacteremia?

A. That's one of those words that's very hard to define, "toxic," but the one -- the definition that I've always used, which I think is the best, comes from a pediatrician named Sidney Gellis, who was the chairman of the department at Tufts for many years, and is now in his eighties. When he was asked to define toxic, he said, "It's the child who looks and acts damn sick." It conveys, I think, what the issue is; that is, it's a child who is distinctly unwell, more unwell than just the

height of the fever can account for, more unwell than the time of day can account for, more unwell even than a possible focus of infection can account for. And for people who do this day in and day out and see any numbers of children every day, that conveys a message.

Q. Do you agree with me that with the type of disease that Ryan was known to have, that symptomatology can change acutely? It can be a rapid-changing condition?

A. A lot depends on the use of the word "rapid." It is a dynamic illness, and children can become ill progressively, but different individuals will become ill at different rates,

Q. Okay. Well, you've read the deposition of Mrs. MacAdams in this case, have you not?

A. I have.

Q. And you read where she testified that a rash was present after Dr. Perez examined Ryan, but when Dr. Poleynard came back in, it came on. Would that be consistent with this type of disease that this child had, to have a rash that suddenly appeared?

MR. MULLER: Is that the only thing that you're asking?

MR. BERGEN: Yeah.

MR. MULLER: Is the sudden appearance of a

rash --

MR. BERGEN: Right.

MR. MULLER: -- consistent?

A. Well, I guess as a general truism, any child that has a rash has to have a moment when that rash appears. In that case it's instantaneous. It's no different than any other illness, such as measles or drug reaction or German measles. There's a point where you don't have a rash; there's a point where you do have a rash. I don't think it's any more abrupt here than it would be in any of those other illnesses.

Q. When Ryan left the emergency room, more likely than not you'd agree that the meningococcemia had not been diagnosed? He had an undiagnosed case of meningococcemia, more likely than not, when he left the emergency room the first time?

A. Let me try to answer. When he left the emergency room at 8:15 that night, I believe he had meningococcemia, but I do not believe he had meningococcal bacteremia, which is a word that says you're not only bacteremic, but you are also severely clinically ill.

Q. Okay. He still would have had the presence of the organism of Neisseria meningitidis?

A. Meningitidis.

Q. Thank you. That organism would have been present in his blood?

A. I believe more likely than not that he had it in his bloodstream.

Q. Do you have an opinion as to whether or not, based upon what you have reviewed, Ryan should have been admitted to the hospital during the first emergency room visit?

A. I have an opinion.

Q. What is your opinion?

A. I don't believe there was an indication for obligatory hospitalization, no.

Q. Do you have an opinion as to whether or not antibiotics should have been used during the first ER admission?

A. I have an opinion.

Q. And what's your opinion?

A. It's my opinion that the use of antibiotics was an acceptable but not an obligatory management option.

Q. Okay. Now, if you suspect a child to have -- make sure I'm correct in this -- meningococcal bacteremia, what do you consider the standard of care to be to treat that condition if the patient presents -- I'm talking about 1992 because that's what this case deals with.

MR. MULLER: Object to the form of the question. It's a hypothetical that fails to supply sufficient facts for the doctor to form an opinion.

Q. You can go ahead and answer. With an infant of Ryan's age.

A. Sure. I can't answer it because I don't know what you mean by the word "suspect." It means different things to different people.

Q. How about differential? In your differential diagnosis?

A. The reason I have trouble with that is when you're dealing with small children, you also suspect bad things, If you find no evidence for them being present, then you don't act upon them being present and, therefore, no treatment would be necessary for a suspicion. Only if someone had clinical disease would you begin therapy.

Q. If clinical disease -- what do you mean by that? "C1inical disease"?

A. Well, a child who had clinical septicemia. You know, you can't look at the child and say when a child -- excuse me -- what organism may be causing the septicemia

Q. I understand that.

A. But if you saw a child who had clinical septicemia or clinical meningitis, then there are

standard ways of treating those individuals. But suspicion is not a word which has a common definition, I'm afraid.

Q. Okay. Let's take the example where you believe this child does have meningococcal bacteremia. What do you do?

A. Well, if you believe the child has clinical septicemia, because you don't know what might be causing it until you get the results of your testing back --

Q. Right.

A. -- then the proper approach to that is first and foremost to get the child to a place where they can deal with serious illness in small children, You then establish an intravenous line. You assess for the presence or absence of respiratory failure and shock, and if present, you deal with those first.

You obtain all the specimens that you will need to diagnose the disease, which is your clinical diagnosis. That would include under most circumstances a blood culture, probably a urine culture, and if safe to do so, a spinal tap, although it may not be safe to do so at the particular time.

Q. Okay.

A. And then you would initiate antimicrobial therapy. And there are a number of choices there.

Okay. Did you try to make a determination in your mind as to whether or not a rash was present with Dr. Poleynard?

A. I tried to make a determination based upon the available information which I possessed.

Q. Did you reach a conclusion, or are you not sure one way or the other?

A. I think that the available information to me suggests that no rash was present despite the fact that the mother, in fact, does remember a rash being there. I couldn't find confirmation of that reliably in the contemporaneous notes written at the time that the child became terribly ill and was admitted to the hospital and so on.

Q. If a rash was present with Dr. Poleynard based on the patient's findings in the chart, would that change what Dr. Poleynard should have done in this case?

MR. MULLER: Object to the form of the question. It fails to outline what you mean by "rash."

Q. You can go ahead and answer.

A. Well, if a rash is present in any child, the child requires a reevaluation, and that's the only thing that would have been required. And then based on the reevaluation, then there might be different management decisions made.

Q. If it was determined to be a petechial rash, a nonblanching petechial rash, what would the standard of care have required in this case?

A. The standard of care would have required a reevaluation and a reexamination. One of the articles that I supplied to you is an article from Boston Children's Hospital looking at fever and petechial rashes and how rare it actually is that that is a harbinger of a serious illness. Consequently, a petechial rash is not an uncommon finding in children with fevers due to many different causes, but it does demand a reevaluation"

Q. Okay. And reevaluation, what does that include?

A. Well, it includes another systematic examination. It may include repeat blood testing. The child did have some blood testing done earlier on, but that was at 7:15. It's now an hour or so later. That would be an option. Blood culture could be obtained, further period of observation could be obtained, the child could have been given presumptive antimicrobials and then sent home.

The child could have been admitted to the hospital for observation only, The child could have been admitted to the hospital for observation and antimicrobials. There are a number of different choices that one can make, and, of course, the goal is to try to

match the level of risk that you perceive in the individual patient.

Q. This type of disease that Ryan had also can demonstrate macular rashes, can it not?

A. It can.

Q. How do you describe a macular rash?

A. The definition of a macular rash is a flat blanching red rash.

Q. And you would expect a physician practicing in an emergency room in 1992 in the United States of America to be able to differentiate between petechial and macular rashes, would you not?

A. Yes.

Q. An emergency room physician practicing in the United States in 1992 should recognize -- standard of care would require that physician to be able to recognize that macular rashes are associated with meningococcal bacteremias?

A. That's an interesting question. The main article that showed that was published in an English journal in and around that time. It may even have been after 1992. And I would not necessarily expect people to associate macular rashes with meningococcal bacteremia in 1992, no.

Q. But ysu would?

A. That's my area of expertise.

Q. I understand. But there is a correlation between the two -- or can be -- a macular rash with meningococcal bacteremia?

A. Let me put it this way. The macular rash has been reported as being a rash seen at some stage in some patients in meningococcal bacteremia. But in the universe of rashes, it is an extremely rare component, and, therefore, a macular rash in an otherwise well-looking child would not raise the spectre of meningococcal disease in a patient.

Q. Can the macular rash also turn into the purpura-type rash --

A. Yes, it can.

Q. -- at later stages?

A. It can.

Q. In the macular rash, a forerunner is the purpura rash?

A. Not necessarily.

Q. Frequently, more often than not, a forerunner is the purpura rash?

A. Again, the macular rash is seen at times, but not commonly, in meningococcal disease. And in this particular case study that was done, many of those children did evolve their illness into either petechiae,

purpura, or both. But, of course, that is an evolution of illness that is seen in children who have meningococcal disease without a macular rash.

So it's unclear whether the rash is a precursor or whether it is just another manifestation of the disease. But as I say, it's an uncommon manifestation of the meningococcal disease, and I would not want to raise the spectre of meningococcal disease in a child who did not look significantly ill.

Q. You and I can agree that a child such as Ryan with -- a febrile infant such as Ryan of unknown source who develops a rash in the emergency room -- that that would at least -- standard of care -- require reevaluation of the patient?

MR. MULLER: You're talking about a child getting a petechiae rash?

MR. BERGEN: Just a red rash.

MR. MULLER: A diaper rash?

MR. BERGEN: I'm just asking about any rash on his body. He's already told me rashes can develop anywhere on the body.

Q. Does a rash raise a red flag in conjunction with treating a febrile infant of Ryan's age, three-and-a-half months?

A. As a general answer to a general question,

rashes can be clues to illness, and the rash certainly should be looked at if it evolves in any setting, whether it's in an emergency room or in a clinic or whether the child comes in with a rash. It's another clue to illness that should be evaluated, but it doesn't necessarily demand a full reexamination of every body part.

Q. Do you agree with me that Dr. Poleynard should have gotten other temperatures on Ryan?

A. No.

Q. Okay. So the two temperatures that you see in this case are adequate in your opinion?

A. Oh, sure. We would only get one temperature.

Q. Even after treatment?

A. Sure.

Q. So you would use just the temperature at admission, at triage, in evaluating this patient?

A. That's correct. We seldom get a second temperature on a child.

Q. Did you see where Dr. Poleynard testified that he gave another temperature but it wasn't recorded?

A. Yes, I saw that.

Q. If you take a temperature, don't you record it?

A. Well, I don't personally take temperatures of anybody.

Q. Well, if you order it.

A. Again, I don't usually record it. It's usually a nursing function, if it's recorded at all. A lot depends, sir, on what the object is for taking the second temperature. If it's to convince myself that I've waited long enough for the child to get the fever down so the parents wouldn't worry, that would be one thing; if I'm using it as a diagnostic maneuver, that might be something else.

As I said, we so seldom order or take second temperatures that it's very hard to answer your question.

Q. Let me ask you this. As to Ryan, from your review of the first emergency room visit, I understand you've expressed opinions that you think Dr. Poleynard adhered to the standard of care during the first admission.

A. Yes, I do.

Q. If you look at Ryan's material in the chart, he was over three months of age at the time, correct?

A, Correct.

Q. He had a fever, by your own definition, at all times?

A. Definitely.

Q. And if you take the additional fact of a rash being present during the examination by Dr. Poleynard, if you take those triad of information, would you agree with

me that Ryan had in his differential a bacteremia?

MR. MULLER: I'm going to have to object to that question.

MR. BERGEN: Why don't we just reserve all objections to all hypotheticals? I know you're going to object to all hypotheticals I give him.

MR. MULLER: Okay. I'm reserving all objections to hypotheticals, including form of the question, which would include, but not be limited to, that it gives facts that aren't proven, that it doesn't give sufficient facts, et cetera.

MR. BERGEN: Right, Anything as to not assuming all facts in evidence will be reserved. Let's just leave --

MR. MULLER: I may from time to time pipe up anyway, such as this one where I have a problem with you talking about a rash but not talking about what type of rash.

Q. The rash that was described by Mrs. MacAdams in her definition.

A. Sir --

Q. Do you want me to rephrase it?

A. No. Any child with a fever has a possibility of having a bacteremia, sight unseen, but the level of risk of bacteremia changes as you get more information

regarding the child. Physical information, observation, laboratory testing.

