STATE OF OHIO)
) SS:
COUNTY OF LORAIN)

IN THE COURT OF COMMON PLEAS

JAMES J. ARMSTRONG, Executor of the Estate of NANCY ARMSTRONG,

Plaintiff,

VS. NO. CV126180

EMH REGIONAL HEALTHCARE SYSTEM d/b/a AMHERST HOSPITAL, ET AL.,

Defendants.

Deposition of:

KENNETH GEORGE SMITHSON, **D.O.**, Ph.D.

Taken on behalf of

Defendant Briccio Celerio, M.D.

September 5, 2001

COPY

A P P E A R A N C E S

FOR THE PLAINTIFF:

MS. DONNA TAYLOR-KOLIS
Donna Taylor-Kolis Co., LPA
330 Standard Building
Cleveland, Ohio 44113

FOR THE DEFENDANT PAUL BARTULICA, M.D.

REMINGER & REMINGER
BY: Mr. Joseph Farcione (via telephone)
113 Saint Clair Avenue N.E.
Cleveland, Ohio 44114

FOR TEE DEFENDANT BRICCIO CELERIO, M.D.

WESTON, HURD, FALLON, PAISLEY & HOWLEY
BY: Mr. Ronald A. Rispo
2500 Terminal Tower
Cleveland, Ohio 44113

I N D E X

E X H I B I T S

The deposition of KENNETH GEORGE SMITHSON, D.O., Ph.D. was taken by counsel for Defendant Briccio Celerio, M.D., by agreement, at the

The formalities as to caption, et cetera, are waived. All objections, except as to the form of the questions, are reserved to the hearing.

It is agreed that B. J. Davis, being a court reporter and notary public for the state of Tennessee, may swear the witness and that the reading and signing of the completed deposition by the witness are not waived.

* * *

KENNETH GEORGE SMITHSON, D.O., Ph.D,

the witness hereinbefore named, being first duly cautioned and sworn to testify the truth, the whole truth and nothing but the truth, testified under oath as follows:

EXAMINATION

BY MR. RISPO:

22:02:56 Q. Good morning, Doctor.

22:02:58 A. Good morning.

Q. For the record, my name is Ron Rispo, I 22:03:00 am here on behalf of Dr. Celerio, and this is in 22:03:04 regard to a case entitled Armstrong versus the Leary 22:03:10 Memorial Hospital and several other parties whose 22:03:14 names we don't need to go through at the moment. 22:03:18 Also in attendance are Mr. Farcione and Donna Kolis 22:03:24 who are counsel in this case respectively for 22:03:26 Dr. Bartulica and the plaintiff, Mrs. Armstrong.

22:03:32 You've been sworn. I am going to ask you 22:03:34 a number of questions. Before I do though I'll 22:03:38 inquire, have you been through a deposition before?

22:03:40 A. I have not.

22:03:402 Okay. Well, congrat ations This is 22:03:422 your first. The procedu is informal, b the substance is important. It's official. It's taken down word for word and could be used at trial at the

appropriate time if you weren't available. So, for that purpose, I want *you* to understand that what you have to say is important today, but, by the same token, you cla

Okay. Doctor, would you tell us, first of all your current business address

A. Department of Anesthesiology, Vanderbilt University. I am Assistant Professor of Anesthesiology and Neurosurgery, Director of Perioperative Medicine, the Director of the Neurointensive Care Unit, and the Director *of our* Critical Care Fellowship, and I think that's all covered in my curriculum vitae.

Q. I *do* have a copy of your curriculum vitae which we will mark as Exhibit 1 to the deposition, and I won't go through it entirely, but I do want to

ask a couple of pertinent questions about that.

(Deposition Exhibit 1 marked.)

Q. (BY MR. RISPO) As I understand from your CV, you did not start out in medicine; is that correct?

Did not start out in medicine?

Q. Well, in the sense that you did not pursue your medical degree right after college.

And, *if* you would, explain to us what it is you did do between 1982 and 1990.

Between 1982 and 1990 I become my mentor in my Ph.D., and during that time I published a number of papers. It was really a very invigorating time where I got to do research and was

What was the subject *of* your research?

