THE STATE of OHIO :
: SS:
COUNTY of CUYAHOGA. :

Doc. 448

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IN THE COURT OF COMMON PLEAS

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IRENE KARR, executrix of the estate of Raymond Karr, plaintiff,

vs. : Case No. 175700

FREDERICK SCHNELL, M.D., et al., defendants.

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Deposition of RICHARD WATTS, M.D. a witness herein, called by the defendant Frederick Schnell, M.D. for the purpose of direct examination pursuant to the Ohio Rules of Civil Procedure, taken via videotape and court reporter before Constance Campbell, a Notary Public within and for the State of Ohio, at the offices of Flowers & Versagi Court Reporters, The 113 Saint Clair Building, Cleveland, Ohio, on Monday, the 22nd day of February, 1993, commencing at 2:00 p.m. pursuant to agreement of counsel.

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COURT REPORTERS
Computerized Transcription
Computerized Litigation Support
THE 113 SAINT CLAIR BUILDING - SUITE 505
CLEVELAND, OHIO 44114-1273
(216) 771-8018
1-800-837-DEPO

APPEARANCES:

ON BEHALF OF THE PLAINTIFF:

Don C. Iler, Esq.
Nancy C. Iler, Esq.
Don C. Iler Co., L.P.A.
Standard Building
Cleveland, Ohio 44113
(216) 696-5700.
- - - - -

ON BEHALF OF THE DEFENDANT FREDERICK SCHNELL, M.D.:

John R. Scott, Esq.
Reminger & Reminger
The 113 Saint Clair Building
Cleveland, Ohio 44114-1273
(216) 687-1311.
- - - - -

ON BEHALF OF THE DEFENDANT THOMAS TANK, M.D.:

William D. Bonezzi, Esq.
Jacobson, Maynard, Tuschman & Kalur
1001 Lakeside Avenue
Cleveland, Ohio 44114
(216) 736-8600.
- - - - -

Also Present:
Frank P. Versagi, Videographer

I N D E X

WITNESS: RICHARD WATTS, M.D.

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(FOR KEYWORD AND OBJECTION INDEX SEE APPENDIX)

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RICHARD WATTS, M.D.

of lawful age, a witness herein, called by the defendant Frederick Watts, M.D. for the purpose of direct examination pursuant to the Ohio Rules of Civil Procedure, being first duly sworn, as hereinafter certified, was examined and testified as follows:

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DIRECT EXAMINATION

BY MR. SCOTT:

Q. Doctor, would you please state your name for the record.

A. Richard Ward Watts, M.D.

Q. Will you also state for the record your profession.

A. Yes. I'm a physician certified in internal medicine and cardiology.

Q. Where do you practice, Doctor?

A. Mainly at Fairview General Hospital. I'm Also on the staff at St. John and Westshore and Lakewood Hospital. I am also an Assistant Physician at Metropolitan General Hospital.

Q. Will you tell the jury your specialty, please, Doctor?

A. As I said before, I'm Board certified in both

internal medicine and cardiology. My main practice is that of cardiology.

Q. Doctor, I've asked you to look at the records in this case, to give your opinion to the jury as to whether the care by Dr. Schnell in this case met accepted standards.

Have you reached an opinion whether the care by Dr. Schnell met accepted medical standards in this case.

MR. ILER: Note my objection.

A. I have.

Q. Before we reach your opinions, Doctor, before you tell them to the jury, the jury needs to know about your expertise in these areas.

You mentioned that you are a cardiologist. Would you please tell the jury what is meant by a cardiologist, what does a cardiologist do?

A. A cardiologist is a physician whose training, background and experience and dedication is to the treatment of patients with cardiovascular diseases. This, of course, is rather broad.

It includes people who have coronary artery disease, hypertension, rheumatic

heart disease, congenital heart disease and includes the complications of heart failure and it includes a number of disciplines that are relatively new such as heart catheterization.

It also includes the knowledge of the ways of evaluating patients by way of reading the x-rays, electrocardiograms, echocardiograms and of course most importantly it includes the knowledge of medications used to treat patients with the various complications of heart disease.

Q. Doctor, how long have you been a cardiologist?

A. I have been in practice 40 years. I have been a Board certified cardiologist for over 30 years.

Q. Do you teach, Doctor?

A. Yes. I'm Assistant Clinical Professor of Medicine at Case Western Reserve University School of Medicine. I also have teaching duties at Fairview General Hospital, where I'm involved in the internal medicine training program as well as the family practice training program.

Q. Do you hold any positions at the hospitals which you mentioned?

A. At Fairview General Hospital I am the founder

and still the Medical Director of the Coronary Care Unit, which has been open now 29 years. I also am chairman of the critical care, vice-chairman of the Ethics Committee of the hospital.

Q. Do you spend at least 75 percent of your time in the clinical practice of medicine, Doctor?

A. I do.

Q. Have you had occasion to care for patients with the conditions of Mr. Raymond Karr, as in this case?

A. Yes, I have.

Q. Have you also had occasions to care for patients with those conditions who have undergone surgery?

A. Yes.

Q. In this case, Doctor, would you tell the jury what you reviewed in preparing to come to your opinions?

A. Well, Mr. Scott, most importantly I reviewed the hospital chart of Mr. Karr. I also, of course, reviewed the office notes of Dr. Schnell prior to Mr. Karr's admission to the hospital. In addition to that I reviewed the depositions of various experts that have been involved in the case preceeding along these lines.

Q. Have you also had occasion to look at the report of a doctor from Pennsylvania, who is on the other side of this case, a Dr. Singer, and his deposition?

A. Yes, I have.

Q. Doctor, would you mind telling the jury briefly about the patient, Mr. Karr, and his conditions at the time he presented for surgery?

A. Mr. Scott, Mr. Karr presented for surgery in the Spring of 1988 at the age of 60. He had had an injury to his back several years prior to that time. The disability from that injury continued to progress despite nonsurgical methods of treating his back injury.

In that setting he also had known diabetes and hypertension, both of which dated back more than 10 years.

He had also had operations on both carotid arteries, the arteries going up the neck to brain. These had been done six and seven years prior to the event of the Spring of 1988.

In conjunction with the carotid artery surgery he had a heart catherization which showed involvement of one of three coronary arteries. So that Mr. Karr had multiple problems

in his medical history leading up to his admission to Deaconess Hospital in May of 1988.

He also was taking like eight different medications to control the various problems of hypertension and diabetes, as well, of course, as medication to relieve the chronic pain he was experiencing from his back injury.

Q. Doctor, as I indicated to you, I requested you to take a look at this case, give opinions as to the care rendered by Dr. Schnell. You're aware of course that there are two doctors involved in this case. Dr. Tank and Dr. Schnell.

Would you tell the jury how Dr. Schnell is involved in this case.

A. Dr. Schnell was the treating physician treating Mr. Karr. He treated him for the hypertension and diabetes I just mentioned before. In fact, he was involved in the referral process to Dr. Tank, who is a surgeon who was going to do the surgical procedure, try to relieve the chronic back pain Mr. Karr was experiencing.

Dr. Schnell was involved in the preoperative evaluation as well as the medical aspects of the postoperative care for Mr. Karr.

Q. Dr. Singer in this case, that again is the

expert from the other side, testified, is from Pennsylvania, has testified that in his opinion the patient, Mr. Karr, should have been given blood at some point in time following the patient's surgery. I want to ask you whether the patient's blood level had anything to do with his death. But before I get to that point, I want to ask you preliminarily what was Dr. Schnell's involvement in the management of the patient?

A. Well Dr. Schnell, of course, was involved in the medical aspects of Mr. Karr's situation postoperatively. That would not place a primary responsibility on him to decide if or when the patient should receive a transfusion. That was more under the control of the treating surgeon, rather than the treating internist.

The internist of course would be involved in the management of his diabetes, which of course would be somewhat difficult in the immediate postoperative state. Involved in the control of his blood pressure. He would be watching for any signs of congestion in the lungs, things of that type. His primary responsibilities would certainly not be that of transfusion.

Q. Doctor, I want to go to the patient's

postoperative care and the allegation in this case that a transfusion should have been given to the patient.

Do you have an opinion, Doctor, as to whether this patient died because he did not have sufficient blood cells?

A. I have an opinion.

MR. ILER: Note my objection.

Q. Do you have an opinion to a reasonable degree of medical certainty?

A. I do.

Q. Will you tell the jury what your opinion is, please?

A. My opinion is that his relative anemia in the postoperative state had absolutely nothing to do with his sudden cardiac death.

Q. Doctor, you mentioned that his anemia had nothing to do with his death. When you say the patient's anemia, how does the word anemia relate to blood loss in this case?

A. As with anyone undergoing surgery, of course there was a certain amount of blood loss that occurred. The question comes up whether that should have been replaced or not.

His anemia was expected given the amount of blood loss that was measured at the operation, in the immediate postoperative period.

Q. Dr. Singer testified in his deposition that the patient lost approximately 50 percent of his blood volume. What is your opinion as to the blood loss in this case, Doctor?

A. I don't believe I can agree with Dr. Singer. I calculated it something around 15 percent rather than 50 percent.

Q. Doctor, have you prepared a paper which you have beside you which graphically demonstrates to the jury the patient's blood loss, fluid replacement?

MR. ILER: I would like to see that first if we can go off the record for a minute.

MR. SCOTT: Sure.

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(Brief recess had.)

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MR. ILER: Let the record reflect we are making an objection to the opinions offered by Dr. Watts. That opinion has not been offered before in deposition or his medical

report. Pursuant to Rule 21.1 of the Cuyahoga County Rules of Procedure which have been enacted here, we make an objection to the offering of this opinion at this time as we have not had an opportunity to cross-examine Dr. Watts on these points.

Number 2, that these opinions have not been offered prior either in the deposition or as a medical report. With our objection so noted, Mr. Bonezzi has any, we can proceed over our objection.

MR. BONEZZI: Go ahead.

BY MR. SCOTT:

Q. Doctor, before the interruption you had taken a piece of paper which you have prepared and I ask you what is meant to be shown to the jury with this document which you have?

A. Well, Mr. Scott, what I'm attempting to show here, I will go through it step by step because it's somewhat complex.

The real point to the figures that are on the sheet of paper and the diagram and so on is that there is -- we all start out with a certain number of red blood cells.

In Mr. Karr's case of course he had

some blood loss associated with the operation and immediate postoperative period. As we all know, he was not given a transfusion. That was one of the points of the plaintiff's expert. Dr. Singer felt that the patient should have received a transfusion.

What I'm attempting to show here in a graphic form, with the various numbers, is that while he was not transfused, we all agree upon that evidence, that he was given non-blood fluids so that his circulating blood volume was the same as it was before the operation. He didn't have as many red blood cells in circulating volume because he hadn't received any transfusion. He had the same blood volume.

Let's start with Mr. Karr who weighed 84 kilograms. We know on the basis of research about seven percent of our body weight is in the form of extra cellular fluid. 84 kilograms would translate into 5880 ml or cc's as they are called.

He had a hematocrit of 40. That meant that 40 percent of the 5800 figure was in the form of red cells. He had an absolute volume of 2350 red blood cells.

Then he goes to the operation. He loses around 900 cc's or ml of blood.