So the answer to your question is generically yes to any young child with a fever without an obvious source, but the level *of* risk *of* that thought of bacteremia or probability of bacteremia changes as you gather more information during the period of evaluation.

And, of course, that's what your business is, is to try to use physical findings, laboratory studies, and the natural history to correctly assess what the risk actually is.

Q. With a bacteremia, do you agree that one's white cells can be consumed?

A. There are some children who have septicemia -- meaning clinical illness, so they look and act damn sick -- who have a bacteremia who have low total white counts, yes.

Q. Well, isn't it with meningococcal bacteremia that if it's fulminant you can have one's white cells consumed?

A. Well, in any serious infection, white blood cells are consumed, but the body makes up enough new ones so that you have a steady state in the bloodstream, There are situations of fulminant disease in which the destruction of the white cells exceeds the capacity to

replace them and the number measured in the bloodstream will, in fact, go down, as it did here.

Q. In that instance, you get the shift to the right in the band count, do you not?

A. Well, no.

Q. I'm sorry. I'm sorry. Shift to the left. Excuse me. Increased neutrophils?

A. Well, under those circumstances you would have very few neutrophils of any sort because they are all being destroyed.

Q. Okay. Let me ask you this. Do you get a shift to the left with this type of bacteremia1 infection that Ryan had?

A. Well, you can have the presence of immature forms with all kinds of infections, trivial and otherwise. Band counts in this age group are not useful.

Q. You saw where he did have a shift to the left?

A. Well, he did have 29 percent band forms out of a total of 9,600 total white cells, yes. But as I say, the differential in this age group is not useful.

Q. Well, I understand what you're telling me, but let me just ask you this question. If you have an infection or bacteremial infection such as Ryan had, do you get an increase in any neutrophils because they're fighting off the infection -- or attempting to fight off

the infection?

A. Well, with any infection, you can get an increase in neutrophils. It's not isolated to meningococcal infections.

Q Does Ryan have a shift in his right?

A. No. If you look at his differential count, the common interpretation of that would be a shift to the left.

Q. As to viral infections, don't you more likely than not expect the shift to be to the right rather than the left?

A. Again, in this age group, the differential count does not help you with regards to viral or bacterial infections.

Q. Well, if you do have a viral infection, do you normally see a shift to the right as opposed to the left?

A. No, not necessarily. That's why it's not a useful tool. And, in fact, if you look at the Baraff article, they specifically tell you not to use the differential counts because it is not a useful tool,

(The deposition recessed at 4:00 p.m. and resumed at 4:05 p.m. as follows:)

Q. In looking at Mrs. MacAdams' deposition, the portions you've highlighted, there's a series of questions in here regarding the rash that Mrs. MacAdams

testified about. What was the significance of that to you? Why did you highlight it?

A. Well, as you've already pinpointed through your own questioning, I was concerned about the fact of the rash and whether it were present, and if so, what type of rash it was, and so on, and she was, of course, one of the main people who is involved in the memories of those things, so I highlighted information regarding the rash from her deposition. With Dr. Poleynard, it was easy because he doesn't recall seeing the rash.

And then I highlighted references to the rash in the medical records in order to formulate in my own mind whether I thought a rash were present, and if so, what kind it was.

Q. Okay. And if the rash was present as described by Mrs. MacAdams, how would you categorize that type of rash?

A. Well, she says that she has a memory of not only the rash being there on the chest, but of it being a small pinpoint rash. And when Dr. Poleynard looked at the rash and pressed on the rash, the color did not press out of the rash; therefore, it was a nonblanching rash. So if you only look at her memory alone, it would be classified as a petechial rash on the chest.

Q. Let me see if there's anything else while on

this particular subject.

You also had some squiggly lines by the question regarding had his muscle tone changed, and according to Mrs. MacAdams, he was more listless and more subdued. Did that have any significance to you and your opinions in this case?

A. Well, the information was relevant to me because it seemed to me that Dr. Poleynard was obliged to be sure that the child he was sending home was not a sick child. He was not the admitting emergency room physician, but he was the discharging emergency room physician. He did say that he went in and examined the child, reexamined the child, and the other reasons that he came in to see the child

What I wanted to do was to gather information as to what the child was likely to have looked like at the time that the decision was made to finally send him home, and hers is, of course,, one of the important memories.

Q. If you assume her recollection to be correct, would you agree with me that Dr. Poleynard violated the standard of care generally employed in the medical profession in discharging Ryan without further workup in reevaluation and holding him there?

A. No, not necessarily. The words that she was using -- and of course, so much depends on words here --

were a mixture of observations that s ested to me that the child was not as active as normally he is, and was quieter than normal, But based on the words that she spoke, at least in her deposition, and only looking at those alone, I did not get the impression that this was a toxic or damn sick child.

Just to finish my sentence, under those circumstances, it would have been acceptable for Dr. Poleynard to send home a child who was not looking toxic, given the fact of the other reassuring aspects of the child's evaluation in the emergency department, including the long period of observation, the reassuring total white count, and the fact that the parents seemed capable of reporting back any changes.

Q. Well, that white blood count -- you called it reassuring white blood count -- could that white blood count be one that was falling --

A. Well --

Q. -- based on knowing what his disease process was later on?

A. Well, again, 1 have to look from the standard of care perspective. I have to look at it from that perspective. I can't hold Dr. Poleynard responsible for not seeing the future, If I knew 1 was going to have a heart attack next week, I would check into the hospital

today

All you have is what you have at the time. Consequently, he sees a child who has a total count of 9,600. Now, that's a reassuring white count. It's the kind of white count that decreases the perceived risk of a serious illness. Not down to zero, but down to a lower level than when you first started off.

Plus, you have a child who's been there for three hours and has three hours' worth of intermittent observations. And if, in his opinion, the child was not becoming sicker while in the hospital, those are all reassuring elements that lead to an acceptable decision to send the child home.

Q. If you evaluate a child, do you make documentation of that evaluation?

A. I don't understand the question, because there are many points of evaluation of a child.

Q. Well, if Dr. Poleynard testified that he evaluated this child and did an examination of the child in his deposition -- Do you remember reading that?

A. Yes.

Q. And if he did that, do you agree with me that the standard of care requires documentation of those findings about the examining physician?

A. No, I've never thought that the level of

documentation and the standard of care were the same thing. I believe they're two entirely different things.

Q. Well, do you document if you would have examined this child?

A. I think it depends on the clinical setting, but if the child is really unchanged, there would be no reason to document based on -- For the child's sake, there would be no reason to document a child who has exactly the same constellation of physical findings at a later stage that they did at an earlier stage.

Q. Well, that's your determination that there was no change in condition.

MR. MULLER: Which is what Poleynard has testified to.

Q. Well --

A. My understanding of reading his deposition, sir -- and all I have are'the depositions --

Q. Right.

A' -- is that he claims that if there would have been a meaningful change, he would have documented it and presumably even acted differently. And I must say, it is the convention in medicine that things that are not written down are taken to be normal or unchanged or whatever the case may be. So the lack of any written summary of the reexamination on the emergency room sheet

is not unusual, in my experience.

Q. You would agree with me that the onset of Ryan's symptoms were sudden, according to the family, before they arrived at the emergency room, on the triage note?

MR. MULLER: You mean the parents have said on the triage note that they were sudden?

MR. BERGEN: No.

Q. According to the notes, it gives a complete complaint and history of sudden onset of expiratory grunting, tense, nausea, elevated temperature, began approximately one hour ago, 4:30 p.m. You're aware of that?

A. Yes.

Q. That would be a sudden onset by history, would it not, of temperature? Expiratory grunting?

A. You used the word "sudden." If someone has got a fever, it's got to begin sometime.

Q. It's not chronic?

A. At that moment is onset. To call that sudden is really no different than any febrile child. Fever in a child must begin at a certain point.

Q. You've seen different studies that talk about chronic fevers over two weeks of age, sudden onset, or acute fevers?

A. Oh, I would call this an acute febrile illness,

but the characterization of this as being a sudden illness -- fever must begin at a certain point.

Q. Okay. Do you practice emergency room medicine?

A. Let me answer that in two ways. The answer is yes in the sense that I see patients in the emergency room, but only pediatric. I don't do adult emergency room work. And I'm called in to consult on patients in the emergency room. But -- if I could just finish -- this particular kind of illness that this child has is bread-and-butter pediatrics that occurs in offices, clinics, and emergency rooms, and it's not quintessentially an emergency room issue the way an automobile accident would be.

Q. Well, I mean, do you see patients -- I say -- I don't want to take this literally. Do you work emergency room shifts?

A. No, I do not, but our emergency room is situated in a way that they can just call me when a patient arrives if it's a patient that, for example, I've brought in to be seen or that they want me to see.

Q. Is that by consult?

A. No. There are children that I will see primarily in the emergency room, but also I will be asked to come in to see children that have been already evaluated by an emergency room doctor. We do it all ways

at our place,

Q. What I'm trying to get at, when I think about an emergency room physician, I'm thinking of the front-line emergency room physician who takes all kinds. You don't work that kind --

A. No. I don't see adults. I see only pediatric patients.

Q. When you see a pediatric patient, if you see a pediatric patient in the emergency room, it's at the request of the emergency room physician?

A. Sometimes it is, but sometimes I will see the child as the primary physician.

Q. You say, "Meet me in the emergency room," and you see the patient there?

A. Yeah, either I will, or the nurse who takes the telephone call will say, "Call to the emergency room and ask for the pediatrician," and I'm the poor old pediatrician who sees that child.

Q. Did the fact that Ryan had been irritable 15 minutes prior to arrival, by crying, have any significance to you in formulating your opinions as to whether or not further workup should have been done on Ryan during the first emergency room admission?

A. All historical elements have importance, but that fact in and of itself I don't believe would alter my

opinion that the correct workup was, in fact, given to the child

Q. Okay. If Mrs. MacAdams asked Dr. Poleynard to look at the rash that she described on Ryan in her deposition, would you have expected Dr. Poleynard to make a note entry about that rash or not?

A. Not necessarily.

Q. Did the standard of care require for the differential to come back and be reviewed before discharge on Ryan?

A. You mean the differential white count?

Q. Yes.

A. No, because as I've said, in the age group, the differential count is not of importance in making a medical decision as to what to do with the child, as is clearly stated in the Baraff article.

Q. Then why would you order it?

A. I don't.

Q. In this case it was ordered.

A. It was.

Q. Do you see any reason why it should have been ordered in this case?

A. Well, I don't know what their normal routine is, sir, in this emergency department. There are many emergency departments that I know of, including ours. In

some of them, it goes together like peanut butt and jelly. You order a white count; you get a differential. Consequently, you don't have the option of ordering only one or the other.

In our clinic, however, it's different. We can order either a general hemogram that only has the total white count or a differential. But in the emergency department, it's done, 1 think, as a matter of course. I don't know whether this was a conscious decision that was made by Dr. Perez to order the differential or whether it's just what we do in our emergency department.

Q. Okay. And as to the temperature of this child, the 104.3, was enough to be done in this case to meet the standard of care Just one temperature on admission and that's it?

A. That's correct, because, *you* see, fever's only useful as a stop sign to tell you to look at the child, that this child has a febrile illness and needs an evaluation. Further measurement of the temperature is not useful from a diagnostic point of view.

And, in fact, I must say in all honesty, we have in pediatrics a condition that has been called fever phobia, where parents become quite apprehensive when they have fever alone, as if fever was going to harm the child. And we feel in our department that fixation on a

temperature level for no good reason just reinforces that in the family.

Q. As to what's in the chart, I take it that you considered everything in the chart on the first emergency room admission to be accurate and correct?

MR. MULLER: I'm sorry, what was that question again?