It was broadly hypothalamic neurobiology. I actually went on to get my Ph.D. in physiology and

Q. You were not studying anesthesia during the period of 1982 to 1990?

A. No.

how and when did you

22:06:36 A. I have a degree in osteopathy. I entered
22:06:42 medical school in -- here, let me __ I entered
22:06:44 medical school in -- it would have been '84, and
22:06:50 graduated in 1990 with a Ph.D., and in 1991 with my
Doctor *of* Osteopathy.
22:07:00 Q. Okay. I'm a little confused. Were you
22:07:02 in medical school at the same time that you were a
22:07:04 lab technician?
I finished mv l technician b and
22:07:10 ent into m\ raduate and dical traini
22:07:16 When was it tl you were in the lab
22:07:18 I thought it s 1982 to '90
22:07:22 A. No. Actually, it was 1980 through 1984,
22:07:26 and I don't have those details in my CV, it's been so
22:07:30 long ago. It's not really -- at least for the
22:07:32 pertinent -- for the purpose of the CV, it's not that
22:07:36 pertinent.
22:07:38 Q. Okay. Your CV indicates you received a
22:07:42 Ph.D. in 1990 --
22:07:42 That's correct
22:07:44 Q. -- and a doctor -- a degree in osteopathy
22:07:50 in '91. Were you pursuing both degrees
22:07:54 simultaneously?
22:07:54 A. Concurrently, that's correct. Michigan

State had a dual D.O./Ph.D. program that helped support us through that process, that mentored us through that process.

Q. And the Ph.D. program was in what area?

A. and neuroscience.

Q. And how long were you in the osteopathic school?

A. Well, formally, it would have been six years, or seven years, '84 through whatever '91 is, and that's because it's a dual degree program and so it takes considerably longer than a traditional straight medical degree.

Q. Was that a full-time program?

A. Absolutely full-time, like overtime. It's not much different than any traditional M.D./Ph.D. program. It's very similar.

Q. But it is not an M.D. program?

A. It's not an M.D. program. Michigan State — Michigan State is a unique campus in that we have both an allopath/gnostic ethics school right there and we take the same -- receive the same basic science training from the same professors.

Q. Did you apply to the M.D. program?

A. I did not.

Q. Why would you have not applied to the

M.D. program?

A. I was courted by the osteopathic program to pursue a dual degree because of my research experience.

Q. Could you not have obtained a dual degree in the medical school?

A. The -- at Michigan State University, no. At the time when I entered the school, they had no M.D./Ph.D. students at that point, and the program for allopath at Michigan State at that time was geared primarily towards family practitioners.

Q. Describe for us, if you would, please, the extent of your training in cardiology.

A. I have no formal training in cardiology other than what one would receive through my crew training during internship, during my residency, and during my critical care fellowship. So while there's no -- you spend time with cardiologists and you look at patients that have cardiovascular diseases, but I have no formal credentials in cardiology.

Q. And no classroom training?

A. Oh, of course, during medical school you get classroom training in cardiology, and there's a minimal expectation you can read ECG's, et cetera.

Q. If you would, describe for me the ~~extent~~

of your formal classroom training in cardiology, how many courses if there were more than one.

A. Oh, we had a systems approach. You have a basic science class in cardiovascular physiology. In addition, during my Ph.D. training, we had a whole semester course in cardiovascular physiology, and then there are the clinical courses which are another semester, semester and a half, related to cardiovascular diseases, and that includes anatomic, pathological issues related to cardiovascular diseases rolled into -- actually, you know, the clinical scenario of cardiovascular disease. They're presented together.

Q. So did I count three courses that you mentioned?

A. You counted three courses, but it's more complex than that because the way, at least in the undergraduate, my medical school, and I'm going to call that undergraduate training, in that undergraduate training -- I would have to look back at my transcripts to exactly determine the number of courses that are entailed. I can tell you for a semester and a half we covered cardiovascular diseases. There we would have cardiologists talk to us, we'd have internists talk to us, we'd have

pathologists talk to us, all about cardiovascular diseases. So I don't recall how many credits that was worth or how many formal courses that actually entailed.

Q. Same question with respect to anesthesia. What formal training did you have in anesthesia?

A. My formal training in anesthesia was during my residency at the Mayo Clinic.

Q. Not during medical school itself?

A. We got one course, I think, in the rudiments of anesthesiology. I wouldn't call it much of anything.

Q. How many years did you spend in anesthesia residency at the Mayo Clinic?

A. Three years, from 1993 to 1996.

Q. Are you board certified in anesthesia?

A. I am board certified in anesthesiology, and I'm also board certified with a special certification in critical care medicine.

Q. When were you board certified in anesthesiology?

A. Board certified in anesthesiology -- may I refer to that? 10 of '99.

Q. And critical care?

A. 11 of '99. Is that right?

22:13:44 Q. Well, I'm looking at your CV. I'm assuming it's correct.

22:13:46 A. Yes. I assume that it's correct. I think that's correct.

22:13:48 Q. All right. If I may look over your shoulder again here.

22:13:54 A. Yes.

22:14:00 MS. TAYLOR-KOLIS: We forgot to tell you, if you have to answer a page for a patient, that's far more important than the deposition, so --

22:14:04 Q. (BY MR. RISPC) It looks like, from your resume, that you left Mayo Clinic in '97 and arrived at the Department of Anesthesiology here at Vanderbilt in '97.

22:14:08 A. That's correct.

22:14:10 Q. So you've been here now four years?

22:14:14 A. That's correct.

