IN THE COURT OF COMMON PLEAS

OF CUYAHOGA COUNTY, OHIO

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LESLIE WALTER, ADMIN, etc.,

Plaintiff,

vs Case No. **393899**

METROHEALTH MEDICAL CENTER, et al,

Defendants.

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DEPOSITION OF RICHARD FRIRES, M.D.
THURSDAY, JUNE **28, 2001**

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Deposition of RICHARD FRIRES, M.D., a Witness herein, called by counsel on behalf of

the Plaintiff for examination under the statute, taken before me, Vivian L. Gordon, a Registered Diplomate Reporter and Notary Public in and for the State of Ohio, pursuant to agreement of counsel, at the offices of Huron Hospital, 13951 Terrace Road, Cleveland, Ohio, commencing at 7:00 o'clock p.m. on the day and date above set forth.

APPEARANCES:
On behalf of the Plaintlff
Becker & Mishkind Co., L.P.A.
JEANNE M. TOSTI, ESQ.
1660 West Second Street
660 Skylight Office Tower
Cleveland, Ohio 44113
216-241-2600

On behalf of the Defendant
Reminger & Remlnger Co., L.P.A.
THOMAS A. KILBANE, ESQ.
The 113 St. Clair Building
Cleveland, Ohio 44114
216-687-1311

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RICHARD FRIRES, M.D., a witness herein, called for examination, as provided by the Ohio Rules of Civil Procedure, being by me first duly sworn, as hereinafter certified, was deposed and said as follows:

EXAMINATION OF RICHARD FRIRES, M.D.

BY MS. TOSTI:

Q. Doctor, would you please state your full name for us.

A. Dr. Richard Frires.

Q. What is your business address?

A. Emergency department, Huron Hospital, 13951 Terrace Road, East Cleveland, Ohio, 441 12.

Q. Have you ever had your deposition taken before?

A. Yes.

Q. How many times?

A. I do not track that precisely. I could give you a ballpark estimate.

Q. If you would, please.

A. I would say ten to 15 times. Ten to 20, perhaps.

Q. I'm going to go over some of the ground rules. I am sure you have had a chance to talk wlth defense counsel.

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This is a question and answer session. It's under oath and it's Important that you understand the questlons that I ask you.

If you don't understand the questions, lust let me know and I'll be happy to repeat the question or to rephrase it; otherwise, I'm going to assume that you understood my question and that you are able to answer it.

it's important that you give ail of your answers verbally because our court reporter can't take down head nods or hand motions, and if at any point in time you would like to refer to the medical records, please feel free to do so.

At some point defense counsel also may chose to enter an objection. You are still required to answer my question unless for some reason he Instructs you not to do so.

Do you understand those instructions?

A. Yes.

Q. Doctor, the materials that you have before you on the table, is that your complete file on this case?

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A. Yes.

Q. Has anything been removed from your file?

A. **No.**

Q. Is there anything that you've reviewed that you didn't bring with you today?

A. **No.**

Q. Have you been provided any fact summaries or depo summaries or anything like that?

A. No.

Q. Have you provided Mr. Kllbane or his law firm with any bills for your services to date?

A. Yes.

Q. Are those contained in your materials in front of you?

A. **No.**

Q. Where are those?

A. I believe I have a copy in my file at home.

MS. TOSTI: I would make a request for those.

Q. Doctor, I would like to talk to you a little bit about your experience In

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I medical/legal matters.

MR. KILBANE: Just from a housekeeping standpoint, if you could send me a letter on that. By the time I walk out of this deposition, I will have forgotten you requested it.

Q. Have you offered your services as a medical/legal expert prior to this case?

A. Yes.

Q. How many times have you offered your services in a medical/legal matter?

A. I really don't track the precise number. I could give you an estimate.

Q. Okay.

A. I have been doing medlcal expert witness work for at least ten years, and I have been asked to review cases dutlng that time period. I would estlmate roughly that it has varied between five and 15 cases per year.

Q. How many files do you currently have that you are reviewing?

A. I am really not tracking that. I would say roughly between five and eight cases.

Q. What proportion of the medical/legal matters on which you have been consulted have

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I been for plaintiff and approximately what proportion for defendant?

A. Approximately, It's about a 50-50 mix.

Q. And of the cases in which you were consulted by plaintiff, how many times have you found substandard care?

A. I have not tracked that result. I can't answer that.

Q. Now, doctor, you said you had your deposition taken anywhere from about ten to 20 times. Were ail of those as an expert?

A, Yes.

Q. Have you ever testified at trial as an expert?

A. Yes.

Q. Approximately how many times have you done that?

A. I have testifled at trial before a jury twice in the past, and had one videotaped deposition, testimony, that was utilized at the trial.

Q. The two times that you testified live at trial, was that for plaintiff or for defendant?

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A. One of each.
Q. What is your charge for consultation on legal matters?
A. My fee is $350 per hour for reviewing cases and reading depositions.
Q. And what is your charge for deposition testimony?
A. The same.
Q. And how about for trial?
A. For trial I charge the same hourly rate, but for a minimum of a four hour day.
Q. Have you ever provided your name to a professional service or medical/legal consulting firm indicating that you were available to do medical/legal consultations?
A. No.
Q. Other than this case, have you ever consulted on a medical/legal matter for Mr. Kilbane's law firm?
A. Yes.
Q. How many times have you done that?
A. I cannot even give you an estimate. I would say six to 12 times over the years.
Q. Have you ever worked with Mr. Klibane before?

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A. I believe so, yes, on a peripheral basis. He was a co-attorney on one case that I was involved with.
Q. Do you know how it is that he or his law firm came to consult you in regard to this case?
A. No.
Q. When were you first contacted?
A. I believe I was originally contacted about this case in June of the year 2000, about a year ago.
Q. Have you ever been named as a defendant in a medical negligence case?
A. Yes.
Q. How many times?
A. I believe three times in the past.
Q. When were those cases filed, approximately?
A; I would say the first two cases were filed ten to 13 years ago, and the most recent case was in 1995.
Q. Were those cases filed here in Cleveland?
A. I belleveso.
Q. Cuyahoga County?

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A. I believe so.
Q. You have to answer verbally so that she can take it down.
I take it none of those cases are currently pending; is that correct?
A. Correct. I was dismissed in each of those cases prior to any depositions.
Q. Could you tell me what the allegation of negilgence was in those cases?
A. i don't remember a single one of them, I'm sorry. They were the type of cases that involved blanket naming of a series of physicians that at some point in time of care was involved with these patients and I really don't remember the details.
Q. Doctor, have you been asked by Mr. Kllbane to arrange your schedule to testify in the trial of this matter?
A. Yes.
Q. Do you have a copy of your curriculum vitae with you?
A. No, I do not.
Q. Doctor, what is your date of birth?
A. July 7th, 1949.
Q. Where did you go to medical school?

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A. I graduated from Rush Medical College.
Q. And what year was that?
A. 1977.
Q. What was your undergraduate degree in?
A. I had a BA in psychology from the University of Wisconsin, Madison.
Q. Did you do a residency after you completed medical school?
A. Yes.
Q. Where did you do a residency?
A. At Cook County Hospital, Chicago, Illinois.
Q. And what area of medicine was your residency in?
A. Specialty of family practice.
Q. How long was that residency?
A. Three years.
Q. And would that be from 1977 until 1980?
A. Correct.
Q. And you completed the full residency period?
A. Yes.

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Q. Following that residency, did you do any other residencies or fellowships?
A. No.
Q. Do you have any particular training in emergency medicine?
A. Via clinical practice and experience, yes, but no formalized residency program.
Q. You are licensed in the State of Ohio to practice medicine; is that correct?
A. Yes.
Q. When did you become licensed in Ohio?
A. In 1983.
Q. Do you currently hold a license in any other state?
A. Yes.
Q. What other states?
A. The state of Oregon.
Q. Have you ever held a license in any other states?
A. Just in Illinois, during my time there.
Q. Has your license in Ohio or any other state ever been suspended, revoked or called into question?
A. No.

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Q. Now, doctor, you are not board certified in any area of medicine; is that correct?
A. No, that's not correct.
Q. Let me reask it. Are you board certified in any area of medicine?
A. Yes.
Q. What area?
A. I'm double boarded. I have board certification in the specialty of family practice, and I also have board certification in emergency medicine.
Q. When did you obtain your board certification in family practice?
A. The family practice board certification was obtained In 1980.
Q. And in emergency medicine?
A. In 1986.
Q. And I take it the board certification for emergency medicine doesn't require any type of residency requirement in emergency medicine?
A. No.
Q. What type of requirement does it require as far as clinical practice?
A. At the time that I qualified for that exam, it required 5,000 clinical hours in the emergency department, or seven years of experience.

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Q. And did you pass board certifications on your first attempt?
A. Yes.
Q. Now, doctor, could you just give me an overview of your work history after completing your family practice residency?
A. Yes. After completing residency, I began to work as an emergency physician immediately within the Chicago area.
For the following three years I worked as an emergency department physician at several hospitals within the Chicago land area.
In 1983, I moved back to Cleveland, Ohio, which was my original home, and began to practice here at Huron Hospital, and I have been here since.
Q. Since you came back to Cleveland, has all of your clinical work been In the field of emergency medicine?
A. Yes.
Q. Do you do any family practice medicine now?