Q. May I ask you, Doctor, before you go on, where you obtained the number of 900 blood cells that -- or 900 blood volume the patient lost?

A. The operating surgeon, Dr. Tank, estimated -- this is in his operative note, in the last paragraph of his dictated noted after the operation that he estimated the blood loss at 650 cc's.

We also have a note from the recovery room area estimating another 150 cc's. We are up to 800 there. I think it would be safe to say there is probably about a 10 percent error one way of another so that we are at at least 800 by actual measurement. There is blood loss that may not be measured that would be taken up by the operative drapes. Also in the patient himself. In the operated field. So, a figure that could be estimated, this is everything I said up until now has been measured, the estimated additional 100 cc's brings us up to 900. Admittedly 800 of the 900 was measured. My estimate is another 100, making it 900.

Q. Very good, Doctor, please proceed.

A. The 900 cc's of blood, 40 percent of that,

the hematocrit of 40 was actually red blood cells.

We then had 2350 cc's of red blood cells. We take away 40 percent of the 900, which is 360. So now we are down in terms of red blood cells to just below 2,000 cc's of red blood cells. We pour out that much blood from our beaker simulating the body.

MR. ILER: Excuse me, Dr. Watts, I want to make an objection to the use of this diagram and to the color. You can continue as long as I make my objection.

Q. Go ahead, continue, Doctor.

A. What is going on is that of course we have an adjusted circulating volume of 4980, which is the 5880 we had up here minus the 900 cc's of either measured or estimated blood loss.

Q. Doctor, before you proceed.

A. Yes.

Q. Is that blood loss that occurred during surgery an unusual amount of blood loss for that surgery?

A. No. It causes a certain amount of blood loss because you are cutting through muscles and working deep in the back and so on. I think Dr. Tank was using his 650 estimated blood loss based on his

operative experiences over many years.

MR. ILER: Note my objection. I ask that the answer be stricken as to what he thought Dr. Tank thought.

Q. Is your answer based on what the operative note of Dr. Tank states, Doctor?

A. It is.

Q. Before you go on as well, is that blood loss which you noted as coming from the surgery itself and the follow-up, does that entire blood loss require any transfusion of blood for this patient?

MR. ILER: Note my objection to the question and to his answer.

Q. You may answer, Doctor.

A. No, it does not.

Q. Go ahead, Doctor, please proceed with your schematic.

A. Up to this point it's been all out, no in. He's gone to the operating room, as a result of the operation he's lost around 900 cc's of blood.

He comes out of the operating room, the immediate postoperative period with a reduction in the number of red blood cells to just below 2,000 ml's of red blood cells.

In the next two days he's given

intravenous fluids and also begins to take things orally. In the intake/output record from the hospital we have a total intake of 7,670 cc's.

Q. Doctor, let me interrupt you again. I am sorry to do this. You obviously are much more familiar than we lay people. When you say the intake, what precisely is meant by intake, what intake are you talking about?

A. We are talking intravenous and oral. During the first several days he was getting 100 cc's per hour intravenously plus whatever he consumed orally. He was able to consume food and fluids orally in the postoperative period.

Q. Please proceed, Doctor.

A. Mainly intravenous. Also oral intake he had 7600 cc's intake. During that same several day period there was a measured output of 3080 cc's this was mainly urinary output.

That would give him a positive balance of 4590 cc's of intake over output.

During the same period of time we had something which we can't measure called insensible fluid loss. This insensible fluid loss through the skin, moisture we lose as we breathe. That usually runs somewhere between 750

and 1000 cc's a day. I have rounded that figured to be 1000 cc's a day or for a two-day period 2,000 cc's. We have the excess of intake over output of 4590.

We have taken away from that the 2,000 of insensible fluid loss. That still gives us a positive fluid balance of 2590 cc's. We have gone from the preoperative state through the operation with the measured 900 cc blood loss and with the postoperative intravenous fluid intake and urinary loss and factored in the insensible fluid loss, we still have a positive fluid balance of 2,590 cc's. So, we have the same amount of red blood cells after the operation that we had before it's suspended in a larger volume. We refilled the beaker, as it were.

We have the 1992, the just under 2,000 cc's for the red blood cells, but we have now reconstituted the fluid volume of the body up to 7570. 1992 divided by 7570 gives us a hematocrit of 26. This happens to be very close to the hematocrit the laboratory measured in the last test done before Mr. Karr died.

The whole point of this exercise which I prefaced by pointing out we are going to be

talking about the loss of actual blood cells and replacement of fluid volume with noncontaining blood, it turns out he has nearly exactly what the laboratory measured, based on these figures taken from the chart of Mr. Karr at that time.

So he was able to get along with a fewer number of red blood cells, so long as the fluid volume was sustained by the intravenous fluids alluded to in this portion of the diagram.

Q. By the way, Doctor, you have 26 hematocrit. We have also been speaking to the jury about hemoglobin. What would that translate to as far as hemoglobin approximately?

A. Around eight grams of hemoglobin.

MR. ILER: May I make an objection, Mr. Scott, that the testimony of the physician in this case be striken from the record.

Q. Doctor, I ask you this based on your knowledge and expertise, training and experience, was there any reason to transfuse the patient assuming these values of hemoglobin at eight plus and hematocrit at 26 as you indicated?

A. No, no indication for a transfusion in Mr. Karr.

MR. ILER: Note my

objection. Ask that his answer be striken.
Q. Are all the opinions you are giving here, Doctor, based upon a reasonable degree of medical certainty and based upon your expertise and training and experience?
A. They are.
Q. Doctor, we have talked about the blood loss at the time of surgery, we talked about the replacement of volume with I.V. fluids.
Doctor, I ask you whether you have any opinion as to cause of death of the patient?
A. I do.
MR. ILER: Note my objection for the record.
Q. Would you tell the jury your opinions in that regard, please?
A. Mr. Karr died with and because of his preexisting heart disease. At autopsy he had triple vessel coronary artery disease in the large heart. He died the kind of death which unfortunately is the mechanism by which 60 percent of the people in this country die of heart disease each year. In other words, sudden cardiac death occurring without evidence of the event going to occur until the time of the occurrence itself.

Q. Doctor, I also want to ask you about the life expectency of this patient, Mr. Karr, since Dr. Singer has also testified in that connection. Dr. Singer testified, if I recall correctly, that the patient would likely have lived to his late 70s.

Have you reviewed the records and have you formed an opinion in that connection as well?

A. I have.

Q. Would you tell the jury your opinion as to the patient's life expectency?

MR. ILER: Note my objection. You can answer, Doctor.

A. I believe Mr. Karr -- this is of course based upon all the information we know about him, including the autopsy data -- that Mr. Karr had a 50 percent chance of living approximately six more years.

Q. Will you tell the jury why you have that opinion that Mr. Karr would have about a 50 percent chance of living six more years?

MR. ILER: Note my objection.

Q. This is based on a variety of studies which

have been done, mainly relevant to the selection of patients for coronary artery surgery. We know, of course, having all three coronary arteries involved reduces life expectency more than having two coronary or one coronary artery involved.

We know age itself reduces ones life expectency. We know that diabetes and hypertension reduces ones life expectency. Involvement of kidneys and so forth also have an effect in reduction in ones life expectancy.

In looking at Mr. Karr, based upon the studies reported on large populations from different parts of this country in the last 10 to 15 years relevant to the survival of a coronary artery surgery or the lack of coronary artery surgery, I think it's safe to say we are expecting about an eight percent mortality for a man like Mr. Karr, at his age, with his degree of coronary involvement. Eight percent a year would therefore translate out to a 50 percent likelihood of being alive in about six years.

MR. ILER: Note my objection. I ask the answer be striken for the reasons the opinions were not given in deposition or his medical record. We ask that the court rule

that the life expectency testimony be striken from the record.

Q. Doctor, you also mentioned as one of the reasons for death of Mr. Karr his arteriosclerotic disease. Was that disease suspected or reasonably suspected at the time of the patient's death?

A. Well --

Q. Can you tell the jury, if I might interrupt the extent of that disease when found on autopsy?

A. Well, it was known that he had arterio disease earlier because as I mentioned in the first part of the testimony he had both carotid arteries operated upon in 1981 and 1982. He had known vascular disease. He had had a heart catheterization that showed some involvement of one of the coronary arteries.

At autopsy, of course, it showed that he had considerable involvement of all three coronary arteries. They progressed in an asymptomatic fashion. He had not had any symptoms relevant to that known in the preoperative state.

Q. Doctor, the same Dr. Singer testified that there must have been a lack of perfusion of the organs and tissues of the patient. Was there, in your opinion, any difference between the perfusion

before surgery and perfusion after the surgery? You might tell the jury before you answer what is meant by tissue perfusion.

A. Tissue perfusion is what the circulation is all about. The duty of the circulation is to supply oxygen to all the tissues, which it does by way of carrying red blood cells, which in themselves are carrying oxygen from the lungs to the various parts of the body. The various parts of the body obviously depend upon that supply of energy in the form of oxygen. With an impairment of the energy supplied, obviously the organs cannot function as well.

So the whole purpose of it, to evaluate the patient from the standpoint of adequate perfusion, would be to look at him in his entirety. Also individually, mental function, function of the heart, lungs, kidneys, liver and the other functioning organs of the body.

Q. Were there any signs in this case, Doctor, that the organs of the patient were not being perfused sufficiently?

MR. ILER: Note my objection.

A. No.

Q. Doctor, as a matter of the care rendered by Dr. Schnell, I ask you to tell the jury whether you have an opinion to a reasonable degree of medical certainty whether the care rendered by Dr. Schnell met accepted medical standards?

A. I have an opinion.

Q. Your opinion, sir?

A. I believe Dr. Schnell's care of Mr. Karr certainly met the standard of care for a patient in this situation. I could find no fault with the care that Dr. Schnell rendered to Mr. Karr.

MR. SCOTT: I thank you very much, Doctor. The other attorneys may have some questions for you.

MISS ILER: We'll take a break now.

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(Recess had.)

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CROSS-EXAMINATION

BY MR. ILER:

Q. Dr. Watts, my name is Don Iler. I represent the Karr family. I have some questions for you. Let's start out with the idea that you had known Dr. Schnell for 45 years, am I correct?

A. Yes, at least 45 years.
Q. I understand you met him first in medical school?
A. Yes, he was a year behind me.
Q. Your friendship continued through your practice?
MR. SCOTT: Objection.
A. Well, I wouldn't say we were close friends. He worked at a hospital where I never go. Likewise he never comes to Fairview. I think that there were quite a few years we literally did not see each other.
Q. There were quite a few years you did see each other?
A. Probably once a year in medical meetings. We have perhaps two or three or four mutual patients. Our relationship has been very distant.
Q. Let's take the medical meetings first. During the times you went to medical meetings you talked with him on a friendly basis, had you not?
A. Yes.
Q. You exchanged pleasantries about the practice and so forth, am I correct?
A. You are correct.
Q. Has he ever referred a patient to you?

A. Only in the way of saying someone was moving from his service area to our service area. The patient had heart disease, he would give them my name.

Q. Is the answer yes?

A. In that context the answer is yes.

Q. There was a business basis -- listen to my question first, Doctor -- there was a business basis between yourself and Dr. Schnell, am I correct?