22:14:16 Q. At the time of the events in question in this case in 1999, you had been in practice as an anesthesiologist for a period of two years?

22:14:18 A. Two years, yes.

22:14:18 Q. Okay. And at the time of these events you were riot yet board certified in anesthesiology or critical care medicine?

22:14:20 A. That's correct.

22:14:24 Q.

22:14:26 A.

22:14:32 Q.

22:14:36 A.

22:14:38 Q.

22:14:40 A.

22:14:44 Q.

22:14:46 A.

Q. Your CV describes your position as Director of Perioperative Medicine.

A. That's correct.

Q. Would you tell us what is entailed in the directorship, what are your duties and responsibilities, and specifically what is meant by perioperative medicine?

A. Well, perioperative medicine, that title hallmarks that the physiology of a patient's medical condition changes dramatically in the perioperative period which is different than physiology during chronic illnesses, and so Dr. Charles Beaty, the Chairman of the department at that time, established a perioperative medicine service where patients would be systematically evaluated in the preoperative period by anesthesiologists and then followed in the postoperative period by anesthesiologists serving as hospitalists, if you were, for the medical management of those patients on the floors. So this entailed a complete continuum of care from a preoperative evaluation all the way through the operative course and the postoperative course. My responsibility as Director was to run that service.

Q. Do you, in the course of your duties in the perioperative medicine, participate in the actual

22:16:24 1 anesthesia during surgery?
22:16:26 2 A No, actually, I don't This is how the
22:16:30 3 perioperative medicine service works The
22:16:34 4 intensivist in the -- in one of the units that we run
22:16:40 5 will also do the preoperative medicine service at
22:16:44 6 the same time, and so they will take care of the
22:16:46 7 patients in the immediate postoperative period The
22:16:50 8 anesthesiologists in the operative suites will take
22:16:54 9 care of the patients, wherever they're scheduled.
22:16:56 10 So all take care of the patients then our role as a
22:17:00 11 perioperative physician is to, in the preoperative
22:17:06 12 period, identify patients' risks and see how we can
22:17:10 13 modify those risks, if they're modifiable, and then
22:17:14 14 to identify patients' risks for the expected
22:17:18 15 procedures And so, practically speaking, you're not
22:17:20 16 going to be the same guy that does the preoperative
22:17:24 17 evaluation, the operative anesthetic, and then the
22:17:28 18 postoperative management. It will be a group of us
22:17:32 19 that actually do that.
22:17:32 20 Q Is this division of labor or
22:17:38 21 responsibility that you describe here unique to
22:17:44 22 Vanderbilt Medical Center?
22:17:46 23 A There are a couple other universities
22:17:48 24 that do this. There are several private practice
22:17:52 25 groups, as I understand it, that actually have done

it. One was in Ohio, if I understand. That's originally where we picked up on the idea. And then there's a private practice group in Las Vegas that does this. But, in a whole, I would say that this is relatively rare. I think that's an accurate statement.

Q. A perioperative specialist would not commonly be found in a community setting?

A. That's absolutely true.

Q. To what extent have you, in fact, experienced in the operative suite doing the anesthesia, being the primary or the physician in charge of anesthesia?

A. I spend half of my time in the operating room.

Q. Now, is that as of the present or has it been true since '97?

A. That's true since '97.

Q. How does that square with your --

A. I spend half of my time doing operative management and the other half of my time doing management in the ICU. It probably breaks down to -- the other component of what's done is education, and that is wrapped in with your clinical responsibilities, so you don't have a separate

service that does education.

Q. Well, I need to understand what appears to be a contradiction in your earlier statement here. You told me earlier that perioperative medicine does not involve anesthesia in the surgical suite.

A. It doesn't formally involve anesthesia. Let me -- let me -- perioperative medicine is an attempt to create a continuum of care from targeting an accurate preoperative evaluation so we get accurate assessment of risks, and then, if we can assess those risks, can we modify those risks. A classic example would be somebody with ischemic cardiac disease where it's clear from the literature now that perioperative beta blockade is helpfui in those patients. That information is communicated with my colleagues in the operating room suites, and so it helps them modify their anesthetic techniques so we get the best outcome. They're not operating in a vacuum anymore. And then, postoperatively, we follow them and make sure that all those little -- those other medical problems are addressed.

Q. What I need to know is how much time you spend per week, per month, --

A. Fifty percent of my time.

Q. -- in the operative suite as the

physician in charge of anesthesia.

A. Fifty percent of my time.

Q. How does that square with your earlier statement that the perioperative medicine does not involve doing the anesthesia in the surgical suite?

