IN THE COURT OF COMMON PLEAS

CUYAHOGA COUNTY, OHIO

CASE NO. 272927

Doc. 444

RICHARD D. SHALLENBERGER, et al.,

Plaintiffs,

versus

CLEVELAND CLINIC FOUNDATION,

Defendant.

DEPOSITION OF

DAVID P. VOGT, M.D.

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Deposition of DAVID P. VOGT, M.D., a Witness herein, called by the Plaintiffs for Cross-Examination pursuant to the Ohio Rules of Civil Procedure, tsken by me, the undersigned, Linda McAnallen, a Stenographic Reporter and Notary Public in and for the State of Ohio, at the Cleveland Clinic Foundation, Cleveland, Ohio, on April 5, 1995, at 9:10 a.m.

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APPEARANCES:

On Behalf of the Plaintiffs:

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On Behalf of the Defendant:

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WHEREUPON,

DAVID P. VOGT, M.D.,

who, after being first duly sworn, testified as follows:

CROSS-EXAMINATION

BY MR. SLAGLE:

Q. For the record, would you please state and spell your name, first and last?

A. David, D-a-v-i-d, Paul Vogt, V-o-g-t.

Q. And what is your currect address?

A. Professional or --

Q. Yes, professional address.

A, The Cleveland Clinic Foundation.

Q. Dr. Vogt, have you been deposed before?

A. Yes, I have.

Q. My name is Larry Slagle. I represent Richard Shallenberger, and I'll be asking you a lot of questions about his care and what you may remember about it, what you know from the records. Much of the information we have to get, we have to get from you, because you were the treating surgeon, as I understand it, for the most part, also because you were present at the time, and records themselves may be somewhat inaccurate or they may be confusing to us.

I don't mean to trick you at any time, although certainly there will be questions I'll ask you that you may think that's what I'm trying to do. All I'm asking for is that you answer the questions the best you can. If you don't understand a question, ask me to repeat it. If I mispronounce something -- and particularly in medical depositions, that's highly likely with me. If I do so, and you feel that you can't answer the question because I'm not giving you a proper pronunciation of the word, ask me to spell the word perhaps or whatever is necessary for you to fully understand the question. Is that okay?

A. Fine.

Q. You said you have testified before, Is that correct, or you've given a deposition?

A. Yes, I have.

Q. How many times have you done that?

A. Probably half a dozen.

Q. In what kind of capacity?

A. Both on the plaintiff and -- both sides.

Q. As an expert witness or as a fact witness?

A. As a fact witness. Well, I guess I should --

MR. PARKER: As a treating physician?

A. As a treating physician, correct. I have not

testified as an expert witness who is not involved in the case,

Q. Obviously when you testify even as a treating physician, you're testifying as an expert in many instances or you can be. There can be a comingling of what you're discussing; is t at a fair statement

A. Yes.

Q. I've been handed by Mr. Parker a curriculum vitae, which as I saw didn't have a date, but I've been advised this is not your most current one.

A. That's correct, it is not the most current one.

Q. Bo you have any idea when this was prepared and when the most current one would be in relationship to it?

A. I really don't know for certain. That's probably at least a few years old.

Q. And how does this change from your more current curriculum vitae?

A. The only changes would be perhaps in the bibliography and perhaps some of the medical societies. The educational aspects, training aspects, those are unchanged.

MR. PARKER: Are your positions and appointments the same?

A. Yes, my positions and appointments are the same.

MR. SLAGLE: Should we mark this one,

or will you provide me with another one?

MR. PARKER: I think you're wasting your time to mark that one. I'll provide you with another one.

Q. Okay. Will your current vitae also update your articles?

A. Yes.

Q. And contribution and stuff?

Yes.

One question. Abstracts and posters. What is a poster?

A. A poster at a scientific meeting is just that. Usually you have a couple of tiers of being able to present your work at a national meeting. One is that you actually are picked to give a presentation, a paper, which is usually a ten to fifteen-minute talk. The other is a poster, which means that you make a poster, which is essentially your paper in sort of an abbreviated form, and then those are displayed in a hall. So it's kind of like the next step down from being permitted to go and give a talk, but it's essentially sharing your information at a national meeting.

Q. Would the poster be published anywhere?

A. The poster would not necessarily be published. That

varies with the society that the meeting was about. Some of those societies print all the posters and austracts that were submitted, and some only print those that were picked for formal presentation.

Q. Now, looking at your vitae that I've been given, it would appear you've done a fair amount of publication and work regarding liver transplantation. Would you consider yourself an expert cr exclusively a liver transplant surgeon now?

MR. PARKER: What's the question? Does he consider himself exclusively --

Q. A liver transplant surgeon.

A. I would consider myself to have considerable experience and some expertise in liver transplantation, but that is not my sole function here.

Q. What other surgery do you do?

A. I do general surgery. I do other hepatobiliary, liver, gallbladder, pancreas type surgery as well.

Q. What type of training did you havt in liver transplantation surgery, if any, prior to 1985?

A. My training consisted of spending about eight to ten weeks at the University of Pittsburgh with Dr. Starzl, Dr. Bud Shaw, and Dr. Itwatsuki.

Q. And when was that?

A That was in 1983, where I spent several weeks participating in the operation, care of the patients, reading, studying various publications.

And then after that, when I came back here, we put together a iarge protocol ana guidelines for the whole liver transplant program, which included everyone from the liver medica: specialists to the bioethicists to the psychiatrists to the surgeons. So that was a multi-specialty type sort of thing.

And then we organized a laboratory effort, that included people from the departments of -- like cardiac perfusinn and the artificial organs department. That department specifically doesn't exist anymore.

And essentially we did several liver transplants in dogs to learn a little bit more about +he operative steps and so on.

Q. You did liver transplants in dogs in 1983 and 1984 then?

A. That's correct, primarily in 1984.

Q. Now. in 1983 when you were at Pittsburgh -- and that's Presbyterian Hospital, University of Pittsburgh?

A. Yes.

Q. Are they the sane? I don't know.
A. Yes.
Q. They are the same?
A. Right. Well, the University of Pittsburgh hospital is Presbyterian Hospital for adults, and then there's a children's hospital, but they're all on the same campus.
Q. And that's where Starzl and his group is?
A. Correct.
Q. Were they doing human liver transplantation at the time?
A. Oh, yes.
Q. How long had they been doing their liver transplantation?
A. Well, I think Dr. Starzl had been there probably for a couple of years or so, to the best of my recollection. And he had been in Denver for the previous twenty years before he moved to Pittsburgh, where he initiated liver transplantation in humans. I think he moved to Pittsburgh in 1979 or 1980. So I went there after he had been there for a few years.

MR. PARKER: I want you to listen to the question carefully-, The question was how long had they been performing liver transplants.

A. They had been performing liver transplants in Pittsburgh since Dr. Starzl arrived.
Q. Do you have any idea how many liver transplants they had performed by the time you were there?
A. I would have to just make an estimate. It was thirty or forty perhaps. That was in Pittsburgh.
Q. And while you were there, how many were you involved in?
A. I was involved with twelve to fifteen.
Q. Were you actively involved or were you more as an observer?
A. I was actively involved.
Q. Now, you said that you had set up protocols and guidelines at the Cleveland Clinic for liver transplantation. Was that for transplantation in general or was it specific to liver tracsplantatisn?
A. Specific to liver transplantation.
Q. Where those guidelines and protocols copied after those at the University of Pittsburgh or were they your own?
A. Tney were our cwn. Parts of those would be similar, but these were protocols that we put together ourselves.
Q. So they are in written form?
A. Yes.

Q. And they were set up in what year?
A. 1983.
Q. And are they identified as protocois and guidelines for liver transplantation or do they have another title?
A. I believe the title was Protocol, but I don't remember exactly what the title was.
Q. Is it still in use?
A. There have been so many changes in the evolution of a liver transplant program, that that specific protocol is not entirely in use now.
Q. Is there a copy of that that was in effect in 1985?
A. Yes.
Q. And where is thac copy?
A. There is probably a copy in my office. I would have to check.
Q. Now, did those --

MR. PARKER: I want to clarify something. He asked is there a copy, and you said yes. Then when he said where, you said probably. Do you know whether there is a copy of the 1985 version or not?

THE WITNESS: I don't know that for certain, because I clean my files, but there may be a copy.

MR. PARKER: I just want the record clear as to that.

Q. Obviously if it's available in your office today, it will be available when we request it in a couple weeks.

A. Yes.

Q. That's not a concern. Now, does that protocol relate to any other protocols at the Cleveland Clinic that may tie into the transplantation procedure or follow-up care, you know, postoperative care, for instance?

A. I don't understand your question.

Q. Does it cover every aspect of pre-op, surgery, and post-op in terms of the guidelines and protocols?

A. Yes, it does.

Q. And when it does that, does that have its own sections -- for instance, I know intensive care units may have protocols and guidelines themselves. The Cleveland Clinic, for instance, does their intensive care unit have their own set of protocols and guidelines?

A. Yes.

Q. Now, do the liver transplant protocols and guidelines duplicate the intensive care protocols and guidelines?

A. No.
Q. Does it relate to that in the sense of rather than setting forth the same procedures to be followed in intensive care in the protocol, do they just say, you know, follow protocols of intensive care, for instance, or do you do that as a matter of practice?
A. The issues of critical care and that were not specifically spelled out, if that's what you're asking. I'm not understanding your questions very well.

MR. PARKER: Well, let me interpose an objection, in that presuming the document still exists, it speaks for itself as to its content and how it interrelates with other documents.

Q. When you would have a patient following liver transplantation in the surgical intensive care unit at Cleveland Clinic, which protocols would be followed, those of the intensive care unit or those of the liver transplantation unit?
A. The liver transplantation protocol did not specifically include all the protocols that may or may not exist for the surgical intensive care unit. So you would follow the guidelines for patient care for the surgical intensive care unit. The purpose of

the transplant protocol was not to address all those issues again.

Q. Good. I think you've answered my question then.

A. I'm trying.

Q. So if you're in the intensive care unit, you'd still be governed by the protocols of that unit?

A. That's correct.

MR. PARKER: Objection. That's assuming it's a matter that is governed by protocol.

Q. Of course, yes. Was your internship or residency at Cleveland Clinic in a specific area?

A. I trained for five years in general surgery and then did a vascular surgery fellowship.

Q. And how long was that?

A. One year.

Q. Other than going to the University of Pittsburgh where you were involved in approximately fifteen -- and I'm not holding you to that, because I don't think you know for certain, do you, the number of liver transplants --

A. Well, I took your question to mean how many operations was I actively involved in. Actually I was exposed to the management of several more patients than fifteen. Fifteen alluded to the number of transplants that were performed during my stay

there, but it is in no way reflective of the number of liver transplant patients that I was exposed to there.

Q. So you were exposed to many, many more than the fifteen?

A. That's correct,

Q. Did you have any active role in liver transplantation other than that and what you did at the Cleveland Clinic?

A. No.

Q. For instance, lawyers could go to seminars dealing with any number of specialties. Did you go to any medical seminars dealing with liver transplantation prior to 1985?