A. I don't know what you mean by business basis. I was trying to define my answer there for your question a little earlier, when you said referral. Usually when we think of a referral it's a patient being referred to the doctor, remaining under the care of the doctor, I'm coming in as a consultant. That wasn't the case with Dr. Schnell's patients. They were literally moving from his area of the city to my area of the city. I was continuing the care he already established. That is not what we usually speak of as being a referral.

Q. Have you ever served on any medical committees with him?

A. No.

Q. Some of your patients have been treated by Dr. Tank however, am I correct?
A. I can only recall one.
Q. Just one time in your years of practice has Dr. Tank referred a patient to you, is that your testimony?
A. No, I referred a patient to Dr. Tank. I don't recall his ever referring a patient to me.
Q. You also know Dr. Suppes?
A. I know who he is, yes.
Q. How do you know Dr. Suppes?
A. I think we have been on perhaps one committee at the Academy of Medicine level.
Q. What level would that be, what committee would that be, do you remember?
A. I was on the trauma and emergency care committee for a number of years back 10 or more years ago. I believe Dr. Suppes was on the committee for one year. He had been the president of the academy at about that time. He was on a committee from that standpoint.
Q. We have established, have we not, that you knew Dr. Schnell for approximately 45 years, true?
A. That is true.
Q. You know Dr. Tank, you have known the other

defendant in this case, Dr. Tank, am I correct?
A. I'm not sure I ever met Dr. Tank. I talked to him on the phone on one or perhaps two occasions concerning one patient that I referred to him.
Q. The question was do you know him?
A. I know who he is.
Q. You also know one of the experts for Dr. Schnell, he has yourself and then Dr. Suppes and you also know Dr. Suppes, am I correct?
A. Yes, I do.
Q. You have reviewed medical cases, medical negligence cases for Mr. Scott before, have you not?
A. I have.
Q. The review of those cases, you reviewed those cases on behalf of physicians, am I correct?
A. You are correct.
Q. You have not reviewed those cases for Mr. Scott looking at it from the care, the effort to testify on behalf of the patient, am I correct?
MR. SCOTT: Objection.
A. That is correct.
Q. How many cases would you say that -- doctor's conduct cases if you will -- have you reviewed for Mr. Scott?

A. I would think it's less than five. I wouldn't be able to quantify it beyond that. It's hasn't been a lot of cases.
Q. Have you reviewed physician's treatment of patients for any other attorneys in town?
A. Yes.
Q. Who would that be?
A. I reviewed cases for Arter and Hadden, reviewed cases for Jacobson, Maynard, Tuschman and Kalur. I can't offhand think of any -- well, I reviewed some cases for Nurenberg, Plevin in the early 1980s.
Q. Let's turn to the firm of Arter and Hadden. They defend doctors against malpractice cases, don't they?
A. The suits I reviewed were being defended, yes.
Q. How many cases have you reviewed for the firm of Arter and Hadden on behalf of physicians accused of medical negligence?
A. I think all together over the last 10 years it probably adds up to no more than 10.
Q. You also reviewed cases for the law firm which is defending Dr. Tank, that would be Jacobson, Maynard, Tuschman and Kalur, am I

correct?
A. You are correct.
Q. How many cases have you reviewed -- these are cases where a doctor has been accused of below standard care for Jacobson, Maynard, how many cases, Doctor?
A. Probably half a dozen, I would guess.
Q. Do you sit on any committees of the Jacobson, Maynard firm?
MR. BONEZZI: Objection.
A. No, I haven't been to a peer review there for a number of years.
Q. Was there a time you did?
MR. BONEZZI: Objection.
A. Yes.
Q. Are you an insured of the Physician's Insurance Exchange Insurance Company?
MR. BONEZZI: Objection, move to strike.
MR. SCOTT: Same motion.
A. I am.
Q. How long have you been insured by Physician's Insurance Exchange Company?
MR. BONEZZI: Objection.
MR. SCOTT: Objection.

A. Since 1975.

Q. Have you served on any boards of the Physician's Insurance Exchange Company?

MR. BONEZZI: Objection.

A. No, I have not.

MR. SCOTT: Same objection.

Q. Doctor, before we get into some of your testimony, I want to return you to your diagram. On the bottom of the diagram there is a note there. Where did this diagram come from?

A. Mr. Iler, the diagram came from the work of my daughter, who is the person who runs Med Art. She does medical illustration for the legal and medical profession. What is being referred to, what you pointed to is an asterisk. It says, "Advances in Surgery, Volume 1, page 69, 1965." That is referencing the fact that seven percent of our body weight is in the form of circulating blood volume.

Q. My question is, is this diagram copied from that?

A. I am sorry, the diagram was made by her. The figure seven percent was derived from the reference.

Q. I didn't ask you about the seven percent. I'm talking about the diagram in general.
A. No, the diagram was made for this particular case.
Q. Made by your daughter?
A. It was.
Q. Is her company known as Advances in Surgery?
A. No, her company is on the other corner of the bottom, Med Art. In the lower left-hand corner.
Q. I want to talk to you about this diagram, Doctor. First I want to ask you when you remarked to this jury earlier you said that fluid was replaced after Raymond Karr's surgery, am I correct?
A. Yes.
Q. So we are perfectly clear. That fluid that was replaced was not blood?
A. That is correct.
Q. The fluid replaced did not contain any hemoglobin?
A. No, it didn't.
Q. Hemoglobin is the agent of the blood which carries oxygen, true?
A. So I testified.
Q. You testified to us earlier without oxygen

tissue will die, correct?
A. What I actually said is it wouldn't function as well. In the long run it might die, yes.
Q. As a cardiologist if the heart is not receiving sufficient oxygen by enough blood carrying of the heart you are going to have a problem with your heart function, are you not?
A. It could be.
Q. Isn't it true in many cases where you have arteries which are clogged up for example, blood cannot reach the heart, ergo not enough blood reaches the heart, you are going to have a heart attack or problem?
A. I think that is a good generalization of it, yes.
Q. In your diagram, I want to ask you about it if you can hold it up for us, in this diagram you have the red, all the red is in the same color, am I correct? It's all red, isn't it, in the first glass, the second glass, the third glass we are seeing red, am I correct?
A. We are.
Q. What you are really talking about is fluid which is put in which is not red, am I correct?
A. Correct.

Q. These colors are not accurate. They should be diluted red, am I correct?
A. Down here it would be more diluted. Here and here of course would be the same color. Here we are starting in the preoperative state. Here is pouring out 900 cc's of blood. Here is the -- this is the reason for the blue arrows coming in because the blue obviously is not containing blood. To be totally accurate artistically it should be a more pale red because the hematocrit is dropped from the 40 percent of the circulating volume to 26 percent of the circulating volume.
Q. This is the critical time we are talking about, are we not, in the third beaker?
A. We are.
Q. It's clear this color is a misrepresentation of the color of the blood at this level?
MR. SCOTT: Objection.
Q. Am I correct or not?
A. If you went by the color alone it should be a more pale red, yes.
Q. You are not intending to tell the jury by the use of this diagram the color in the third beaker should be and was the same as the color in the first beaker before Ray Karr's surgery; is that

correct?
A. That's correct.
Q. The numbers used in this diagram, I want to talk to you about those if you would, please, Doctor. The numbers you use in your diagram, the blood volume you indicated in the diagram is seven percent, am I correct?
A. That is correct.
Q. In your report what figure did you use or in your deposition?
A. I used five percent.
Q. How come your daughter didn't use five percent here?
A. I looked it up since that time. In medical school we were taught it was five percent. Not until 1962, 1965 that the more recent isotope techniques made it possible to do a more accurate calculation.
Q. You changed your mind from the deposition?
A. I did.
Q. In your deposition, Doctor, once again let me go back to your chart if you would, in the second beaker you talk about the blood lost during surgery. I think that is what you are depicting, am I not right?

A. Right.
Q. You indicated here there was 900 milliliters, can we say cc's?
A. We can.
Q. In your deposition, however, you said there was 880, am I correct?
A. Yes.
Q. Once again you changed your mind?
A. Yes.
Q. The last diagram, what you have here we talked about circulating blood volume, am I correct?
A. Yes, you are.
Q. Where is your figure for that, 49 --
A. No. That is the balance of the fluid intake over output. 7570 was our denominator on calculations.
Q. What from the diagram did you calculate now to have the circulating blood volume, how much was that?
A. 7570.
Q. In your deposition you used 4300, did you not?
A. Well --
Q. Just a minute, Doctor. In your deposition

that was given to us under oath, you see Doctor, on July 6, 1992, you used 4300 cc's, am I correct?
A. Yes.
Q. You changed your opinion again, am I correct?
A. Yes, you are.
Q. Thank you. Am I correct in your statement to this jury that you said that Raymond Karr had the same amount of red blood cells after his surgery that he had before his surgery?
A. Of course not.
Q. You didn't mean to tell the jury that?
A. I didn't tell the jury that.
Q. In other words, after the surgery of Raymond Karr he ended up with less red blood cells which carry oxygen than he had before the surgery, am I correct?
A. My diagram showed that very clearly, Mr. Iler.
Q. Is the answer yes?
A. The answer is yes.
Q. How many blood cells less did he have after the surgery than he had before?
A. Referring back to what we have already shown the jury. We started out with 2352 for red blood cells. He lost the 900 cc's of blood. That gave

him 1992 for the number of cc's of red blood cells.
Q. How many red blood cells did you estimate he had after the surgery than before?
A. It would be 2352, you take away 1992.
Q. That would be how much, sir?
A. That would be 460. I am sorry, 360.
Q. Was that ever replaced?
A. No.
Q. Is it your testimony that it was Dr. Tank who was supposed to give Raymond a blood transfusion if one was necessary?
A. That was my testimony.
Q. Don't I understand it was Dr. Schnell and Dr. Tank who both were taking care of Raymond?
A. That was my understanding.
Q. Didn't they both share the responsibility of seeing that Raymond was appropriately taken care of?
A. Of course.
Q. Wouldn't it be the responsibility of Dr. Schnell, if he believed that there had to be some blood replacement for Raymond, to call Dr. Schnell and Dr. Tank and discuss that with them, don't you think so?
A. Traditionally in the practice of medicine

Mr. Iler, the surgeon is in charge of the question of transfusion. If Dr. Schnell had felt that Mr. Karr was being impaired by the reduction in his blood hematocrit, he could call Dr. Tank and raise the question of transfusion and as a matter of fact he did ask the nurses to notify Dr. Tank of the drop in the hematocrit on the second postoperative day. Dr. Tank responded by ordering some injections of iron to help build up the blood count.

The primary responsibility, Mr. Iler, in the care of patients postoperatively, the surgeon is really the person who primarily is assigned the duty in regard to transfusion.

Q. Let me ask you this, Doctor, hypothetically speaking, if the physician -- Dr. Schnell is Board certified is he?

A. I don't know whether he is or not. I think he is.

Q. He's an experienced internist, is he not?

A. Definitely.

Q. You are an internist?

A. I am.

Q. If the internist thinks the treating physician is making a mistake with a patient, don't

you think it is the responsibility of that physician to say to the treating physician, "Wait a minute, I think you are making a mistake, I think Raymond Karr should have some blood," isn't that reasonable?