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A. No.
Q. Do you hold any administrative positions currently?
A. Yes.
Q. What are your administrative positions?
A. I'm the chairman of the department of emergency medicine here at Huron Hospital. I also have some administrative responsibility in terms of medical staff affairs.
Q. Any particular titles that you hold in regard to that?
A. I'm the treasurer for the medical staff, and past chief of staff at this institution. I also am chairman of the continuing medical education program here.
Q. Doctor, I do not have a copy of your curriculum vitae. Do you have any type of professional publications that you have authored or co-authored?
A. No.
Q. Who is your present employer?
A. Lakeland Emergency Associates.
Q. Do you provide professional services for any other entity besides Lakeland Emergency

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Associates?
A. No.
Q. How long have you been an employee of Lakeland Emergency Associates?
A. Since 1988.
Q. Are all of your emergency services provided here at Huron Hospital's main campus?
A. No.
Q. Where else do you provide emergency services?
A. I have staff privileges for emergency medicine at Hillcrest Hospital and at South Pointe Hospital. I periodically provide emergency services at those institutions, as well.
Q. How often are you going to Hillcrest and South Pointe, just on average?
A. In the past, it was with minor frequency. Lately, in the last year or two, or three, I don't believe I have even pulled a shift there, so it's very rarely.
Q. Now, I would like you to describe for me your professional responsibilities and how you divide your professional time. What percentage of your professional time is spent in

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the clinical practice of emergency medicine?
A. I'm in the clinical practice of emergency medicine about 85 percent of my time. The rest of the time is spent with various administrative functions.
Q. Have you ever been involved in any research dealing with the subject matter of bacterial endocarditis, prosthetic heart valves, echocardiography?
A. No.
Q. Doctor, you do not hold yourself out as an expert in the area of cardiology, do you?
A. No.
Q. Vascular surgery or vascular medicine?
A. No.
Q. Or neurology?
A. No.
Q. Has your medical license ever been suspended, revoked or called into question?
A. No.
Q. Have you ever lectured or taught on the subject matter of bacterial endocarditis or prosthetic valve endocarditis?
A. I don't recall.

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Q. Are there any particular textbooks that you consider to be the best or the leading textbook in emergency medicine?
A. No.
Q. Is there any that you refer to on a regular basis in your own practice?
A. No.
Q. Doctor, I have what's been marked here as Plaintiff's Exhibit I. I would ask if you would Justidentify that for us, please.
A. This is a medical report, consultative report that I wrote addressed to Mr. Thomas Kilbane dated March 27th, 2001.
Q. And that is in reference to your opinions in this case; is that correct?
A. Correct.
Q. Did you provide counsel with any drafts of this report prior to its final preparadon?
A. No.
Q. Is this the only report that you have authored on this case?
A. Yes.
Q. Did you meet with anyone to discuss the content of your report before it was

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finallzed?
A. No.
Q. Does your March 27th report summarize all of the opinions that you currently hold in this case?
A. To the best of my knowledge, yes.
Q. And the opinions that you have stated in your March 27th report, do you still maintain all of those oplnlons?
A. Yes.
Q. Do you at this dime Intend to do any additional work oi review any additional materials In this case before trial?
A. I do not intend to do so. If I'm asked by counsel to review something else prior to trial, I would do as he requests.
Q. Now, doctor, you have referenced in your report a number of materials that you reviewed prior to offering your report; correct?
A. Correct.
Q. I'm not going to go through those, but I note that there are a couple things that are available in this case that I don't see here.
I don't see a reference to the

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Southwest General Hospital March 10th, '98 records, and I'm wondering if you reviewed those and that they just aren't mentioned here in your report?
A. Southwest General Hospital emergency room visit report is listed as the fifth item.
Q. For March 10th of '98, I don't see that.
MR. KILBANE: To clear up some confusion, there is a copy of that chart as part of the outpatient chart from Metro. I know he has seen it.
MS. TOSTI: So, obviously, it's in his Metro records then.
THE WITNESS: Right.
Q. And I don't see a deposition of Dr. Alexander, who is the vascular surgeon in this case. Did you review that deposition?
A. I have not received that deposition to review.
Q. And I also do not see Cleveland Clinic records or records from Broadview Muiticare, which Is the nursing home. Have you reviewed any records from those?
A. This volume contains some records

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from the Broadview Multicare facility, as well as some Cleveland Clinic records.
Q. Did you have those before you authored your report?
A. No.
Q. So you have seen those since the time of your report?
A. Yes.
Q. Have you reviewed the reports of defense experts, Dr. Arrnitage and Dr. Lesnefsky?
A. No.
Q. Have you since the time of your report reviewed the depositions of Dr. Rozman, Dr. Brachfeld, or Dr. Balrd?
A. Yes, all three.
Q. Now, at any time when you are reviewing the materials in this case, did you ask defense counsel to provide you with anything additional?
A. No.
Q. Have you read all the depositions that you have been provided?
A. Yes.
Q. In formulating your opinions on this case, did you refer to any medlcai literature,

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any textbooks?
A. Repeat that, please.
Q. in formulating your opinions, did you refer to any medical literature, journal articles, textbooks, that type of thing?
A. I believe a year ago, some time after I Initially received the records to review, I did review a few case reports regarding endocarditis and reviewed some of the topics in some general medical textbooks.
Q. Can you tell me what those materials were that you reviewed?
A. I really can't. I did not maintain those or I don't even recall which sources they were.
Q. As you sit here today, are there any particular pubilcations that you believe have particular significance to the issues in this case?
A. No.
Q. in the preparation of your report, did you consult with any physlclans at any time?
A. No.
Q. Doctor, prior to accepting this case for review, did you have any contact with any of

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the medical providers named in Eariine Miwy's records?
A. No.
Q. Have you ever had any contact with any of the experts that have been identified in this case? And those would Include Dr. Claude Brachfeld, Dr. Ian Baird, Dr. Raymond Rozman, Dr. Edward Lefnesky and Dr. Keith Arrnitage.
A. Yes.
Q. And which of those have you had some contact with?
A. I have had minimal contact with Dr. Keith Armitage.
Q. Any of the others?
A. No.
Q. And can you lust tell me In what manner you had contact with Dr. Armitage?
A. Yes. I am currently a member of the Northeast Ohio Society for Emergency Medicine, which is a society of emergency physicians in the area, and, periodically, we recruit prominent physicians in the area to give talk, to our group on various subjects.
And I believe that on at least one, perhaps two, occasions he was one of the

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featured speakers at our meetings.
Q. Was the person that recruited him to speak at your meeting?
A. No.
Q. Have you ever had a professional affiliation with MetroHealth Medical Center?
A. Perhaps.
Q. Well, would you please define that a little more thoroughly for me, please.
A. Sure. I am a certified instructor of advanced trauma life support. And in this area of Northeast Ohio, MetroHealth Medical Center is the only medical center that puts on a formal training in trauma care as part of the ACLS course.
I'm a faculty member and from tlme to time I'm requested by Metro to help participate in Instruction of that course.
Q. When is the last time that you provided those types of services at Metro?
A. I would say maybe six months ago.
Q. Are you actually providing instructional services then where you actually teach a class?
A. Yes.

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Q. How much time is Involved when you do that? Is this a one day or several days?
A. It's typically a one to two-day course.
Q. Doctor, when you were reviewing this case, did you prepare any personal notes on the case?
A. No.
Q. Have you ever generated any notes In regard to this case?
A. No.
Q. Now, doctor, in regard to your report in the first paragraph of it, you state that you were writing an answer to your -- meaning Mr. Kilbane's -- request that you provide him with an expert opinion on the care rendered to Ms. Earline Mlzsey by the emergency room physicians in the emergency department at MetroHealth Medical Center, Cleveland, Ohio, on April 2 Ist, '98, April 26th, of '98 and May 6th of '98.
Was that the assignment that you were given In this case?
A. Yes.
Q. And in regard to the physlclans that

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you are going to be rendering opinions on that met the standard of care, are you referring to the emergency room physicians that provided care on those dates that I have lust referenced?
A. Yes.
Q. And those, from what I understand, would be Dr. Pennlngton, Dr. Poponick, and Dr. Maxine Gilles?
A. Yes.
Q. Are you going to be offering opinions on any other physlclans in regard to the care that they rendered to Earllne Mizsey?
A. No.
Q. Now, doctor, your report does not reference any opinions as to the cause of her multipie strokes or the cause of death. Are you going to be offering any opinions on those subject matters?
A. No.
Q. I believe your report does have some opinions in reference to her right leg symptomatology, and I take it you will be offering some opinions on her right leg symptoms and cause of that?
A. Yes.