A. I went to the N.I.H. 1983 consensus conference on liver transplantation.

Q. And where was that held?

A. That was held at the National Institutes of Health, which is in Washington.

Q. Anywhere else?

A. I don't recall specifically if I went to any other courses.

Q. Were there any published materials that were used by you as a guide for liver transplantation prior to 1985?

A. During my stay at Pittsburgh, I had the opportunity to go through Dr. Starzl's long bibliography and copy several of his articles and read his textbook, so that was where I was able to learn as well.

Q. His textbook on liver transplantation?

A. Correct.

Q. Did you purchase a copy of that?

A. No.

Q. So you just reviewed it there?

A. That's right.

Q. Was it available for your use at the Cleveland Clinic when you returned?

A. No.

Q. Now, what type of training and experience have you had in postoperative care of surgical patients? Was that included, for instance, in your residency?

A. Yes.

Q. As I understand it, you were the primary surgeon for Richard Shallenberger.

A. Yes.

Q. Now, as primary surgeon, are you also responsible for his postoperative care?

A. Yes.

Q. And how long would that responsibility last? To his release from the hospital, for instance?

A. Indefinitely.
Q. Indefinitely. All right. Now, you remember Richard Shallenberger certainly.
A. Yes.
Q. In dealing with his particular situation, were there any facts that you were aware of that would have increased his risk of postoperative complications?
A. Yes, there were. Are there any specific complications you had in mind?
Q. I'm sure there will be, but when we talk -- There are any number of things that can go wrong during surgery and postoperatively; isn't that a fair statement?
A. That's correct.
Q. In dealing with Richard, do you remember what historically you had learned, either from him or his records or his previous treating physicians, that would in any way influence your thinking regarding his postoperative care?
A. Well, we knew beforehand that he would be at risk to have more complications purely from a surgical standpoint, because he had had a prior mesocaval shunt, which is an operation that is done to control bleeding from large veins in the esophagus. We also knew that he had had other operations that would make

the operative procedure of the transplant more difficult.

Q. What were those operations that would make the procedure itself more difficult?

A. Well, the major one would have been the prior shunt operation I described, and he also had several what we call peritoneojugular shunts put in to try to control his fluid in his abdomen.

Q. And why would they make the surgery itself more difficult?

A. Eecause they cause adhesion formation.

Q. And the adhesions would have to be dealt with to get to the liver?

A. Correct.

Q. And the surrounding organs?

A. Yes.

Q. What do you have to do with the adhesions? Remove them or --

A. Well, an adhesion is where tissues stick together, and so the normal planes between tissues are no longer existent, and so you have to take those adhesions apart.

Q. Now, did those complications come about? I mean you knew that he had had the surgeries and the adhesions were present. So did those adhesions themselves

cause any complications during surgery in any way?

A. It did not cause any complications. It made the operation much more difficult because of the adhesions, in terms of difficulty in dissecting out the liver, the structures that you have to control to remove the liver, in terms of the blood products required and bleeding and so on. I would not view those as complications. I would view those as anticipated increases in the degree of difficulty.

Q. Now, the esophageal shunt, where does that go into the body and how does that affect it?

A. It's not an esophageal shunt. This is a procedure where a prosthetic graft, a little tube, is sewn from two veins, one going to the liver and one going behind the liver, to decrease the amount of pressure in the blood that's going to the liver. And that's right in the area where you have to do a major part of the operation, the transplant operation.

Q. And you learned about his earlier problems from his medical records and also from discussions with him?

A. Yes.

Q. Now, when you were doing his preoperative workup, you obviously did that in consultation with others?

A. Yes.

Q. Who else was consulted regarding that preoperative

workup?

A. Well., he was seen of course by the hepatologists, which are the medical specialists, by ourselves, the surgeons. Everyone who goes through a liver transplant evaluation here is seen by social work, psychiatry. Particular patients, who have a history of drug dependency or alcohol, are evaluated by those subspecialists in psychiatry, and they're seen by eye bioethicists as well. In Mr. Shallenberger's case, he was also seen by a neurologist before the transplant, because he had a history of a seizure sometime prior to his transplant evaluation.

Q. Did you ever identify what that seizure was related to?

A. The specific reason was not determined.

Q. Did you have any discussions with anyone about what could have caused it or what was likely to have caused it?

A. He was seen by a neurologist, who couldn't tell exactly why it had occurred.

Q. There was nothing about that earlier seizure activity, however, that obviously foreclosed him from the liver transplant at that time?

A. It did not make the liver transplant a contraindication, no.

Q. Now, as I also understand it, without the liver transplant, Mr. Shallenberger would have undoubtedly died.
A. Yes.
Q. And in not too many months?
A. That's correct.
Q. In liver transplantations, what are some of the expected or anticipated complications that can arise?
A. Well, some patients don't have any complications. Would you be more specific in your question?
Q. Well, there's obviously risk in any surgery; correct?
A. Correct.
Q. And those risks are usually fully explained to the patient, so they can make what's known as an informed decision and give a consent that's informed.
A. Correct.
Q. So in discussing with Mr. Shallenberger those possible complications, what would have been discussed with him?
A. You mean the possible complications of the operation itself?
Q. Yes.
A. The major risk, the major complication of the transplant procedure itself would be bleeding, and that's -- Are you confining yourself in the

operating room now?

Q. In terms of the complication or discussing it with the patient?

A. The complication.

Q. Yes, just in the operation itself at this point.

A. The major complication during the operation is usually related to bleeding.

Q. In dealing with postoperative complications -- and I understand in liver transplantation at the time, those were -- there were certainly a few of those. Did you discuss with him the possible postoperative complications?

A. The postoperative complications, the two major ones, relate to rejection and infection.

Q. The rejection by the body of the transplanted liver?

A. Correct.

Q. Infection caused by the surgery or infection just generally from a weakened condition? What type of infection?

A. Well, there are several types of infection. Some are germane to liver transplantation and some are just because of the big operative procedure.

Q. What would be germane to liver transplantation?

A. Germane to liver transplantation would be particularly what we call opportunistic type of

infections, including some of the viral infections and fungal infections.

Q. The fungal infections, are they a result from the Cyclosporine or from something else?

A. They do not result necessarily from Cyclosporine, no.

Q. What would they result from?

A. The fungal infections can result in anyone who's had a big operation. The risk factors are particularly having your system compromised beforehand, or particularly patients who have been hospitalized for a long period of time with other infections and have required long-term multiple antibiotics. Those are the particular risk factors for fungal. infections.

Q. Had Mr. Shallenberger ever had any experience with long-term hospitalizations with antibiotics needed?

A. I can't tell you the answer to that. I don't know.

Q. Did Mr. Shallenberger suffer any of these postoperative complications?

A. Yes.

Q. Which?

A. He had rejection and he had infection.

Q. What type of infection?

A. He had fungal infection and he did have bacterial. infection as well.

Q. Were you able to identify the cause of those

infections?

A. Identifying the source might be a more accurate way to state it --

Q. All right, the source.

A. -- in that he grew bacteria and fungus from various body fluids and so on.

Q. When did those occur?

A. Within the postoperative period.

Q. Within a week of the surgery, within three weeks, if you remember?

A. Within the first few weeks.

Q. Were you able to deal with those infections without any real residual problems?

A. They were treated with the appropriate antibiotics.

Q. Now, after the surgery itself, do you continue to take control of his care and the management of his case or is that at that point delegated to others?

A. No, I continue to orchestrate his care.

Q. And what is involved in that orchestration?

A. Well, that means I'm primarily responsible for his care. If someone is still in the intensive care unit, then the management is sort of a joint management with the intensivist.

Q. And in this case, who was that intensivist?

A. Dr. Lockrem.

Q. And how did you and Dr. Lockrem communicate with each other regarding Richard Shallenberger specifically?

A. Spoke to each other.

Q. Was It on a daily basis? For instance, did you have a daily meeting?

A. No, not necessarily.

Q. Would he call on you a daily basis?

A. We spoke as we felt it was necessary.

Q. What type of understanding was there between the two of you regarding discussion of what was going on with Mr. Shallenberger in the first week following the surgery?

MR. PARKER: Objection as to his testifying to Dr. Lockrem's understanding.

Q. What was your understanding?

A. Well, I don't recall any specific discussions I had with Dr. Lockrem.

Q. Did you see Richard Shallenberger after the surgery?

A. Yes.

Q. And do you remember how many times you saw him that first week?

A. I saw him at least once every day.

Q. And do you remember having any discussions at all with Dr. Lockrem regarding his care?

A. I don't remember any specific discussion, no.
Q. What was Mr. Shallenberger's condition after the surgery?
A. Could you be a little bit more specific?
Q. Well, did he have any difficulties with his pulse or blood pressure, for instance?
A. Not immediately postoperatively, no.
Q. What about any respiratory difficulties?
A. He did require to have to go back on mechanical ventilation on the 11th of August.
Q. And that was how many days after surgery?
A. The operation was on the 8th, so two to three days afterwards.
Q. What are the governing guidelines regarding extubating a patient following surgery, if there are any?
A. There are guidelines, and the general guidelines are that they are able to adequately ventilate and oxygenate themselves, that they are awake enough to do that.
Q. And how is a determination like that made, just from their waking state?
A. There are a variety of parameters that are looked at, such as their arterial blood gases and the mechanics of how well they are breathing and so on.

Q. And who makes that determination?
A. Those determinations are made in large part by the intensivist.
Q. Are they done in any way with consulting with you at the same time?
A. Not necessarily, no.
Q. Now, after the surgery, do you remember what Mr. Shallenberger's appearance and color was?
A. At what point?
Q. Within the first several days, within the first two days.
A. It it appeared fine.
Q. Do you know when he was extubated?
A. I can't tell you exactly when he was extubated.
Q. You could tell by looking at the records obviously?
A. Yes.
Q. And as I understand it, you weren't involved in the decision regarding the extubation?
A. No.
Q. Had you discussed with anyone prior to the extubation, for instance, about any potential problems with extubating Mr. Shallenberger that might arise?
A. Did I discuss with anyone?
Q. Yes.

A. No.
Q. Ware you aware of anything regarding his physical well-being and his own personal health history that would have affected his ability to breathe on his own without mechanical ventilation?
A. No.
Q. Did you give that any thought at anv time?
A. Did I give what any thought.'
Q. Mr. Shallenberger's ability to breathe on his own were any factors in his life or in his physical

prefer to refer to your records or my copies?

MR. PARKER: We have eight volumes on the table. If there's a particular page that you want refer to, you might do best to show it to him.

(Plaintiff's Deposition Exhibit 1 was marked for identification.)

Q. I'm going to hand you what's marked as Cardiac Intensive Care Record from the Cleveland Clinic and represent to you that these are just pages taken from Mr. Shailenberger's record, that's identified in that area of the records. I think on the second page of that, it says 8-10-85 at the tup, extutated by Dr. -- is that Parinika? Is that correct?