MR. BONEZZI: Objection.

MR. SCOTT: Objection.

A. If he felt that to be true that would be his obligation.

Q. The fact that one is a treating and one is a referring should have no significance insofar as the patient's health is concerned, am I correct in that?

A. We are all working in the same objective of helping the patient.

Q. Then why are you blaming Dr. Tank?

MR. SCOTT: Objection.

A. It's not a matter of blame. The practice in the postoperative period is, transfusion in particular, fluids in general are more under the control and obligation of the surgeon than they are the internist. That happens to be the way things have evolved over the course of the practice of medicine.

Q. Let me put it this way: If there was evidence

before Dr. Schnell that Raymond was showing signs of not getting enough oxygen to his system, he should do something about that, am I correct?

A. You are correct.

Q. Let's, if we can, Doctor, turn to the preoperative care, the care that Raymond received before his surgery; can we do that, sir?

A. We can.

Q. I think that there is an agreement from the record that it was Dr. Schnell who was supposed to clear Mr. Karr for the surgery, am I correct?

A. You are correct.

Q. With the responsibility of clearing a patient for care such as Mr. Karr --

MR. SCOTT: Objection for the record since these questions are not relevant to the case because plaintiff's expert, Dr. Singer, has addressed only one alleged departure from the accepted standards, that being postoperatively in connection with the question of whether to transfuse the patient.

Q. We'll continue and the judge can rule. What does it mean to clear Raymond Karr for his surgery?

A. This means to evaluate the patient for any possible risk associated with the surgery and the

postoperative period.

This is a global assessment. It has to do with the patient's blood pressure. It has to do with the diabetes. Has to do with all the various medications and to make sure that he was not going into surgery in an unprepared or poorly prepared condition which could be improved upon by doing various things before the operation.

Q. You will agree that a patient has the right to expect his physicians are going to anticipate risks he might have or she might have during surgery, am I right?

MR. SCOTT: Objection.

A. You are right.

Q. Let's turn to the first risk, for example, of diabetes. Is there a risk of a patient going to surgery with diabetes, as opposed to a patient who does not have diabetes going into surgery?

MR. SCOTT: Objection.

A. Yes.

Q. What is that risk?

A. The operative procedure will always put a greater strain on the body in general, therefore increase the requirement for insulin in the postoperative period. The patient is at risk of

having gone from the controlled diabetes to uncontrolled diabetes.

Q. That puts a strain on the cardiac system, am I correct?

MR. SCOTT: Objection.

A. It may.

Q. In what way?

A. It would increase the heart rate if he were to develop acidosis or something of that sort. The rise in blood sugar in itself would not put an extra strain on the heart. Only the development of acidosis. That would put an extra strain on the heart.

Q. Secondly, we know that Raymond had hypertension, am I correct?

A. You are correct.

Q. What is that for us?

A. High blood pressure.

Q. Is that a risk a patient would have at surgery as opposed to a patient who did not have hypertension?

MR. SCOTT: Objection.

A. The person with hypertension may well have an enlarged heart, which it turns out on autopsy Mr. Karr did have. That would be the risk. Of

course the secondary risk of that would be that enlarged hearts are more likely to go into heart failure.

Q. Let's turn away from the enlarged heart for just a moment, stick with plain old hypertension. Why is hypertension a risk for a patient going into surgery such as Raymond?

MR. SCOTT: Objection.

Q. Why is there risk?

A. There isn't a great deal of risk if the person has controlled hypertension, doesn't have what we call end organ involvement. Most importantly the heart, of course, if the heart be of normal size, the hypertension itself is not a particular risk.

Q. Would you say then a patient such as Raymond that is going into surgery, this laminectomy -- that is quite extensive surgery he went through; isn't that correct?

MR. SCOTT: Objection.

A. Yes.

Q. Don't you think that in the clearing process Mr. Schnell should have said, "Wait a minute, I have a patient who has hypertension, that can be a risk of surgery. I want to find out if he has an

enlarged heart. Let us do an echocardiogram"; isn't that reasonable?

MR. SCOTT: Objection.

A. It may be reasonable but it is not routine. He did have the things that are routine, the chest x-ray and the electrocardiogram.

Q. Did the chest x-ray show an enlarged heart?

A. No.

Q. It didn't. So here Raymond was cleared by Dr. Schnell for this surgery with known hypertension, right?

A. Right.

Q. With an x-ray but without any evidence as to whether or not Raymond's heart was enlarged or not?

MR. SCOTT: Objection.

A. One of the best ways of detecting cardiac enlargement is the electrocardiogram. The electrocardiogram did not show heart enlargement, nor did the chest x-ray. I think Dr. Schnell was certainly on firm ground to feel that that posed no additional risk for the surgery.

Q. You will admit, however, that hypertension in Raymond was a risk, correct?

MR. SCOTT: Objection.

A. Of course.

Q. We have come to two risks. One is diabetes, the second is hypertension. Now we come to find out that Raymond in 1981 had gone to the Cleveland Clinic, his heart was examined, am I correct?

A. You are correct.

Q. What did they find there?

A. They found single vessel coronary disease.

Q. What does that mean for us?

A. What it means is that of the three coronary arteries, one of them had some narrowing.

Q. Dr. Schnell of course had been Raymond's physician for a number of years?

A. Yes.

Q. Did you assume in your analysis of this case that Dr. Schnell in fact knew about this 1981 Cleveland Clinic heart diagnostic test?

A. Let me turn to Dr. Schnell's writeup in the preoperative period. I think that will answer the question more factually than I can do from memory alone.

MR. SCOTT: Off the record.

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(Brief recess had.)

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MR. ILER: I forgot my

question.

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(Question read as follows: Did you assume in your analysis of this case that Dr. Schnell in fact knew about this 1981 Cleveland Clinic heart diagnostic test?)

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A. Yes, Mr. Iler, I have in front of me from the Deaconess Hospital chart the consultation that Dr. Schnell dictated prior to the operation and the second paragraph, the first page, covers the sum of the questions that you asked.

For instance, in the second paragraph he says, "In 1981 he underwent angiography for evaluation of a carotid bruit. Found to have an 80 percent narrowing of the right internal carotid, 95 percent narrowing of the left internal carotid. At the same time he underwent routine cardiac catheterization. This showed minimal irregularities of the right coronary artery and the left anterior descending so the coronary arteries were nearly normal. In the posteriolateral branch of the circumflex coronary artery, the third coronary artery, there was a 40 to 50 percent obstruction."

Dr. Schnell goes on to say that, "None of these lesions were thought to be hemodynamically significant." He did indeed have early coronary artery disease which the physician at the Cleveland Clinic did not find to be of any great threat to Mr. Karr at that time.

Q. Let me ask you this now: We know that two carotid arteries that come down from the heart, circulate around our brains; is that correct?

MR. SCOTT: Objection.

A. They come from the aorta. The aorta comes from the heart, the aorta gives rise to the two carotid arteries which go up the front of the neck to the brain.

Q. One was 80 percent blocked, the right, am I correct?

A. That is correct.

Q. The 80 percent blockage, does that mean 80 percent of the blood traveling up is not going up there?

MR. SCOTT: Objection to all this questioning if I might, Don, because of the relevancy in view of the fact that your expert, Dr. Singer, confined his criticisms purely to the alleged failure to give blood postoperatively.

A. Mr. Iler --

MR. ILER: Hang on a minute there. I'm trying to digest the objection.

Q. If I may, Doctor, I will move off the subject shortly, the other carotid, 95 percent was blocked?

A. Correct.

Q. One of the three coronary arteries to Raymond's heart was also not normal?

A. That is correct.

Q. That had a blockage of approximately 40 to 50 percent?

MR. SCOTT: Objection.

A. Yes.

Q. Once again in the clearing process by Dr. Schnell, should Dr. Schnell have anticipated that risk before subjecting Raymond to surgery?

MR. SCOTT: Objection.

A. He did anticipate that risk. He was knowledgeable about the existence of the various factors that all were incorporated in Mr. Karr.

Q. Do any of the factors -- I am sorry, Doctor, also I think that there was -- we talked about diabetes, hypertension. We talked about Raymond's carotid arteries. We talked about one coronary artery was there any other problems Raymond had

before surgery?

MR. SCOTT: Objection.

A. No.

Q. Would a combination of these four problems that Raymond had lead a reasonably prudent physician to believe that Raymond might need some blood at surgery?

MR. SCOTT: Objection.

A. No.

Q. I understand from the record that -- strike that. Doctor, excuse me.

How long do you believe that Dr. Schnell had been Raymond Karr's doctor, how many years would you say?

MR. SCOTT: Objection.

A. I believe it goes back to the early 1960s as best I can make out from his dictated consultation. It had been over a long period of time. I think it's safe to say that.

Q. I think Dr. Schnell also prescribed medication for Raymond?

A. He did.

Q. Do you recall what medication he did prescribe?

A. Yes. He was taking medication to control his

blood pressure and was also on insulin.
Q. Insofar as blood pressure, do you recall the medication he was using?
A. Yes, he was taking a beta blocker by the name of Indural. He was taking a calcium channel blocker by the name of Calan and he was taking Apresoline and Capoten and Hydrochlorothiazide. All dedicated to the control of blood pressure.
Q. He was taking five medications for blood pressure?
A. That is correct.
Q. How many times a day was he taking these five medications?
MR. SCOTT: Objection as to relevancy to all these questions.
A. Four of the five were twice a day, one was once a day.
Q. Raymond, also his condition of insulin had progressed from a rather benign diabetic condition to a rather severe one, can you agree to that?
MR. SCOTT: Objection.
A. I can. He was on oral medication from 1969 when he first developed recognized diabetes. By 1975 he had to go off the pills onto the insulin.

Q. This was by injection?
A. Yes.
Q. Each day?
A. Each day.
Q. How much was he getting, do you know?
A. At that time he came into the hospital he was taking 71 units.
Q. How does that compare with diabetes treatment; is that what you would say is average, above average medication?
A. That is above average.
Q. Let's turn to Raymond's enlarged heart.
A. Preoperatively, before autopsy there wasn't evidence he had an enlarged heart.
Q. Do the conditions of hypertension, diabetes, create a stress on the body, more demands on the body?
MR. SCOTT: Objection.
Q. Than somebody who does not have those conditions?
A. They do.
Q. What kind of demands does a body make with the conditions Raymond had, taking his hypertension and his coronary artery 1981 results and his diabetes, what does Ray's body demand with those

conditions?

MR. SCOTT: Objection.

A. I'm not sure I understand the question.

Q. Would you say his heart was placed in more stress than a person without those conditions?

A. Uncontrolled high blood pressure of course you would increase the work of the heart and cause the heart to get bigger. Controlled high blood pressure may actually cause a regression of an enlarged heart towards a normal sized heart.

Q. So far as diabetes is concerned is there any relationship between the diabetes Raymond had and the onset of arteriosclerosis?

MR. SCOTT: Objection.

A. Yes, diabetes in general seems to speed up the development of arteriosclerosis.

Q. How does it do that?

A. I don't think I know.

Q. Certainly before Raymond went in for surgery Dr. Schnell knew of the coronary artery problems Raymond had; would you agree to that?