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Q. How often In your practice do you see patients with bacterial endocarditis?
A. I have been practicing emergency medicine for 21 years, and in that time period, I've seen probably six cases or so.
Q. Of those six cases, how many of them have been prosthetic valve endocarditis?
A. One or two that I recall.
Q. Have you personally diagnosed a patient with bacterial endocarditis?
A. Yes.
Q. How many times have you done that?
A. Twice.
Q. Have either of those cases been prosthetic valve endocarditis?
A. I believe so.
Q. One of them, two of them?
A. Yes, one of them.
Q. Doctor, in the cases that you diagnosed endocarditis, was that on the basis of blood cultures or echocardlogram?
A. No, it wasn't.
Q. Could you tell me the basis for your diagnosis then In the cases that you personally diagnosed?

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A. Yes. One case was a drug addicted patient who utilized intravenous drugs on a recreational basis, and this particular patient had a history of bacterial endocarditis in the past for which he had had a prosthetic valve replacement. After being fully treated and cured of that illness, he went back out into the community and once again abused intravenous drugs on a recreational basis and returned to our emergency department in a very ill state.

And I don't recall the details, but I do know that there was a strong suspicion that the endocarditis had recurred in the exact same place. He had some stigmata bacterial endocarditis and had a very high fever, and that prompted us to eventually order an echo, which later proved to be a recurrence of the bacterial endocarditis in the tricuspid valve.

Q. Any other case that you recall the circumstances?

A. I don't recall the details.

Q. Would you agree that the presence of a bioprosthetic valve would place a patient at increased risk for developing bacterial endocarditis as compared to a patient that has a

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native valve?

A. Yes. I would say that there would be a slight increase in risk over someone with a normal native heart valve.

Q. Would you agree that diabetes in advanced age would also increase the risk for Infection in a patient with a bloprosthetic heart valve?

A. I believe that diabetes mellitus would give one an Increased risk of Infection in any part of the body. Typically, it's not a specifically mentioned risk factor for endocarditis, but for any type of infection.

And in terms of older age, I think that would depend on the definition of the age of the person and also the type of condition that person was in for their particular age,

Q. Okay. Well, if we confine it to the seventh decade of life, does that make any difference?

A. It could be a risk factor for endocarditis.

Q. Would you agree that in patients that have prosthetic heart valves, there has to be a high degree of vigilance utilized to avoid

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overlooking the diagnosis of infectious endocarditis?

A. I believe for a patient with a prosthetic heart valve chat one would need to be concerned about the possibility of that clinical entity occurring, depending upon the presentation and circumstances that revolve around the patient's condition.

Q. Doctor, isn't it true that when endocarditis has been present for a period of time, it's not unusual to see weight loss and anemia and Increased white blood cell count?

A. An increased white blood cell count, weight loss -- did you mention anemia?

Q. Yes, I did.

A. It would be considered part of the symptom complex that can occur in endocarditis.

Q. Isn't it also true that the type of fever that Is usually seen with subacute endocarditis is usually a low grade fever that can be intermittent at times?

A. I believe the fever can be intermittent or it can be continuous. Endocarditis, depending on what type it is, and what type of virulent bacterium is Involved,

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I could present either a higher degree or a lower degree of temperature.

Q. Would you agree that because patients with prosthetic heart valve are at Increased risk for endocarditis, that the presence of fever at any time warrants considering the diagnosis of prosthetic valve endocarditis?

A. I would think that that would be dependent upon the situation involved and the symptom complex involved.

Q. Doctor, if you are the emergency room physlclan and a patlent presents with prosthetic heart valve and fever, doesn't that have to be one of the things that you consider when you see a patient in the emergency room situation?

A. The priority of that consideration would be fully dependent upon the symptom complex.

Q. If the symptom complex includes fever in conjunction with stroke in the presence of prosthetic heart valve, would prosthetic valve endocarditis be within a differential diagnosis for the patient?

A. I would say yes.

Q. Now, doctor, In your report, I

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believe that you reference a number of skin manifestations that are sometimes seen in endocarditis; correct?
A. Yes.
Q. Isn't it true that skin manifestations that you referenced are seen only in a minority of patients with endocarditis?
A. I know that they are seen with some frequency. When you define the term minority as being less than SO percent, that statement probably is true.
Q. Isn't it true that systemic emboli are among the most common clinical sequelae of infectious endocarditis?
A. They are among some of the more common sequelae, yes.
Q. Isn't it also true that systemic emboli are seen more often in endocarditis patients than skin manifestations that you mention in your report?
A. I'm not really sure about that fact.
Q. Doctor, what diagnostic studies do you consider to be helpful in diagnosing bacterial endocarditis?
A. Well, the laboratory tests that would

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be utilized that would be helpful in making the diagnosis would be a clinical blood count or CBC that would Include a white blood cell count, a red blood cell count, a sed rate. In addition, renal function tests would be useful, blood cultures, and echocardlogram. Chest x-ray, EKC would also be useful.
Q. Doctor, you would agree that when you are arriving at a diagnosis, even if some of these tests are not what would be considered diagnostic, they still may be helpful in you coming to a final conclusion for a diagnosis, adding weight or support to a dlagnosis; correct?
A. Yes.
Q. For example, a complete blood count Isn't dlaghostic of endocarditis, but it may be helpful to a physician in arriving at a final diagnosis; correct?
A. It could be one piece of the puzzle.
Q. And It's Important to look at the whole picture when you are attempting to arrive at a diagnosis; correct?
A. Yes.
Q. Would you agree that bacterial

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endocarditis cannot be ruled out on the basis of a single blood culture?
A. Not completely, no.
Q. Does a patient have to have a positive blood culture before a presumptive diagnosis of bacterial endocarditis can be made?
A. Could you please define what you mean by presumptive diagnosis?
Q. A point when the physician feels that that's the ilkeiy diagnosis but does not have the diagnostic tests in hand to confirm it.
A. Okay. Now, repeat the original question.
Q. Does a patient have to have a positive blood culture before a presumptive diagnosis of bacterial endocarditis can be made?
A. Not necessarily. If there are enough symptom complex manifestations of the illness to make you suspicious or beileve that that entity is golng on -- because there is an entity known as culture negative endocarditis -- positive blood cultures don't necessarily have to always be present.
Q. You had recently referenced a case In which you had diagnosed prosthetic valve

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endocarditis in an IV drug user. Was that an instance where you had arrived at a presumptive diagnosis before you had confirming tests of either a blood culture or an echocardlogram?
A. Yes, it was a clinical suspicion. I didn't realize that the diagnosis had been made until the results were confirmed by the blood culture at a later date.
Q. Doctor, would you agree that with endocardltis infecting a bioprosthetic valve, one of the pathological changes that usually occurs is destruction of the valve leaflets?
A. That can be one of the manifestations of the illness.
Q. What are vegetations?
A. Vegetations are a tissue complex, if you will, or a congiomerate of substances primarily composed of fibrin and platelets and the infecting organism that would be occurring on the surface of an aspect of the inner lining of the heart or valve leaflets.
Q. You would agree that when infective vegetations grow on a heart valve, they can In some Instances break off, travel through the bloodstream, and can result In a stroke, in some

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instances; correct?
A. Yes.
Q. They can also in some instances travel through the bloodstream and lodge in a leg artery and disrupt the blood flow to the leg; correct?
A. Yes.
Q. Doctor, as an emergency room physician, have you ever ordered serial blood cultures for a patient where there is more than one blood culture taken in order to evaluate a patient for endocarditis?
A. Routinely, in our emergency department, our protocol is to order two sets of blood cultures, 30 minutes apart, in different sites. We do that for any infection that we may be suspecting in the bloodstream.
Q. In order to determine what patients you are going to do a blood culture on and which ones you are not, would one of the indicators be doing a complete blood count, and if you see elevations of the white blood cells that are suggestive of infection, that might be a patient you may move to do the blood cultures on?
A. That could possibly be one of the

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Indications. I mean, we see many, many patients with elevated blood counts that we do not do blood cultures on all the time every day, so it would depend on the symptom complex.
Q. In a patient with a bloprosthetic valve, if you had a CBC that showed an elevation of white blood cells with a differential that also was suggestive of an Infectious process, would that be a patient that might fall Into the category of having these sets of blood cultures drawn?
A. Perhaps.
Q. Would there be other things that you would be looking for that would tell you that you should or shouldn't do blood cultures in that type of situation?
A. Well, we don't routinely do blood cultures on everyone that comes in that has a high white count.
Q. I restricted It to bloprosthetic valve.
A. It would depend on the clinical presentation and what we suspect was causing the elevation of white blood cells. For example, if the patient was leukemic or something like that,

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that would be a valid explanation for the leukocytosis. It really would depend on the clinical situation.
Q. If a patient has a bloprosthetic valve, elevated white blood count with a differential suggestive of an infectious process, is that a patient that would normally have blood cultures?
A. When you say the term normally have, I probably would order a set of blood cultures on that patient.
Q. Would most emergency room physicians do that?
A. Possibly.
Q. Would the standard of care require that emergency physicians do that?
A. Again, possibly It would.
Q. Well, doctor, you are here as an expert to speak to the standard of care for patients, and this patient had endocarditis, so I'm trying to elicit what your oplnlons are. I need you to tell me whether or not that would be the standard of care.
A. If the symptom complex required ruling out bacterial endocarditis, then