Q. You considered everything in the chart as being accurate, did you not?

A. I didn't see any contradictions that would have made me suspect that it was inaccurate.

Q. Okay. Now, you've also been provided opinions regarding Ryan's prognosis. Let's see. We'll mark this as an exhibit. The interrogatory responses you've given us about your opinions is that you expect to testify to the issue of standard of care and caution based upon various facts which have been presented in the medical records and depositions, and based upon test results, that Dr. Poleynard acted within the standard of care in his diagnosis, treatment, and discharge of Ryan MacAdams.

I think we've covered that aspect of your opinions, have we not, in its entirety, or is there anything else that you need to add that supports, in your mind, that Dr. Poleynard acted in the standard of care in discharging Ryan?

A. Well, just by way of summary, I believe that Dr. Poleynard did in fact re-examine the child, did not find a child who had a meaningful deterioration from when he was seen by Dr. Perez, did not find a child who was toxic who needed a more comprehensive reevaluation or alternate management plan.

I do not believe that a rash was present, but if it were present, I believe that Dr. Poleynard did, in fact, look at it and made a judgment in his mind that this did not alter the acceptability of sending him home. And I believe that he provided good follow-up information and instructions for the family. So under those situations, I believe he met the standard of.care.

Q. Okay. Even if a petechial rash was present on Ryan, he met the standard of care, is what you're telling us, too?

A. If the child had a petechial rash but was a nontoxic child -- which I'm not admitting was the case. This is a hypothetical situation -- I believe under the circumstances that it was an acceptable treatment option to send the child home with close follow-up if the child were, in fact, nontoxic, as I state that I believe the child was.

Q. And when you say "nontoxic," you just said that you think the child doesn't look sick?

A. Exactly, does not have a global appearance of a child who is seriously ill.

Q. Okay.

A. Remember, Dr. Perez was quite eloquent in what he wrote down in making a description of the child. Consolable, alert, tracking, appropriate response, et cetera. If the child did, in fact, have those things at the time that he was being discharged or did not have a meaningful alteration from that state, that is a nontoxic child,

Q. But if the child did have a toxic appearance with petechiae rash, then the child should not have been discharged?

A. I agree.

MR. MULLER: As defined by Dr. Radetsky on what a toxic-appearing child is.

MR. BERGEN: Right.

A. Right, using my own concept of toxic.

Q. Which I still don't have a good feel for except it's just the child looks sick, is what you're telling ne?

A. Well, it's not just that, sir. It's one of those terms which is inexact to people who don't see children as a care provider day in and day out. But for someone who's in the business, when you say "toxic" or

"looks and acts damn sick" or "child looks seriously ill," you know what you're talking about.

There has been extensive investigation in trying to come up with other words for these things and also to come up with a profile. One of the most famous of them was done in the early 1980s at Yale by Dr. Paul McCarthy, and it's called the Yale Observation Scale, and it looks at the child's color, sociability, state of hydration, consolability, breathing pattern, and the like in order to define toxic, as well.

But I must tell you, despite the fact that it's been used as a research tool, the Yale Observation Scale has never come into general use, and what has remained is this concept that in looking at a child who looks inappropriately ill for a -- as a constellation of features, of their alertness, their interactiveness, their sociability, their color, their breathing, their activity, their body tone, and the like, and you must understand it's very age-specific, then that child is nontoxic.

If a child, however, you know, is withdrawn, flaccid, mottled, breathing rapidly and heavily, has cool extremities and so on, then you consider that child probably to be a toxic child. It means something to people who actually do the work.

Q. What about the fact that there is a history of this child grunting? Doesn't that cause some kind of concern for respiratory compromise?

A. The initial reporting of that historical fact does, but it was not confirmed by the subsequent examinations *of* the child in the emergency room department. And I believe the mother has testified that it was not present in the emergency department.

Q. But the history would be of some importance to you?

A. It would be of importance, but unless it were validated by a finding at the time of examination, it probably could be discounted since serious things that cause grunting do not go away.

Q. In reading about toxic appearances, I've come across the word "listlessness." Is that one of the things that is equated to one of the clinical symptoms of toxic? "Listless child," I think it's been referred to.

A. Yes, "listless" is another one of those words for which is there is no good definition. "Lethargic" is another one. That's why you really have to get a better description of what the child is or is not doing in order to make an independent assessment, and that's why in reading the mother's deposition it's a little bit difficult to know what she thought of her child, because

she uses so many different words to describe the child including "somewhat subdued," which is -- again, it's only a word, but it conveys a different feeling than a child who is, perhaps, listless or a child who's lethargic.

Words mean what the people say that they mean, to tell you the truth. And in looking at the chart at the time, it is my judgment that to the examiners at the time, the child did not look and act seriously ill, and I cannot find a contradiction to that in the mother's deposition.

Q. So even when she says that the child was lethargic, you rule that out?

MR, MULLER: Mom never said that,

A. I didn't see that in her deposition. I saw "somewhat subdued"; I saw the word "listless." I'm trying to think of some of the other words that I saw in there. But I never saw "lethargic." So, again, I'll have to confront that word. But that's another one of those words that means different things to different people. I have nurses who come in and say they feel really lethargic.

Q. What does lethargic mean for an infant?

A. I try not to use the word because it doesn't have a common definition. That's why I will write down

words that mean something to me A child that is tracking, a child who's consolable, a child who' alert, these things mean something to me.

Q. Do you know if he actually wrote those down or those were complete sentences made by the Carswell dictation system that was being used at the emergency room?

A. I knew that they had a dictation system. I was unfamiliar with the fact that it generates its own words, And if so, I'll need more information as to what you key in. But I presume that -- Dr. Perez seems to support that in his deposition, that these words accurately described the child. He was accurately describing the child he was seeing.

Q. What does "subdued" mean to you, if a child is subdued?

A. I think it means to me that the child is just a little bit less interactive than usual, less interested in social overtures than usual, a little bit more quiet than usual, a little less demonstrative than usual. Mind you, we're getting on to 7:00 and 8:00 at night, and a child with a fever being a little less than **all** of those things does not seem to me to be out of the question for a four-month old child.

Q. Is there anything else that you base your

opinion that this child -- that it was acceptable to discharge this child that you haven't --

A. I think we've talked about all those things. And again, I think that the follow-up information presented in written form during the time of the reevaluation in the emergency department and the hospitalizations supports my conclusion that, more likely than not, a rash was not present.

Q. What do you base that on?

A. Well, there are a number of references in the subsequent chart. There, for example, is the reference in the chart that Dr. Poleynard fills out at the second admission that states the child developed a petechial rash. So that would have occurred after the child had been sent home. Then there are a number of references by physicians and nurses in the Memorial Medical Center notes that, with only one exception, all refer to the rash developing after the time of the emergency department visit.

Q. And what exception are you referring to?

A. The only exception **is** a note that is written on this sheet called Nursing Progress Note.

Q. Right.

A. And it's 5:30 a.m. to 6:20 a.m. -- and I can't read the handwriting, so I don't know who wrote it -- and

it refers to the following statement by the mother. "Mom states that baby was treated for viral illness and released. Also, mom noted (quote) petechial rash to abdomen which did not impress M.D.'s at St. Joseph's." And there's no other quotation marks, so I don't know whether that ends. That's the only deviation from what I see as a consistent recording of the rash occurring after the emergency department visit in multiple places in the hand of various other individuals.

Q. So that's the only exception that you noted?

A. That's correct.

Q. But, I mean, obviously, for some reason, you went through the medical records carefully and were noting the rash. You were concerned about the rash because you know that's a red flag in this type of treatment of these patients, right?

A. I needed to know the facts before expressing an opinion, and I tried my best to get at them.

Q. If a rash was present, would that change your opinions?

A. I think that any new physical finding that was not claimed to have been seen by the examining doctors would have to go into my opinions, so, of course, I was concerned about that, as well as any new physical finding that might have been there.

Q. But you knew the rash was an important finding in this type of disease process?

A. In retrospect, yes.

Q. Well, you would know that, if you were treating a patient, a new rash has an important consequence in this type of infection?

A. All rashes are important in that child with a fever because they may be a clue to the cause of the fever.

Q. Now, the next point on the interrogatory answers states, "On the matter of causation, Dr. Radetsky is expected to testify that there was no causal connection between Ryan MacAdams not being diagnosed with meningococcal infection or treated with antibiotics during his first ER (admission), and his development of orthopedic and other problems. Treatment with antibiotics during the first (admission) would not have prevented such problems. Also, it is likely that the orthopedic problems were unrelated to the meningococcal infection."

I take it -- Let's do this, Let's take that in subsections, if we can.

A. Sure.

Q. If Ryan had had a blood culture done during the first admission, more likely than not it would have shown

meningococcal infection -- Neisseria -- You have to --

A. Just call it the meningococcus. It's a lot easier.

I believe more likely than not that that is true.

Q. And with that in hand, standard of care requires immediate antibiotic therapy?

MR. MULLER: You mean when the blood culture finally comes back?

Q. Well, if you suspected it beforehand. But you could start antibiotics even before *you* got the result back, right?

MR. MULLER: Well, now you're skipping around. you're talking --

MR. BERGEN: Peter, just calm down. I'm asking a good question.

Q. You testified that if -- or you've purported to testify that if he was treated with antibiotics at the first ER admission, it wouldn't have made a difference with any of the development of orthopedic or other problems.

A. That is correct.

Q. That's where I'm trying to get to. Tell me what's the basis of that opinion.

A. Sure. If his bone injuries and his injury to

bone growth were caused by the meningococcus, as I think it could have been caused -- and there are four articles in my packet that someday you'll get that have to do with this -- it is an extremely rare complication of meningococcemia.

And the reason I say it's extremely rare is that in the best of those articles published from Baltimore by the University of Maryland Group, they can only come up with somewhere between 12 and 21 cases of this ever being reported in the literature. They refer to 12, then they mention an article in which 9 more cases could have been due to meningococcemia, but they didn't do all the cultures to find out one way or the other.

But at any rate, that's an extremely small number of cases in a disease which is not that uncommon. Thousands of cases a year occur of meningococcal infection in the United States alone, much less the world. That's an extremely rare complication, Consequently, we're dealing with a serious illness that's not uncommon, but not terribly common, and an extremely rare complication *of* that illness. Consequently, there is absolutely no information regarding duration of illness, timing of antibiotic therapy in meningococcal infection and the risk of full-blown disease. There's just no information on that at all and no one possesses

that information because it's so rare.

Consequently, you have to look at the relationship between the timing of therapy in the context of illness and outcome in other areas of meningococcal infection to try to come up with biological principles you can apply to this case.

Are you with me so far?

Q. Somewhat. Do you see anything in all the medical records you've reviewed that would explain any other cause, other than the meningococcal disease, to Ryan's infarcts?

A. I'm not an orthopedic surgeon, and I don't pretend to be an orthopedic surgeon. I believe the meningococcal infection could have caused those bony infarcts, but there are many other cases that I'm unaware. And, of course, the treating doctors who are dealing with his bones, they don't care what the original cause might have been. They're just trying to deal with the cause that he has these growth arrests on these various long bones.

Q. Do you think the people treating his condition now are less qualified to express opinions as to the origin of the bone infarcts?

A. Less qualified than what?

Q. Than you,

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I don't believe they're less qualified than me no.

Q. Are they more qualified than you?

A. They might be. I don't really know any of the people who are treating him, so I can't really answer.

Q. But, I mean, you aren't ruling out that the bone infarcts was caused by the disease that he had?

A. I'm not ruling it out, sir. I just think it's an awfully rare complication and, therefore, there may be some other condition that causes this. I just don't know.