A. He knew of the cardiac catheterization that I just referred to a few minutes ago. He had no more recent data than that.

Q. Would you agree that Raymond's condition just

prior to his surgery could be classified as Raymond having some impaired circulatory problems?

MR. SCOTT: Objection.

A. I think it's safe to say he had some impaired circulatory problems. He already had the carotid arteries operated upon.

Q. On May 2nd, 1988 when Raymond was at Deaconess Hospital his presurgical workup and EKG was done, am I correct?

A. You are correct.

Q. From what I understand reading of the EKG report, there was an indication there was an AV block in Raymond's heart, am I correct? Take your time and look for that, Doctor.

A. Yes, says first degree AV block.

Q. What is a first degree AV block?

MR. SCOTT: Objection.

A. Well, to answer the question I have to give you a very brief lesson in the cardiac anatomy.

The heart is normally triggered by what we call the captain of the heartbeat, at the top of the heart, that is the site from which the electrical impulse goes out to stimulate the heart muscle to contract.

Q. That is the atrial?

A. That's right, that is the SA node. The SA node sends out its signal which traverses the upper part of the heart, comes to the atrial ventricular node. That transmits the electrical activity to the lower part of the heart.

Now the AV node or atrial ventricular node functions like a resistance would in an electrical circuit because obviously the electrical activity can move much faster than the blood can move through the heart.

In order to have the synchronization of the contraction of the upper half of the heart, followed by the lower half of the heart, there has to be a delay in the conduction of the electrical current allowing the blood to follow through in a sequential fashion.

Let me answer this part if I may, Mr. Iler.

Q. Sure.

A. The normal period of time it takes for the electrical activity to go through that node is about two-tenths of a second. .2 seconds. In Mr. Karr's electrocardiogram the day before surgery the actual figure is .216. It's slightly prolonged compared to the .2 that would be the upper rage of

the normal transmission. That is what generated the term first degree AV block.

Q. So something was wrong with Raymond's heart insofar as electrical impulses that were necessary to activate the different parts of the heart?

MR. SCOTT: Objection.

A. There was a slight delay in that transmission, yes.

Q. This surgery that Raymond went through was an elective surgery, was it not?

A. Yes, elective in scheduling.

Mr. Karr was suffering quite a bit. I'm sure he felt it was a very high priority in order to subject himself --

Q. You never talked to Raymond?

A. No.

Q. You don't know if it was a high priority, do you?

A. In reading the hospital record I gathered it was. He had been suffering for several years. I'm sure the operation, in his view, was believed to be more than just an elective operation.

Q. You are guessing at that because you never spoke with Raymond?

A. You are correct.

Q. If you would have asked Raymond, "Look Raymond, you have an AV block here. I think we ought to postpone your surgery until such time as we can have that corrected," do you think Raymond would have said, "Okay, I would rather have that done, you straighten out my heart problem before you take me into surgery"?

MR. SCOTT: Objection.

Q. You don't know what his answer would have been?

A. I wouldn't know. I never would have posed the question.

Q. There also was some lab studies done by Dr. Schnell. He ordered those in the clearing process of Raymond, am I correct?

A. You are correct.

Q. Can you tell us what is hemoglobin, what part does it play in the health of our bodies; what is hemoglobin?

A. I already testified to that earlier. To recapitulate, hemoglobin is the oxygen carrying part of the red blood cell. That supplies the energy to the body as it goes around the body.

Q. Can we liken hemoglobin on a blood cell sort of like a box car carrying some oxygen?

A. That would be a good way to look at it.
Q. Of course, the oxygen is necessary for tissue life?
A. It is.
Q. When Raymond's hemoglobin was taken before surgery May 2, 1988 it was below normal, am I correct, if you wouldn't mind taking a look at that?
A. Yes. I find the hemoglobin to be 13.8. The normal value starts at 18. Very slightly below normal.

MR. ILER: Can we go off the record for just a moment?

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(Recess had.)

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BY MR. ILER:

Q. Doctor, I have blown up here a portion of Raymond Karr's hospital record. This particular page, I'm sure you're familiar with it, concerns lab studies done for Raymond prior to his surgery. I want to direct your attention to the 5-2-88 blood reports. Here we find that Raymond's hemoglobin, the normal range is between 14 and 18, you see that, Doctor?

A. I do.
Q. No disagreement there, I'm sure?
A. Not a bit.
Q. With Raymond before the surgery we find he was 13.8 which is classified as low?
A. That is correct.
Q. Raymond's capacity for his blood to carry oxygen for him is below normal before surgery?
A. That is correct.
Q. We also notice the hematocrit. What is hematocrit?
A. Hematocrit is when one takes the blood, centrifuges it. It divides itself into the solid elements, cells of course, and liquid elements into which they have been suspended. The hematocrit would be 39.6. The total volume would be in the form of red blood cells.

We notice here that when Raymond's hematocrit was tested, this is the composition of his blood as you have described, normal range is between 41 and 54. We find Raymond with 39.6 classified by the lab at Deaconess as being low, correct?
A. Yes.
Q. This is true -- what was the date of

Raymond's surgery, for the record?
A. May 3rd.
Q. On the day before Raymond's surgery then the low hemoglobin was never corrected or brought up to the normal range, am I correct?
A. That is correct.
Q. Insofar as Raymonds' hematocrit, the level of 39.6 was never raised up to the appropriate normal level of 41 to 54, true?
MR. SCOTT: Objection.
A. That is correct.
Q. So Raymond went to surgery on 5-3-88 with a low hemoglobin uncorrected, with a low hematocrit uncorrected, true?
MR. SCOTT: Objection.
A. That is true.
Q. During the course of surgery there are demands made by the body on many occasions for more oxygen, am I correct?
A. That is correct.
Q. When we talk about the demand the body has for surgery, at surgery for oxygen, it can come from several -- that demand can come from several sources, am I correct?
A. Correct.

Q. Can come from blood loss, true?
A. True.
Q. Can come from structural defects in our hearts for example?
A. Yes.
Q. What is surgical shock for an example, Doctor?
A. Surgical shock would be the drop in the blood pressure below a critical level associated with surgery. Of course it would also incorporate in the definition the impaired circulation to various parts of the body.
Q. If you are going to be a cautious physician, in Raymond's case you should at least consider, should you not, that Raymond is going into surgery with a low hemoglobin and with a low hematocrit, am I correct?
MR. SCOTT: Objection.
A. That is obviously being considered, yes.
Q. Is it true, turning to Dr. Tank for just a moment -- Dr. Tank is what kind of a surgeon?
A. I believe he was a neurosurgeon.
Q. Do you, from the reading of the records, did you understand that Dr. Tank also knew of these problems that Raymond had such as diabetes,

hypertension, the endarterectomy, the carotids we talked about, and his impairment of one of the main arteries, did he know that from your reading of his deposition and so forth?

A. I need to look at the consultation that Dr. Tank dictated.

Q. Would you like us to go off the record for a minute while you look at that?

Would you, please, Mr. Operator, give the Doctor a minute.

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(Brief recess had.)

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A. Well, Mr. Iler, in answer to your question about the knowledge that Dr. Tank had prior to the operation, I find Dr. Tank's three page consultation note of April 22, 1988 to be really quite comprehensive.

On page two he notes that the patient was a known diabetic, had the carotid artery operations, treatment of high blood pressure. He listed the medications that the patient was taking. So I think that Dr. Tank was really quite well informed as to the nonsurgical aspects of Mr. Karr as he presented.

Q. Doctor, I spoke to you before about elective surgery. This surgery for Raymond Karr, based upon the medical records we have, was called elective surgery?

MR. SCOTT: Objection.

A. Correct.

Q. We find no emergency for his surgery?

A. That's correct.

Q. Have you ever had elective surgeries which have been postponed from their scheduled surgery date?

MR. SCOTT: Objection.

A. Yes.

Q. What caused you to change a surgical date?

MR. SCOTT: Objection.

A. The feeling that the patient could be improved upon, therefore have a better postoperative result.

Q. Do you agree that both Dr. Tank and Dr. Schnell were responsible for Raymond's post surgery care, that is after his surgery?

A. I agree.

Q. Did you find that Dr. Schnell had come from time to time to visit Raymond after his surgery?

A. I did.

Q. Was it his practice to review the medical records and nurse's notes that the nurses made each day or each hour of Raymond's care?
A. I would assume that was part of his evaluation, yes.
Q. When you have a patient in the hospital, you come in to see the patient, I think one of the first stops you make is over to the nurse's station. You take a look at the patient's chart. You want to know how is the patient doing before you got there?
A. Absolutely.
Q. You might have a conversation with the nurses who made some notes, am I correct?
A. You are correct.
Q. If you find the nurse's notes make an entry that exhibits something bizarre about your patient you might want to ask that nurse about that, am I correct?
A. You are correct.
Q. Let's turn to the operative note. I understand that Raymond's surgery took how long for his back? I made a record, Doctor, it was four-and-a-half hours, if you can agree to that, I don't want to rush you.

A. No, I would be willing to agree to that.
Q. Insofar as the surgery was concerned, this was a laminectomy; is that about right?
A. It was a laminectomy, yes.
Q. More than one disc was being treated by Raymond -- I got the impression L-2, 3, 4 and 5, does that sound about right?
A. It was a decompressive lumbar laminectomy L-2, 3, 4, 5; total disc excision L-4, 5; bilateral posterior antibody fusion L-4, 5. I think just the one disc was taken out. The operative field covered the entire lumbar region.
Q. Anyhow, Dr. Tank worked for about four-and-a-half hours on Raymond's back, am I right?
A. The anesthesia record does seem to go about that. Yes, started from 8:30 in the morning until just after noon time.
Q. During the course of the surgery, from your review of the record, it appears as though Raymond had no problems during that four-and-a-half hour period; can you make that conclusion all right?
A. I can.
Q. Here is a man that really went through a long surgery perhaps, seemed to come through that all

right, right?
A. Yes.
Q. No mishap at surgery; is that correct?
A. That is correct.
Q. We don't find from the medical records here anything untold occurred to Raymond during the course of the surgery?
A. Correct.
Q. Do you attribute any cause of Raymond's death to what occurred in the operative surgical suite?
A. No.
Q. I think we will concentrate, will we not, on the causes of Raymond's death to what happened to him after surgery, true?
A. True.
Q. I want to talk to you about blood loss for a moment if you would, Doctor. I understand Raymond Karr, based upon your judgment, after the surgery, it was determined by you that he had lost 880 cc's of blood, that is what your deposition testimony was, Doctor?
A. Yes.
Q. If Raymond had lost 2,000 cc's of blood would you become concerned and consider a transfusion in that regard?

A. Certainly it would lend greater weight to the idea of transfusion. One would have to see what the blood count was postoperatively. Also how well the tissue perfusion was being carried out.

Q. Let's take an example. Let's assume instead of 880 cc's of blood loss during Raymond's surgery he had 2,000 cc's. Would you as a physician now become concerned, say, "Wait a minute, I think we must consider what is going on here, maybe consider a transfusion"?