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deflnltely those two sets of blood cultures would be performed.
Q. Just tell me if this is something that you would do as an emergency room physician or not.
Once blood cultures are drawn, because of the time involved for the cultures to grow out, as a physlclan in the emergency, in the field of emergency medicine, do you ever deal with the administration of empiric antlblotics for patients where there is a presumptive diagnosis for endocarditis?
A. That usually occurs as a decision that's made In conjunction with the other providers that will be taking care of the patient.
Q. Do you know how prosthetic valve endocardia is usually treated?
A. I belleve It's treated primarily with Intravenous antiblotic therapy, and/or surgery.
Q. And by surgery, you are referring to usually the replacement of the Infected valve?
A. Correct.
Q. Would you agree that one of the main goals of treatment in prosthetic endocardia is

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to eradicate the infecting organism as soon as posslble?
A. Yes.
Q. Would you agree that the sooner prosthetic valve endocarditis is treated with antibiotics, if it's a bacterial infection, the more likely the outcome will be positive?
A. Yes.
Q. Doctor, do you know if the incident of embolic events as a result of bacterial endocarditis decreases promptly during the administration of appropriate antibiotics?
A. I'm familiar with the concept that overall the embolic phenomenon can decrease. I'm not sure how promptly that really takes place.
Q. Would you agree that when a patlent with a bioprosthetic valve presents with fever, elevated white blood cell count, suggestive of Infection, and symptoms of transient ischemic attack or stroke, that endocarditis should be Included in the differentlal diagnosis?
A. Yes.
Q. Have you ordered echocardiograms for patients that you have suspected of having

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endocarditis?
A. In consultation with the primary care physicians or consulting specialists, yes.
Q. Have you in conjunction with those other consultants ordered both transesophageal as well as transthoracic echoes?
A. I have not had the opportunity to do that.
Q. Mostly just transthoracic echoes?
A. Correct.
Q. So, doctor, in most cases, if you were considering ordering an echo, you would probably have a consultant that would be assisting with that decision?
A. Yes. That's the protocol at our institution.
Q. If you know, is that typical of most emergency rooms?
A. I think it varies from institution to institution.
Q. Doctor, if there is a reasonable suspicion for endocarditis, do you have an oplnion within what tlme frame an echo should be done on a patient?
A. I really can't comment on that.

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Q. Do you know whether a transthoracic or a transesophageal echo is more sensitive for picking up evidence of vegetations?
A. It's my understanding that a transesophageal echo is more sensitive.
Q. Do valvular vegetations have to be present before the diagnosis of prosthetic valve endocarditis can be made?
A. I don't believe so.
Q. Would you agree that prosthetic valve endocarditis can cause life-threatening compllcations!
A. Yes.
Q. Doctor, what is capillary retill?
A. Capillary refill is a phenomena observed on clinical exam that is used to estlmate blood flow into an area that's examined.
Q. How is it assessed?
A. It's a clinical exam that's assessed by applying a pressure of some sort to the area In question, and observing for color change to the area caused by pressure and observing the area in terms of color response to the pressure.
Q. Generally, when capillary refill is

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assessed in the emergency room on the extremities, how is it done?
A. Typically, the examiner would place his own, his or her own digit on the area, apply pressure enough to cause a blanching to the epidermis and dermal area, observing for the blanching color to be In existence, and then with release of the pressure to the area observing for the Occurrence of a redness, if you will, indicating perfusion to that area to recur after the pressure stimulus has been removed.
Q. Typically, Isn't that done by compressing one of the nail beds, like on the toes, to check circulation in the feet? You would compress the nail bed of the toe and then watch for the return of the color after It blanches?
A. It can be.
Q, And when you are checking the nail beds on the feet, what is considered to be a normal capillary refill tlme?
A. Traditionally, over the years, two seconds or less has been considered as somewhat of a normal capillary refill, but there has been

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a lot of controversy about the inadequacy of the estimation of a peripheral flow from capillary refill. It's a very gross technique that has not been really scientifically proven to be accurate.

Q. Is checking capillary refill and checking peripheral pulses a skill that an emergency physician should be able to competently perform?

A. Yes.

Q. Is that something that's done frequently, that's an everyday occurrence for most emergency room physicians, somethlng that they do on a regular basis when they assess patients?

A. I would say more palpating for pulses than capillary refill.

Q. But it's a skill that all emergency room physicians will utilize at some point; correct?

A. Yes.

Q. Doctor, in your review of the records, did you find that Earline Mlzsey's diabetes was under reasonably good control?

A. Yes.

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Q. Now, you did have an opportunity to see the Southwest General Hospital emergency room records from March loth, which is the visit when she had her first stroke; correct?

A. Yes. I wouldn't say that was her first stroke, but it was a stroke that was described In the course of the case that we are reviewing.

Q. When she presented to the emergency room on March loth, she had a history of bloprosthetic heart valve, and the emergency room physician felt that she had a possible transient ischemic attack. She had a white blood cell count of **15.4,** with an elevation of her *segs,* and her temperature was **100.9.** They also noted that she had labored respirations and that she had complained of a fever for several days.

In that scenario, shouid prosthetic valve endocarditis have been included In the differential diagnosis?

A. It could have possibly been considered at that point.

Q. Now, you have a lot of qualifiers there, "could have possibly".

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You don't think that those set of facts would cause an emergency room physician to include prosthetic valve endocarditis within the differential?

A. It could have been included in the differential. I'm not sure how much priority.

She did have an explanation for a fever in that her history Included upper respiratory symptoms, cold symptoms In the previous days prior to the admission, and also included the imaging evidence on CAT scan for sinusitis, which could explain her symptoms.

Q. Now, when a patient with a prosthetic heart valve presents with a febrile illness to the emergency room, and symptoms or history of what is considered to be possibly a transient ischemic attack, shouldn't endocarditis always be suspected until proven otherwise?

A. I would say that would be fully dependent upon the symptom compfex.

Q. Would you agree that after that emergency room visit, Earline Mlzsey should have been followed up by her cardiologist at Metro, specifically to determine if her symptoms were due to endocarditis?

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A. I believe that that attempt was made; that adequate follow-up was arranged by Dr. Craber at Southwest.

Q. Now, the emergency room physician at Southwest did contact Metro and spoke with Dr. Vrobel, the cardiologist, who was covering for Dr. Raklta. Dr. Rakita was Earline Miwy's cardiologist at Metro.

In the record that you had an opportunity to review, Dr. Craber Indicated that he discussed his findings from the emergency room visit In detail. Was that an appropriate course of action on the part of the Southwest General Hospital emergency room physician to contact the cardiology people at Metro to discuss his findings from the emergency room visit?

A. Yes.

Q. Why do you think that's appropriate?

A. Well, that's the usual practice. if there Is any question regarding symptomatology, and follow-up needs to be arranged, one possible way of assuring that the patient will be seen would be to contact a physician and arrange follow-up.

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Q. Is that something that emergency room physicians do fairly regularly, is contact either a primary care or a treating cardiologist to make sure that there is some follow-up and care after an emergency room visit?

A. it's done on an as-needed basis. It's certainly not done on every patient that presents to the department. There is a clinical judgment made, and depending upon the presenting symptom complex, we may or may not arrange follow-up.

But In general, the majority of the cases that we do see, we do not contact any physician for foilow-up, but we refer the patients for follow-up with adequate instructions in their going home sheets.

Q. In this case, as you reviewed this particular emergency room visit, anything that you felt warranted the call that was made to Metro? Anything particular that as an emergency room physician would key you into, this is the type of a situation where arrangements should be made with the primary care or cardiologist to continue follow-up care?

A. This type of case is kind of like a

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borderline presentation in that the patient presented with some symptomatology, but really it was found to have been a completely normal neurological exam, so it was appropriate to go ahead and contact someone in that if, indeed, the symptom complex proved to be a transient ischemic attack -- and I don't believe it was absolutely clear, but It was a very vague possibility. There is controversy in terms of whether a patient with TIAs require admisslon or not -- and therefore, he would seek the advice of a follow-up physician as to what they wanted to do with this patient.

Q. And once Dr. Craber, who was the emergency room physician, spoke to the cardiologist, Dr. Vrobel, at Metro and explained his findings, would It be proper then for Dr. Graber to feel that follow-up would then be arranged by Metro Hospital for Mn. Mizsey?

A. It depends on the circumstances that he left with regarding discharging the patient and how the arrangements were made for the follow-up.

Q. Now, doctor, I don't want to get into areas that you are not going to be expressing

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opinions on. And you are not going to be rendering opinions on whether Dr. Vrobel or Dr. Rakita or Dr. Einstadter met the standard of care; is that correct?

A. I would prefer to focus my opinions on the emergency department visits.

Q. I won't go into those if that's your intentions.

Now, did you have an opportunity to see the echocardiogram report of the April 9th, '98 transthoracic echo that was done on Earline Mizsey?