A. I'm not the only one -- I'm the Director of the service, but I'm not the only one that's providing that service.

Q. So you have essentially dual roles?

A. I have dual roles. I have many hats.

Q. Okay.

A. So the other inrensivists that are on the service, which would have been -- let's see. In ehe beginning it was Dr. Dalton and Dr. Clarkson. Then it became Dr. Varwise, Dr. Clarkson, and myself. And so there -- there are a number of other people that take those responsibilities. So I don't take those -- the responsibilities of running the unit all by myself. And so the time that I'm not spending running the unit and running the perioperative medicine service, I'm in the operating room.

Q. Well, you are the Director, are you not?

A. That's right

Q. Does that involve administrative duties?

A. Oh, some minor administrative duties.

22:22:04 Q. What percentage of your time in the
22:22:06 average week do you spend in administrative duties?
22:22:10 A. Five percent at most.
22:22:12 Q. What percent of your time is involved in
22:22:14 research?
22:22:16 A. Another five percent at most, and all my
22:22:20 research at present is clinical research, so it's
22:22:24 done in concert with my clinical responsibilities.
22:22:32 Q. How much time do you spend in patient
22:22:34 care?
22:22:34 A. The remainder of time is spent in patient
22:22:36 care.
22:22:38 Q. How much time do you spend teaching?
22:22:40 A. Teaching is wrapped in with the clinical
22:22:44 responsibilities, and so you don't have separate --
22:22:48 when you're on clinical service, let's say you're *in*
22:22:50 the operating room, you have a responsibility to
22:22:54 teach the resident during the performance of an
22:23:00 anesthetic of that case, but you're taking care of
22:23:04 the patient at the same time, so there's not --
22:23:06 there's not separate teaching responsibilities.
22:23:10 They're all -- they're wrapped in together.
22:23:12 Q. Besides administration and research, do
22:23:16 you have any other duties outside of patient care?
22:23:20 A. No, not off the top of my head.

Q. Now, then, getting back to your time in the operative suite, when you're in the operative suite, are you the sole anesthesiologist in charge of the patient?

A. Yes. Now, --

Q. Do you --

A. I'm sorry.

Q. Do you have any supervision from any otner anesthesiologist in the operative suite?

A. No.

Q. And how long have you been commissioned or qualified to be the physician in charge in the operative suite?

A. Since I've been at Vanderbilt.

Q. Since '97?

A. That's right.

Q. Is there any type of surgery that you're specializing in, or limited to, or do you participate in anesthesia for any and all surgeries as they come?

A. Any and all surgeries as they come, by and large. I do specialize somewhat in receiving and taking care of patients with orthopaedic and neurological injuries. However, the way our OR schedules are set up is that you're rotated around to all areas with one exception, actually two

exceptions We have a separate pediatric group that takes care of children, and our cardiac group which is basically for coronary artery bypass grafts, et cetera, that's a separate group

Q Open heart?

A Open heart

Q Okay What percentage of your time is involved in OB surgery?

A. Fifteen percent at the most.

Q What percentage of your patients would you say have had cardiac complications even though they're not having open heart surgery, they're in there for another reason?

A Oh, at Vanderbilt 60 to 70 percent of the patients will have cardiac comorbidities

Q And these are patients who ultimately do have surgery?

A. They will.

Q Before I get into that in greater detail, I'd like to finish up on your credentials. I have noted your some 42 publications as of 1999, or whenever this CV was printed, and I don't see anything specifically on the subject of anesthesia

A No.

Q Okay

22:26:20 A. That hasn't been my area of research.

22:26:24 Q. How would you characterize your area of

22:26:26 research?

22:26:28 A. Well, heretofore, my area of research was

22:26:30 as a basic scientist looking at neurobiology of the

22:26:40 hypothalamus, but when you become a new assistant

22:26:48 professor, you have to find your way in terms of what

22:26:54 your research is going to be, what's available in

22:26:56 terms of the resources of the institution to provide,

22:27:00 and so I have systematically moved into doing

22:27:04 clinical research.

22:27:06 Q. Okay. You've not done any publications

22:27:08 in the field of cardiology either?

22:27:10 A. I have not.

22:27:12 Q. So that you're not recognized as a

22:27:16 national authority in the field of anesthesia or

22:27:18 cardiology?

22:27:20 A. No, I'm not.

22:27:52 Q. How often have you consulted in

22:27:54 medicolegal matters such as this?

22:27:58 A. How often?

22:27:58 Q. Yes.

22:28:00 A. This is my first time.

22:28:04 Q. So this is the first time you've even

22:28:06 written a report?

A. That hasn't been my area of research.

Q. How would you characterize your area of research?

A. Well, heretofore, my area of research was as a basic scientist looking at neurobiology of the hypothalamus, but when you become a new assistant professor, you have to find your way in terms of what your research is going to be, what's available in terms of the resources of the institution to provide, and so I have systematically moved into doing clinical research.