Q. Do you have any other explanation as to what caused these bone infarcts?

A. I honestly don't, because I'm not an orthopedic surgeon, and it's not an area in which I express any expertise.

Q. And the articles -- and I haven't reviewed the ones that you have here today -- do they associate the bone infarcts with the DIC?

A. They do.

Q. Could one possible explanation be, as to why you have not seen as many case reports of bone infarcts, is because, A, generally this disease progresses to amputation from necrosis and gangrene; and, B, death?

A. well, I think you raise an important point, In

purpura fulminans, which this child had, the combination of shock, DIC, and purpura in meningococcal disease, there is a considerable death rate and there is a substantial risk of loss of some portion of the body, whether it's a digit or a limb or something of this sort.

But the answer is no, I don't believe that that fact alone would deprive the world of medical literature of a number of case reports of this delayed diagnosis of bony infarcts or growth plate arrests in meningococcal infection if it were a common occurrence, no. The answer's no.

So the fact that the best of all articles can only report a handful of cases implies that .it must be a rare complication, because there are articles -- and I supplied one of them to you -- about purpura fulminans, just in -- just from one measly institution that's recording or reporting scores of cases of purpura fulminans in meningococcal infection. So clearly it must be much more uncommon. So this is a rare condition. And I've never seen one in my lifetime, and I've seen hundreds of cases of meningococcal infection.

Q. Has antibiotic therapy been effective in the cases that you've treated?

A. What do you mean, "effective"?

Q. I mean successful, retarded any long-term

sequelae.

A. Well, in the cases that I've seen, I've seen a spectrum of outcome.

Q. I'm talking about the cases you've been actually hands-on, not what you've consulted.

A. I understand. In the cases I've seen, I've seen the gamut of outcomes, including death, limb dismemberment, burn-like injuries in the skin because of large amounts of skin loss, meningitis, organ infarctions, or total survival without any problems whatsoever. So I've really seen the gamut.

Q. Do you believe that timing of antibiotic therapy is important to retard meningococcal CB?

A. I think that the timing of antibiotics does not influence many of the more serious outcomes of meningococcal infection; that the timing of antibiotics -- Clearly, you're worse off without antibiotics than you are with antibiotics. But in terms of the sensitivity of outcome to the timing of antibiotics, I believe that there is a general grace period within which the timing of the antibiotics leads to an equivalent outcome.

Q. Okay. And you've criticized studies that have promulgated -- you know, in your writings -- timing of antibiotic therapy having a better outcome. The earlier

the treatment, the better the outcome.

A. What I have criticized is unsubstantiated claims.

Q. Right, scientific proof.

A. Yes. In other words, it is an old saying that the earlier you treat, the better off you are. And in general that is true, but what it ignores is the fact that there are certain conditions in which antibiotic therapy is helpless to prevent death or severe outcome. And in general, there is a wide grace period within which timing leads to an equivalent outcome.

So what I complained about is the fact that people say this phrase or make this statement when the truth is more complex than that, and they say it in an unsubstantiated way.

Q. Isn't it true that there's no scientific proof due to the fact that you don't hold off antibiotic therapies with patients like Ryan if you know that that's what they have? You can't do a study on them because then you're doing it to the detriment of the patient?

A. That's correct, you can't do a prospective randomized trial in which one of the choices is not giving antibiotics.

Q. Right, like giving one antibiotics and giving another a placebo?

A. That's correct. So what you have to do is get at information some other way.

Q. What? What other ways have you read or learned -- That's probably a bad word to use. Are you familiar with the increased LPS's in individuals with meningococcal disease or with high levels associated with worst prognosis?

A. Yes, it is true that the worst prognosis is associated with increased levels of endotoxin, or LPS as you've expressed it, in the bloodstream. That is a bad prognostic sign in those studies that actually looked at it. And there haven't been that many studies, but there have been some.

Q. Have there been studies that look at early administration of antibiotics and that prove the level of LPS falls, and prove that antibiotic therapy does make them fall in meningococcal disease?

A. Actually, there have been two sets of studies. One set of studies showed that there was a spike in the level of LPS or endotoxin in the serum right after they gave the antibiotic. In other words, there was more present. And then there are other studies that show that after you get the antibiotics, you will, in fact, then see at a certain point a decay in the amount of LPS that you measure in the serum.

Q. You've read studies where the conclusion was reached that because you give antibiotic therapy and the LPS falls, then, therefore, antibiotic therapy does help meningococcal disease?

A. I have seen that claim in the study that -- Again, there have only been a few studies of these sorts, anyway, that saw the decline in LPS levels. The trouble with that is that the bad outcome in meningococcal disease has more to do with the host than it does with the level of the LPS.

Q. And that's kind of where you've written or you've promulgated that this is the host response, not the timing of the antibiotic therapy?

A. That's correct. The timing of antibiotic therapy doesn't alter the host response, so that if you have a host that responds in a particular malignant way, injuring its own body in the process of fighting the infection, the antibiotics don't seem to help that kind of person as much as they would help, for example, a person who can kind of respond in a more modulated manner, and under those circumstances long delays in withholding antibiotics could lead to a deleterious outcome.

Q. You would agree with me that since the advent or inception of antibiotic therapy in treating

meningococcemia, that the mortality rate has decreased from greater than 80 percent to less than 20 percent?

A. That is correct.

Q. And talking about the host response concept that you espoused, that if you have less than 20 white blood cells in the CSF fluid, that is a prognosticator that the host -- there's a failure of the host neutrophils to mount an appropriate response?

A. The usual viewpoint on these matters is that if an individual with meningococcal infection has meningitis -- meaning greater than 10 or 20 white cells -- it's thought to be a good prognostic sign because it means that their body has been able to control the disease long enough for them to develop the meningitis. That has actually been looked at now a second time around, and the most recent studies do not show that the presence of meningitis puts the individual in a better prognosis category, so there now seems to be some disagreement amongst investigators regarding this issue.

Q. Okay. But as to the white blood cells in the CSF fluid, are you familiar with any literature or studies that give an account --

A. Well --

Q. -- that are significant? Regardless of the

meningitis?

A. If you have a small number of white blood cells in the CSF, people oftentimes interpret that as not having meningitis. So I would actually have to look at the study to know how they made the diagnosis of meningitis but with no white cells in the spinal fluid.

Q. But you have to have -- explain to me -- In order to have white blood cells in the CSF, you have meningitis?

A. That's correct.

Q. And the finding of meningitis in the CSF or not now is thought not to be a good indicator or a bad indicator of outcome?

A. That's correct. The most recent studies to look at it do not find that the presence or absence of meningitis can give you a prediction of how well or poorly the person will do.

Q. Okay. Did you make a determination as to whether Ryan had meningitis in his blood count --

A. Yes.

Q. -- or CSF?

A. Yes, I did make that determination.

Q. What was your determination?

A. He did have meningitis.

Q. And did you look at the white blood cells?

A. Yes. He had a spinal fluid that showed 48 white blood cells.

Q. And wouldn't that be an indication that the host neutrophils -- there was not a failure of the host neutrophils to fight off or appropriately respond if earlier intervention had been instituted in this case?

A. Well, I'm sorry, but the problem with this child was not a neutrophil problem. The problem with this child was the blood vessel disease. And under those circumstances, the level of neutrophils is a very poor guide.

Q. I'm going back. If antibiotic therapy had been introduced initially, not later. The first admission.

A. Then I'm confused as to the role of neutrophils in your inquiry,

Q. Okay. So the fact that he had 48 white blood cells in the CSF is not -- does it weigh in your opinion one way or the other?

A. That's correct.

Q. And the fact that he had meningitis was originally thought would be a good prognosticator of earlier antibiotic therapy, better outcome?

A. Well, no, it's not a prognosticator that early antibiotic therapy should or shouldn't have been given in that sense. Just taken as a prognosticator, it has been

thought in the past that the presence of meningitis was a good prognosticator. More recent studies looking at it could not confirm that.

Q. Okay. Do you differ with the earlier studies, or where do you line up on that school of thought?

A. School of thought. It's been my experience that meningococcal disease is not good no matter what you have in the way of spinal fluid findings. I've seen individuals develop malignant brain swelling with meningococcal disease and die because of the meningitis, so I'm not convinced that the presence or the absence of meningitis is of any clinical use at all.

Q. When you mentioned earlier about endotoxins, is that the real culprit in this disease?

A. Which, sir?

Q. The real culprit to causing injury and death is the release of endotoxins in the cell wall?

A. Well, the real culprit in this disease is the way that the child reacted to the presence of the meningococcus. You see, this was a serotype B meningococcus. It's actually a less virulent form than other forms of meningococcal infections, particularly the serotype C, which is seen now commonly in the United States, which has worse outcomes in general,

The real problem here was this child had zero

blood vessels reactivity, a severe vasculitis. It certainly was started by the presence of the meningococcus -- no question about that -- but took on a life of its own that continued despite the fact that you killed off the meningococcus. And therein lies the difficulty of ascribing tremendous advantages to the timing of antibiotics in a disease in which it is the host blood vessel injury and excessive clotting of blood vessels which led to the DIC, purpura fulminans, and possibly the bone injuries in this child, which is not subject to modification with antibiotics.

Q. Let's back up, if you don't mind, to help me understand that. You're saying that he had the type B, which is usually not as strong as other types of meningococcemia?

A. That's correct. The serogroup B meningococcus is a less virile type organism than other serotypes.

Q. Now, what you're telling me, then, 1 take it is because he had -- he was not able to fight off DIC --

A. No, what I'm saying is that DIC and the purpura fulminans that this child has is not the result of a poison excreted by the germ or a destruction of blood vessels because of the infection. It is the result of his reaction to the infection. And he reacted to the infection with inflammation in the small blood vessels as

well as clotting within these damaged vessels, and it is this kind of reaction that he had that led to all of the subsequent problems that he encountered both with regards to the initial management at Memorial Hospital -- which I think they did a fine job of -- his kidney failure, the need for blood products, and attempts to slow down the DIC, and then ultimately the skin disease, and perhaps even the bone disease if, in fact, his bone disease was due to the meningococcus.

Q. When do you think the window of opportunity closed on this child to stop that type of reaction?

A. I honestly believe, sir, that once the infection gets established in a patient who's going to react that way, that antibiotics don't alter the process. In other words, to restate it, from the time that one could have reasonably made the diagnosis and reasonably instituted therapy, the die is cast if someone is going to react this way.

Q. When do you think, then, infection was established with Ryan?

A. I just have no idea, and no one really can know. That's an impossible task to know when the first germ arrives or, you know, when it first gets into the bloodstream. These are imponderables that no one can know.

You agree that meningococcus is a very rapidly dividing organism?

A. It divides as rapidly as any other organism, sir.

Q. Does it divide every thirty minutes?

A. No one knows actually the division rate in the human body. In a laboratory beaker of growth broth with no defenses, it probably divides every 30 to 40 minutes depending on the temperature and the nutrients Meningococcus needs particular nutrients.

But, you see, the body is different. The body has white blood cells, it has a liver and a spleen, it has lymph nodes, it has bone marrow, and it has serum factors which inhibit the growth of bacteria, so that the doubling time in the body is different than the doubling time in a beaker in broth in a laboratory.

Q. Have you ever read about where they took -- where the endotoxins double every 30 minutes, and if you start one meningococcus at ground zero, in 30 minutes it's one, at an hour it's two, at an hour and a half it's four, and then on out?

A. Sure, but this is all done in laboratory beakers, not in the human body.

Q. Well, you don't test human bodies in this type of disease because it would be, basically, watching them

die before your eyes, wouldn't it, potentially?