A. Yes. I think that is quite likely one would consider that.

Q. Do you know Dr. Bowl?

A. No.

Q. Did you read his deposition and his report?

A. Yes.

Q. Dr. Bowl was also an expert on behalf of Dr. Schnell also, correct?

A. Yes.

Q. Dr. Bowl's opinion was Raymond had lost 2,000 cc's of blood during surgery, isn't that what he concluded?

MR. SCOTT: Objection. Move to strike.

A. I was quite puzzled by how he arrived at that

figure.
Q. Before your puzzlement --
MR. SCOTT: Let him finish.
Go ahead, Doctor.
A. I saw that. I really couldn't figured out how he got that figure. I went back over the chart and couldn't find any support for that.
Q. Let's put it this way then.
You did read that Dr. Bowl's opinion was Raymond lost 2,000 cc's?
MR. SCOTT: Objection.
Q. Is that a yes or a no?
A. I believe I saw that, yes.
Q. You have a disagreement with that?
A. Do I have a disagreement with his estimate of 2,000? I do. I just voiced it.
Q. It appears that Dr. Bowl's opinion -- did you read from Dr. Bowl that Dr. Bowl's opinion was Raymond had lost 1,200 cc's at surgery and 800 after surgery, equaling 2,000 cc's. Did you read that analysis by Dr. Bowl?
MR. SCOTT: Objection.
A. I think I already answered the question. I will say yes again. I read it but I didn't believe

it.
Q. What kind of physician is Dr. Bowl?
A. I think he's an orthopedist.
Q. He's a fellow that does back surgeries such as Raymond had?
A. Yes.
Q. Is it your judgment, Doctor, that hematocrit and hemoglobin must be measured each day for a patient such as Raymond, a patient such as Raymond having that kind of surgery?
A. I don't know about each day. It's prudent to measure it frequently.
Q. What is the reason for that prudence; why should that be done?
A. To make sure there is not a continuing blood loss.
Q. Why should that be watched?
A. We already referred to before to the function of blood carrying oxygen around the body. We obviously want to have an adequate amount of perfusion of the tissue so they can perform their various duties.
Q. Let us take a look, Doctor, if you will, back to the diagram I have enlarged of Raymond's hospital chart. What we find now is that on May

4th, of '88 the hematocrit, hemoglobin were again taken for Raymond's blood. This is after surgery, am I correct?

A. You are correct.

Q. Now we find that Raymond's hemoglobin is 8.5 and that is classified --

A. 8.8 isn't it?

Q. My apologies, Doctor, 8.8, classified by the lab at Deaconess as low?

A. Correct.

Q. It's quite a drop, is it not, a hemoglobin drop from 13.8 before the surgery to 8.8 after surgery, that is quite significant, would you agree?

A. I would.

Q. We also now find that the lab has taken another look at Raymond's blood after surgery, his hematocrit which you have described for us also, we find that dropped now some 13 points down to 26.0, am I correct?

A. You are.

Q. That is a significant drop?

A. It is.

Q. Raymond is in trouble, isn't he?

MR. BONEZZI: Objection.

MR. SCOTT: Objection.

A. I don't know we can draw that conclusion. There is more to the patient than looking at the numbers.

Q. Of course. My question to you is, when we look at these numbers now, isn't it reasonable to conclude, Dr. Watts, Raymond is in trouble; his hemoglobin is down from 13.8 to 8.8?

MR. SCOTT: Objection.

Q. His hematocrit dropped from 39.6 to 26.0, this man is in trouble, am I correct?

MR. SCOTT: Objection.

A. No, you see, Mr. Iler, clinical judgment has to be invoked because we don't play a numbers game in medicine. We look at the entire patient. If the patient is doing well, we are not stampeded by a number in the chart.

Q. You think Raymond was doing well?

A. I do.

Q. Do you agree, Doctor, that the two numbers we will call them, of the hemoglobin done on 5-4, 8.8, that drop in hemoglobin was caused by the surgery?

A. Yes, I do.

Q. We find that the hematocrit dropped from 39.6 before surgery, then 26.0. The 26.0 drop is once

again caused by Raymond's surgery?
A. Exactly.
Q. Then you do agree that the blood loss during Raymond's surgery was the factor that caused the drop in hematocrit and hemoglobin as we described?
A. I do.
Q. Of course, just for purposes of the record, on May 4th of '89 with the hematocrit at 8.8 -- pardon me, with the hemoglobin 8.8, hematocrit at 26.0 no blood transfusion was ordered or given to Raymond?
A. So the record shows.
Q. Was he given fluids?
A. Yes. I testified to that in my diagram. He was given a lot of fluids. 100 cc's per hour intravenously.
Q. None of those fluids contained blood?
A. So I testified.
Q. So instead of giving Raymond blood for his blood loss here, drop in hemoglobin, drop in hematocrit, fluids were given instead?
A. That is correct.
Q. Who ordered that?
A. They were ordered initially by the surgeon.
Q. That would be who?

A. Dr. Tank.
Q. Was there consultation anywhere in the records that you found between Dr. Tank and Dr. Schnell concerning this drop in hemoglobin?
A. I believe Dr. Schnell was advised of the blood count on the evening of May 4th, advised that Dr. Tank be called to inform, so that Dr. Tank would be up-to-date what the actual blood count was.
Q. So I think from the records, from the testimony that we have heard in the case, the nurse told Dr. Schnell on the day after the surgery that Raymond's blood dropped as we described. The nurse was told by Dr. Schnell to call Dr. Tank?
A. Yes.
Q. Do the records reveal, the hospital records reveal any conversation, if any, between Dr. Schnell and Dr. Tank concerning this report?
A. I don't recall offhand that there was a notation in the hospital chart the two of them talked directly. Only indirectly by way of the nurse being instructed by Dr. Schnell to call Dr. Tank and bring him up-to-date as to what the blood count was Dr. Schnell had been called about from the nurse.

Q. With the drop in the hematocrit to 26 and hemoglobin to 8.5, is Raymond now classified, in your judgment, as being anemic?
A. He is.
Q. When we say anemic, what do we mean by anemic?
A. That means one has less blood cells than the normal person would have.
Q. Was there any way these blood cells would increase from 8.5 back to 14 by itself?
A. Yes.
Q. Let me ask you a question, Doctor: Insofar as the hematocrit and anemia that has been discussed, anywhere in the records has Dr. Schnell ever written down the patient was anemic?
A. I would have to look at his progress notes to answer that. I don't recall offhand. Let's turn to the chart. I don't see that Dr. Schnell has written down the word anemia.
Q. Let's return now to the laboratory reports from Deaconess Hospital. What we find now is that there in fact was another analysis made of Raymond's blood, am I correct, Doctor?
A. You are.
Q. What date would that be; would that be the

day after surgery, 5-4?
A. It is.
Q. What time of the day was that taken?
A. This is the 24-hour military clock. It's listed at 2100 so that would be nine o'clock in the evening.
Q. When was the first one done, the one that came out 8.8 and 26.0?
A. 7:46 in the morning.
Q. So one was done in the morning, one was done at nine o'clock at night?
A. That's right.
Q. Let's take a look at those, Doctor, if you will.

On the day after Raymond's surgery, at nine o'clock at night, once again there is an examination of his blood. What do we find? Don't we find another drop in his hemoglobin rate, that is blood carrying oxygen capacity has dropped again from 8.8 to 7.6; isn't that true?
A. That is true.
Q. We look at his hematocrit. I think you described that for us. Now we see his hematocrit dropped another three percentage points from 26 down to 23, right?

A. Yes.
Q. We take this together, we see that these two lab reports here have come, showed continual drop in hemoglobin of his blood, we see a drop in hematocrit, isn't Raymond now in trouble at nine o'clock at night, May 4th, 1988?
A. This is the same question you asked earlier. We can't take the numbers in themselves, say he's in trouble. He's anemic. That we can agree upon.
Q. Let me put it this way: As a careful physician, you look here, you say, "Wait a minute, this man's had two blood analyses. One at 7:30 in the morning, one at nine o'clock at night, I find his hemoglobin is dropping. We need to give this man some blood"; isn't that what is needed here?
A. No. That would be one's judgment. The judgment, as I said before, incorporates all of the elements in the global assessment of the patient himself and whether he's showing a lack of the affects of the decreased blood supply.
Q. We know one thing, this is true, is it not, Doctor, we can be sure of this point, that if you gave -- if Dr. Tank or Dr. Schnell gave Raymond blood at the times when his hemoglobin was down on 5-4, it wasn't going to hurt him, it was going

to help him, true?

MR. SCOTT: Objection.

A. Not necessarily. Transfusions have their own set of risks.

Q. Let's eliminate the risk of hepatitis for a minute.

A. Good.

Q. If we do that, my question to you is eliminating that risk, transfusing Raymond on 5-4, with these values we see here, that could help him, couldn't it?

A. It could help him, yes. It could help raise the blood count. I'm not sure it would help his general condition.

Q. One thing it would do, it certainly would pick up the counts we have from 8.8, 13.8 to 7.6 that would treat that?

A. It would treat the numbers.

Q. Sure. There was no contraindication for Raymond having a blood transfusion, am I correct?

A. That is correct.

Q. There was nothing within the man's makeup that would prohibit a physician giving him blood?

A. That is true.

Q. I'm going through a few questions, Doctor, if

you be patient with me.

Doctor, when you have a situation such as occurred at nine o'clock on May 4th, 1988 when Raymond's hemoglobin is down to 7.6 from 13.8, his hematocrit dropped from 39.6 to 23.0, isn't this condition placing a stress on Raymond's heart?

A. Yes, it is.

Q. Why?

A. Well, he has to pump more blood in order to get the same oxygen delivery than he would if he had a more normal blood count.

Q. Why is that? His heart just has to pump faster or stronger?

A. It has to pump a greater volume. Whether it pumps a greater volume per beat, whether it has more beats per minute, it turns out to be a greater volume of blood circulated each minute than it would be otherwise.

Q. What happens if his heart can't do that?

A. If his heart couldn't do that he might develop signs of heart failure.

Q. Dr. Schnell ordered an EKG on the day of Raymond's death 5-5, May 5th; am I correct, sir?

MR. SCOTT: Objection.

A. You are correct.

Q. So that record -- EKG of course is -- I'm simplifying it, it's a tracing of Raymond's heart to see how the beats are going?
A. Electrical activity of the heart.
Q. To see how Raymond's heart is doing?
A. Right.
Q. What time was that done, do you know, sir?
A. 7:47 in the morning.
Q. When did Raymond die?
A. 9:55.
Q. In the morning?
A. Yes. Almost exactly two hours.
Q. What we find now with the EKG that was done on Raymond, we find that there were signs of ischemia, am I correct?
A. Yes.
Q. What is ischemia, what do we mean by that?
A. Ischemia is a lack, a relative lack of circulation to the heart muscle. This shows in a characteristic fashion on electrocardiogram.
Q. In order for Raymond's heart to appropriately function the heart must have oxygen, true?
A. True.
Q. If you cut the oxygen off and reduce the oxygen to Raymond's heart, you are going to -- that

heart is going to demand that oxygen; is that not right?

A. That is correct.

Q. If the heart calls to Raymond's body, says give me some more oxygen, Raymond's body and blood doesn't have it, that heart can be in trouble, am I correct?