A. I don't, know.

Q. Could you look at that and --

A. I don't know if that's the correct name or not.

Q. You can't tell by reading it yourself who it is then?

A. No, I can't.

Q. Do you have any idea? That obviously is not Dr. Lockrem.

A. That's correct.

Q. Who would make a decision regarding extubation of Mr. Shallenberger, if it weren't Dr. Lockrem?

A. It could be one of the residents in the intensive

care unit.

Q. Would they have discussed that decision with Dr. Lockrem under your normal procedures rather than doing it on their own or would they discuss it with -- well, Dr. Lockrem first. Should they have discussed that with him under your general procedures? Ycu don't know in this specific instance whether he did or not, but generally would an intern discuss that with the primary care physician prior to doing so?

A. I don't think you can presume that Dr. Parinka was an intern. He may have been a much more senior resident.

Q. You don't know Dr Parinka?

A. I don't know Dr. Parinka, no.

Q. So you don't know if he's a senior resident, an intern, or --

A. That's correct.

Q. I would assume he's not an active -- How do you define it? You're on staff. Is that different than being an intern or a resident?

A. Yes, it is.

Q. I presume that he is not on staff or else you'd recognize the name.

A. That's correct.

Q. So eliminating that, he must be either an intern or resident?
A. That's correct.
Q. Now, are you saying that in the intensive care unit in 1985 with a liver transplant patient, an intern or a resident could single-handedly make a decision regarding extubating a patient?
A. I think that is correct. I don't know if there is a specific policy in place in the surgical intensive care unit regarding extubation of patients and whether a resident or intern has to check with the attending on all patients before they are extubated.
Q. Now, in your own personal care of a patient, do you have a preference on whether or not such a decision would be discussed with you or at least that you would be advised of such a decision at some point?
A. I'm not clear what you're asking me.
Q. Well, were you advised that Dr. Parinka had extubated Richard Shallenberger?
A. No.
Q. As the transplant surgeon and the doctor who is responsible for his care and well-being, is that a piece of information you would have liked to have been told?
A. Not necessarily.

Q. And why would that not be?
A. Because as I mentioned earlier, the management of the patients in the surgical intensive care unit Is a joint venture. Since my area of expertise is not in respiratory management, then I feel comfortable that when Dr. Lockrem or one of his designates feels that it is appropriate to extubate a patient, that that is fine with me.
Q. Do you know when you saw Richard Shallenberger after his extubation? Do you know if you saw him extubated?
A. Do I remember seeing him extubated?
Q. Yes.
A. No.
Q. Do you remember being in his room and looking at his condition from that point until he was reintubated?
A. I don't remember any of those specific details, no.
Q. You obviously know he was reintubated.
A. Correct.
Q. You don't remember seeing him prior to that reintubation but after his extubation at 6:30 p.m. on August the loth?
A. I'm sorry. Repeat that, please.
(The court reporter read the preceding question as follows: You don't remember seeing

him prior to that reintubation but after his extubation at 6:30 p.m. on August. the loth?)

A. No, I don't have any specific recollection of ten years ago seeing him immediately extubated or reintubated.

Q. Would you, as the surgeon, give any type of instructions regarding his care, specific instructions?

A. Yes, we may give some specific instructions.

Q. Bo you remember in his care what those may have been?

A. I would not be giving any specific instructions in terms of his respiratory status.

Q. So you're saying you would have relied totally upon the intensive care unit to deal with that issue?

A. Well, that's not quite accurate either. I would have relied primarily on the intensive care unit to handle that issue.

Q. When you say primarily, does that mean you would have hoped to have had some involvement with it?

A. No, but the way you stated it was as if I would have absolutely no reason to make any input. If I did not agree with their management, I would have stated so.

Q. If you were not advised of their management of his care, then how would you be able to disagree or agree

with it?

A* I'm not certain what you're asking.

Q. Well, certainly the intubation of Richard Shallenberger was a point that wasn't normal in his recovery, for lack of better terms. Isn't that a fair statement?

A. No, I don't think it is a fair statement. There are patients who require reintubation for a variety of reasons.

Q. When that happens, do you then go and see why they required reintubation?

MR. PARKER: Do you mean separate and apart from the normal rounds and follow-up care that he was giving?

MR. SLAGLE: Correct.

A. Yes, things are looked into.

Q. Now, in Richard Shallenberger's instance, did you look into the need for the reintubation?

A. The tests were done. And by his clinical course, the conclusion from the records was that he required reintubation primarily because he was not oxygenating properly.

Q. Did you review those records then?

A. I reviewed the clinical records this morning. I have not reviewed the respiratory --

MR. PARKER: That wasn't his question, Doctor. Did you review the records then?

THE WITNESS: Did I review the records then?

MR. PARKER: At the time of treatment.

A. I would have to say yes, but I don't specifically remember that now.

Q. Do you know how the intensive care unit is supposed to keep the records regarding everything that's done with Richard Shallenberger or any patient in that unit in terms of the procedures, you know, what they're supposed to write down, what they're supposed to include in terms of time? Do you know the guidelines regarding that?

A. No.

Q. There are guidelines though?

A. Yes.

Q. Have you reviewed them yourself?

A. No.

Q. Do you know what the Clinic's rules and procedures regarding intubation are?

A. I don't know that there is a Clinic policy.

Q. Is there an intensive care unit policy regarding intubation?

A. Do you mean are there guidelines?

Q. Right.

MR. PARKER: If you know?

THE WITNESS: Beg your pardon?

MR. PARKER: If you know. Don't guess.

A. I don't know for sure that there are.

Q. You don't know if there are any written procedures at all?

A. I don't know that firsthand, no.

Q. Do you know it secondhand?

A. Well, I would think that there are, but I --

Q. You haven't discussed them with anyone?

A. No.

Q. You're just saying in your experience, in normal hospital care management there probably are written guidelines on intubation?

A. That's correct.

Q. And you, yourself, haven't read them?

A. I haven't read them recently.

Q. Have you read the Cleveland Clinic guidelines regarding intubation ever?

A. I don't recall.

Q. Do you know if there are different guidelines for intubation in the intensive care unit versus a general guideline throughout the hospital?

A. I don't know.

Q. Were there any written procedures or guidelines regarding intubation or extubation for the liver transplant program?
A. No.
Q. You know that, because you developed those guidelines, and you'd know if they were in there?
A. That's correct.
Q. Are there written protocols regarding the information that should be relayed to the physician in charge of a person's care in those transplant guidelines?
A. No.
Q. When a physician at the Cleveland Clinic -- you were the general physician governing Richard Shallenberger's care. Is there any type of Cleveland Clinic guideline regarding your duties and those of others working perhaps separately, like the intensive care unit is, regarding your patient but still it's your patient, in reporting back what's happening to him other than what's in the chart?
A. I'm not clear what you're asking. Is there a --
Q. A memo, a tickler system. I don't know how you'd call it. Something other than what's in the chart. And I understand each doctor can read the chart as they go into the room.
A. Bo you mean are there written guidelines that tell me

when I would need to call someone else?
Q. That's correct, or someone should have contact with you that this has happened with your patient.
A. I'm not aware of any written protocols telling one physician when he must communicate with another. There are some guidelines for consultation.
Q. And what are those guidelines?
A. Well, I don't recall specifically.
Q. There were guidelines for consultation?
A. There are institution guidelines for consultation.
Q. Institution meaning Cleveland Clinic?
A. Correct.
Q. Were there any specific guidelines set forth by the liver transplant unit regarding consultations?
A. **No.**
Q. **Bo** you know if the intensive care unit would have anything similar to the institution guidelines?
A. **I** don't know.
Q. **Do** you know if Mr. Shallenberger suffered any respiratory difficulties in his postoperative care in that period between August 8th, when the surgery was completed, through August 12th?
A. Except for the episode when he required reintubation, no.
Q. What was the episode, your understanding of it, when

he required reintubation? What happened?
A. That he became hypoxic and required reintubation.
Q. And how was it determined that he was hypoxic?
A. From the arterial blood gas.
Q. And the response to that episode was reintubation?
A. Correct.
Q. Now, in your experience prior to that time, had you been involved in monitoring people or patients that were in respiratory difficulty?
A. You mean do I personally manage those patients?
Q. Yes. Had you prior to 1985?
A. I had managed patients during my training and as a staff person, but not as my primary responsibility, no.
Q. You're just saying that in your general. training up to that point, you had had contact with it, but it was not a situation in which you were studying to be an intensivist or in that nature; correct?
A. That's correct.
Q. In terms of monitoring a patient in intensive care, are there written guidelines regarding what is required in terms of monitoring that patient?
A. There are. I have not read them recently.
Q. Did the transplant unit have any type of written procedures regarding monitoring of their patients

following the transplant?

A. In general we had guidelines for the postoperative care, but. they were not necessarily specifically related to respiratory problems and so on. They were more germane to the transplant procedure itself.

Q. Those guidelines are what you think are included in what's in the office --

A. The protocol.

Q. The protocol?

A. That's correct.

Q. The reason I ask that, I don't want to be -- Sometimes there might be a protocol, and then there might be individual guidelines besides. When we're talking guidelines to the transplant unit, I want to be sure that we're talking about one set of guidelines that you call the protocol, which may have several different subguidelines in it, for instance.

A. Well, at that time the only document that existed was the protocol, which was all-inclusive.

Q. So that was it then?

A. That was it.

Q. I gather later on you're saying that other guidelines have been established because there came the need to

establish them?

A. Well, currently we actually have a little pamphlet that we hand out to all the residents and a copy is in all the intensive care units.

Q. And when was that pamphlet done?

A. A few years ago. It's been updated once.

Q. After 1985?

A. Oh, yes.

Q. And was that different than what your protocol was?

A. Yes.

Q. And how did it change?

A. Well, it was different in that the protocol addressed putting together the whole liver transplant program, which included -- the current pamphlet is more specifically related to guidelines for evaluating a patient for liver transplant and then specifically things of postoperative care, complications, and so on. So their goals were entirely different.

Q. You must have been involved in the decision to develop that pamphlet.

A. Yes.

Q. What was the reasoning behind development of the pamphlet to go beyond the protocols you had established in 1985 or prior?

A. The major reason to do that was to share the

information with the residents, the house officers, the nursing floors, and the intensive care units, to give some sort of standardization and to give sort of a brief overview of liver transplantation from the preoperative evaluation through postoperative care and complications.

Q. Is that because the liver transplantation procedure itself has some unique factors in it that you were warning them of or was it just something to improve the image? I mean why would you do it?

A. Well, you would do it because transplantation in general and liver transplantation specifically have issues that are particularly related to those topics, and residents don't. get exposed to those in other general surgical or other surgical fields.

Q. So there's a uniqueness basically to --

A. There is a purpose to it.

Q. Do you remember seeing Richard Shallenberger in a respiratory arrest at any time or difficulties?

A. No.

MR. PARKER: An arrest or difficulties?

Q. Difficulties.

A. No.

Q. Do you know where you were the weekend of August the loth, 11th, and 12th? I guess the 10th was Friday,

the 11th was Saturday, and the 12th was Sunday. Is that the way it works?

MR. PARKER: We don't know the dates -- I certainly don't know the dates, August. loth, llth, and 12th of 1985. If you want to us determine that, it could be done.