Q. Okay. You've not done any publications in the field of cardiology either?

A. I have not.

Q. So that you're not recognized as a national authority in the field of anesthesia or cardiology?

A. No, I'm not.

Q. How often have you consulted in medicolegal matters such as this?

A. How often?

Q. Yes.

A. This is my first time.

Q. So this is the first time you've even written a report?

A No. I've written one other report

Q What was the subject of the other report?

A It was -- I don't remember the details because there was nothing really to be done It was an intraoperative incident with a lost airway, if I remember correctly I'd have to go back to my records.

Q. Did that case go to trial?

A. No, it has not.

Q And you did not give a deposition?

A I did not give a deposition in it

Q. And this is the first time you have?

A. Yes.

Q So is it that you came to be called upon in this case to provide an opinion?

A Donna Kolis had contacted Kevin Clarkson, who was my immediate supervisor at the time, and Kevin Clarkson referred the case to me

Q What is the reason, to your knowledge, why Clarkson did not handle the case himself?

A He didn't describe that I didn't ask him. He said, 'Ken, do you want to take a look at this case?" I said, "Fine."

Q. Did he write an opinion?

A. He did not.

Q. Did he express any opinion?

A. He did not.

Q. Did he tell you that this was something that he didn't want to get involved in for some reason?

A. He did not. I don't think he actually even looked at the records. I don't think the records were available. Dr. Clarkson has since moved to Ireland, where he's originally from, and he's now the Director of a critical care unit there.

Q. Okay. And do you know if Dr. Clarkson is a physician who advertises in any way to offer his services as a medical expert?

A. I don't know if he does. I don't think he does. In fact, I'm sure that he doesn't.

Q. Do you advertise?

A. I do not.

Q. The other case that you're handling, is that for the plaintiff or the defendant?

A. That was for the plaintiff, I believe.

Q. Have you ever been engaged on behalf of a defendant?

A. I have not.

Q. I should ask you also, what is your hourly rate for deposition.

Q. Did he express any opinion?

A. He did not.

Q. Did he tell you that this was something that he didn't want to get involved in for some reason?

A. He did not. I don't think he actually even looked at the records. I don't think the records were available. Dr. Clarkson has since moved to Ireland, where he's originally from, and he's now the Director of a critical care unit there.

Q. Okay. And do you know if Dr. Clarkson is a physician who advertises in any way to offer his services as a medical expert?

A. I don't know if he does. I don't think he does. In fact, I'm sure that he doesn't.

Q. Do you advertise?

A. I do not.

Q. The other case that you're handling, is that for the plaintiff or the defendant?

A. That was for the plaintiff, I beiieve.

Q. Have you ever been engaged on behalf of a defendant?

A. I have not.

Q. I should ask you also, what is your hourly rate for deposition.

A. 250.

Q. In the course of your review of this case, what information and data was provided to you?

A. Donna Kolis provided me with the patient's immediate records from Amherst Hospital, her medical chart from her previous hospitalizations, as well as correspondence with a number of expert witnesses, et cetera, sought by you and, I guess, other parties, as well as two depositions, one of Dr. Bartulica and one of Dr. Celerio, and one chest x-ray, and I think that's it.

Q. I have a copy of your report *of* May 31st, 2001. Have you prepared any other reports?

A. May 31st. Let me see. Yes, I have. I prepared a preliminary report.

Q. May I see it, please?

A. Sure. See if I can find it.

MS. TAYLOR-KOLIS: Let me look through there. Maybe you just skipped it.

A. Here it is.

MS. TAYLOR-KOLIS: Hi, Joe. You still with us?

MR. FARCIONE: I'm here. I've got the mute on.

MS. TAYLOR-KOLIS: Okay.

22:32:42 A. All right.

22:32:44 MR. RISPO: No fair doing any other
22:32:46 work.

22:32:46 A. This is the May 31st. This is the
22:32:48 preliminary report which is my copy. Donna would
22:32:54 have the original copy.

22:33:24 Q. (BY MR. RISPO) By the way, are you ACLS
22:33:28 certified?

22:33:28 A. I am.

22:33:28 Q. When did you receive your certification?

22:33:30 A. We renew our certification every two
22:33:32 years. The last one was last year.

22:33:34 Q. And when did you first receive it?

22:33:36 A. Oh, I first received it -- we -- we start
22:33:40 becoming ACLS certified nowadays in internship, so I
22:33:42 took ACLS in internship.

22:33:46 Q. When was that?

22:33:46 A. That would have been in '91 to '92,
22:33:50 and -- and so we -- every two years you have to
22:33:56 recertify.

22:34:10 Q. For the record, let me indicate that
22:34:12 you've handed me two undated letters. I presume that
22:34:18 is because of the computer?

22:34:22 A. That's right, and Ms. Kolis will have the
22:34:24 dated copies.

MR. RISPO: And I wonder if we can establish the date.