A. That is possible.

Q. Isn't that what happened here to Raymond when Dr. Schnell ordered the EKG?

A. The electrocardiogram showed some ischemia. It was what we call silent ischemia. He never had any symptoms relevant to that. We know from people with coronary disease they often have this sort of thing on the electrocardiogram without any symptom that they are conscious of. That apparently was the case with Mr. Karr.

Q. Is this true that the ischemia was caused by the lack of oxygen?

A. A relative lack of oxygen, yes.

Q. Now, no transfusion was ordered by Dr. Schnell when he saw the EKG at 7:47 in the morning?

A. I think first of all we are assuming he saw the electrocardiogram at 7:47. My understanding is

he didn't see it until after the patient died.
Q. Are you guessing at that?
A. I believe that was in his testimony. So from that standpoint, I don't have it here in front of me, that was my understanding he did not see the electrocardiogram until after the events.
Q. With an EKG such as this, where you see ischemia on EKG, is a doctor usually notified about that? Isn't that an important finding?
A. It's an important finding. Since I don't practice at Deaconess Hospital I don't know how things are there.

I can say that at Fairview Hospital this sort of thing would not be brought to anyone's attention until the physician reading the electrocardiogram saw the electrocardiogram.
Q. No transfusion was given to Raymond May 5, 1988 before his death, true?
A. That is correct.
Q. Let's turn to a portion of the record, if you will, Doctor, concerning Raymond.

MR. ILER: May I have a moment?

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(Brief recess had.)

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Q. Doctor, is it true that if a patient is not getting enough oxygen he may show signs and symptoms of confusion?

A. That is possible.

Q. I think what you said in your deposition was that you did not believe that Raymond was confused, am I correct?

A. You are correct.

Q. Let me show you something, Doctor.

This is a nursing note, Doctor, I have enlarged it, it's part of Raymond's record. I have underlined in red a few of these notes. You will note, please, that this s the nursing note of May 4th of '88. We find here that the nurse has written as follows. Can you read that for us?

A. The part that is underlined, Mr. Iler, says, "Patient rambled on and on in conversation." The lower part that is underlined is two words, "Is forgetful."

Q. When the nurse looked at Raymond after surgery she found, for an example, that he was rambling on and on, true?

A. That is true.

Q. Also that he was becoming forgetful, right?

A. Yes.
Q. Can these be signs of oxygen deprivation?
MR. SCOTT: Objection.
A. They can. I think that everybody would be accused of that at one time or another. I'm sure everyone is forgetful and has rambled on and on at least in the opinion of somebody else.
Q. The question that I've asked you is with this nurse's note observing Raymond was consistent with oxygen deprivation, true?
A. It could be consistent with it.
Q. Taking a look, if you will, Doctor, with this note I have here of -- once again a note, this one is made by Dr. Tank. Would you please take a look at this for me, I have enlarged it. Dr. Tank made a note here on 5-4, the day after surgery concerning Raymond's condition, am I correct?
A. You are correct.
Q. Did you notice what he has written here?
A. I did.
Q. What does he say?
A. "Inappropriate, confused."
Q. What was inappropriate?
A. I don't know what Dr. Tank's definition of inappropriate is. I suspect having to do with what

you just had up there before about the rambling on and on. What you didn't underline on the previous page, the sentence after "Patient rambles on and on in conversation, Dr. Tank aware." It may well be Dr. Tank felt the things he was rambling on and on about were inappropriate to the situation.

Q. So, Dr. Tank, the neurosurgeon, also marks in here on the medical records, he says that Raymond is confused, true?

A. That is what he said.

Q. Turning, Doctor, to another portion of the hospital records for Raymond, which I have enlarged, I want you to take a look at the note on the day of his death, May 5th, 1988. Here we have a record made by Dr. Tank. What does Dr. Tank write in the underlined portion?

A. Still inappropriate.

Q. The inappropriateness Raymond has exhibited can be caused by a lack of oxygen; is that true?

A. It's possible.

Q. In your deposition statement where you indicated Raymond was not confused, is not accurate, true?

A. Well, there is quite a few nurse's notes which indicate he was not confused. The nurse of

course spends eight hours with the patient. The doctor is there only for a few minutes. I tend to put more credence to the nurse's evaluation of the question of confusion than I did the doctor's.

Q. When Raymond had his ischemia, how was he treated for that?

A. He was not treated.

Q. Did they give him any oxygen?

A. Did he get oxygen?

Q. Did they give him any?

A. I would have to look and see. Do you want me to do that?

Q. Whatever you choose.

A. I would assume he was getting oxygen. I would have to look to be certain.

Q. Let's turn, Doctor, to the cause of Raymond's death, as you described, in your opinion.

A. Yes.

Q. You indicated from your opinion that it was coronary arterial sclerosis which caused Raymond's death?

A. Yes.

Q. There are two experts testifying for the defense, one is Dr. Bowl and he has an opposite view than yourself, am I correct?

MR. SCOTT: Objection.

A. Correct.

Q. Dr. Bowl said no he didn't die of coronary arterial sclerosis, he had a pulmonary embolism?

MR. SCOTT: Objection.

A. I'm aware of that opinion on Dr. Bowl's part. I can't share it.

Q. Dr. Likovic, if I'm pronouncing that correct, has been retained as an expert physician on defense of Dr. Tank. His opinion, I think you read also, agrees with Dr. Bowl, he thinks it was a pulmonary embolism.

A. I'm aware of the difference.

MR. ILER: May I have just a moment, please?

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(Brief recess had.)

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MR. ILER: Thank you.

Mr. Scott, with the exception of the objections which I made which we will await the rulings, I have no other questions of Dr. Watts, thank you, sir.

MR. BONEZZI: Dr. Watts, my name is Bill Bonezzi. I represent Dr. Tank. I

have some questions for you and I will be very brief.

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CROSS-EXAMINATION

BY MR. BONEZZI:

Q. You have reviewed the records as you have testified to this afternoon sufficiently enough to allow you to draw conclusions and opinions relative to the care provided to Mr. Karr; is that correct?

A. That is correct.

Q. In the records that you reviewed was there anything that you read that would have suggested that prior to the laminectomy that was performed by Dr. Tank, Mr. Karr had anything but a normal cardiac function relative to his heart?

A. There was nothing that indicated any abnormal cardiac function.

Q. In other words, or put another way, from the cardiologic standpoint -- you are a certified cardiologist are you not?

A. I am.

Q. Would it be your opinion Mr. Karr had normal cardiac function that led up to the time of his surgery?

A. That is my opinion.

Q. Dr. Watts, you are familiar with the controversy that existed in 1988 and that existed prior to that relative to the so-called trigger that caused transfusions of patients, are you not?
A. Yes.
MR. ILER: Note my objection to this line of questioning about trigger.
Q. As a matter of fact, in the 1980s and continuing on until today there is indeed a question as to what level ones hemoglobin must drop to prior to the time in which a transfusion of blood products is necessary, correct?
MR. ILER: Note my objection.
A. Correct.
Q. When dealing with the thought of whether or not a patient needs to be transfused, the physician providing care doesn't just look at numbers, does he or she?
A. That is correct. It has to be a global assessment. We don't play the numbers game. We look at the entire patient, how well he's doing.
Q. You will agree with me one of the important criteria in determining whether or not a patient

does indeed need a transfusion of blood products is what their clinical setting is demonstrating at the moment?

A. Absolutely.

Q. The physician will take into account what the clinical manifestation might be of a patient, together with laboratory data, and look at all of that, then come to a conclusion as to what will be done for that particular patient at that particular time, would you agree with that?

A. Exactly.

Q. As far as May 5th, 1988 is concerned, did you review the nursing notes to determine whether Mr. Karr happened to be alert and oriented? If you don't recall just look at the nurse's notes.

A. I do. He was alert and oriented.

Q. What is the significance of that to you as a cardiologist dealing with the type of problem that we have here, in other words, whether or not an individual needed a transfusion?

A. There wasn't any evidence there was any impaired circulation to the brain or any other part of his body that would indicate the necessity or desirability of having a transfusion.

He had a comfortable night the

night before the nurse's notes show. Seemed to be doing quite well in his postoperative period hours in the early hours of the morning of May 5th. Certainly from the standpoint of the overall assessment of the patient, various bodily functions, there wasn't any indication that a transfusion was needed.

Q. As of May 5th, 1988, the day in which Mr. Karr died, he was actually left alone for a period of time in the morning before he was found, was he not?

A. That is correct.

Q. Who left him alone?

A. The nurse.

Q. Was it the assessment or judgment of the nurse that his clinical stature was such that she was indeed in a position to allow him to be left alone?

MR. ILER: Note my objection to that supposition. There is no way the doctor could know that.

Q. Based upon the record.

MR. ILER: Note my objection.

A. Based upon the record the nurse felt the

patient was capable of being left alone for a period of time.

MR. ILER: Ask that the answer be striken from the record.

Q. Are you aware of something that is called cardiac reserve?

A. Yes.

Q. Are you also aware of something that is called physiologic reserve as it relates to the oxygen carrying capacity in humans?

A. Yes.

Q. Would you agree with me that the oxygen carrying capacity in humans is approximately four fold the oxygen requirement which is the so-called physiologic reserve?

A. Yes.

Q. What is the significance of that, sir, as it relates specifically to ones hemoglobin and hematocrit levels?

A. Basically shows you can still function at optimum levels with a considerable reduction in hemoglobin delivering power of the blood to deliver oxygen throughout the body.

Q. As long as one has a normal cardiac function, correct?

A. As long as there is normal circulating blood volume, the oxygen carrying capacity of the blood can still give adequate support to the functioning tissues of the body.

Q. Would you also agree that -- before I get into that, what is myocardium?

A. Myocardium is the heart muscle.

Q. Now, would you agree that the myocardium can adapt adequately to low grade anemia and as a result will not need transfusion of blood?

A. I do.

MR. ILER: Note my objection to that.

Q. Do you have an opinion, based upon your review of these records, the level of anemia that Mr. Karr had during his confinement between May 2nd and May 5th of '88?

A. Turning to the material that Mr. Iler supplied a few minutes ago where his hemoglobin dropped down to the seven to eight gram range, hematocrit 26 down to 23 in the several days after the operation.

Q. Even though there was a diminishment in those levels as earmarked by the record, he was still alert, he was oriented to person, place and time on

the morning of May 5, 1988?
A. That is correct.
Q. What is the significance of being alert and oriented to person, place and time relative to an individual who has had a drop in the hemoglobin level and hematocrit level such as Mr. Karr?
A. That shows that even with that change in his oxygen carrying capacity, that he was still functioning within the normal range as far as brain function was concerned. So that even with the sudden imposition of the anemia relevant to operation, he was still functioning in apparently normal fashion.
Q. As a result, one takes a look at the clinical picture of a patient and then takes a look at the laboratory data of that patient, assuming blood is drawn, correlates the information and arrives at a conclusion or opinion what should be done for that patient, correct?
A. Correct.
Q. As of May 5, 1988 do you have an opinion based upon a reasonable medical probability whether or not Mr. Karr should have received a transfusion, based upon what is evidenced in the record?
A. I have an opinion.

Q. What is it?

A. He did not need a transfusion on May 5, 1988.

MR. BONEZZI: Nothing further. Thank you, sir.