A. What do you mean, where was I? Was I in town?

Q. Yes.

A. Yes.

Q. Saturday was the 10th.

A. Yes.

Q. Sunday was the 11th.

A. Yes, I was here.

Q. Normally would you be making your rounds at the hospital?

A. Yes.

Q. Or do you have time off?

A. I come in seven days a week.

Q. Would you have made the rounds seeing Richard Shallenberger on those days?

A. Yes.

Q. So you have no independent recollection of remembering anything about him on that weekend?

A. No.

Q. August 10th, August llth?

A. No.
Q. Where would the indication that you had been in his room on the loth, llth, or 12th show up in the record? Do you have to write it down someplace?
MR. PARKER: I'm going to object to the form of the question, because you're implying that it would have to be recorded. And it would not have to be recorded.
Q. Does it have to be recorded?
THE WITNESS: Can I ask you a question?
MR. PARKER: Sure. Do you want to step out?
THE WITNESS: Yes.
(A short break was taken.)
MR. PARKER: You need to reask the question or have it reread, because I've forgotten what it was.
(The court reporter read the preceding question as follows: Does it have to be recorded?)
A. The answer is no.
Q. If it were recorded, where would that be?
A. If I wrote a note, it would be in the clinical notes. And there is a note recorded by me on the 10th of August.

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Q. Are those the intensive care records or is that the --

A. The clinical notes.

Q. What does that note say, since you obviously have it there?

A. It says looks fairly good, pressures are up from fluid, serum creatinine still rising, although urine output is now good, prothrombin time good, hope for extubation today.

Q. That is on the loth?

A. Yes.

Q. What time were you there on the 10th, does it say?

A. No.

Q. What's your policy? What time would you start your rounds on the loth?

MR. PARKER: Objection.

A. No policy. Could be there at any time during the day.

Q. Do those notes reflect when you next see Richard Shallenberger?

A. Not necessarily.

Q. Well, you're reviewing them, and you're saying you don't see anything in there about --

A. I saw Mr. Shallenberger at least once a day. My presence may not necessarily be reflected in the

clinical notes, because I may not have put a note. One of my residents -- my senior resident would have put a note every day.

Q. And who is your senior resident?

A. At the time it was Dr. Mark Jaroch.

Q. And where is he now? Is he at the Clinic?

A. No, he's in the Akron area.

Q. Do they show when he was there then?

A. Just the date.

Q. And when was that?

A. Every day.

Q. Oh, there's a signature of him every day being there?

A. Yes.

Q. Oh, okay. Would you have been there with him, you mean?

A. I would have been there with him at some time, not necessarily when he wrote the note.

Q. Would he have been notified instead of you about any type of respiratory problem?

A. Not necessarily.

Q. And you are not familiar with any policies, rules, regulations, guidelines governing extubation or intubation personally?

A. Correct.

Q. So you don't have any specific information. You rely on the intensive care unit doctor to deal with that issue?

A. Primarily, yes.

Q. What drugs and medications did you prescribe for Mr. Shallenberger prior to August 12, 1985, and after his surgery?

MR. PARKER: Do you want him to testify from recollection or do you need him to find the medication records and read all those?

A. I would have to look at the medication records.

Q. Well, if you could.

MR. PARKER: I have some copies here.

THE WITNESS: Okay.

MR. PARKER: I don't know how readable they are.

THE WITNESS: Okay.

MR. PARKER: Off the record.

(Discussion was had off the record.)

Q. What medications did you prescribe for him following surgery and prior to August 12th?

A. Prior to surgery?

Q. No, after surgery and prior to August 12th.

A. Well, I don't think I can tell you exactly what medications I personally prescribed. I personally

may not have written the orders for any of these medications but may have had my residents write the orders for some of these medications.

Q. Well, if they would have written an order for a medication, it would have come from you?

A. It would be signed by them, and they could have written an order for some medications that I did not instruct them to put him on.

Q. Well, what medications are shown there as being given and prescribed for Richard Shallenberger from after his surgery until August 12th?

A. Well, he was on Solu-Medrol, Mycostatin, Alternagel, Aldomet, Cyclosporine, Hydralazine, hydrochloride drip, morphine sulfate, Diamox, Ampicillin, Claforan, Haldol, Tylenol, Dopamine. That's all.

Q. What was the purpose of these medications? They all had various purposes obviously and there are numerous of them; correct?

A. Correct.

Q. Solu-Medrol?

A. Solu-Medrol is a steroid, which is part of his immunosuppressive medications, anti-rejection medication.

Q. What was the dosage?

A. It was what we call a taper. It started at a total

of 200 milligrams per day and it tapered down to 20 milligrams per day over the course of five days.

Q. And was that a pill, injection?

A. Intravenous.

Q. What about Mycostatin?

A. Mycostatin is an anti-fungal preparation that is usually given to swish around in the mouth and swallow or put down the nasogastric tube.

Q. Rather than go through all of these, have any of these medications that were prescribed for Richard Shallenberger, not necessarily by you, either individually or when used in combination with others been discontinued by your liver transplant unit?

A. By discontinued, do you mean that we don't use them at all anymore?

Q. You may not at all or not in conjunction with other medications being given out of that list.

A. No.

Q. So you're saying that of those medications you've listed, you have not found any problems with the use of those medications as a general rule or in specific circumstances for that matter?

MR. PARKER: I'm going to object to the form of the question. I don't think any doctor

can answer that question affirmatively.
A. No, I didn't say that.
Q. You didn't say what?
A. What you just said.
Q. Have some of them been eliminated from use in conjunction with or perhaps all the time?
A. No.
Q. Because as I understand it, this was the seventh liver transplant that the Clinic had done, Mr. Shallenberger's.
A. Could be. I don't remember the exact number it was.
Q. Was he the first one to survive after a -- I think some of them survived the surgery and --
A. No, he wasn't the first.
Q. No?
A. No.
Q. Are there others still alive, do you know, of that first group?
A. Up to what time point?
Q. Up to 1990, surviving more than a couple years after surgery.
A. Oh, yes.
Q. And I'm not trying to trick you, but it was a rather developmental program at the point Richard Shallenberger had gone through it; correct?

A. Correct.
Q. And in any developmental program, there may be circumstances in which you're using something and then find out that that use really wasn't suited for the purpose, not because you knew it at the time, but because you found out through experience that perhaps the two of them didn't work together. That's one reason developmental prcgrams are there; correct?
A. Correct.
MR. PARKER: Let me enter an objection to anything that's subsequent to the date of this surgery.
Q. I'm just asking whether or not you found that any of these in combination or individually was a drug that you felt uncomfortable using for whatever reason.
MR. PARKER: I'm going to object. Uncomfortable using? If you can answer that question, go ahead, but that's pretty darn broad.
Q. Yeah, it is. You didn't cease using any of these medications?
A. That's correct.
Q. In Richard Shallenberger's case, the surgery itself went quite well; is that a fair statement?

A. It went -- yes.
Q. Yet his hospitalization was rather prolonged due to the complications that arose after the surgery?
A. Yes.
Q. How long would you have expected him to have been in the hospital, if he would not have had those complications?
A. At that time it would have been difficult to give you -- to answer that question.
Q. Because it was still a new program?
A. Yes.
Q. And everyone was learning, I guess. Is that a fair statement?
A. Yes.
Q. Have you ever talked to either of the Shallenbergers about his postoperative care?
MR. PARKER: Over the ten years or the immediate postoperative --
Q. Well, obviously after the operation.
A. The last time I saw Mr. -- yes.
Q. Do you remember when that was?
A. The last time I saw Mr. Shallenberger was in 1990.
Q. You actually saw him in 1990?
A. He came to my office.
Q. When was that?

THE WITNESS: Do you have that volume?

MR. PARKER: Is this it?

A. February 1st, 1990.

Q. What was the purpose of that visit?

A. He was there for follow-up. He was primarily interested in the new medication FK506.

Q. What do you know about FK506?

A. What did I know about it then or what do I know about it now?

Q. Then.

A. Very little.

Q. What did you advise him about that new medication or his concern? Do your notes reflect that?

A. No.

Q. Do your notes reflect if they had talked to you at any time after that?

A. If they had talked to me after this note?

Q. Correct, not personally, but by phone.

A. No.

Q. Do your notes reflect any conversations, letters, or communications regarding Richard Shallenberger after February 1st 1990?

A. There's no reflection of that in the notes.

Q. Do you remember any communications, letters, or conversations regarding Richard Shallenberger after

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that?

A. No.

Q. Other than what you've had with your counsel obviously.

A. No.

Q. You knew that he finally went to the University of Pittsburgh?

A. Yes.

Q. Did you ever have any communications with the University of Pittsburgh?

A. No.

Q. Did they ever send you any information on it?

A. Not that I recall.

Q. Do you have a separate file on Richard Shallenberger?

A. No.

Q. What are you referring to in the file there that you just were able to see the time he saw you on February 1st, 1990?

A. That was my clinical note from his office visit.

Q. And that's a clinical note kept in his general file?

A. Correct.

Q. Do you have a specific file on Richard Shallenberger himself?

A. No.

Q. So the only file you use regarding him is the

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Cleveland Clinic's file on him?

A. Yes.

Q. Was he your first alcoholic transplant patient?

A. Yes.

Q. Did you advise Mr. Shallenberger of the fact that he was your first alcoholic liver transplant patient?

A. I don't recall that I specifically had that conversation with him, no.

Q. Do you remember if you had advised him that he was to be within the first -- and I don't know. You don't remember exactly if he was the seventh, eighth, ninth, tenth, or whatever?

A. I don't remember exactly which one he was, no.

Q. Did you discuss with him at all that he was early in your program regarding liver transplantation?

A. I don't recall any specific conversation of that, no.

Q. Did you ever discuss with him that there were alternatives to the Cleveland Clinic for liver transplantation surgery?

A. I don't recall if I had that conversation with him either.

Q. Were there other hospitals in 1985 that had more experience with liver transplantation than did the Cleveland Clinic?

A. Yes.

Q. Would you have considered Richard Shallenberger's case to be somewhat more difficult because of his experience as an alcoholic than a normal transplant would be?

A. No.

Q. Now, I think you gave an affidavit at some point earlier; correct? Do you remember that affidavit?

MR. PARKER: The question is whether you recall it.

A. Not specifically, no. Yes, I do remember that there was a prior -- but I don't recall the details.

Q. At that time in 1993, you said that you had an independent recollection cf Richard Shallenberger which has been reinforced by a review of the medical record; correct?

A. Yes.

Q. At that time, you said that based upon your education, training, and experience, the medical and surgical care rendered to Richard Shallenberger at the Cleveland Clinic was in compliance with reasonable and acceptable standards of medical practice; correct?

A. Yes.

Q. Did that include his entire care or just his care that you were involved in regarding the surgery?

A. His entire care.
Q. So postoperative care, too, you had reviewed and determined that that was within the acceptable standards?
A. Yes.
Q. You also stated that with reasonable medical certainty any neurologic injury suffered by Mr. Shallenberger was not as a consequence of substandard medical care rendered at the Cleveland Clinic Foundation. How did you reach that conclusion?
A. Because I felt that his standard of medical care was very good.
Q. And that includes the post-operative care in the intensive care unit?
A. Yes.
Q. Now, were you aware that Mr. Shallenberger either had a nonfunctional or at least a dysfunctional diaphragm as a result of an earlier surgery?
A. I don't recall that specifically.
Q. You know what the diaphragm is obviously. It assists in our breathing?
A. Yes.
Q. If it were damaged, would that make it more difficult for a person to breathe?