MS. TAYLOR-KOLIS: Let me get my briefcase. Let me see if I have those with me. It predated the lawsuit, that much I know for sure, so -- let's see. 1 believe, okay, because I've got my computer copy, I don't have my hard copy, 5-18, 2000, even though I'm not testifying, but I think that's accurate.

Q. (BY MR. RISPO) Would that square with your recollection?

A. Yes, that's about right, --

Q. Okay.

A. -- and 1 can check on my -- if it becomes -- Donna will have --

THE WITNESS: Do you have a fax copy?

MS. TAYLOR-KOLIS: Yes.

THE WITNESS: Oh, yes. Well, that's the date.

MS. TAYLOR-KOLIS: Okay.

THE WITNESS: Okay.

Q. (BY MR. RISPO) The fax copy shows --

MS. TAYLOR-KOLIS: 5-18.

A. Yes.

Q. (BY MR. RISPO) Okay.

A. And that was faxed from my house.

Q. (BY MR. RISPO) While I'm reviewing these two letters, I'll ask the reporter to mark them as Exhibits 2 and 3.

(Deposition Exhibits 2 and 3 marked.)

Q. (BY MR. RISPO) At the time -- at the time when you wrote your first report, Doctor, in May of 2000, you did not have the benefit of the deposition testimony of either Dr. Bartulica or Dr. Celerio; is that correct?

A. That is correct.

Q. You did not have either the benefit of any of the reports of the defendants' experts, including the pathologist, Dr. Mendelsohn, --

A. That's correct.

Q. __ and you did not have the reports of Drs. Kravitz and Watts. Have you even seen Drs. Kravitz' or Watts' reports?

A. Dr. Watts --

MS. TAYLOR-KOLIS: Who is Dr. Watts?

A. Yes. I don't know Dr. Watts.

Q. (BY MR. RISPO) I received a report from Mr. Farcione about a week or 10 days aqo.

MS. TAYLOR-KOLIS: Joe? Hello. Joe?

MR. FARCIONE: It was sent to you, Donna, with a carbon copy to Ron Rispo.

MS. TAYLOR-KOLIS: And when did you mail that report?

MR. FARCIONE: Maybe two weeks ago.

MS. TAYLOR-KOLIS: I'm going to represent to you that I have not seen a report from Dr. Watts, and I know who Dr. Watts is.

MR. EARCIONE: The only thing he's talking about is -- well, he's talked a little about the standard of care, but it's mainly proximate cause which, I think, is not going to be an issue in the case based on our conversation.

MR. RISPO: I've just handed a copy of Watts' report to Donna.

MS. TAYLOR-KOLIS: It's dated August 26th.

MR. FARCIONE: It should have gone out to you that day.

MS. TAYLOR-KOLIS: The cover letter to Ron is August 28th

Q. (BY MR. RISPO) In any event, --

MS. TAYLOR-KOLIS: In any event,

we've never seen this report.

Q. (BY MR. RISPO) How about Dr. Kravitz, Doctor? Have you seen his --

A. Yes, I've seen his.

Q. Okay.

MR. FARCIONE: You have seen Dr. Kravitz' report, Donna?

MS. TAYLOR-KOLIS: Yes, absolutely.

MR. RISPO: Okay.

Q. (BY MR. RISPO) At the time when you wrote your original report, you were not aware of the cause of death; is that correct?

A. I was not aware of her underlying pathophysiological process.

Q. And, to your understanding, what is her underlying pathophysiological process?

A. She had amyloidosis, primary amyloidosis.

Q. And when you wrote your latest report May 31st of 2001, you were still not aware of her underlying pathophysiological condition?

A. That's correct.

Q. Does the fact that she had amyloidosis affect your conclusions in this case in any respect?

A. No. Well, it provides me with an explanation, but as to my ascertation -- my decision

on whether the standard of care was breached in performance of the anesthesia that day, no, that doesn't change.

Q. Well, let me break down my question into two parts. I gather from your statement that you still have the opinion that Dr. Celerio failed to meet the standard of care. My question, however, for this purpose, is whether the information about her amyloidosis changes your opinion as to the cause of death.

A. No. It doesn't, actually. The proximal, well -- it does not, not on a cause and effect basis.

Q. What information do you have -- what basis do you have to say that the care of Dr. Celerio contributed in a material respect to the cause of death?

A. Could you repeat that?

Q. What information -- or what is the basis for your opinion that the care provided by Dr. Celerio caused or contributed to the cause of Mrs. Armstrong's death?

A. Well, it's -- there's a twofold answer to that. One is the general concept of what standard of care is, and that is honed by -- formed by what's in the medical literature, what is deemed the broad

responsibilities of an anesthesiologist as guided by the dictums of both the ASA and the ABA, and my experience -- my personal experience in the peer review process that we undertake at Vanderbilt.

Q. Well, let me break the question down because I have a feeling we're not communicating effectively. My question is is it your opinion that the care provided by Dr. Celerio caused or contributed to cause Mrs. Armstrong's death?