A. Yeah, you can't get that information from a real human being. Actually, what is known in human beings is that the numbers of organisms usually plateau at a certain level and they do not keep rising until your body becomes clogged up with the organism, so that there is a steady state that is reached, but it's different in different individuals. And this has been done in animal experiments. To put it another way, you can't use doubling times to backtrack to say, "Ah-hah, this is when the disease begins."

Q. Right.

A. The reason you can't is twofold. One is, you don't really know the doubling time in a particular human body, so you don't know what that number is. And the second is, the disease is not Just the organism, it's the response to the organism, and different people respond with different vigor.

So someone who responds more quickly, more dramatically, and I might say more malignantly, will actually come down with symptomatic clinical disease earlier in the course of their illness than someone who responds in a very subdued fashion, since the illness is not the organism; the illness is the response.

You see, we will treat children who have

meningococcal bacteremia that's been untreated for weeks and they just don't respond very violently; consequently, they don't get very sick. They have what's called chronic meningococcemia, which is, if they sampled their blood over one or two or even three weeks, they would remain blood-culture positive, but they wouldn't be terribly ill, They would get rashes that would come and go and fevers that would come and go, but they would not be materially ill. They're not the kind of children that react violently, the way that this fulminant kind does.

Q. Isn't it the endotoxins that stimulate the response from the body's immune system?

A. It's endotoxins and other parts of the cell wall of the coccus that is the stimulus for these reactions.

Q. And with vigorous response from the immune system, such things could be DIC?

A. That's one of the ways the body can respond. And, of course, it's not a very intelligent way to respond, since you're harming yourself in response to this organism.

And one of the articles that you'll have someday is by Mike Levin, who is a researcher, the professor of pediatrics at St. Mary's Hospital in London, whose area of research is meningococcal disease, and it's a recent study of the state of the art of dealing with these

issues. And you can see the perplexity he feels in, one, knowing what actually causes the reaction; two, why certain people react more strongly than others; and, three, what to do about it when you've identified it, because there's just a limited number of means at your disposal to try to deal with it. They did everything they could for this child, but you're limited in what you can do.

Q. And from what you've told me, you would agree that the body's response is directly related to the avenue of endotoxins to which the body's exposed?

A. No.

Q. You would not?

A. No.

Q. Okay.

A. The body's response is in response to the endotoxin, but the timing of the response and the vigor of the response is peculiar to the individual.

Q. And in this case what you're telling me is that once the infection was established in Ryan, whenever that was, the die was cast?

A. I believe so.

Q. Okay. But you can't tell me when the infection was established with Ryan within a reasonable degree of medical certainty?

A. Well, I believe he had the bacteremia at the

Q. Okay. Was the infection established then?

A. Well, I believe it was, because I can't find any other explanation for his fever. Consequently, here's a child who has a fever. It's got to be due to something. We know that just a handful of hours later he has terrible purpura fulminans that anybody could diagnosis.

So it's my opinion that when he was being seen on the first emergency room visit, unknown to the treating doctors, who don't have a crystal ball, he had meningococcal bacteremia that was symptomatic, but he hadn't had that violent reaction yet.

But even if antibiotics had been indicated at that time -- I do not believe that they were indicated. I do not see an indication for antibiotics, although some people might have given antibiotics because different people have different management styles. Even with that, I don't believe that the process that had begun could have been switched off by the antibiotics.

Q. At any time during the first admission?

A" That's correct.

Q. And do you agree with me that antibiotic therapy can retard the occurrence of DIC in this type -- in a patient with meningococcemia?

A. It's very, very hard to answer that question because if you're looking at this very rapid onset disease, I don't believe antibiotics can alter the incidence of DIC. But if you're looking at untreated meningococcal disease before there are antibiotics -- And nowadays with treated meningococcal disease, clearly there are some people who over the course of many days would have developed DIC who aren't going to develop it because they're getting their antibiotics. But that's a different form than an explosive form, this purpura fulminans form. This I don't believe is subject to antibiotics altering the incidence of DIC, particularly if you're dealing here with just a matter of hours.

Q. When you say a matter of hours, what do you mean?

A. Well, I mean, he's discharged home at 8:15 that night, and he comes back in at 3:30 that morning with an illness that's clear to everybody that he's terribly ill. You're only talking here about seven hours.

Q. That's why I wanted to find out what's your understanding when you talk about "a couple."

A. I said a handful of hours.

Q. Seven hours, 15 minutes?

A. But it's not a bunch of days. He's not going two, three, four days without therapy, ill and

languishing and deteriorating in front of your eyes. This is a child who only has a fever at this point.

On the second visit, he just looks sicker than all get-out. In retrospect, you can't explain his fever at all due to anything else but the meningococcal infection.

It does take time to develop the **DIC**. I mean, it doesn't happen instantaneously. But even killing off the bacteria, you know, you've got a spike in the endotoxins when you kill the bacteria. That's going to foment the process that's well in place by seven hours later.

I just don't think there's any support to the notion that in this kind of illness that the timing of antibiotics makes a significant difference in outcome. And I think there's good literature support for that contention, and you'll have some graphs to even look at that.

Q. In that one case where you did testify on behalf of the plaintiff, would antibiotic therapy have made a difference in that particular case?

A. That was a real peculiar case because this was a child who was admitted to the hospital with meningitis caused by H flu, which used to cause most of the meningitis in most cases of the old days, who was put on

the wrong antibiotic, and they keep him on the wrong antibiotic, even though he's not getting any better, for ten days. And then he's not better, so they do a spinal tap, and lo and behold, the antibiotic wasn't working. Then he switched the antibiotic, and he has a stroke. That's clearly a different thing. Ten days go by on the wrong antibiotic before you're wise to the fact that it wasn't a wise choice. I think it's different than this situation.

Q. Have you testified in cases where there was a 12-hour delay?

A. Well, as I've already said, I've never testified in a meningococcal case in which I felt that the timing of the antibiotics could have altered the outcome.

Q. And of all those cases, what time periods were we talking about? From a range of what to what?

A. On which cases?

Q. In the cases that you've testified that it would not have made a difference when antibiotic therapy -- What I'm trying to find out is what was the delay in treatment ranges in those cases?

A. Again, without recalling exactly the cases, my impression is they're all hours, of the same sort as this -- I mean, a handful of hours or a half day or something like that -- in which I felt that the infection

was clearly already established, in retrospect. In retrospect. And then by then the process which would have led to the limb injury or the bad outcome had already been started and the momentum was in place such that antibiotics couldn't have altered it.

Q. In each of those cases, you're basing that on the individual's response to the disease process?

A. Well, I'm basing it on two things. One is what I know about the biology of the disease, which is that the vigor of the reaction is an individual issue, because, clearly, meningococcal infections give you a whole spectrum of illnesses, including some case reports of children who had meningococcal bacteremia who cured themselves, came back in, and they were fine, and you culture them, and it's gone, So it's really a whole spectrum, with a very bad portion of the spectrum on one side, the septic shock, purpura fulminans side of it. So the biology of the disease is one part.

But the second part is a series of reports and case series that show that with the disease in general the really bad outcomes seem to be insensitive to the dosing of antibiotics. This means death or severe damage. And, in fact, it's quite clear that from the very beginning, in retrospect, they were kind of set up for these bad outcomes because their decease was very

explosive. They were usually sick a very short period of time if petechiae or purpura were present. They were less than 12 hours. They were diagnosed usually very early on because they looked so ill so fast, but they just have that bad outcome.

And I've supplied you with some of that stuff in the materials that I had in my folder here.

Q. Are you critical of Mrs. MacAdams of how she followed her child that night?

A. Oh, gosh, no. You know, she's doing the best she can as a parent, of course.

Q. When was the last time you treated a patient with this type of disease that Ryan had? What's your experience per year?

A. You mean this spectrum --

Q. Yes.

A. -- or just meningococcal infection in general?

Q. Meningococcal infection in general of an infant.

A. Well, just a couple of months ago we had child come into the emergency department who looked well. He was three or four months old. He had a blood culture done, he was sent home. The next day the blood culture was positive for meningococcus. You already know that all the alarm bells went off all over the place.

The child was rushed back in. He still had a

fever. He didn't look particularly sick. We gave him antibiotics. He was fine. He was obviously a child who didn't react from strictly the meningococcus, because there was 12 or 14 hours between when he was seen and when the blood culture was positive.

Q. In that particular case, why did you get a blood consult in the patient?

A. I didn't. It was done by the emergency room folks. And I don't know what all went into the decision to get the blood culture. But here, of course, even if a blood culture had been taken, he got ill so fast that the blood culture would not have been read until a number of hours after he was seen the second time around.

Q. And in those cases where you suspect and do blood cultures, don't you treat with antibiotics after blood culture immediately?

A. No. Most people make those two separate decisions. In other words, the blood culture acts as kind of a fail-safe. Well, I still want to be sure that this child doesn't get out of my hands, so I'll do a blood culture. I don't think he's very sick, so I won't treat him, but I know I have a blood culture present as kind of a -- what's the right word? -- as kind of a safety valve for my concerns because I worry about small concerns, I'm just going through an internal monologue

in someone who might order a blood culture.

I do it as a safety net for the child. But I really don't think they're ill, so I'm not going to start therapy. Two separate decisions. If I do think you're ill enough to start therapy, I will get a blood culture first. No question about it. But there are often times you get a blood culture even if you don't plan on treating it.

I must tell you, with small children who come in with fevers, we often get a blood culture, because if you get a good stick and get a CBC, you might as well get a culture at the same time. Kids being so tough to get a blood culture on.

Q. Isn't it true you promulgated the theory of using infants -- of using three different criteria: clinical judgment, total white blood count, and -- you'll have to help me -- erythrocyte sedimentation --

A. The SED, or SED rate as we say for short.

Q. Yeah.

A. I don't think I promulgated that. What I've done, in 1984 I reviewed all the information present up to that time which concerned investigations in the clinical judgment, total white count, and SED rates, and I tried to show clinical judgment is superior to white count and SED rates.

And in 1996, I did analysis another way, looking at risks, and I tried to show how you make a judgment sequentially. First you listen to the history, then you get the temperature, then you do your examination, and at each stage you're saying, "All right, now, what do I think?"

And then if you're still iffy, you might order a blood count. If you're clear it's not a -- unclear it's a sick child, you may not order a blood count. You're going in stages with a maneuver that you take in order to clarify what you should do next in sequence.

Q. Well, in the management of the febrile infant, do you get a SED rate?

A. No, 1 do not. It's takes an hour to get back. It's usually not very useful for us.

Q. You've written that that doesn't predict the presence of bacteremia, but it rules it out.

A. Yes, a normal sedimentation rate decreases the probability of a bacteremia to a very low level, but not zero, obviously, and it can be reassuring if you're kind of on the fence.

Q. Did they obtain a SED rate in this case?

A. They did not.

Q. Are you critical of them not getting a SED rate during the first admission?

A. I don't think so. As I said, the white count was normal, the total white count was normal, and that, from their point of view, was reassuring. And they had three hours to observe the child, and I think from Dr. Poleynard's point of view the child did not look seriously ill after that period of time and, therefore, I don't criticize him for not getting a sedimentation rate, because I don't feel it would have added anything to the management.

Q. Would you agree with me that Ryan did sustain serious illness from meningococcal disease in this case?

A. Yes.

Q. And how would you summarize his injuries as a result of the meningococcal disease? What injuries did he sustain?

A. You mean long-term injuries or during?

Q. Let's talk about short-term.

A. During the acute course, he had a prolonged hospitalization with shock, depression of cardiac output, DIC, significant purpura fulminans, kidney failure, need for artificial ventilation, and meningitis.

If you just look at his presentation, his prognosis for death was about 30 percent. So from my point of view, this was extremely good medical management in the acute phase, because he didn't die. I mean -- And

he had a pretty awful likelihood of dying. But he had long period of time, as you well know.