MR. PARKER: Damaged and not healed or repaired?

Q. Yes, damaged and not repaired.

A. Yes.

Q. I think during the surgery -- and if we look at your surgical notes, if I have them -- Do you have your surgery notes in front of you, if you would, sir?

A. All I have is the handwritten operative note.

Q. Is there a difference between the handwritten operative note and the typewritten operative note?

A. Yes.

Q. What's the difference?

A. The handwritten operative note is simply a summary of the procedure that was performed., the surgeon, the assistants, drains, and so on, whereas the typed operative note is a detailed description of the operative procedure.

Q. Is that dictated while you're doing the surgery or afterwards or --

A. It's dictated after the operation.

(Plaintiff's Deposition Exhibits 2 was marked for identification.)

Q. That's the operative note of the surgery of Richard Shallenberger on 8-7-85 and it's marked as Exhibit Number 2; right?

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A. Correct.
Q. And that's a dictated operative note of your surgery. Now, if you would look in that, six or seven Lines up from the bottom it says, "Upon taking down the right triangular ligament, the thoracic cavity was entered and the defect in the diaphragm was closed with figure-of-eight number 2-0 silk sutures."
A. Yes.
Q. What are you doing there?
A. Closing a hole in the diaphragm.
Q. How was that hole created, if you know?
A. It was created in the process of dissecting the liver off of the diaphragm, to which it is very adherent particularly in patients with cirrhosis. So there was a hole made in the diaphragm, and the hole was closed.
Q. Do you know how large that hole was?
A. It was closed with a single stitch, so it was small.
Q. Now, that's obviously a hole in the diaphragm.
A. That's correct.
Q. Would that injury to his diaphragm -- and I'm not suggesting that injury was -- obviously it was caused during surgery, but would that problem itself cause the diaphragm not to function as well as normal?
A. No.

Q. And why would that not be?
A. Because it would have no -- it would not damage the diaphragm's ability to move.
Q. Because it was so small or just generally?
A. Both.
Q. You say it was only one stitch?
A. Yes.
Q. It says number 2-0 silk sutures. Sutures implies more than one to me.
A. Yes. So more than one.
Q. So it probably wasn't one?
A. It probably was not.
Q. And you really don't have any recollection of the size; you just remember correcting it? Did you do the correction yourself?
A. Yes.
Q. Do you remember the size?
A. No.
Q. Now, after reviewing the records before, would you disagree that he went into respiratory failure as a result of pulmonary edema from volume overload? This is on August 11th and 12th.
A. Yes, I would probably restate that.
Q. Okay.
A. That he did go into pulmonary edema because he was

starting to remobilize fluid from his tissues that had been administered during the operation and immediately thereafter rather than implying that he had been given too much fluid.

Q. So you're saying the cause of the problem is -- you're changing it in terms of what caused the overload3

A. Correct.

MR. PARKER: The pulmonary edema.

Q. Right. You're not disagreeing that he was in -- you're saying that volume overload wasn't caused -- that pulmonary edema was not caused by volume overload?

A. No, I'm not disagreeing that it was caused by volume overload. I'm disagreeing that. the volume was administered inappropriately.

Q. You didn't create the volume through IV's or whatever?

A. Well, the volume was given through the IV's, but it was given during the time of the operation and immediately thereafter when he needed that volume. A percentage of that volume goes into the tissues rather than remaining within the blood vessels. And as the systems recover, then that volume is then pulled back into the blood vessels. Then you have a

situation where there is too much volume.
Q. Would this cause poor oxygenation?
A. Yes.
Q. Would poor oxygenation lead to hypoxia?
A. Yes.
Q. Would hypoxia result in neurological abnormalities?
MR. PARKER: Objection.
A. Not necessarily.
Q. Could it?
A. It could.
Q. Do you know if he had accumulated any fluid in the pleural. space?
A. Yes.
Q. How do you know that4
A. He had a chest tube placed for the fluid.
Q. Now, in terms of the respiration, I'm going to hand you what we'll mark as Plaintiff's Exhibit 3.
(Plaintiff's Deposition Exhibit 3 was marked for identification.)
Q. You're familiar with this type of document?
A. Yes.
Q. Have you seen this respiratory flow sheet before? I think it's three days, part of August 9th through part of August 13th.
A. I don't have any specific recollection of it. I'm

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certain at the time that I did look at it.

Q. Are you familiar with this type of document and what the information is that it shows?

A. Yes.

Q. Now, in dealing with this flow sheet, at any time that you were reviewing this during his care, during this time period while you were seeing him on a daily basis -- Is this one of the documents you reviewed?

A. Yes.

Q. What are you looking for in this document regarding his care and his ability to respirate properly?

A. Well, you look at how much oxygen they're on and what sort of support they're on, and you look at the blood gases.

Q. It's important, therefore, to identify any change in his respiratory status; isn't that true?

A. Yes.

Q. And as I understand it, the arterial blood gases are the blood gases that you're most concerned with.

A. Yes.

Q. Now, in terms of this arterial blood gas, if we look at it starting on the 11th, you can see that they seem to be dropping; is that correct, the PaO2?

A. They seem to fluctuate,

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Q. Now, this is only one element of respiratory problems though -- or I shouldn't say problems, of the respiratory condition of the patient. Correct?
A. Yes.
Q. Other signs would be difficult breathing?
A. Yes.
Q. Rapid pulse?
A. Perhaps.
Q. Possible fainting?
A. Possible.
Q. And maybe even some mental disturbance, such as delirium or euphoria?
A. Possible.
Q. Also there may be bluish discoloration called cyanosis?
A. Possible.
Q. And those are all signs of hypoxia?
A. Can be.
Q. Now, when he was extubated, he was put on a CPAP mask?
A. CPAP.
Q. CPAP mask. And that's a pressurized oxygen mask?
A. Yes.
Q. Why would that be used?
A. That's used to assist with the breathing but without

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mechanical ventilation.

Q. If he's still cyanotic with that CPAP mask, would that be a cause for concern for you?

A. Yes.

Q. Now, if we look further on the doctor's orders -- And you're familiar with physician's orders; right?

A. Yes.

(Plaintiff's Deposition Exhibit 4 was marked for identification.)

Q. Handing you Exhibit 4, these are again pages out of the voluminous record of Mr. Shallenberger. These are the physician's orders; correct?

A. Correct.

Q. Are any of these written by you?

A. No.

Q. Who is that first signature on 8-11 on the first page? It says ABG MVG at noon, eight p.m. and four a.m., and then there's a signature below. Do you know who that might be?

A. No.

Q. Now, going to the second page of that, at 4:30 it says ABG at four p.m. and then sent. Does that mean that the doctor requested an ABG, and then the sent is that the nurse or someone complied with that request?

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A. I would think that's what it means.
Q. You don't know?
MR. PARKER: Well, he's interpreting someone else's note.
Q. I mean in your experience as a doctor.
A. In my experiecce, what that would mean is that the blood gas was requested and sent.
Q. Who would draw the blood to have the blood gas tested?
A. It could be a nurse, could be a doctor, could be a respiratory technician.
Q. Is that identified when it's drawn anywhere in the record?
A. Well, it may be on the -- it should be on the flow sheet. It should be identified on the flow sheet as to when it was drawn.
Q. Do you know, would blood be drawn if it hadn't been requested by the doctor?
A. I don't know.
Q. And you don't have any idea who any of these people are, I gather, the signatures?
A. I know who Dr. Jaroch is.
Q. And where does Dr. Jaroch appear on that document?
A. Well, he appears on the first page where it says incentive spirometry.

Q. Oh.. right there. I see it. Okay.
A. And it appears on the following page in the second set of orders.
Q. That's 8-11 again, arterial blood gas?
A. Yes.
Q. And when does he appear next?
A. He appears then on the 12th.
Q. Hold Aldomet?
A. Yes.
Q. What's Aldomet? Is that a medication?
A. It's a blood pressure medication.
Q. So he appears on 8-11 at approximately -- we don't know what time that is That's the ABG now CXR area. Wouldn't normally you put a time in there?
MR. PARKER: Where are you referring?
MR. SLAGLE: On the second page of the document.
A. Not necessarily.
Q. Not necessarily?
A. No.
Q. But then he doesn't appear again until 8-12?
A. That's correct.
Q. And your name doesn't appear anywhere during that period either?
A. That's right.

Q. But you're saying that doesn't mean you weren't there, it just means you didn't have any orders?
A. That's correct.
(Plaintiff's Deposition Exhibit. 5 was marked for identification.)
Q. I'm going to hand you the actual blood gas -- as I understand it, these are the actual blood gas reports themselves, Plaintiff's Exhibit 5. Do you know how those are generated?
A. The sample is put into a machine. The results come out.
Q. The technician, is that the person who's actually doing the sample?
MR. PARKER: What do you mean, doing the sample?
Q. Testing the blood sample itself. Do you see at the top?
A. Yes.
Q. Do you know?
A. I don't know that. I would presume that's the case, but I don't know that.
Q. What's the F102 up there in the left corner? What does what mean, FIO2?
A. That's how much oxygen --
Q. Is being given to the patient?

A. Is being given to the patient.
Q. So that's going to change, depending upon whether he's intubated, on a CPAP mask, or something else?
A. Right.
Q. And then you checked various boxes. Do you know actually who prepares these, whether it be the technician or the person delivering the blood?
A. My understanding is that there is a technician that takes the blood sample and runs it through the machine, and then --
Q. This is generated?
A. That's correct.
Q. And obviously it's generated by somebody writing in the figures?
A. Right.
Q. Do you know if there's a policy and procedure guideline for blood gas draws?
A. I'm sure there is a policy. I don't know.
Q. And you can't really identify anyone from the initials on any of these documents?
A. No.
Q. You don't know who CF is or --
A. No.
Q. What's normal PaO2?
A. Which are you --

Q. In your general experience as a physician?
A. The pO2?
Q. Yes.
A. It's listed right there, 85 to 95.
Q. What results if it drops below that level?
A. Well, it varies. It depends.
Q. When it drops below that, is it a concern?
A. Again it depends on the situation.
Q. Well, what about the situation is it that it depends upon?
A. Well, for some patients dropping below that level may be normal for them.
Q. Well, let's talk about Richard Shallenberger.
A. But in general when it drops below the normal level, yes, you are concerned.
Q. In Richard Shallenberger's case, would you be concerned about it if it dropped below the normal level?
A. Yes.
Q. At what level are you concerned, as soon as it drops below the 85 to 95 range, or should you be concerned I should say?
A. The blood -- well, not necessarily. The blood gas is simply one piece of information you're looking at.
Q. What other information would you look at?