A. Yes.

Q. Did you also see the carotid ultrasound report that was done on that same date for her?

A. Yes.

Q. Now, do you have It?

A. Yes.

Q. Do you have the carotid ultrasound report there?

A. Yes.

Q. Did you flnd anything of concern on that report for the carotid ultrasounds?

A. The impression of the carotid

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ultrasound, that there was arterial plaque which did not appear to be hemodynamically significant, so although there was evidence of atherosclerosis, It did not at that point seem to be causing any significant stenosis of the carotid artery.

Q. The flnding was she had a mild arterial plaque?

A. That's what is described in the report.

Q. That type of finding would not be at all unusual in a 73-year-old patient; correct?

A. Correct.

Q. Now, you also had a chance to see the report of the transthoracic echo that was done on April 9th of '98; correct?

A. Yes.

Q. Did you flnd anything of concern in that report?

A. This report describes some aortic regurgitation present, and apparently there was some difficulty in assessing that adequately, and the echocardlologist suggested that the bioprosthetlc valve could be deteriorating and also offered that it could be a potential

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embolic source.
Q. Did you find any of those particular results of concern in this patient?
A. Well, to me it indicates that it's not a totally normal study and that follow-up to this would probably be warranted to better adequately assess the area.
Whether or not the aortic regurgitation was present for years or was a recent event is not suggested, and this report could be consistent with some deterioration of the valve over time.
Q. Aortic regurgitation is the type of damage that is seen in a heart valve from endocarditis, Isn't it, doctor?
A. It can be.
Q. Isn't that typically the type of when you hear a murmur, it's a regurgitation murmur?
A. It can be.
Q. That's seen with endocarditis?
A. It can be.
Q. Doctor, would you agree that given Earline Mizsey's bioprosthetic heart valve, and the recent stroke that she had -- and I believe if you ever reviewed the records, you know that

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Dr. Elnstadter confirmed that her symptoms were consistent with stroke when he saw her on the 13th -- given her recent stroke, and this echo result, that it should have raised a concern that her stroke may have been caused by emboli from her heart?
A, I believe that Dr. Elnstadter's initial Impression was because of the risk factors for stroke in this patient who is a diabetic, high cholesterol, anemic, hypertensive, has atherosclerosis, coronary artery disease and peripheral valvular disease. From his impression from the initial visits that the stroke was more likely caused by a small cortical infarct due to atherosclerosis and valvular disease and the cerebral vasculature than it would be embolus.
Q. Do you know if most patients with porcine heart valves have deterioration of the valve only four years after placement?
A. That's somewhat out of my expertise. I would prefer to defer to the cardiologist in that regard.
Q. Now, this particular report suggests a TEE or transesophageal echo to further

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clarify.
Do you have an opinion as to whether it was appropriate to do a follow-up TEE, in this instance?
A. This is the type of ongoing outpatient care that emergency physicians don't typically get involved with, so again, I would prefer to reserve judgment to the expertise of the cardiologist.
Q. Earline Mizsey was then seen in the emergency department at Metro, I believe, on Aprii 21st of '98, and at that time, I believe, she was complaining of right hand tremors.
Doctor, can hand tremors be a neurological result of a stroke?
A. Tremors have a multitude of etiologies that can include anything from electrolyte imbalance, to hypoglycemia, to seizure activity, to muscle weakness, and hangover. And as one of the myriad of possibilities that hand tremor could represent, including anxiety and nervousness, could include also the possibility of a stroke.
Q. And In this instance, do you have an opinion as to what was causing her hand tremors?

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A. I would tend to agree with the assessment by the emergency physicians in that department. The cllnicai exam did not find any acute neurological deflclts other than the more chronic neuro deflclts that occurred on the left side as a result to the prior incident.
Q. Was there anything in the emergency room visit records that would allow you to rule out stroke as a cause for her tremors In her hand?
A. I would say that the fact that the neuro exam on the right side that Included the upper extremities and lower extremities were all within normal llmits, and, therefore, there is no evidence there is an acute neurological event going on.
Q. Did you find anything or any evidence in this April 21st ER visit to support a finding that she was complaining of any pain in her lower extremities or was having any type of symptomatology that was of concern in her lower extremlties?
A. Not on this particular visit, that I can glean from reviewing the chart.
Q. Doctor, I would like to move to the

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emergency room visit then on April 26th.
A. Okay.
Q. She was seen in Metro's ER on April 26th for pain in her right leg and thigh that was sudden In onset, that was aching from her foot all the way to her hip, and It occurred suddenly after stepping out of the shower.
She had a temperature of 37.6 Centigrade, which is a little over 99.6 Fahrenheit. Do you consider that to be a low grade fever in Earline Mizsey's case?
A. No, I do not.
Q. At what level would you consider it to be a low grade fever?
A. Fever is a symptom and sign that you will see quoted in a variety of sources at very different levels. From my experience of working in the emergency department and assessing what I would consider a fever, I would say it would be 100 degrees Fahrenheit or above. It's well known there is diurnal variation in the temperature, in everyone, and you would think that a temp of 37.6, which is 99.6 or a little greater, would be within that normal diurnal variation that would be observed in the human.

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Q. Doctor, Earline Mizsey was on aspirin twice a day. Would that, as an emergency room physician, affect your opinion in this case knowing she has a prosthetic heart valve and is coming in with a temperature of 37.6 with this symptomatology?
MR. KILBANE: Objection. You are asking him to assume that the patient was on aspirin twice a day?
MS. TOSTI: I belleve It's in the record that thls lady is on aspirin.
MR. KILBANE: I know at some point there is aspirin twice a day, but you are asking him to assume that she was at thls time?
Q. Dr. Einstadter put her on aspirin 650 milligrams twice a day at, I believe, it was the March 13th of '98 visit. She had been taking asplrin once a day. And I won't ask you to flnd that particular reference. I'll just ask you to assume that that's correct, doctor.
If she was taking aspirin twice a day and is presenting to the emergency room with a temperature of 37.6, would that have an impact on your opinion that this was not an elevation or low grade fever in her case?

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A. Before I answer that hypothetical question, I would just like to say that in Dr. Einstadter's note of March 13th, his pian included increasing aspirin, and I belleve it says to 650 milligrams QD, not BID.
And then on the visit subsequent to April 26th, It notes in the medical record that the patient should be taking aspirin, but is not, because she was on another prescription. And she wasn't taking the aspirin, therefore, because of that. She did not list aspirin as her medlcatlon on her visit on April 26th. So it is not clear to me at all that she Is taking aspirin at that point in time during her visit on the 26th.
Now, if she was, and if she was taking aspirin at 650 milligrams twice a day, depending upon when she took the aspirin in relation to when the temperature was taken, it may or may not affect the result of the temp.
Q. And I believe the last order was 650 milligrams QD, and I believe you are correct when you stated that.
A. I don't know if she took that at night or took it at noon or took it at 4:00

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o'clock In the morning. So It really would depend on the timing. The aspirin is a short acting drug, as you know, and may or may not affect the temperature, depending on the dosage and frequency.
Q. And depending on whether she took aspirin on this particular date would impact whether or not that 37.6 was or was not significant and also as to when she took it in relationship to this particular temperature readlng; correct?
A. That is possible.
Q. Doctor, In a patient with a prosthetic heart valve that has a history of recent stroke, has evidence of valve deterioration on the echo, who presents to the emergency room with the sudden onset of pain in her leg, has a temperature of 37.6, shouldn't that have raised a level of concern for emboli from the prosthetic heart valve for endocardltis? Shouldn't there have been at least a concern that endocarditis may be the cause?
A. In my opinion, I do not think so. I don't conslder a temp of 37.6 as a fever, and as

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we know, fever is the most prominent symptom and sign for a patient presenting with endocarditis.
Her pain was quite classic and typical of a radicular type pain, and that it came on with movement of the leg as she was coming out of the shower. It kind of radiated up and down the leg, and it occurred in a woman who was known to have osteoarthritic changes. To me, by gleaning the records and reading some of the depos, it really seems like this was very compatible with a radicular type pain.
Q. Well, doctor, wouldn't you agree that when there is a sudden onset of pain in one leg and pulses are not palpable or audible with doppler, that arterial occlusions should be within the differential diagnosis?
A. I would say perhaps if that was the ultimate finding, but there were no other findings described here in this record that would lead me to indicate that there was an acute embolus to that extremity.
For example, there was no description that the extremity was pale, which is often the case if there is a large embolus, large enough to occlude flow to the entire length of the

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extremity.
In addition, it was not described that the extremity was mottled in any way. And I believe the emergency physicians did the right thing in suspecting that, okay, we need to be sure that there is no vascular deficit going on here, let's get the vascular service team involved in this and get the experts to take a look and see what they consider is going on here.
The fact that there was a dorsalis pedis pulse, palpable by the vascular service to me indicates there was no large embolus going on. And indeed, several days later, when the patient reappeared to the primary care physician, according to Dr. Einstadter's note, there are good pulses bilaterally, there is no mottling, no pallor to the extremity and no suspicion at that point in time that there was an embolus or clot going on.
Q. Don't you find that unusual that the emergency room physician on the 26th is indicating that the pulses were not palpable and that the capillary refill was delayed approximately three to five seconds, and then at