Q. Long-term?

A. Well, long-term is as best I can understand it, and I don't have each and every one of his follow-up records, but I do have some. I think that the thing that will affect him the most will be his limb discrepancies and his -- for want of a better word, the malformation of his lower limbs that has resulted from his many surgeries and his growth arrest.

And as I said, I think meningococcal infection can cause those bony injuries. I'm not an orthopedic surgeon, and I don't know whether there are a number of other things that can cause it. The treatment I don't think would be any different no matter what the actual cause is.

Blessedly, he did not have any brain damage that I can see. His hearing seems to be fine. I note that he had an eye examination done, but I don't believe that they ascribe any eye injury to his meningococcal infection.

And then clearly, any child who has any disfiguring injury is going to have an emotional side to that injury, and anyone who takes care of children

realizes that and knows that there's going to have to be a good collaboration between the family and the treating health team to try to get him over those emotional hurdles.

Q. Do you have any opinion as to how tall he'll ever grow?

A. I don't have an opinion. I just don't know.

Q. Let's take a short break. I think I may be finished. I just want to check a couple of things, if you don't mind.

(The deposition recessed at 5:20 p.m. and resumed at 5:25 p.m. as follows:)

(Exhibit 4 marked.)

Q. If an infant develops DIC with this type of disease that Ryan had, is it often your opinion that because it goes to DIC, that earlier antibiotic intervention would not have changed the course?

A. No, not necessarily. Looking at it in retrospect, because that's the only way I think you can make judgments about matters of causation, he had explosive illness, short period of time of illness, presents with purpura fulminans, develops septic shock, kidney failure, DIC. I mean, that kind of package. Because of his age, it's known that children of this age group typically have worse blood vessel disease and blood

vessel clotting and damage to tissue or organs just because of his age. And the reason is that there are a couple of substances in the blood that prevent excessive clotting that are at low levels in four-month old children. Protein C and protein S. Consequently, children of this age in general do worse than adults would with regards to this.

But it's the explosive nature of this disease, having it so quickly over a short period of time, that makes me feel that by the time he developed a symptomatic illness -- which in retrospect I believe the fever and the illness that brought him into the emergency department was a symptomatic illness -- the portion of his system that reacts to these infections was already geared up and starting to go. It just hadn't quite expressed itself yet.

So, even if you killed the germ with an antibiotic, you wouldn't have stopped that. One, it was already in place and beginning to go; and, secondly, the endotoxin, which is one of the stimulus for it, would still be around, because, in fact, the levels get higher right after your treatment with antibiotics. And he's just in seven hours later with full-blown disease. I don't even see physiologically how the antibiotic could have made any difference.

Q. So if I'm to understand the basis of your opinion -- and that's what I'm trying to do here today -- is that based on the fact of his age and the short time period that made, in your opinion, it less likely to have a change of his course with antibiotic therapy being instituted during the first admission? Is that --

A. Not exactly. But if I could just restate it. First of all, I don't believe antibiotic therapy is necessarily indicated on the first admission. I think we've talk about that.

Q. We've talked about that.

A. But there are two general bases for my opinions regarding causation. One is what's known about the biology of how this disease expresses itself. I believe he was at the far end of the spectrum on the fulminant side as opposed to some other place on the spectrum, and the biology of that kind of fulminant course is one in which the reactivity of the body happens abruptly and seemingly without any ability of medical management to alter.

Q. Okay. Can I stop you right there?

A. Okay.

Q. Was he at the fulminant stage when he first hit the emergency room on May 7th, 1992?

A. He did not have symptomatic purpura fulminans or

septic shock or kidney failure, but he's the same child, and in that sense, you have -- have to look at it, at any rate, as one piece which has a clinical expression that is truncated into a very short time interval. And even though he wasn't expressing it at the time of his emergency room visit, all of the elements were in place which could not be reversed by antibiotics.

Q. Even if he -- I guess -- I take it, it's your opinion, even if those symptoms were expressing themselves during the first admission, even a seven-hour-and-15-minute delay of antibiotic therapy wouldn't have made a difference --

A. No, not --

Q. -- or treating it early?

A. No, not in terms of this, because of where he was on the spectrum of disease, this explosive reaction. But the second basis for my opinion is a long series of articles that look at antibiotics in general in meningococcal infection, and outcome in general, particularly bad outcome, like death. And as I read the literature -- As I read the literature, I do not find any correlation between outcome and the timing of antibiotics or outcome and the duration of illness before antibiotics except to say that in the fulminant disease, the shorter you're ill, that seems to be a bad prognostic factor for

bad outcome.

Q. There is also a school of thought that would differ with what *you* just told me?

MR. MULLER: What part of that? Because he just told you about three or four things.

Q. Well, that earlier antibiotic therapy could make a difference in a case similar to Ryan MacAdams.

A. I have had some -- not correspondence, but a letter to the editor and responses from two sets **of** individuals, the group in Dallas who published the article in -- a pediatric infectious disease article, and the group in Barcelona, Spain, that -- there was a large article in the Journal of the Medical Association.

Q. Right.

A. And the group in Dallas disagreed with my conclusions regarding death -- death -- and the timing of antibiotics based on some studies that they referred to that took place in England.

I believe they're interpreting these studies incorrectly. And there has now been an additional study from the same English group which shows no difference in death rate based on the timing of antibiotics that's appeared since their letter appeared.

So although they disagreed with me at the time of our interchange, during the letter and response to the

letter to the editor, I think that my view is the correct one.

Q. I understand. Could we agree there's a debate?

A. Well, as I said, there's been a subsequent study from England by the same group that did the studies that they use as their response to my letter that I believe undercuts the validity of their interpretation of the earlier studies.

Q. But they hadn't changed their opinion?

A. Well, the subsequent study from England came out after that interchange, so 1 don't know what they're thinking these days.

With regards to the group in Barcelona, I actually asked for clarification of their data which had to do with the use of oral antibiotics in an over 500-person series of meningococcal disease and outcome, and their response to my letter clarified some of the points of information that I didn't know about, and I would think it's safe to say that they acknowledged my point of view, but they expressed the hopeful belief that antibiotics in some cases could alter the outcome. It was not an acrimonious debate, by any means.

Q. Okay. You said it wasn't an acrimonious debate? Friendly interchange?

A. Sure. Medicine is one of those things where

people do try to interchange and express viewpoints in order to clarify things. That's the beauty of the colleagueship that you have in medicine.

Q. The one in Barcelona is the Barquet?

A. That's correct.

Q. But there is a debate among your colleagues as to the prognosis with early antibiotic therapy with these types of patients? I mean, that's been going on?

A. Well, you know --

Q. I know you have your opinion. I'm not debating that with you. But there's a difference of opinions as to whether antibiotic therapy makes a difference in this type of treatment of infants, like Ryan's age, that has existed through the years?

A. The only debate, so-called, that I've had have been these two letters to the editor that I wrote following the publication of articles. I believe that I have overwhelming support for my point of view, and I think that anybody who has a different viewpoint must mount the argument based on what's known and what has been shown in studies, and I think that that's incumbent upon somebody who does have a different viewpoint. I think I make my case based on solid information, and I think my interpretation's correct.

Q. As to the money that you're paid in reviewing

cases like this, is that money that goes to you personally, or do you pay it to the school or any education or research or anything like that?

A. No, it comes to me personally, because it's done on my own time.

Q. You don't have -- Some schools have contracts where you have to submit the money to the school, and things like that, but I didn't know what the case was in your situation.

A. No. Inasmuch as it's done on my own time, it's not anything that would concern the Lovelace Clinic.

MR. BERGEN: Okay. I believe that's all I have. Thank you for your time. All right.

(A discussion was held off the record.)

Q. You mentioned you knew of Dr. Meislin when you were at Arizona.

A. That's correct.

Q. Have you had any interaction with him since you were at Arizona?

A. No. You asked me that, and the answer's no.

Q. Do you know that he lectures nationally on the field of emergency medicine? Do you know anything about what he does?

A. Well, I know that he's an emergency medicine physician who has an academic career and lectures widely,

sure.

Q. Okay. Do you know whether or not he's respected in this field of emergency medicine?

A. I honestly don't know. That's not my field.

MR. BERGEN: Okay. That's all.

(The deposition concluded at 5:35 p.m.)

(Exhibits 2 and 3 marked.)

IN THE STATE COURT OF CHATHAM COUNTY
STATE OF GEORGIA

RYAN MacADAMS, A MINOR, BY AND THROUGH HIS NATURAL GUARDIAN AND PARENT AS NEXT FRIEND, DAWN MacADAMS,	)	
Plaintiffs,	)	
vs.	)	CIVIL CTION NO, I-97-1091-G
BLAKE CHRISTOPHER POLEYNARD, M.D., AND SAVANNAH SOUTHSIDE CLINIC, P.C.,	)	[JURY DEMANDED]
Defendants.	)	

CERTIFICATE OF COMPLETION OF DEPOSITION

I, DANNA SCHUTTE EVERETT, CCR #139, DO HEREBY CERTIFY that on January **25, 1999**, the deposition of MICHAEL S. RADETSKY, M.D., was taken before me at the request of, and sealed original thereof retained by:

MR. FREDERICK S. BERGEN
Attorney for the Plaintiffs
Marist Place, Lafayette Square
123 Charlton Street, East
Savannah, Georgia **31401-4603**

I FURTHER CERTIFY that copies of this Certificate have been mailed or delivered to the following Counsel of record and parties not represented by counsel:

MR. PETER D. MULLER
Attorney for the Defendants
BOUHAN, WILLIAMS & LEVY
Post Office Box **2139**
Savannah, Georgia **31498-1001**

I FURTHER CERTIFY that examination of this transcript and signature of the witness were required by the witness and all parties present. On _____, a letter was mailed or delivered to DR. MICHAEL S. RADETSKY regarding obtaining signature of the witness.

I FURTHER CERTIFY that the recoverable cost of the original and one copy of the deposition, including exhibits, to MR. FREDERICK S. BERGEN is $_____

I FURTHER CERTIFY that I did administer the oath to the witness herein prior to the taking of this deposition; that I did thereafter report in stenographic shorthand the questions and answers set forth herein, and the foregoing is a true and correct transcript of the proceeding had upon the taking of this deposition to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by the rules) any of the parties or attorneys in this case, and that I have no interest whatsoever in the final disposition of this case in any court.

Danna Schutte Everett

DANNA SCHUTTE EVERETT, CCR, RPR
Certified Court Reporter #139
License Expires: 12/31/99

JOB NO. 5500-6 (DSE)
Proofread by: LR

MacAdams vs. Poleynard, et al.

DEPONENT SIGNATURE/CORRECTION PAGE

If there are any typographical errors to your deposition, indicate them below.

PAGE LINE

_____Change to_____

_____Change to_____

_____Change to_____

_____Change to_____

_____Change to_____

Any other changes to your deposition are to be listed below with a statement as to the reason for such change.

PAGE	LINE	CORRECTION	REASON FOR CHANGE

I, **MICHAEL S. RADETSRY, M.D.,** do hereby certify that I have read the foregoing pages of my testimony as transcribed, and that the same is a true and correct transcript of the testimony given by me in this deposition except for the changes made.

_ __ _____ _____

MICHAEL S. RADETSKY, M.D.