A. How well they're breathing and so on.
Q. What is the so on?
A. How well they're breathing, are they having difficulty breathing, the blood gases.
Q. How long would you as a physician be comfortable not reintubating a patient whose blood gases have dropped below the 85 to 95 range, the pO2 level?
MR. PARKER: Objection.
Q. In terms of time.
MR. PARKER: If you can answer that --
A. I can't answer that.
Q. There's no way you would estimate time?
A. I can't answer that based on that single value.
Q. So there are other values you would be looking at, which would include how well they're breathing, difficulty breathing, et cetera?
A. Yes.
Q. If he's having difficulty breathing and his blood gases have dropped below that level, how long would you permit that situation to exist before you took some sort of action either to reintubate or to take other procedures in terms of time?
MR. PARKER: Again objection. If you can answer that --
A. It's impossible to answer that out of context to the

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situation.

Q. Would you agree that if the pO2 level falls, the percent of available hemoglobin that is saturated with oxygen decreases rapidly?

A. Well, the amount of oxygen available decreases.

Q. And that's a concern; right?

A. That's a concern, yes.

Q. Wouldn't a pO2 below 55 indicate a state of hypoxemia that requires immediate correction?

A. Yes.

Q. What is hypoxemia?

A. It simply means that there's not enough oxygen in the blood.

Q. And the arterial blood gases are very important in determining that?

A. Yes.

Q. They should be accurate?

A. They should be accurate, yes.

Q. A person's life may hang in the balance of whether or not those blood gases are accurate?

MR. PARKER: Objection.

A. Not necessarily.

Q. But it may?

A. Perhaps.

Q. Now, in dealing with the blood gases that were taken

from Richard Shallenberger, going back to Plaintiff's Exhibit 3, as I understand it at 2:30 he has a pO2 of 65; correct?

A. At 2:30?

Q. Yes. No, at four p.m. I'm sorry, four p.m. on 8-11, the second page.

A. Yes.

Q. At 65, would that be of concern to you?

MR. PARKER: Objection.

A. Again, it would depend on the whole situation.

Q. Well, would it be a concern if he was also having difficulty breathing?

A. Perhaps, could be.

Q. And maybe suggestions he should be restrained because he's trying to pull his mask away?

A. Could be a concern, yes.

Q. Now, at eight p.m., I see a figure of 120. Correct?

A. Correct.

Q. Then at 11:30, there's a figure of 36?

A. Yes.

Q. Now, you as a physician, if you're looking at his blood gas pO2 levels in the days after extubation, in the hours after extubation, and his arterial blood gases for the 24 hours before that time had been consistently decreasing or at the very least

fluctuating from the 76 to the 60 range for 24 hours and all of a sudden he had a 120, would you wonder about that reading? Wouldn't you be concerned about the accuracy of that reading?

MR. PARKER: Objection to the question as phrased. If you can answer it. It calls for speculation.

A. Not necessarily, no.

Q. Even though none of the other blood gas levels had risen above 75 in the previous 24 hours, that wouldn't have concerned you?

A. Not necessarily, no.

Q. Wouldn't it have concerned you if the records would indicate that he was still having difficulty breathing and was in respiratory difficulties to the point where the nurses are noting it in the medical records?

A. I would be more concerned about respiratory difficulties than an isolated blood gas. I assume you're referring to the 120 still. Correct?

Q. Correct. Well, if throughout the day on 8-11-85 the nurse's notes were reflecting diminished breath sounds, becoming increasingly agitated, palling at oxygen, lung sounds more wet than they were earlier in the day, agitated, uncooperative, thrashing,

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pulling at the CPAP mask, redness and cyanosis, shallow respiration, appears apnic and air hungry, complains of inability to breathe, and in fact wrist and mitten restraints are put in to keep him from pulling off tubes, in combination with the low blood gas readings you're having, wouldn't that be causing you some concerns as a physician?

MR. PARKER: Objection.

A. Which specific blood gas readings are you talking about?

Q. Well, even the 65 at four p.m. with those other factors.

A. I would, you know, have to make my own assessment. Some of those parameters are not necessarily very helpful, such as whether he, quote, sounds wet. That's a pretty subjective thing to some degree. Redness and cyanosis are conflicting terms. So that's a bedside assessment I would have to make.

Q. Aren't those all indications of some difficulty of a patient in breathing, respiration?

A. Some of them are, yes.

Q. And would those coupled with a reading at eight p.m., after they've had to tie the man down to keep him from pulling his oxygen off and you get a reading of 120, wouldn't that 120 at least send some alarm bells

off in your mind, saying that this is not in keeping with what's been occurring and it's not in keeping with the notes being recorded by the nursing staff?

MR. PARKER: Objection. What's the question?

Q. Wouldn't that send off alarm bells in your mind as a doctor?

A. As opposed to the fact that maybe the CPAP mask is actually delivering oxygen?

Q. I don't care what the reason is. That's true. Maybe the CPAP mask isn't delivering oxygen.

MR. PARKER: Is.

Q. Wouldn't you want to check that out? I'm just asking you when you've got those other indications in the same 24-hour period, and the normal range is 85 to 95, and you've got consistently readings below 85 for that 24-hour period, which are in fact consistently dropping, and all of a sudden you get a reading of 120, wouldn't that, if you looked at that, be an alarm in your mind as a physician to say well, this doesn't make sense?

MR. PARKER: Objection.

A. If the bedside assessment of the physician agreed that you thought they were having some respiratory trouble and the blood gas didn't seem to match, then

I think you would have some concern about that.

Q. And, in fact, if you look at the next blood gas level taken at 11:30, it says a 36 pO2?

A. Yes.

Q. Now, that's a very dangerous level, wouldn't you agree?

A. Yes.

Q. Wouldn't you also agree that it's more consistent and in keeping that the blood gas level at eight p.m. was not a 120 but was somewhere between 65 and 36?

MR. PARKER: Objection.

A. I don't know. I can't answer that.

Q. You can't answer that?

A. No.

Q. How long could a person at a 36 pO2 without being reintubated, how long would he have to be at that level to suffer any kind of brain injury?

A. I don't know.

Q. Do you know what compliance 20 without PEEP means?

MR. PARKER: Where are you getting that from?

Q. That's on the respiratory flow sheet, second page. Do you know what that means?

A. Well, without PEEP, you can only really receive PEEP when you have an endotracheal tube in, because it

means that there's constantly more pressure in the circuit. And the compliance, I'm not exactly certain what that is referring to.

Q. Do you know what compliance 44 HCT 40 is right below there?

A. Well, the HCT stands for hematocrit.

Q. Stands for what?

A. Hematocrit.

Q. And what does that mean?

A. That means that his hematocrit was 40, which is --

Q. I see. Okay. And what does that indicate?

A. That's a normal level of hematocrit.

Q. You don't know what compliance 44 is?

A. It is a measure of the compliance of the lungs or how easily you can move things in and out. And beyond that, I can't give you a good explanation.

Q. So that's to be asked of the intensive care person, I guess?

A. Yes.

Q. Let's add another factor about the x-rays.

(Plaintiff's Deposition Exhibit 6 was marked for identification.)

Q. Handing you Exhibit 6, these are x-rays. And a portable chest -- he's in the intensive care unit I gather is why it's done. Correct?

A. Correct.
Q. Now, if we look at these x-rays, on 8-11-85 it says -- and that's the fourth page in -- there is subcutaneous emphysema in the right chest wall. What does that mean?
A. That means there's air in the tissue.
Q. **Is** that a cause for concern?
A. No.
Q. What about infiltrates are noted within all lobes of the lungs?
A. Your question?
Q. What is that?
A. Well, infiltrate could be fluid, could be infection. infiltrate is not necessarily a specific term.
Q. **Is** that cause for concern?
A. Yes.
Q. Especially if they were increased since the previous film?
A. **Yes.**
Q. That's another factor that a doctor would be looking at to determine what needs to be done?
A. Yes.
Q. Now, I think you had said that the diaphragm defect was caused because you had to remove adhesions from it?

A. Well, because the liver was very adherent to the diaphragm.
Q. So the reason -- I mean you have to remove those in order to get the liver out?
A. Right.
Q. And in doing so, it's not always possible not to damage the tissue which it's adhered to?
A. Correct.
MR. PARKER: Are we at a suitable breaking point?
MR. SLAGLE: Sure.
(A short break was taken.)
Q. Doctor, Mr. Shallenberger also had a paralyzed vocal cord, as I understand it. Do you remember that?
A. Not specifically.
Q. Caused by an earlier procedure. Would a paralyzed vocal cord in any way affect his ability to produce an effective cough?
A. It would make it more difficult.
Q. Would that also affect his ability to properly respirate?
A. Not necessarily, no.
Q. But it may?
A. It could.
Q. Did you or Dr. Jaroch or anyone that you know of

brief the intensive care unit about these other problems, whether it be the paralyzed vocal cord or the diaphragmic rent?

A. I don't recall specifically, no.

Q. Do you know if that shows up anywhere in the records that you had?

A. Not to my knowledge, no.

Q. Shouldn't that really be something they be aware of, at any rate, so they at least have that information in the files, so they know to keep that in mind?

MR. PARKER: Objection. Only if you know whether that's relevant to the care.

A. Could you state your question again, please?

Q. Aren't those just bits of information which may be not of concern individually or by themselves, but in combination with other factors in his care? Wouldn't they be the types of information that they should at least be aware of?

MR. PARKER: Objection.

A. Well, the examination by the ENT doctor was a part of the record, and the rent in the diaphragm was of no concern.

Q. Now, if the intensive care staff had indicated that Richard was experiencing some paradoxical respiration -- And what is paradoxical respiration?

A. I'm not sure exactly what they're describing.
Q. Isn't that really opposite of normal chest breathing, do you know?
MR. PARKER: Objection. I think he said --
Q. You don't know what paradoxical respiration is?
A. I don't know exactly what they're alluding to.
Q. What is paradoxical respiration in your understanding?
A. My understanding is it has to do with filling of the veins in the neck, when you take a deep breath and so on, but I don't know exactly what they're alluding to with this paradoxical respiration.
Q. Do you know if that would inhibit the ability of the movement of the gases during respiration?
A. I don't know.
Q. Paradoxical respiration, wouldn't that be consistent with an injury to the thoracic cavity?
MR. PARKER: If you know.
A. I don't know.
Q. Would his inability to produce an effective cough and the paradoxical respiration increase his chance for pleural effusion?
MR. PARKER: I'm going to object. He testified that he doesn't know what was meant by

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the notation of paradoxical respiration. I don't know how he can answer follow-up questions on that. Doctor, if you can answer, feel free, but --

A. I don't know.

Q. What would you consider significant to stress which would warrant reintubation of a patient?

A. Someone who is having obvious respiratory problems.

Q. And you don't remember being contacted at all on August llth, 1985, August 12th, 1985, regarding his respiratory problems; is that correct?

A. That's correct.

Q. Would you agree that in order to give informed and intelligent care to Mr. Shallenberger, both before and after surgery, a physician would have to have an adequate knowledge of the anatomy and physiology of the chest and thoracic cavity?

MR. PARKER: Objection. Did you get the question or do you need it read back?