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some later point there is documentation that the circulation is now improved?
A. I don't think that's unusual at all. I can tell you from my own experience that examinations are very variable and practitioner dependent, and it can go either way. But one physician will go in and find one particular finding and three minutes later another doctor will go in and repeat the exam and find entirely different findings. It's not unusual; it's a common occurrence.
And in most cases, the emergency physician, master of many illnesses, but expert of none, so to speak, would defer to the service with the more expertise and feel confident that their exam will guide them in the right direction.
Q. Now, in this particular instance the consultant from the vascular service was Dr. Storoe. Are you aware Dr. Storoe was a general surgery resident and not a vascular surgery resident?
A. I'm fully aware of that. I also understand that Dr. Limsrichamrern was also involved in the evaluation of this case, and I

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also believe that there was contact with the attending physicians that were covering the service, as well, so that a group decision was made on how to proceed and what advice to give regarding this patient's condition.
Q. What is your understanding of Dr. limsrichamrern's background and experience?
A. I don't know the full details, but I believe that he was a more senior resident with a lot of experience in the area.
Q. Do you know what his area of specialty was?
A. Not at this point, no.
Q. And why is it that you believe that they were in consultation with the overseeing attending vascular surgery person?
A. Well, it's my belief that in a teaching institution -- and I am part of a teaching institution here, as well -- that it's protocol and routine to consult and discuss the findings with the attending physician.
Q. So you have made an assumption here that the appropriate procedure was followed; correct? You are assuming that Dr. Limsrichamrern or Dr. Storoe contacted the

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attending vascular surgeon?
A. That's usually how It's done in teaching facilities.
Q. Well, doctor, I'm asking, is that an assumption on your part or are you basing it on some facts that you have reviewed?
A. We can put it this way. I don't see that fact described in the chart, but charts often don't fully reflect what goes on in a patient encounter.
Q. Doctor, would you agree that the pain from diabetic neuropathy in most cases is not sudden in onset?
A. Well, let's investigate that for a minute. If you are without pain for a period of time and now you do have pain, okay, one moment you didn't, and another moment you start to experience pain, so that by deflnltion is a sudden onset of pain. So it's very difficult to dissect that out exactly.
Q. All right. Let me clarify my question then. Would you agree that the pain from diabetic neuropathy in most cases is not sudden onset of severe pain?
A. I can't agree with that elther,

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because I think pain is a subjective phenomena and to someone could be very severe and to others very mild, so --
Q. in your experience of patients that you have seen with dlabetlc neuropathy, have the majority of the patients come in complaining of the sudden onset of severe pain?
A. I would have to say yes, because that's what makes them present to an emergency department rather than seeing their own private physician at an appointment two week, later or something like that.
Q. Now, doctor, you had a chance to review Dr. Pennlngton's emergency room note in which he mentions that she had right leg pain, which she described as sudden onset. Was there anything in Dr. Pennlngton's Initial exam of Earline M l w y that would raise a concern for vascular compromise in her right leg that you saw?
A. Well, In his exam, he said the pulses were not palpable on Initial exam. The patient was able to ambulate with a limp, so that one statement would Indicate that some pulses were not palpable.

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Q. Now, doctor, you had an opportunity to read Dr. Pennlngton's deposition testimony; correct?
A. Yes.
Q. Do you recall him in his deposition testimony indicating that both he, as well as his resident, checked pulses and also attempted dopplen and was unable to palpate or to find pulses with the doppler. Do you recall reading that?
A. I believe so, yes.
Q. From the perspective of an emergency physician, would those findings raise a high level of concern for vascular compromise?
A. Yes.
Q. Is the assessment of pulse with a doppler something that emergency room physicians are familiar with and utilize in their practice?
A. Yes.
Q. Do you have any reason to believe that Dr. Pennlngton was unskilled In the use or the technique of assessing pulses using a doppler?
A. No, But as I stated earlier, these types of exams are extremely practitioner

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dependent and Rnding a doppler pulse is not so easy.
If you are off by a millimeter or two from where the strong sensation of the pulse is, it would be very easy to miss, and depending on how much time was spent, meticulously going millimeter by millimeter across the dorsum or the unilateral of the foot, it is very easy to miss a doppler of a pulse.
Q. Based on what you reviewed as Dr. Pennington's assessment, was it reasonable for him to call for a vascular service consult to rule out an acute vaso-occlusive event?
A. I thlnk it was reasonable.
Q. And Dr. Pennlngton described it as acute vaso-occlusive event. That would be consistent with emboli or thrombus; correct?
A. Yes.
Q. When an emergency room physician calls a speclalist for consultation on a patient, is it reasonable for the emergency room physiclan to rely on the consultant's conclusions?
A. Yes.
Q. We discussed that the assessment was

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done by Dr. Storoe, a general surgery resident. In your oplnlon, would a general surgery resident be more skilled in assessing peripheral circulation than an experienced emergency room physlclan?

A. That could be practitioner dependent, but in general, surgical residents deal with vascular surgery. It's part of their training, and I would say, yes, in general.

Q. What is radlculopathy?

A. Radlculopathy is a term that describes a pathological process which Involves the nerve root as it comes out of the spinal cord and travels down the extremity.

Q. Is it characterized by pain, pain syndrome?

A. It can be.

Q. From what we previously discussed, you agree with the diagnosis of radlculopathy that was made at this April **26,** *1998* emergency room visit; correct?

A. Yes.

Q. Earllne Mlzsey described to Dr. Pennlngton that the pain was most prominent over the lateral aspect of her thigh.

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Is thls area of described pain of any significance in arriving at the diagnosis of radlculopathy?

A. Yes, I think the pain typically In a radlculopathy can radiate from the back and around the hip area and then either down the lateral aspect of the thlgh, which is very typical, I belleve for the L4-L5 dermatome or anterior aspect or posterior aspect. It would depend on which nerve root was irritated, but It would be quite typical to experience that type of pain on the lateral aspect.

Q. In your review of the records, dld you find any place that Earline M l w y had an arthritic condition in her back, or had suffered any type of injury to her back or at any time prior to thls had complaints related to her back in anything that you reviewed?

A. No.

Q. Now, she also described tenderness to palpation -- I'm sorry.

Dr. Pennlngton also found that she had a capillary refill of three to five seconds in her right foot. Do you recall seeing that?

A. Yes.

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Q. Now, would that be indicative of a problem with her arterial circulation?

A, I suppose there Is a possibility that there could be. Capillary refills are very subjective, somewhat inaccurate, and there is no study that adequately correlates capillary refill with what is actually going on in an extremlty in terms of blood flow.

Q. So do you have any explanation as to why Dr. Pennington's assessment of capillary refill is different than what Dr. Storoe found?

A. You know, actually both practitioners had overlap of the capillary refill time count in that Dr. Pennlngton found that it varied between three to five seconds and Dr. Storoe said that it was two to three seconds in part of the area, *so* that both practitioners were roughly around the same time period in terms of the refill.

Again, it would depend on whether thls was a rough ballpark estimate, dld they actually look at a watch while they were compressing and time it scientifically, or, you know, was it just a rough ballpark estimate. So it would be very dependent, very practitioner

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dependent.

Q. Doctor, isn't it true that with peripheral embolisms, the embolism can break up after a period of time and the blood flow through the vessel can reestablish itself?

A. I suppose that's possible. I don't think it happens too commonly. Usually if there is a clot large enough to Involve the entire leg, that would be a sufficient size clot that would then promulgate more clot and thrombosis distal to the Initial destruction. It would be somewhat unusual, but it can occur.

Q. Well, doctor, you can have emboli that lodges In various arteries in the leg. It doesn't have to be In the main artery feeding the leg; correct?

A. Correct. But If the pain was prominent In the proxlmal area of the extremity, I would thlnk that the clot therefore would be near the bifurcation of the femoral artery if it was going to cause pain down the lateral side of the thlgh, not down in the popliteal area or ankle or plantar arch.