JOB NO. 5500-6 (DSE)
Date Taken: January 25, 1999
Proofread by: LR

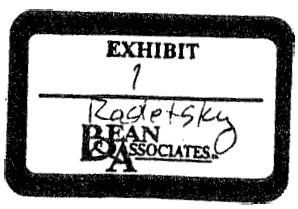
IN THE STATE COURT OF CHATHAM COUNTY
STATE OF GEORGIA

RYAN MACADAMS, A MINOR, BY AND THROUGH HIS NATURAL GUARDIAN *AND* PARENT AS NEXT FRIEND, DAWN MACADAMS,	)	
Plaintiffs,	)	
vs.	)	CIVIL ACTION NO. **I-97-3091-G**
BLAKE CHRISTOPHER POLEYNARD, M.D., *AND* SAVANNAH SOUTHSIDE CLINIC, F.C.,	)	*[JURY* DEMANDED]
Defendants.	)	

NOTICE TO TAKE DEPOSITION

TO: Michael S. Radetsky, M.D.
Department of Pediatrics
Lovelace Medical Center
5400 Gibson Boulevard, SE
Albuquerque, New Mexico 87108

Please take notice that counsel for the Plaintiff in the above-styled case will take the Deposition of Michael S. Radetsky, M.D. at Bean & Associates Court Reporters located at 500 Marquette Northwest, Suite 280, Albuquerque, New Mexico, on the 25th day of January, 1999 beginning at 2:30 p.m. The Deposition will be taken before a Certified Court Reporter and Notary Public. The Deposition will be taken pursuant to Georgia Civil Practice Act (Code §§9-11-16 and 9-11-30) and for the purpose of discovery and preservation of testimony for trial. The oral examination will continue from day to day until its completion. You **may** attend and examine, as allowed by law.



Michael S. Radetsky, M.D. is further ordered to bring the following:

1. Letters received from Peter D. Muller, or any member of the law firm of Bouhan, Williams & Levy, L.L.P., or any representative of Illinois National Insurance Company relating to your review of the materials relating to the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

2. Medical Records which you have reviewed to formulate your opinions in the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

3. Materials which you have reviewed to formulate your opinions in the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

4. Medical literature which you have reviewed in formulating your opinions in the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and

Savannah Southside Clinic, P.C.

5. Reports, memorandums, written letters, or any other writing which expresses your opinions in connection with the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

6. Records reflecting time spent in reviewing the materials in formulating your opinions in the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

7. Invoices submitted for payment for your expert review and copies of payments received from Peter D. Muller, or any member of the law firm of Bouhan, Williams & Levy, L.L.P., or any representative of Illinois National Insurance Company relating to your review of the materials relating to the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher Poleynard, M.D. and Savannah Southside Clinic, P.C.

8. Depositions which you have reviewed in the case of Ryan MacAdams, a Minor, By and Through His Natural Guardian and Parent, Dawn MacAdams vs. Blake Christopher

Poleynard, M.D. and Savannah Southside Clinic, P.C.

This 20th day of January, 1999..

JOSEPH B. BERGEN
Ga. Bar No. 054200
and
FREDERICK S. BERGEN
Ga. Bar No. 054160

By: _____
Frederick S. Bergen
Ga. Bar No. 054160

123 East Charlton Street
Savannah, Georgia **31401**
(912) *233-6600*

CERTIFICATE OF SERVICE

This is to certify that I have this day served counsel for all parties with a true copy of the foregoing pleading by placing a copy of same in the United States Mail with adequate postage thereon to insure prompt delivery to:

Peter D. Muller, Esquire
BOUHAN, WILLIAMS & LEVY, L.L.P.
Attorneys at Law
Post Office Box 2139
Savannah, Georgia 31402-2139

This 20th day of January, 1999.

Frederick S. Bergen

123 East Charlton Street
Savannah, Georgia 31401
(912) 233-6600

is w/o ⊂ Meningococcemia
c Meningitis

1/2/92 Seen ER St. Joseph Hosp. Taf
1722 2N: Alert T = 104³
17:30 Tylenol supp. Frog wet diapers
skin "wnl"
[18:30] MD: consolable, alert, tracking, appropriate response to noxious stimulus; motor tone ⊕.
DR Perez. skin. ⊕ turgor, warm, dry, without cyanosis, without petechiae. No rash is present.
18:07 T-101³ (R) A: viral syndrome.
Pulse Ox - ⊕ big toe - 98%
DR Perez leaves @ 19:00, DR POLEY-NRD assumes care
19:12 LAB

491	11.2 / 33	9600 (44S, 29B, 25L)

UA - Sp gr. 1.007.
D.p ⊖.
Home instructions: SpO2 (RA) 98%
Push fluids
Tylenol
Flu family MD if not well in 2 or 3d.
call or return ⊂ any problem
20:15 D/C [redacted] 20:45

EXHIBIT 2 Radetsky DEAN & ASSOCIATES

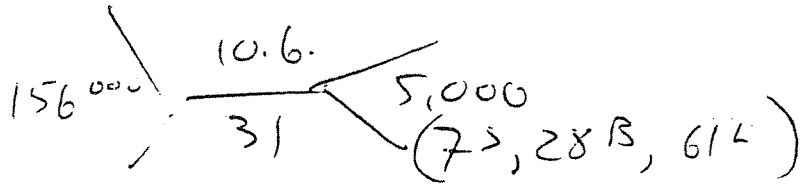
5/8/92 St. Joseph Hosp ER.

03:32 Hx: "Since discharge several hours ago, the patient has developed a shrill cry + petechial rash.

04:00 + 04:15 Rocephin given.

04:00 LR fluid bolus

04:13 LABS



BC - N. meningitidis.

03:54 ABG - 7.279/24.4/85 (95%)/-12.7

~06:00 Transfer to Memorial Medical Center

Memorial Medical Center.

CSF - RBC 1305
WBC 48 (67% p.mn)
gluc 35
prot 74.
LA (-)

IN THE STATE COURT OF CHATHAM COUNTY

STATE OF GEORGIA

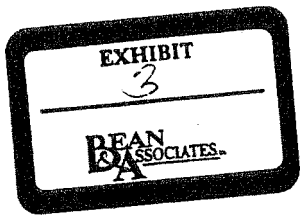
RYAN MACADAMS, A Minor, By and Through His Natural Guardian and Parent as Next Friend, DAWN MACADAMS,	)	
Plaintiff,	)	
vs.	)	CIVIL ACTION NO. I971091G
BLAKE CHRISTOPHER POLEYNARD, M.D., FERNANDO JAVIER PEREZ, M.D., and SAVANNAH SOUTHSIDE CLINIC, P.C.,	)	
Defendants.	)	

DEFENDANT SAVANNAH SOUTHSIDE CLINIC, P.C.'S SUPPLEMENTAL RESPONSES TO PLAINTIFFS' FIRST INTERROGATORIES

COMES NOW Defendant SAVANNAH SOUTHSIDE CLINIC, P.C., and supplements its responses to Plaintiffs' First Interrogatories as follows:

1. (a) Michael S. Radetsky, MD CM
Department of Pediatrics
Loveiace Medical Center
5400 Gibson Boulevard SE
Albuquerque, NM 87108
(505) 262-3542

Dr. Radetsky is expected to testify on the issue of standard of care and causation, based upon various facts which have been presented in medical records and depositions.



Based upon the test results and findings of Dr Perez and Dr. Poleynard, Dr Poleynard acted within the standard of care in his diagnosis, treatment, and discharge of Ryan MacAdams.

On the matter of causation, Dr. Radetsky is expected to testify that there was no causal connection between Ryan MacAdams not being diagnosed with meningococcal infection or treated with antibiotics during his first ER visit, and his development of orthopedic and other problems. Treatment with antibiotics during the first visit would not have prevented such problems. Also, it is likely that the orthopedic problems were unrelated to the meningococcal infection.

DATED this 4th day of January, 1999.

BOUHAN, WILLIAMS & LEVY LLP

By: _____

PETER D. MULLER
Georgia State Bar No. 528233
ATTORNEYS FOR DEFENDANT
SAVANNAH SOUTHSIDE CLINIC, P.C.

Post Office Box 2139
Savannah, Georgia 31402-2139
(912) 236-2491

IN THE STATE COURT OF CHATHAM COUNTY

STATE OF GEORGIA

RYAN MACADAMS, **A** Minor, By and Through His Natural Guardian and Parent **as** Next Friend, D A W MACADAMS,	)	
Plaintiff,	)	
vs.	)	CIVIL ACTION NO. I971091G
BLAKE CHRISTOPHER POLEYNARD, M.D., FERNANDO JAVIER PEREZ, M.D., and SAVANNAH SOUTHSIDE CLINIC, P.C.,	)	
Defendants.	)	

CERTIFICATE OF SERVICE

I, PETER D. MULLER, **do** hereby certify that I have this day served a true and correct copy of the above and foregoing DEFENDANT SAVANNAH SOUTHSIDE CLINIC P.C.'S SUPPLEMENTAL RESPONSES TO PLAINTIFFS' FIRST INTERROGATORIES by causing same to be placed in the United States mail, postage prepaid, to:

Frederick S. Bergen, Esquire
123 E. Charlton Street
Savannah, GA 31401

This 4th day of January, 1999.

BOUHAN, WILLIAMS & LEVY LLP

By: Peter D. Muller
PETER D. MULLER

Post Office Box 2139
Savannah, Georgia 31402-2139
(912) 236-2491

IN THE STATE COURT OF CHATHAM COUNTY

STATE OF GEORGIA

RYAN MACADAMS, A Minor, By and Through His Natural Guardian and Parent as Next Friend, DAWN MACADAMS,

Plaintiff,

vs.

BLAKE CHRISTOPHER POLEYNARD, M.D., FERNANDO JAVIER PEREZ, M.D., and SAVANNAH SOUTHSIDE CLINIC, P.C.

Defendants.

CIVIL ACTION NO. 19910910

DEFENDANT SAVANNAH SOUTHSIDE CLINIC, P.C.'S SUPPLEMENTAL RESPONSES TO PLAINTIFFS' FIRST INTERROGATORIES

COMES NOW Defendant SAVANNAH SOUTHSIDE CLINIC, P.C., and supplements its responses to Plaintiffs' First Interrogatories as follows:

1. (a) Michael S. Radetsky, MD CM
Department of Pediatrics
Loveiace Medical Center
5400 Gibson Boulevard SE
Albuquerque, NM 87108
(505) 262-3542

Dr. Radetsky is expected to testify on the issue of standard of care and causation, based upon various facts which have been presented in medical records and depositions.

Based upon the test results and findings of Dr Perez and Dr. Poleynard, Dr Poleynard acted within the standard of w e in his diagnosis, treatment, and discharge of Ryan MacAdams.

On the matter of causation, Dr. Radetsky is expected to testify that there was no causal connection between Ryan MacAdams not being diagnosed with meningococcal infection or treated with antibiotics during his first ER visit, and his development of orthopedic and other problem. Treatment with antibiotics during the first visit would not have prevented such problems. Also, it is likely that the orthopedic problems were unrelated to the meningococcal infection.

DATED this 4th day of January, 1999.

BOUHAN, WILLIAMS & LEVY LLP

By: _____
PETER D. MULLER
Georgia State Bar No. 528233
ATTORNEYS FOR DEFENDANT
SAVANNAH SOUTHSIDE CLINIC, P.C.

Post Office Box 2139
Savannah, Georgia 31402-2139
(912) 236-2491

IN THE STATE COURT OF CHATHAM COUNTY

STATE OF GEORGIA

RYAN MACADAMS, A Minor, By and Through His Natural Guardian and Parent as Next Friend, D A W MACADAMS,	)	
Plaintiff,	)	
vs.	)	CIVIL ACTION NO. I971091G
BLAKE CHRISTOPHER POLEYNARD, M.D., FERNANDO JAVIER PEREZ, M.D., and SAVANNAH SOUTHSIDE CLINIC, P.C.,	)	
Defendants.	)	

CERTIFICATE OF SERVICE

I, PETER D. MULLER, do hereby certify that I have this day served a true and correct copy of the above and foregoing DEFENDANT SAVANNAH SOUTHSIDE CLINIC P.C.'S SUPPLEMENTAL RESPONSES TO PLAINTIFFS' FIRST INTERROGATORIES by causing same to be placed in the United States mail, postage prepaid, to:

Frederick S. Bergen, Esquire
123 E. Charlton Street
Savannah, GA 31401

This 4th day of January, 1999.