A. I don't understand that question at all.

(The court reporter read the preceding question as follows: Would you agree that in order to give informed and intelligent care to Mr. Shallenberger, both before and after surgery, a physician would have to have an

adequate knowledge of the anatomy and physiology of the chest and thoracic cavity?)

MR. PARKER: Is that question answerable, given all of its subjective wordings, informed, intelligent, adequate knowledge? Can you answer it? I think it's meaningless. I think it's a platitude question.

A. I don't know how to respond to that.

Q. During the postoperative period, alteration in respiratory status is always a major potential problem for patients having thoracic surgery; isn't that correct?

A. Having thoracic surgery?

Q. Right.

A. Could you restate that?

Q. During the postoperative period, alteration in respiratory status is a major potential problem for patients having thoracic surgery?

A. Yes.

Q. And Mr. Shallenberger did have some thoracic surgery from you?

A. No.

Q. I thought the diaphragm was in the thoracic area.

A. The diaphragm separates the chest from the abdomen, which means you can get to it from either side.

Q. So you're saying you didn't enter the thoracic cavity when you corrected the diaphragm?
A. That's correct.
Q. If Dr. Jaroch on August 12th -- And he was your senior fellow, right?
A. Correct.
Q. -- noted that reintubation was required due to hypoxemia as a result of mobilization of the third spaced fluid, can you tell me what third spaced fluid is?
A. I explained that before. It's fluid in the tissues.
Q. That's what you were explaining?
A. That's correct.
Q. And how does that affect the respiration process?
A. As the fluid gets back into the vascular space, it's circulated through the vessels in the lungs, and that's where you can have the pulmonary edema.
Q. Would you have classified what occurred to Richard Shallenberger on August 11th and 12th, when they reintubated him, as a patient crisis?
A. I guess that depends on how you define a patient crisis.
Q. Well, ax you define it.

MR. PARKER: Well, do you have a definition for patient crisis or is that a

lawyer's term?

A. I don't know that I would necessarily define reintubation as a crisis.

Q. And you said you saw Richard Shallenberger every day --

A. Yes.

Q. -- even though it's not noted? I don't think the medical record indicates any entries by a transplant team doctor on August 11th or 12th. Do you know who would have been on duty on those days other than yourself?

A. Dr. Jaroch, as I mentioned earlier.

Q. Anyone else?

A. There are notations by Dr. Carey and by Dr. Winkelman, and they are the medical doctors involved in the liver transplant program.

Q. So Carey and Winkelman are also transplant doctors then, not surgeons, but involved in the program?

A. That's correct.

MR. PARKER: And so the record is clear, you're referring to the clinical notes, clinical sheets in answering that question?

THE WITNESS: Correct.

Q. I think Richard had a slight rejection on August 14th.

A. He had a biopsy performed on the 14th that was consistent with cellular rejection.
Q. Is that a normal occurrence?
A. It's an anticipated event.
Q. Was that rejection resolved without incident?
A. It was treated with steroids.
Q. Any further complications from that?
A. Not from that episode.
Q. Metabolic alkalosis is noted in the record on August 12th and 13th with resolution by August 14th. What is metabolic alkalosis?
A. It simply means that the pH of the blood is more alkaline than perhaps the normal range.
Q. Bo you think that was resolved in an appropriate manner?
A. Yes.
Q. Were you involved in that yourself?
A. Not specifically.
Q. You were, however, involved specifically with the slight rejection?
A. Yes.
Q. Do you feel Cyclosporine causes seizures?
A. It has been suggested that Cyclosporine may be implicated, may have some role in seizures.
Q. Seizure activity also would be considered a symptom

of brain injury though, would it not?
A. Not necessarily.
Q. May it?
A. It's possible.
Q. You have indicated yourself that the coma that Mr. Shallenberger suffered could be caused by infection or sepsis; correct?
A. It may be contributing to a coma.
Q. Do you know if any tests supported any of those conclusions or possibilities?
A. What's that question again, please?
Q. Do you know if there were any tests that supported that?
A. Supported --
Q. That his coma was caused by infection or sepsis.
A. No.
Q. There weren't any or you don't know of any, you don't remember any?
A. There were no tests that showed that either of those things caused or didn't cause his coma.
Q. Did you prepare a discharge summary for Richard Shallenberger?
A. I personally did not prepare a discharge summary.
Q. Is it common procedure not to complete a discharge summary?

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A. Yes.
Q. That happens on a regular basis?
A. Yes. One was prepared, but I did not --
Q. Who prepared that?
A. I would need a copy of it to see.
Q. I don't have a copy, so I don't know.
MR. PARKER: I think it was in here, as I recall. I don't know whether it's in any of these volumes or not.
Q. You've seen one, I gather?
A. Somewhere along the line, but I don't recall it specifically.
MR. SLAGLE: Mr. Parker, can you find any -- you don't have to do it right this minute, but --
MR. PARKER: I don't know whether I can or not. I don't know whether there's one or not.
Q. Do you remember where you saw that?
A. No.
Q. What do you believe caused his seizures?
A. I think his seizures were multi-factorial, a combination of several factors.
Q. What are they?
A. Probably in part his pre-existing preoperative

neurologic findings, in that he had had a prior seizure, he had a CT scan preoperatively that showed that he did have some atrophy of parts of his brain. Postoperatively, it's probably a combination of the transplanted liver not working perfectly, the kidneys, infection, a combination of all those things. Cyclosporine may have been a part of that as well.

Q. Would hypoxemia cause an injury to the brain? Could it?

A. It could.

MR. PARKER: Objection.

Q. Could that injury to the brain also cause seizures?

MR. PARKER: Objection, possibilities.

A. Possibly.

Q. Do you know if Mr. Shallenberger had a cerebrovascular accident?

A. Not that I'm aware of.

Q. The first CAT scan of the head after the seizure was interpreted by Dr. Goren as showing an infarct. Can you tell me when an infarct is?

A. It's an area of cell death.

Q. Would you disagree with that, with his interpretation of that CAT scan?

A. I would not make an official interpretation of the

CAT scan.

Q. Because you don't feel qualified?

A. I don't feel qualified. I know that the official report from the radiologist, from someone who is qualified, disagareed with Dr. Goren and said that there was not an infarct there.

Q. Who was that?

A. Whomever the official report was from.

Q. Could the type of seizures Mr. Shallenberger had be due to infarcts in the brain?

MR. PARKER: Objection,.

A. Are you asking me could they?

Q. Yes.

A. They could.

Q. Could they have been due to Cyclosporine?

MR. PARKER: Objection.

A. They could.

Q. What was the reason Mr. Shallenberger did not awake for a number of weeks after the initiation of the seizures?

A. I don't know.

Q. Do you know if it was related to the seizures at all?

A. I don't know.

Q. Do you know if it was related to Dilantin, for

instance?
A. I don't know.
Q. You have no idea what was causing the inability to wake up?
A. I think his reasons for not waking up are multi-factorial, like they were with the seizures.
Q. I think Dr. Hansen diagnosed anterior horn cell disease. Do you remember that?
A. No.
Q. What is anterior horn cell disease?
A. I don't know.
Q. Does Mr. Shallenberger have peripheral neuropathy?
A. Does he ROW?
Q. Did he when you last saw him?
A. I don't recall specifically.
Q. Do you know if he had it when he was admitted to the hospital?
A. Prior to his transplant?
Q. Right.
A. I don't recall.
Q. Do you know what the percentage of patients who undergo liver transplants who develop seizures are?
A. About ten percent.
Q. Do you know how many of these are single seizure episodes?

A. Probably about ninety percent.
Q. Are they usually easily controlled by anti-convulsants?
A. Yes.
Q. Now, were his seizures controlled by anti-convulsants?
A. Yes.
Q. Now, of the first group of liver transplant patients at the Clinic between the commencement of it and August of 1985, as I understand it, 42 percent or eight of nineteen suffered seizures. Isn't that correct?
A. Yes.
Q. Do you know when Mr. Shallenberger began to suffer seizures himself?
A. I believe it was on the 18th of August, *so* approximately ten days postoperatively.
Q. And these were generalized seizures?
A. Well, they started as focal seizures and then developed into generalized seizures.
Q. And these continued despite treatment with Diazepam and Phenytoin?
A. Eventually they were controlled by those medications.
Q. Eventually, right.
A. Yes.

Q. Okay. When you say eventually, how long did it take to get them under control?
A. It took a few days.
Q. Now as I understand, an EEG that was performed after surgery showed diffuse encephalopathy. What is that?
A. Just that. It doesn't tell you anything specifically at all.
Q. What is it showing? When the EEG shows that, what does --
A. It shows you that the EEG waves are abnormal, but it can't tell you why.
Q. Now, his EEG was normal prior to surgery?
A. I don't recall exactly what his EEG was before OK that he even had one.
Q. I think his CT scan demonstrated only mild cortical atrophy?
A. Yes.
Q. But his pre-op CT scan was normal?
A. No.
Q. It was not normal?
A. It was not normal.
Q. What was wrong with it?
A. It showed cortical atrophy.

MR. PARKER: Off the record.

(Discussion was had off the record.)

Q. Did he have any seizures after the 18th postop day?
A. I don't recall specifically. He started having seizures on the 18th, which was the tenth postoperative day.
Q. So you don't know how long they lasted?
A. They lasted for a few days. I don't remember if it was exacty two or three,
Q. After he became comatose, did he have further seizures?
A. I don't recall exactly.
Q. Now, as I understand it, the only neurological symptoms that he had prior to surgery were thought to be related to alcohol withdrawal.
A. The etiology of his prior seizure was not determined.
Q. What factors do you associate with seizures and neurological complications?
A. Do you mean in liver transplant patients?
Q. Right.
A. Would you restate your question again, please?
Q. What factors would you potentially associate with seizures and neurologic complications in liver transplant patients?
MR. PARKER: I'm going to object.
A. I'd like you to be a little more specific perhaps.
Q. Well, for instance, would fluid overload be one of

1 those factors?
A. Could be.
Q. How about high doseage steroids?
A. Yes.
Q. Graft dysfunction?
A. Yes.
Q. Osmolality?
A. Yes.
Q. Do you know how many of these factors applied to Richard Shallenberger?
A. Several.
Q. Your seizure rate for those first twenty-one patients was much higher than what other transplant facilities had encountered themselves, wasn't it?
MR. PARKER: Objection.
A. I don't know.
Q. Haven't other studies shown that only ten percent average of liver transplant patients develop seizures?
A. If you're looking at our first twenty-one patients. If you look at our series now, it's in line with everyone else's.
Q. The ten percent?
A. Yes, or less.
Q. The forty-two percent is pretty high though?

A. Oh, yes.
Q. And do you have an explanation as to why the forty-two percent was so high?
A. No.
Q. In terms of seizure activity?
MR. PARKER: Objection.
A. No.
Q. You'd agree that Richard Shallenberger has a neurologic disability?
A. Yes.
Q. And that it precludes him from returning to the work force?
MR. PARKER: Is that something you've evaluated him for and have an opinion on, Doctor?
A. I can't answer that.
Q. You certainly agree that his quality of life is lessened?
A. I don't know that I can answer that either. I would agree that he has a neurological deficit.
Q. Now, Cyclosporine was continued with Richard Shallenberger even after he came out of the hospital and through his later years of recovery; correct?
A. Yes.
Q. Is there an explanation as to why, if Cyclosporine,

as you had said earlier, was thought to be a contributing factor to seizures, why that wouldn't continue to contribute while it's still being used? I mean why would it he a contributing factor three weeks post-op but not a contributing factor three years post-op?