A. Absolutely.

Q. Okay. Now, my next question is do you have any way or any evidence to suggest that Mrs. Armstrong, given her underlying condition of amyloidosis, could have survived this surgery under any circumstances'?

A. Absolutely. Well, I can't say absolutely. I can say she's at significant risk undergoing a surgical procedure.

Q. In your report of May 31st, you said you could not predict with certainty but you think the patient could have survived the hypertensive episode if appropriate therapy had been instituted in a timely fashion. You had some hesitation or doubt at that time as you wrote that report even before you knew of her condition of amyloidosis.

MS. TAYLOR-KOLIS: I'm going to object. You don't know if he had reluctance or hesitancy. You're interpreting something from his language where he said he couldn't predict with certainty.

MR. RISPO: Well, that's what the language says, and I'm going to presume the use of English language by a learned professional.

Q. (BY MR. RISPO) Doctor, could you explain what you meant at the time when you wrote the letter of May 31st, 2001 and stated that you could not predict with certainty but you thought the patient could have survived?

A. If I remember that -- can I look at that?

Q. Sure.

A. If I remember that paragraph, it's in reference to the code. Let's see. Where are we? Okay. In that paragraph I'm referring to the treatment of the ensuing hypotensive episode, which is essentially when the patient was coded, and that relates to my criticism of how the code was handled, and doesn't relate -- I think -- you want to put it in a broader context.

Q. Well., I guess what I'm asking you is if you weren't certain at that time whether she could

have survived, whether the new information now available that her underlying condition of amyloidosis was at least a contributing cause of death, how is it that you can be more certain today than you were at the time that you wrote this report and before you were aware of that information?

A. I can't be certain, and it's --

Q. Okay.

A. I'm reflecting. Okay. This is -- this is what I call a cascade failure which means you put into motion a set of events that use up a patient's physiological reserve, and that was the hypotensive episode that was initiated by induction. When not promptly fixed or reversed, then because our patient -- the patient had reduced physiological reserve, her chance of survival is lessened. Given prompt reversal of that problem, I think that that's survivable.

Q. Well, --

A. Does that answer your question?

Q. I think I'm following you, but let me make sure. Let's start with amyloidosis. What is your understanding of that condition? Could you

define it for us?

A. It's a multisystem replacement of muscular tissue with amyloid deposits that render various organs less functional. In this case this patient -- her anterior wall was replaced with dense fibrous amyloid deposits, and so it's an unremitting -- particularly, in this case, I presume that she had primary amyloidosis, as opposed to other variants of it, that foreshortens her life.

Q. Would it be fair or accurate to state that the deposits you're talking about are calcium deposits?

A. I don't know that. That's not my understanding.

Q. Would these deposits that you refer to interrupt the electrical conduction of the muscle fiber?

A. That's well known.

Q. Okay.

A. That's well known.

Q. And reduces contractibility?

A. Not necessarily. In fact, systolic -- if we're talking about the heart -- now we're talking exclusively about the heart, correct?

Q. Yes.

22:50:00 A. In fact, early on systolic function can
22:50:02 be preserved as opposed to diastolic function.
22:50:04 Q. How about diastolic function?
22:50:06 A. That's reduced, and therein lies the
22:50:10 problem. You have a stiff -- think of ,it as a --
22:50:14 you have to fill the pump up, and you have a nice
22:50:18 easy balloon or a very stiff balloon, but in order
22:50:22 for the system to pump effectively, you have to get
22:50:26 the right amount of volume in there, and so they
22:50:30 have -- they have a very stiff balloon. They have a
22:50:32 stiff ventricle.
22:50:34 Q. So it interrupts the electrical
22:50:36 conduction?
22:50:36 A. And those are different problems, as you
22:50:38 understand. You have conduction abnormalities, okay,
22:50:44 but you also have abnormalities of relaxation.
22:50:48 That's diastole.
22:50:50 Q. Okay. And it stiffens the muscle of the
22:50:54 heart?
22:50:54 A. That's right.
22:50:54 Q. And it reduces diastolic function?
22:50:58 A. That's right.
22:50:58 Q. The reduction of electrical conduction
22:51:02 can lead to arrhythmic events, can it not?
22:51:06 A. It can -- it certainly can.

Q. And, in fact, in this case, according to the autopsy and death certificate, her cause of death was an arrhythmic event?

A. Well, on autopsy you can't determine that because it's a physiological determination. Autopsy is an anatomical determination. She did have conduction system disease.

Q. Do you disagree with the opinions stated in the autopsy?

A. Let me review the autopsy report.

MS. TAYLOR-KOLIS: Parenthetically, your expert disagreed with it, too, so -- here you go. It's in the back of the record.