BOUHAN, WILLIAMS & LEVY LLP

By: Peter D. Muller
PETER D. MULLER

Post Office Box 2139
Savannah, Georgia 31402-2139
(912) 236-2491

CURRICULUM VITAE

NAME:

MICHAEL S RADETSKY MD CM

DATE AND PLACE OF BIRTH:

November 19, 1945
Denver, Colorado
USA

PROFESSIONAL ADDRESS:

Department of Pediatrics
Lovelace Medical Center
5400 Gibson Boulevard SE
Albuquerque, NM 87108
Telephone (505) 262-3542

CURRENT POSITION

Chairman, Department of Pediatrics
Director of Newborn Medicine
Consultant, Pediatric Infectious Disease
Consultant, Pediatric Critical Care
Lovelace Health System
Albuquerque, New Mexico

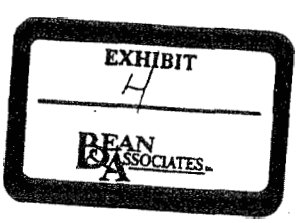
Attending Physician
Department of Pediatrics
'University of New Mexico Health Science Center

Clinical Professor of Pediatrics
University of New Mexico School of Medicine
Albuquerque, New Mexico

Fellow, Center for Public Policy and Contemporary Issues
University of Denver
Denver, Colorado

JOURNAL EDITOR

Editor



Section on Pediatric and Neonatal Infections
Current Opinion in Infectious Diseases
1993-1996

JOURNAL REVIEWER

Pediatric Infectious Disease Journal
American Journal of Diseases of Children
Journal of the American Medical Association
Pediatrics
Journal of Pediatrics
Pediatric Emergency Care
Yearbook of Pediatrics

UNDERGRADUATE EDUCATION:

Harvard College - A.B. cum laude, 1967

POSTGRADUATE ACTIVITIES

Harvard Law School - 1967-1968
(Courses passed. Leave of Absence)

United States Peace Corps, Malariologist
Thailand - 1968-1969

Alternative National Service (Conscientious Objection) - Boston Floating Hospital for Children/Tufts New England Medical Center - 1970-71

PREMEDICAL EDUCATION

University of Colorado
Boulder, CO - 1972-1973

MEDICAL EDUCATION:

McGill University - Montreal, Quebec
Canada - M.D.C.M. (Honors), 1973-1977

ROTATING INTERNSHIP:

San Francisco General Hospital, 1977-1978

PEDIATRIC INTERNSHIP:

University of Colorado School of Medicine
Denver, Colorado, 1978-1979

RESIDENCY IN PEDIATRICS:

University of Colorado School of Medicine
Denver, Colorado, 1979-1981

FELLOWSHIP TRAINING IN PEDIATRIC INFECTIOUS DISEASES

University of Colorado School of Medicine/The Children's Hospital
Denver, Colorado, 1980-1982

PRIOR POSITION:

1991-1993

Director, Pediatric Critical Care Services
Consultant, Pediatric Infectious Disease
Kaiser Permanente
Sacramento, CA

Attending Pediatric Intensivist
University of California Medical Center
Sacramento California

Pediatric Intensivist
Sutter Memorial Hospital
Sacramento California

Consultant, Pediatric Infectious Diseases
University of California Medical Center
Sacramento California

Clinical Professor of Pediatrics
University of California School of Medicine
Davis, California

PRIOR POSITION:

1989-1991

Assistant Director of Pediatrics
Director of Pediatric Hospital Services
Director, Pediatric Critical Care
Consultant, Pediatric Infectious Disease
Denver General Hospital

Attending Physician
Ambulatory Pediatric Clinic
Denver General Hospital

Attending Physician
Intensive Care Unit
The Childrens Hospital of Denver

Visiting Professor in Pediatrics
Fitzsimmons Army Medical Center
Denver, Colorado

Associate Professor of Pediatrics
University of Colorado School of Medicine
Denver, Colorado

Lecturer in Ethics
Graduate School of Public Affairs
University of Colorado, Denver
Denver, Colorado

Lecturer in Medicine and Social Policy
University of Denver
Denver, Colorado

PRIOR POSITION:
1987-1989

Director of Pediatric Critical Care Services
Tucson Medical Center
Tucson, AZ

Chief of Pediatric Critical Care
University Medical Center
Tucson, **AZ**

Consultant in Pediatric Infectious Disease
Tucson Medical Center, and
University Medical Center
Tucson, AZ

Clinical Associate Professor of Pediatrics
University of Arizona School of Medicine
Tucson, AZ

PRIOR POSITION:
1982-1987

Associate Director
Infectious Disease Service
The Children's Hospital

Denver, Colorado

Attending Physician
Intensive Care Unit
The Children's Hospital of Denver

Assistant Professor of Pediatrics
University of Colorado School of Medicine
Denver, Colorado

Visiting Lecturer in Medical Ethics
and Social Policy
Department of Public **Affairs**
University of Denver
Denver, Colorado

Lecturer in Ethics
Graduate School of Public Affairs
University of Colorado, Denver
Denver, Colorado

PRIVATE PEDIATRIC PRACTICE

Childrens Medical Center
1575 Vine Street
Denver CO
(Parttime coverage 1981-1987)

PROFESSIONAL LICENSURE:

State of New Mexico

State of Colorado

State of California (inactive)

State of Arizona (lapsed)

Medical Council of Canada

BOARD CERTIFICATION:

American Board of Pediatrics - 1983

Pediatric Critical Care
American Board of Pediatrics - 1987

Recertification - 1995

Pediatric Infectious Disease
American Board of Pediatrics - 1995

NATIONAL FACULTY:

Pediatric Advanced Life Support
American Heart Association

HONORS AND AWARDS:

Gold Medal Winner, Thames **Cup**
Henley Royal Regatta, England - 1966

Haines' Memorial Award for Excellence in Athletics - Harvard College - 1967

Alexander Stewart Prize for Medical School Excellence, McGill Medical School, 1977.

Surgery Prize, McGill University, 1977,

Kaiser-Permanente Clinical Teaching Award Finalist, University of Colorado School of Medicine, 1983.

Kaiser-Permanente Clinical Teaching Award Finalist, University of Colorado School of Medicine, 1984.

Kaiser-Pemanente Clinical Teaching Award Finalist, University of Colorado School of Medicine, 1985.

The Gary Way Award for Outstanding Teaching
Department of Pediatrics
The Children's Hospital
University of Colorado
School of Medicine, 1985.

Kaiser-Pemanente Teaching Award
Finalist in the Basic Sciences
University of Colorado School of Medicine,

1986.

Commencement Speaker
University of Colorado School of Medicine
Hooding and Oath Ceremony, 1986.

Pediatric Housestaff Special Award
Department of Pediatrics
University of Colorado School of Medicine, 1987

Dean's List for Excellence in Teaching in the Clinical Sciences Award
University of Arizona College of Medicine,
Tucson, AZ, 1988

Finalist, Clinical Teaching Award
University of Arizona College of Medicine,
Tucson, AZ 1989

Commencement Speaker
University of Colorado School of Medicine
Hooding and Oath Ceremony, 1989

Attending Physician of the Year
Family Practice Residency Program
University of Arizona College of Medicine,
1989

Pediatric Residents' Teaching Award
University of Arizona College of Medicine,
1989

The Gary Way Award for Outstanding Teaching
Department of Pediatrics
The Children's Hospital
University of Colorado School of Medicine,
1990.

Honorary Faculty Membership
Alpha Omega Alpha Honor Medical Society
University of Colorado School of Medicine
1991

Joseph W. St. Geme Jr. MD Award for
Exceptional Ability in Promoting the Overall
Mission of the School of Medicine
University of Colorado School of Medicine
1991

Excellence in Teaching Award
Medical Student Council
University of Colorado School of Medicine
1992

Clinical Teacher of the Year
Department of Pediatrics
University of California School of Medicine -
Davis, 1992

Clinical Teacher of the Year
Department of Pediatrics
University of California School of Medicine -
Davis, 1993

Inaugural Recipient
William and Daniel Gelfand Lectureship
The Childrens Hospital/University of Colorado
1994

Alpha Omega Alpha Annual Lectureship
University of Arizona School of Medicine
1995

Selected
The Best Doctors in America: Central Region
1996-1997

Sydney Gellis Lectureship
Bostan Floating Hospital for Children
Tufts University
1998

Selected
Best Doctors in America
1999

VISITING PROFESSORSHIPS:

Hospital for Sick Children, Great Ormond Street, London, England
1982

Hospital for Sick Children, Great Ormond Street, London, England
1985

Duke University School of Medicine, Durham, NC
1987

Hospital for Sick Children, Great Ormond Street, London, England
1989

University of Florida School of Medicine, Jacksonville, Florida
1990

Akron Children's Hospital, Akron, Ohio
1990

Cincinnati Children's Hospital, Cincinnati, Ohio 1991

University of Minnesota School of Medicine
1991

Aglaia Kyriakou Children's Hospital
Athens, Greece (invited only)
1991

Tkpler Amy Medical Center
Honolulu, Hawaii
1991

Childrens Hdspital
Omaha, Nebraska
1993

PROFESSIONAL ORGANIZATIONS

Infectious Disease Society of America

Pediatric Infectious Disease Society

Alpha Omega Alpha Honorary Fraternity

American Society for Law, Medicine and Ethics

PUBLICATIONS:

Journals

1) **Radetsky MS.** Recapturing the spirit in medicine. N Engl J Med 1978; 298:1142.

2) **Radetsky MS,** Istre GR, Johansen TL, Parmelee SW, Eauer BA, Wiesenthal **AM,** Glode MP. Multiply resistant pneumococcus causing meningitis: its epidemiology within a day-care centre, Lancet 1981; 2:771-773.

3) **Radetsky MS. A** diagnostic approach to Epstein-Barr virus infections. Pediatr Infect Dis 1982; 1:425-429.

4) **Radetsky MS.** Personal view: the hero in medicine. Brit Med J 1983; 287:493.

5) **Radetsky M,** Todd JK. Criteria for the evaluation of new diagnostic tests. Pediatr Infect Dis 1984;3:461-466.

6) **Radetsky MS.** The clinical evaluation of the febrile infant. Primary Care 1984; 11:395-405.

7) **Radetsky M,** Wheeler RC, Roe MH, Todd JK. Comparative evaluation of kits for rapid diagnosis of group A streptococcal disease. Pediatr Infect Dis 1985; 4:274-281.

8) **Radetsky M.** The rise of the academic clinician. Am J Dis Child 1985; 139:861.

9) **Radetsky M.** Sudden intimacies. JAMA 1985;254:1361; reprinted in: Dan BB, Young RK (eds). **A** Piece of My Mind, 1988;New York: **AA** Knopf.

10) **Radetsky M.** Laboratory evaluation of acute diarrhea. Pediatr Infect Dis 1986; 5:230-238.

11) **Radetsky M,** Wheeler RC, Roe MH, Todd JK. Microtiter broth dilution method for yeast susceptibility testing with validation by clinical outcome. J Clin Microbiol 1986;24:600-606.

12) **Radetsky M,** Soloman JA, Todd JK. Identification of streptococcal pharyngitis in the office laboratory: reassessment of new technology. Pediatr Inf Dis 1987; 6: 556-563.

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