Q. Would you agree that the pain that she described on the lateral aspect of her right

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thigh could be consistent with an ischemic problem in the vasculature of her right leg?
A. The answer to that would be yes. I mean, any kind of pain could represent any condition.
Q. Okay. Could an occlusion in the popliteal trifurcation cause that type of pain?
A. I doubt that. Usually the pain would be distal.
MS. TOSTI: Give me a minute.
(Recess had.)
Q. In the records you reviewed, there was a call where Earline Mizsey's daughter called Dr. Einstadter, I believe, on May 6th. And according to his progress note, in the chart, she told him that Earline Mizsey was having so much pain in her leg that she was crying and unable to get out of bed.
Dr. Einstadter's note says the pain could be due to vascular compromise and that given the presence of the porcine valve in the aortic position and the history of recent CVA, arterial embolism is certainly a possibility.
Now, doctor, when a patient is in extreme pain and there is a question about the

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disruption of the blood supply to a limb by an emboli, doesn't that call for immediate medical evaluation?
A. If there is any doubt, yes. And I think Dr. Einstadter appropriately advised them that if there was any doubt at all whatsoever about the possibility of this being from a serious cause, to go directly to the emergency room.
Q. In fact, Earline Mizsey was taken by her daughter to Metro's ER on, I believe, May 6th because of her severe leg pain. The diagnosis of claudication was made, I believe.
A. Yes.
Q. I would like to ask if you would agree with that diagnosis on that visit?
A. Yes.
Q. Tell me why you believe that that was an appropriate diagnosis.
A. At this point in time, the presentation was somewhat different. It seemed like the symptoms were more consistent with a peripheral vascular disease process.
At this point in time, there was comment made that the patient's feet -- and it

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was bilateral at that point -- were cold to the touch, and that once again the vascular service was appropriately consulted to evaluate the patient.
They were able at this time to extract from this patient a history that seemed to indicate that the patient's symptomatology was really a chronic problem that seemed to be getting worse.
The patient admitted that this foot pain had been there for a significant length of time. I believe that it was written in the chart twice, both on the emergency department's history that this leg pain had been there for four months, and per the vascular surgeons, the pain was in the area of the calf and seemed to improve after the walking, which exacerbated the pain, stopped. These symptoms are entirely compatible with the history of peripheral vascular disease and claudication.
Q. Doctor, did you notice that there was a difference in the history that the emergency room physician took as opposed to what the vascular surgery consultant had in regard to the length of time that Earline Mizsey was having

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symptoms? Did you think there was an error?
Dr. Gilles says that she was having a bilateral foot pain over the last four weeks, and in the vascular surgery notes it says four months. Do you think maybe an error was made there?
A. I see in the chart where it's written four months twice, both in the personal handwriting of the physician that filled out the emergency department history.
Q. Do you see the typewritten note of Dr. Gilles?
A, Yes, I see that.
Q. In her history?
A. Yes. There may be a typographical error, I don't know. And I can't explain the discrepancy exactly. But I do know that, you know, the chronic symptomatology was worse on walking, better with rest, is quite classic of peripheral vascular disease secondary to thrombosis and claudication.
Q. Doctor, the description of the pain that she had being so severe, that she was unable to get out of bed, is not a typical description of claudication pain, is it, doctor?

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A. Well, it seemed like the claudlcatlon was progressing. And although pulses were dopplerable all the way down, there was concern that this might be approaching a stage where an Intervention may have to be done. I think It was appropriate to order a more definitive Imaging study to be done the very next day. I don't think that it was absolutely necessary to do that on an emergency stat basis, because there was pulsation all the way through to the foot.

Q. And her complaints that brought her to the emergency room were her right leg symptoms; correct?

A. Right. She dld also state that she had pain in the left leg as well, but that the pain was worse on the right than the left.

Q. In her leg or her foot?

A. Probably foot.

Q. Doctor, you would agree that with underlying peripheral vascular dlsease in the legs, you can still have an embolic event that cuts off the arterial blood supply and causes acute Ischemia in the leg; correct?

A, Yes.

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Q. Was It reasonable for Dr. Gilles to call for a vascular consult at thls visit?

A. I believe so.

Q. And is it your understanding that that vascular consultant was Dr. Alexander?

A. I believe that the official consultation went to him, and I believe the resident aim examined the patient on Dr. Alexander's behalf.

Q. Do you have an opinion as to whether it was appropriate to discharge Eariine M l w y from thls emergency room visit on May 6th?

A. I believe I answered that question before and said that because pulses were dopplerable all the way Into the foot area that there was no indication that there was an abrupt obstruction.

And although it seemed like this was claudlcation with questionable pain, worsening at rest, that it was appropriate to order the Imaging study for the very next day.

Q. Doctor, from the assessment that was done in the emergency room, it would not be possible to rule out that her compromise of the arterial circulation was due to emboli rather than claudication; correct? That would still have to be a possibility; correct?

A. I guess It's a remote possibility. Putting the whole history together, in the fact that this pain upon presentation on the 6th per Ms. Mlzsey herself is of a chronic long duration, and whether it was four weeks or four months, which we haven't determined, that does not go along with an acute embolic process that occurred on that day or the day before.

In addltion, just, you know, a short period of time before, the patient, looking at it globally, was seen in Dr. Elnstadter's office and was found to have a condition that dld not Indlcate that there was a continuous embolus going on or recurrence.

Q. Well, In the vascular surgeon's note it says complaining of worsening right foot pain and burning sensation since thls morning. That's an indication that there was a change In the pain; correct?

A. Correct.

Q. And so would there --

A. But this is a continuum of a process going on for four months.

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Q. Earilne Mlzsey underwent a vascular study on May 7th of '98 and she was found to have a right popliteal trifurcation occlusion with severe distal Ischemia, Justa day after thls emergency room visit.

Do you have an opinion as to whether the arterial occlusion in her right leg was caused by emboli originating from her heart?

A. No, I don't. That's an ultrasound study, that's not an angiogram or an Imaging study. That point of view I can't really comment on whether It was an embolus or thrombosis.

Q. Would you be able to tell the difference even on an angiogram If it was an embolism or thrombosis?

A. I think that would be a question you best ask the vascular surgical experts.

Q. Do you have an opinion based on that arterial study whether it should have raised a concern for emboll from the heart caused by bacterial endocardltis?

A. I think we are getting out of my area of expertise here and I don't have an opinion In that regard.

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Q. If you don't have an opinion, tell me that, doctor, and we will go on to something else.

Doctor, in retrospect, on the basis of that ultrasound, do you have an opinion as to whether the pain that she was having in the emergency room on April 26th was due to arterial occlusion in her popliteal trifurcation?

A. The ultrasound doesn't help me decide what happened four days before.

Q. I have just a couple questions In regard to your report, If you would like to look at that for just a second.

On page two of your report, at the beginning part of the paragraph on that page, you refer to her carotid artery disease as part of her past medical history. And we had looked at her carotid ultrasound that showed very mild plaque.

Is that the carotid artery disease that you are referring to?

A. Yes.

Q. Now, you have also mentioned in your report on page, I think It's three, at the top paragraph, when you are talking about

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Dr. Elnstadter's visit, and you mention he notes on an exam that her extremities were warm wlth good capillary refill, and both popliteal -- I'm sorry, both posterior tibial and dorsalis pedis pulses were Intact.

Would you expect that type of finding in a patient that had peripheral vascular disease and claudication to the extent that It was seen at that emergency room visit on May 6th?

A. Thls exam, I belleve, was on April 30th, which is roughly a week before. So there comes a point in the continuurn of the disease process where there Is good peripheral flow on rest, pulses can be palpable, and claudlcation, meaning that once there is an exercise stress test, If you will, to the muscles of the extremities that is what causes the pain.

Now the pain has progressed to a point where there seems to be interference and wlth the blood flow and worsening of the condition at that polnt, so I think this Is entirely consistent wlth continuum of the disease process.

Q. Doctor, have we covered all of your

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opinions that you Intend to offer in the trial of this matter?

A. I believe so.

Ms. TOSTI: Then I don't believe that I have any further questions for you and I thank you for your tlme this evening.

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(Deposltlon concluded at 9:10 p.m.)

(Signature not waived.)

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AFFIDAVIT

I have read the foregoing transcript from page I through 83 and note the following corrections:

PAGE	LINE	REQUESTED CHANGE

Richard Frires, M.D.

Subscribed and swom to before me this day of , 2001.

Notary Pubilc

My commission expires

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CERTIFICATE

State of Ohio,
SS:
County of Cuyahoga.

I, Vivian L. Gordon, a Notary Publk within and for the State of Ohio, **duly** commissioned and qualified, do hereby cenify that the within named RICHARD FRIRES, M.D. was by me first duly sworn *to* testify to the truth, the whole truth and nothing but the truth In the cause aforesaid; that the testimony **as** above set forth was by me reduced to stenotypy, afterwards transcribed, and that the foregoing **is** a true and correct transcription of the testimony.

I do further cenify that this deposition was taken at the time and place specified and was completed without adjournment; **that** I am not a relative or attorney for either **party** or otherwise Interested In the event of this action.

IN WITNESS WHEREOF, I have **hereunto** set my **hand** and affixed **my** seal of office at Cleveland, Ohio, **on** thk 3rd day of **July,** 200 **1.**

Vivian L. Gordon

Vivian L. Gordon, Notary Pubik **Within** and for the State of Ohio

My commission **expires June** 8, **2004.**

WORD INDEX

H U R O N
H O S P I T A L
CLEVELAND CLINIC HEALTH SYSTEM

PLAINTIFF'S EXHIBIT
1

Department of Emergency Medicine
Richard F. Fries, M.D.
Chairman. FACEP, FAAFP

March 27,2001

Mr. Thomas Kilbane, Esq.
Reminger and Reminger
Attorneys at Law
113 St. Clair Avenue, NE
Cleveland, Ohio 44114-1273

RE: E/O Earline Mizsey vs. MetroHealth Medical Center, et al
File No.: 393899

Dear Mr. Kilbane:

I am writing to you in answer to your request that J provide you with an expert opinion on the care rendered to Ms. Earline Mizsey, by the emergency physicians in the Emergency Department at MetroHealth Medical Center, Cleveland, Ohio on April 21,1998, April 26, 1998, and May 6, 1998.