MR. SCOTT: Doctor, let me follow up with a few more questions in connection with the examination by Mr. Iler.

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REDIRECT EXAMINATION

BY MR. SCOTT:

Q. You testified in response to Mr. Iler's questions that you had known Dr. Schnell, I think Mr. Iler perhaps carried that to some unnecessary degree. How did you know Dr. Schnell besides having met the doctor in medical school?

A. Actually I had no other contact with him. As I said before, he was a student a year behind me so I saw him in various student activities. I started internship early because of the end of the war he may well have been one of the students I supervised in my role as an intern.

We have known each other during our years in practice because we practice in the same -- we practice on the west side of Cleveland. Although he doesn't come to the hospitals that I go

to, I don't go to the hospitals he's on the staff. As I said before, we have had a few patients who moved from one service area to the other. Has been referred from one of us to the other. I'm sure there have been years that have gone by that I haven't physically seen Dr. Schnell nor even talked to him on the telephone.

MR. ILER: Before you proceed any further, may I look at the Doctor's notes while are you questioning him?

MR. SCOTT: No.

MR. ILER: Why not? He referred to them during his examination.

THE WITNESS: You had a copy of them before.

MR. ILER: Those I don't have.

Q. Doctor, you also indicated that you reviewed cases in the past for both me and other law offices in Cleveland. Have you on those occasions also indicated that the cases do not have merit, cannot be defended?

A. I have.

Q. Doctor, is there anything about the diabetes which Mr. Iler mentioned which was not

appropriately treated in this case by Dr. Schnell or by Dr. Tank?

A. No, he had excellent treatment of his diabetes. The operation imposes quite a load on the regulation of blood glucose. This was very capably taken care of by Dr. Schnell.

Q. Likewise as to the hypertension the patient had for many years, was that condition treated appropriately by Dr. Schnell or by Dr. Tank?

A. Well, certainly treated over the years by Dr. Schnell very appropriately with adequate medication and in the postoperative period it was also continued on. His blood pressure was quite well controlled.

Q. Was there anything about the EKG that was done before the surgery that suggested that the surgery should not take place?

A. Absolutely not.

Q. Mr. Iler I think at one time suggested at one time you are blaming Dr. Tank. Are you blaming Dr. Tank for anything in that regard?

A. No.

Q. Did you attribute any care of Dr. Schnell or Dr. Tank to the death of this patient?

MR. ILER: Note my

objection. He's not an expert for Dr. Tank. We will make an objection to that.

Q. Is there anything in the care rendered by Dr. Tank or Dr. Schnell which in your opinion was below standard of care or caused the death of the patient?

MR. ILER: Note my objection.

A. No, there was not.

Q. Mr. Iler also mentioned that the patient was somewhat anemic prior to surgery. That he was 13.8 instead of 14. Is that condition significant to you, Doctor?

A. No.

Q. Why not?

A. Well, it's so close to normal. I think at the risk of overburdening the jury with statistics, the way we decide normal is to take 95 percent of the normal population, which means that five percent of the normal population is going to fall outside that range. This is a good example of how when you look slavishly at one figure, say that is normal, 13.8 compared to 14 is such a small difference I think it would have to really be considered normal.

I'm perfectly willing to admit th laboratory put the letter L next to it to show it to be low. I wouldn't consider it an abnormality of any significance.

Q. Did you believe that the value of 13.8 ought to be treated with a transfusion or in any other fashion prior to surgery?

A. No.

Q. Doctor, you also mentioned that when there are less blood cells the heart is required to work somewhat more to compensate by pumping more volume or pumping a greater number of beats. Was there anything in the review or history of this patient that suggested to either one of these doctors that Mr. Karr's heart could not pump the additional volume of blood that was required?

MR. ILER: Note my objection to both of these doctors.

Go ahead.

A. No.

Q. Doctor, in fact the item of confusion which is noted on May 4th in the progress note by Dr. Tank, do you have any opinion as to whether that confusion was caused by the drugs given to the patient at that time?

A. Well, it's possible. The nurse's notes are full of comments about being alert and oriented. So I think that in general the patient was really quite in contact with his surroundings.

VIDEOGRAPHER: Standby. Off the record.

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(Brief recess had.)

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Q. Doctor, when there is a blood loss sufficient to cause lack of oxygen to the tissues would you expect to see certain signs and symptoms?

A. Yes.

Q. What would you expect to see?

A. We spent quite a bit of time talking about confusion. That obviously would be one sign of impaired perfusion to the brain. Congestion in the lungs, shortness of breath, chest pain due to angina would be some of the signs in the heart and lungs. Cold hands and feet. So these are some of the things that we would expect to see.

Q. Did you find any of those in your examination in the record?

A. No.

Q. Doctor, if there were bleeding that would

cause a loss of 50 percent of volume of the patient's system, would you expect to find evidence of that bleeding some place?

A. Yes.

Q. Would you expect to find evidence of bleeding in the autopsy which was performed?

A. I would certainly think so.

Q. Did you look at that autopsy to see if there were findings of bleeding?

A. I did.

Q. Did you find any?

A. No.

Q. Mr. Iler also questioned as to whether a transfusion would have helped this patient.

Do you have an opinion that a transfusion of blood in this case would have made any difference whatsoever in the course and life of this patient?

A. I have an opinion.

Q. What is your opinion?

A. I don't think a transfusion would have made any difference in the death of the patient. His death was not related to the drop in blood count. Was part and parcel of the natural history of his coronary artery disease.

MR. SCOTT: I have no further questions. Thank you, Doctor.

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(Dr. Watts Deposition Exhibits 1 and 2 marked for identification.)

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RECROSS-EXAMINATION

BY MR. ILER:

Q. Doctor, I want to hand you what has been marked Exhibit 1 and 2. These are notes made in your own handwriting, am I correct?

A. You are correct.

Q. Concerning the analysis you made of this case?

A. You are correct.

Q. I want to direct your attention to the second page of Exhibit 1. You wrote this, it says to Scott, that is Mr. Scott?

A. Yes.

Q. Would you read the rest of your note there, please?

A. My note to Mr. Scott says that based upon the autopsy data the patient probably was a candidate for coronary artery bypass grafts.

The question, it has been a long

time since I wrote this note, the question I think Mr. Scott may have posed to me in the telephone conversation was whether a pathologist who specialized in the heart would be of help. My answer to him was a cardiac pathologist would you not be of help. You really have to look at these things from the clinical standpoint. I didn't see how the pathologist would be of any particular help. I'm speaking from memory. This was quite a while ago, the better part of a year ago.

Q. I want you to help me out with a point, read verbatim the last line that says to Scott, meaning Mr. Scott, can you read the next words verbatim?

A. Yes. I thought I had. "Probably was candidate for CABG," coronary artery bypass graft.

Q. Next line?

A. "Cardiac pathologist unable to help." I have just elaborated on that part of the answer.

Q. You did entertain, did you not, an opinion at one time that Mr. Karr was a candidate for heart bypass surgery?

A. First of all, let me, in order to elaborate on that, I'm looking at him from the basis of the autopsy only. You see he wasn't a candidate in life because he didn't have symptoms relative to

coronary circulation. You would not advocate an operation on somebody who is asymptomatic. It's hard to improve upon lack of symptoms even by surgeons.

Q. One thing you did know when you wrote that note was the following: Number one, in 1981 both his carotid arteries were decreased, one to the point of 80 percent and one to the point of 95 percent, you knew that?

A. I did.

Q. Number two, you knew that of the three main arteries to his heart one was blocked almost completely?

A. No, I'm afraid you are distorting the facts.

MR. SCOTT: Let him answer the question, please.

Q. Let me ask you this.

MR. SCOTT: Let him answer the question.

Q. One of his three main arteries to his heart was 40 to 50 percent blocked, true?

A. May I answer in a way --

MR. SCOTT: Yes, go ahead and answer, Doctor.

Q. Is that true?

MR. SCOTT: You may answer, Doctor.

A. May I answer?

Q. Sure.

A. Mr. Iler, the answer is first of all, most importantly the physicians at the Cleveland Clinic who performed the cardiac catheterization in 1981 said that the narrowing of one artery was not hemodynamically significant. The reason they did the cardiac catheterization was to clear him for the carotid surgery. They found no reason for him to be operated upon.

To get to your portion of providing the answer for me. He did have a 40 to 50 percent narrowing at the origin of one of the more distant branches of one of the coronary arteries. The amount of impairment to circulation was really very, very small.

Q. And he also -- Raymond was also on five medications, am I correct?

A. I don't know what he was taking in 1981.

Q. In 1988 before he had his surgery he was taking five cardiac medications, true?

A. True.

MR. ILER: Thank you, no

other questions.

Do you have a copy of these? I would like to make a copy.

MISS ILER: Also a copy of the diagram used by the Doctor.

THE WITNESS: I mailed these to you months ago.

MISS ILER: You didn't mail them to me. We never received them from Mr. Scott probably.

MR. SCOTT: We will be happy to give you another copy.

MISS ILER: It would be unusual for you to send me something.

MR. ILER: Off the record.

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(Discussion had off the record.)

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FURTHER REDIRECT EXAMINATION

BY MR. SCOTT:

Q. Doctor, your note Mr. Iler just referenced, by those notes you don't mean to suggest in any fashion that the doctors knew or could have known about the stenosis, the plugging up of the arteries

which was only found on autopsy do you?
A. That's, correct Mr. Scott. I would like to point out too, as I said before, that is no one would operate, no one would advocate surgery on a man who had no symptoms. He had no cardiac symptoms.

I was really looking at this from the standpoint of his autopsy. Was it anatomically possible to operate on his heart. The answer to the question is yes it was anatomically possible. We don't operate on patients because of anatomy. We operate on patients because of the affects of the anatomy on their lifestyle and so forth. I wouldn't want my testimony to indicate he should have gone to a cardiac surgeon because he shouldn't have.

MR. SCOTT: Thank you very much, Doctor. That is all.

MR. ILER: We have no other questions of the Doctor, thank you.

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(Deposition concluded; signature waived.)

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The State of Ohio, :

County of Cuyahoga. : CERTIFICATE:

I, Constance Campbell, Notary Public within and for the State of Ohio, do hereby certify that the within named witness, RICHARD WATTS, M.D. was by me first duly sworn to testify the truth in the cause aforesaid; that the testimony then given was reduced by me to stenotypy in the presence of said witness, subsequently transcribed onto a computer under my direction, and that the foregoing is a true and correct transcript of the testimony so given as aforesaid.

I do further certify that this deposition was taken at the time and place as specified in the foregoing caption, and that I am not a relative, counsel or attorney of either party, or otherwise interested in the outcome of this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Cleveland, Ohio, this 16th day of March, 1993.

Constance Campbell, Stenographic Reporter,
Notary Public/State of Ohio.
Commission expiration: January 14, 1998.

Look-See Concordance Report

1,588 UNIQUE WORDS
386 NOISE WORDS
17,813 TOTAL WORDS

SINGLE FILE CONCORDANCE

CASE SENSITIVE

EXCLUDES OCCURRENCES IN FIRST 3 PAGES

WORD RANGES @ BOTTOM OF PAGE

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