A. I don't know.

Q. Is it safe to conclude --

A. No, there's no data to conclude that that is the case.

Q. So the jury is still out on that or there just isn't enough information?.

A. First of all, there's no information that clearly shows that Cyclosporine is responsible, and there's further no evidence to show that it may cause a progressive continuing problem.

Q. What were the doses of Cyclosporine given to Richard Shallenberger?

A. I would have to look at the medication sheet.

Q. If you could.

MR. PARKER: Let's see if we can find it. Let's go off the record.

(Discussion was had off the record.)

Q. Doctor, you're reviewing the medication records; correct?

A. Correct.

MR. PARKER: He's reviewing an excerpted copy of them at this point.

A. And your question relates to the dose of Cyclosporine?

Q. Right.

A. He was given a dose of 180 milligrams of Cyclosporine intravenously preoperatively, which at the time was standard practice, and then 90 milligrams of Cyclosporine intravenously was given twice a day starting on the 10th of August.

Q. How long did that continue?

A. The Cyclosporine?

Q. The 90 milligrams two times a day.

A. That may change depending upon the level in the blood, the renal function.

Q. Was the dosage in Richard Shallenberger's case ever altered?

A. Yes, it was altered.

Q. But you don't know when?

A. Well, here's one notation from the 14th of August where it was increased.

Q. And that was the time when he had the minor rejection?

A. Yes.

Q. How long was that dosage increased for? Off the record.

(Discussion was had off the record.)

A. I can't find any further adjustments in these records, so I don't know how long he was continued on that dosage.

Q. You were the doctor who made the final determination about the dosage?

A. Yes.

Q. Cyclosporine is a known neurotoxin, as I understand. Is that correct?

A. No, I wouldn't agree with that.

Q. Did you consult with anyone regarding Cyclosporine dosage and the amounts to be given?

A. Do you mean someone outside of the institution?

Q. No, within the institution.

A. We usually discuss that as a group.

Q. Do you know who? I mean do you have any specific recollection?

A. No specific recollection.

Q. I understand that there are other transplant teams that had been in existence for a longer period of time than the liver transplant team. Correct?

A. Correct, but they had no more experience with Cyclosporine than we did.

Q. Oh, they didn't? Because Cyclosporine was a recently --
A. That's correct.
Q. Did anyone ever suggest to you that the dosage of Cyclosporine should be reduced during Richard Shallenberger's care postoperatively?
A. By anyone --
Q. Any other doctors.
A. I don't recall.
Q. At the time then, it would be safe to say you were not real familiar with using Cyclosporine either.
MR. PARKER: Objection. On what criteria? I mean he's a whole lot more familiar than a whole lot of other doctors.
Q. You were no more familiar with it than anyone else in the Clinic is what you're saying?
MR. PARKER: Objection.
A. No, that's not true. I had as much familiarity with it as anybody in the Clinic and probably the most.
Q. Was it reduced ever while he was in a coma?
A. I don't recall specifically.
Q. There's a Dr. Novak who was head of the kidney transplant team, as I understand it?
A. Yes.
Q. His experience with Cyclosporine would not have been

any more --
A. It became available to all of us at the same time.
Q. If you have a neuro complication now, do you alter your dose of Cyclosporine?
A. It depends on what the neurologic complication is. If you think it's related to the Cyclosporine or possibly related to the Cyclosporine, then yes.
Q. In this case then, you obviously didn't feel that Mr. Shallenberger's neurological problems were related to Cyclosporine, because you didn't reduce the dose?
MR. PARKER: Objection. He hasn't testified he didn't reduce it. He testified that he doesn't have a recollection of reducing it.
A. Will you restate your question, please?
Q. Did you reduce Richard Shallenberger's dose of Cyclosporine during his care after you increased it on August 14th?
A. E would have to look at the medication records to --
Q. Well, I think we're going to have to establish that, so if you could look.
A. I'm sure it was reduced, but I can't tell you exactly when.
Q. And did you reduce it because you felt it was related

to his neurological complications, or you just reduced it because you felt the level of Cyclosporine that you could give him could be reduced?

A. Well, that's kind of impossible to answer at this later stage.

Q. Did you feel that the neurological complications were in any way related to the Cyclosporine dosage?

A. No.

Q. Do you think the Cyclosporine was an agent responsible for his neurological problems regardless of the dosage?

A. The Cyclosporine could have been partly responsible for his neurologic problems regardless of the dosage.

Q. Isn't it true that Cyclosporine-created problems normally leave a definite identifiable white pattern that would show in an MRI of the brain?

A. Not necessarily. That has not been our experience.

Q. Have others identified that as being true?

A. There have been papers in the literature that showed changes on MR and CT scans. All of our patients who have had seizures and neurologic problems, including Mr. Shallenberger, have had those studies without those findings.

Q. So he doesn't have the identifiable white pattern

that others have discussed?
A. That's correct.
Q. Hypomagnesemia has been implicated as a cause of seizures in patients receiving Cyclosporine; isn't that true?
A. Yes.
Q. Mr. Shallenberger was not hypomagnesemic, was he?
A. Not that I recall specifically. I don't know.
Q. Was Mr. Shallenberger the only one that suffered neurological problems that lasted, that were permanent?
A. No.
MR. PARKER: Objection.
Q. There were others of that first group that had neurological problems that continued?
MR. PARKER: I'm going to object to the question regarding any other patient experiences. Subject to that objection, you can answer.
A. There have been other patients who have had neurologic problems with some residual.
Q. Could the morphine given to Richard Shallenberger after the anoxic episode result in seizures as a result of withdrawal?
MR. PARKER: Objection.

A. Restate that, please.
Q. Could the morphine given to Richard Shallenberger after the anoxic episode result in seizures as a result of withdrawal?
A. First of all, Mr. Shallenberger did not have an anoxic episode.
Q. What is an anoxic episode?
A. That means you're not breathing at all.
Q. How about a hypoxic episode?
A. A hypoxic episode is different.
Q. Well, could the morphine given to Richard Shallenbergr after a hypoxic episode result in seizures?

MR. PARKER: Objection.

a. The morphine specifically?
Q. Yes.
A. I don't think so.
Q. Could hypoxia be a precipitating neurological factor in his case?
A. Possible.

MR. PARKER: Objection as to the possibility.

Q. If a neurological deficit did occur, would that not have been further Compromised by other contributing factors?

MR. PARKER: Objection.

A. I don't know.

Q. I think you agreed that he had circulatory overload, Mr. Shallenberger did?

A. I agreed that he had pulmonary edema.

Q. That's different than circulatory overload?

A. It's a matter of semantics; similar.

Q. And that would be identified by decreased urinary output --

A. No.

Q. -- as one factcr?

A. No.

Q. No? How would that be identified?

A. The circulatory overload, the pulmonary edema?

Q. Right.

A. By the findings on his chest x-ray. The hypoxemia could reflect that. The most important piece of information was that that came from his Swan-Ganz catheter reading, that showed that his filling pressures were very high in his heart.

Q. What is a Swan-Ganz catheter?

A. It's a catheter that's placed into the pulmonary vasculature, and it reflects the pressures that are essentially in the heart and the lungs.

Q. So that's an important factor then?

A. It can be a very important tool for monitoring for therapeutic decisions.

Q. The chest films, if they showed bilateral pleural effusions, would also be an indicator of circulatory overload; right?

A. No.

Q. They would not?

A. No.

Q. So you disagree with that?

A. I disagree with that.

Q. How about clinically visible peripheral edema?

A. That again doesn't necessarily mean you have circulatory overload.

Q. However, wouldn't the fact that the nurse's notes indicate agitation, restlessness, and signs of respiratory insufficiency, would not that also be factors confirming the circulatory overload?

A. No. Circulatory overload may have absolutely no bearing on someone's respiratory status.

Q. Once he was reintubated, he had immediate improvement in the blood gases; correct?

A. Yes.

Q. Do you have an opinion whether Richard Shallenberger should have been extubated?

a. No.

Q. Do you have an opinion whether, once extubated, he should have been permitted to fall to the level of respiratory distress that he did before reintubation?

MR. PARKER: Objection to form.

A. No.

Q. Have you received any written correspondence at all regarding Richard Shallenberger after February 1st, 1990?

A. Not that I recall.

Q. Did you ever at any time talk to your mentors at the University of Pittsburgh regarding Richard Shallenberger's care while he was here or even preoperatively before undergoing the surgery?

A. No, not that I recall.

Q. Do you remember ever talking to them following it at any time?

A. I don't remember.

Q. Who on the liver transplant team other than yourself would have had direct day-to-day contact and decision-making over Richard Shallenberger postoperatively?

A. Well, myself, my resident.

Q. Dr. Jaroch?

A. Dr. Jaroch, although his would be under my direction, and Dr. Carey or Dr. Winkelman.

Q. What is Dr. Jaroch's first name?
A. Mark.
Q. And Dr. Carey's?
A. Bill.
Q. Is he still at the Clinic?
A. Yes.
Q. What about Dr. Winkelman?
A. He's retired, but he's still here.
Q. What is his first name?
A. Gene.
Q. One moment. I think I'm almost done. I've asked if you've discussed this case with any doctors. Have you discussed it with any of the nursing personnel or anyone else like that?
A. No.

MR. SLAGLE: Okay. I have no further questions.

MR. PARKER: We'll read and sign.

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(The deposition was concluded at 12:02 p.m.)

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S I G N A T U R E

I, DAVID P. VOGT, M.D., do hereby certify that I have read my deposition taken on April 5, 1995, in the case of Richard D. Shallenberger, et al., versus Cleveland Clinic Foundation, consisting of one hundred twelve pages, and that said deposition is a true and correct transcription of my testimony.

_____
David P. Vogt, M.D.

Dated this _____ day of _____, 19____.

Sworn to and subscribed before me this _____ day of _____, 19____.

_____
Notary Public

My commission expires _____

- - - - -

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CERTIFICATE

STATE OF OHIO,)
) SS:
SUMMIT COUNTY.)

I, Linda McAnallen, a Stenographic Reporter and Notary Public in and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within-named Witness, DAVID P. VOGT, M.D., was first duly sworn to testify the truth, the whole truth and nothing but the truth in the cause aforesaid; that. the testimony so given by him was by me reduced to Stenotypy in the presence of the witness, and that the foregoing is a true and correct transcription of the testimony so given by him as aforesaid.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified.

I do further certify that I am not a relative, counsel or attorney of either party nor otherwise interested in the event of this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Cuyahoga Falls, Ohio, this 21st day of May, 1995.

Linda McAnallen

Linda McAnallen, Notary Public
My commission expires 8-27-95.

LAWYER'S NOTES

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