I have had *the* opportunity to review the following materials sent to me regarding *the* above captioned matter:

1) MetroHealth Medical Center: Out-Patient Care 1/9/95 to 8/5/98
2) MetroHealth Medical Center: Emergency Room Visit *4/21/98*
3) MetroHealth Medical Center: Emergency Room Visit 4/26/98
4) MetroHealth Medical Center: Emergency Room Visit 5/6/98
5) Southwest General Hospital: Emergency Room Visit *5/8/98*
6) MetroHealth Medical Center: Admission 5/8/98 to *5/15/98*
7) ,Deposition: Douglas Einstadter, MD
8) Deposition: Jeffrey Pennington, MD
9) Deposition: Elizabeth Dorr McKinley, MD
10) Deposition: Thomas W. Graber, MD
11) Deposition: Louis Rakita, MD
12) Deposition;, Raymond Vrobel, MD

13957 Terrace Road
East *Cleveland, Ohio 44112*
(216) 761-3300 Ext. 1242

13) Deposition: Leslie Walter
14) Deposition: Catherine Visnic
15) Expert Report: Raymond W. Rozman, Jr, MD
16) Expert **Report: Ian** Baird, MD
17) Expert Report **Claude** Brachfeld, MDs

Ms. Mizsey **was** a 73 year old female with a past medical *history* of osteoarthritis, hypertension, hyperlipidemia, diabetes mellitus, coronary **artery disease,** carotid **artery** disease, *status* post coronary artery **bypass graft,** and **was status** post aortic valve replacement in 1994 for severe aortic stenosis. On March 10, 1998 she **was** seen at the Southwest General Hospital for malaise, low-grade fever **and** dropping **things.** Her neurological **exam was** within normal **limits** and after a work up she was diagnosed with probable TIA **and** sinusitis. She **was** seen by Dr. Einstadter on March 13, 1998 and complained of some clumsiness in ***the*** left **hand.** Dr. Einstadter noted **a left** pronator drift in Ms. **Mizsey** and slight decrease **strength** in the left leg. **His** diagnosis was acute CVA now three days old **and** he ordered a carotid ultrasound and echo to rule out embolic source.

Dr. Einstadter **again saw** her in the **outpatient** clinic on March 18, 1998. At that visit Ms. Mizsey presented **with sensory** and proprioceptive deficits of the **left** upper extremity. **The** carotid ultrasound **and echo were** pending. **On April 9, 1998, an** echocardiogram was performed which suggested bioprosthetic deterioration, which could be a potential embolic source. **A** transesophageal echocardiogram **was** suggested to further clarify the status of the aortic **valve.** ***Also*** **on April 9,** a carotid ultrasound **was** performed which **showed** mild calcified plaque bilaterally.

On April 21, 1998, Ms. ***Mizsey*** presented to **the** MetroHealth Emergency Department and **was** evaluated by Dr. Janet **Poponik** for the complaint of **right** hand tremor. Her neurological **exam** revealed old **sensory deficits in** the **left upper** extremity and old **left** facial droop. There were no new neurological deficits. Her symptoms **were** attributed to anxiety state and she was encouraged to follow up with Dr. Einstadter **as** scheduled.

On April *26,* **1998, Ms.** Mizsey presented to the MetroHealth Emergency Department again. Ms. Mizsey complained of **pain** throughout **her *right* leg since** the previous night. **This** pain **came** on suddenly after stepping **out** of the shower. The **pain** radiated from the foot to the **hip.** Dr. Jeffrey Pennington evaluated Ms. Mizsey **and noted** that he **suspected** delayed **capillary** refill **and that the** pedal pulses were difficult to palpate. The **vascular** surgery service **was** consulted **and** it was determined that she had adequate pulses in both **legs.** The **diagnosis of** radiculopathy was **made and** Ms. Mizsey was discharged **on** Motrin for **pain and** advised follow **up with** Dr. Einstadter within **48** hours. **She** was **sent** home with careful **warnings** to return to **the** ED if her leg pain worsened or **she** developed numbness, weakness, or **any** other **problems.**

On **April 30, 1998,** she ***saw*** Dr. Einstadter for **follow up** in the Outpatient Department. **It was** noted that **Ms. Mizsey** appeared to be depressed, **noting that** her **daughter** recently

died after a long bout with pancreatic cancer. Ms. Mizsey complained of a burning type pain in the right leg and foot, which she admitted, had been there over the past one to two months. On exam the extremities were noted to be warm with good capillary refill and both PT and DP pulses were intact. Because of the duration and nature of the pain, Dr. Einstadter's impression was that Ms. Mizsey's pain was consistent with a peripheral neuropathy secondary to her diabetes.

On May 6,1998, Ms. Mizsey returned to the MetroHealth Medical Center Emergency Department. Ms. Mizsey saw Dr. Maxime Gilles with the complaint of persistent right leg and foot pain as well as pain in the left foot. The pain *again* was described as burning pain. Her vital signs were Temperature 36.1, Pulse 100, RR 20 and Blood Pressure 144/77. Dr. Gilles consulted vascular surgery to see Ms. Mizsey because she had difficulty palpating the pulses in her lower extremities and her feet were cool. Ms. Mizsey was evaluated by the vascular surgery service in the emergency department. Ms. Mizsey admitted to having calf pain with walking for four months. She complained of right foot pain and burning sensation since the morning. Her history also included bilateral foot surgery for bunions in 1991. On exam her feet were cold. Right toes appeared cyanotic and capillary refill was greater than two seconds. Ail pulses were either palpable or dopplerable. Vascular surgery diagnosed peripheral vascular disease with history of claudication and questionable pain on rest. They scheduled an angiogram for the next day to determine the vascular status *of* her legs.

On May 8th, 1998 Ms. Mizsey was transported by ambulance to the Southwest General Health Center with difficulty speaking and right-sided weakness. She was diagnosed as having a stroke and was transferred to MetroHealth Medical Center. Ms. Miwey was admitted to MetroHealth from May 8 to May 15,1998. Her evaluation eventually revealed the presence of bioprosthetic valve endocarditis with blood cultures positive for the presence of peptostreptococcus bacteremia. On May 13, 1998 Ms. Mizsey suffered a further deterioration in her neurological status and was transferred to the Cleveland Clinic Foundation for possible aortic valve surgery. The decision was made to not proceed with surgery, as there was general agreement that they were able to control her infection well with antibiotics. She was eventually transferred to the Broadview Multicare Center for home IV antibiotics. Eventually, Ms. Mizsey expired while in the nursing home.

After review of the above records and depositions, it is my opinion that the medical care provided to Ms. Mizsey in the emergency department on all visits was reasonable and met the standard of care for emergency medicine. It is widely recognized that bacterial endocarditis is a challenging and elusive diagnosis to make. A definitive diagnosis is only made on autopsy or on direct visualization of the heart valve involved at the time of surgery. Fever is *the* most prevalent clinical finding in prosthetic valve endocarditis. Evidence of a new or changing heart murmur, signs of valvular dysfunction such as congestive heart failure, conduction abnormalities and chest pain are further signs and symptoms suggestive of endocarditis. *This* patient did not exhibit any of these signs or symptoms upon presentation to the emergency department at Metrohealth.

On the latter two MetroHealth emergency department visits, Ms. Mizsey's pain was very consistent with neuropathic pain either from diabetic peripheral neuropathy or radiculopathy. The emergency physicians involved prudently sought consultation with the vascular surgery service on both these visits and because of the chronic nature of Ms, Mizsey's symptoms, the most likely cause of her persistent pain was peripheral vascular disease as was suggested by the vascular service on May 6,1998.

Ms. Mizsey did *not* have any stigmata often seen in bacterial *endocarditis such* as Osler nodes, Janeway lesions, petechiae, clubbing, splenomegaly, or splinter hemorrhages. With no signs of fever, heart failure, or new or changing murmur there would be no reason to suspect endocarditis on any *of* these emergency department visits. There was not sufficient clinical evidence to make the diagnosis of endocarditis on any of these emergency department visits and I believe MetroHealth's emergency department physicians appropriately evaluated Ms. Mizsey, treated her immediate needs, and appropriately referred her for further vascular studies in a timely fashion. Ms. Mizsey was well managed in the emergency department on all visits.

MetroHealth's emergency physician staff displayed the skill and diligence expected of emergency physicians and clearly met the standard of care in their evaluation of Ms. Mizsey. I hold these opinions within a reasonable degree of medical certainty. Please do *not* hesitate *to* contact me if there is any additional information or input that I can provide.

Sincerely yours,

Richard F. Frires, MD FACEP