Q. (BY MR. RISPO) How about the death certificate? Maybe I was thinking about that. Take a look at that.

MS. TAYLOR-KOLIS: It's actually in the autopsy. The death certificate that you have says "Pending," and the death certificate also doesn't say --

A. Cardiac arrhythmia --

MS. TAYLOR-KOLIS: Right. There we go. Okay.

A. And, in fact, that happened physiologically, but --

Q. (BY MR. RISPO) She did have arrhythmia?

A. Yes, she had arrhythmia entropitably. She went into a bradycardic rhythm.

Q. And the death certificate lists that as the immediate cause of death?

A. No. Let's see. Well, this is a matter of public record, so probable cardiac arrhythmia.

Q. Is that the immediate cause of death?

A. No, that's -- that's a -- I don't know how --

MS. TAYLOR-KOLIS: In Ohio this is how we do it.

THE WITNESS: Okay.

A. Probable cardiac arrhythmia.

Q. (BY MR. RISPO) Okay. Do you read that to mean that that was the cause of her death?

A. Her arrhythmia. Now, do you want to say that's the proximal cause?

Q. Well, --

A. Why did -- why did one develop an arrhythmia in the first place? I'm sorry.

Q. Okay. Well, that's what we're getting to, --

A. Okay.

Q. -- and I was going to ask you if -- if we

agree that she had an arrhythmia at the time of death which was listed, at least by the death certificate, as the immediate cause of death, --

A. Yes, but the hypotension preceded the arrhythmia.

Q. Okay. I understand that.

A. Okay.

Q. My -- my next question is --

A. And so --

Q. -- is the -- is the arrhythmia that caused -- was the immediate cause of death caused by her condition of amyloidosis?

A. No.

Q. What is your interpretation?

A. Amyloidosis put her in harms way, absolutely. She has a thick, big ventricle. She was given a full size induction dose of propofol which has known deleterious cardiovascular effects. That dropped her blood pressure dramatically. Her diastolic blood pressure became very low. The problem with that is that you only profuse the left ventricle during diastole, and so the ventricle got ischemic because of that, and then you develop arrhythmias, and -- and that's how I look at the picture. This was not a spontaneous -- her blood

pressure wasn't normal and she developed a spontaneous arrythmia. That didn't happen. Her blood -- the bottom dropped out of her blood pressure.

Q. Would it be accurate to say that her ability to respond to the code or to recover from her low blood pressure was reduced by her underlying condition of amyloidosis?

A. I would agree with that.

Q. Okay.

A. I -- I would agree with that fully.

Q. Would it be --

A. I'm sorry.

Q. I didn't want to interrupt your answer.

A. Well, as I said earlier, this is a patient that shouldn't have gone to surgery in the first place. She's -- her amyloidosis put her in harms way. She had reduced physiological reserve to respond to challenges such as hypotension. You and I would respond much better than that. We can increase our heart rate. Unfortunately, in this kind of a situation, increased heart rate is going to do just the opposite thing for you because you've got to fill during your diastole. Diastole shortens when your heart increases, and so you don't fill.

Q. Have you completed your answer?

A. Yes.

Q. Okay. Would it be fair to say then but for her amyloidosis condition she would have had a better chance of responding to this resuscitative effort?

A. I would agree with that. It definitely makes it harder to resuscitate her. Can I get some more coffee?

Q. Oh, please do.

MS. TAYLOR-KOLIS: I'll get it. Do you want me to?

THE WITNESS: No, no, that's fine.

(Recess taken.)

Q. (BY MR. RISPO) Doctor, what experience have you had in treating patients with amyloidosis or amyloid heart conditions?

A. I've had two patients I've had to put to sleep with that, looking back, and none were as an attending. They were all as residents -- as a resident.

Q. What were the circumstances -- what type of surgery in those two patients?

A. One was a joint surgery and one was, I don't remember, some general abdominal case.

Q. The joint surgery was elective?

A. I believe they were both -- you know, I don't remember all the details. This is a while back.

Q. So at least one of them was elective?

A. I believe so.

Q. But you don't remember the abdominal?

A. I don't -- I don't -- I don't remember the specifics of -- really, the specifics of either of them, much.

Q. And neither of these were cases in which you were the primary attending?

A. No, no, this was as a resident. I have not done any cases of amyloid as an attending.

Q. Is amyloid a rare condition?

A. Relatively rare, thankfully.

Q. Have you ever encountered a patient with amyloidosis that you refused to take to surgery?

A. No.

Q. Of those two patients that were taken to surgery, in your residency, with amyloidosis, did they survive?

A. Both of them survived. Knock on wood. I haven't had any patients die in the operating room.

Q. That was my next question.

A. Well, say with the exception of trauma trauma center and so we'll have patients come in who are essentially in extremis and dead for all intents and purposes, and we try to resuscitate those patients, and we do the best we can.

Q. Okay.

A. But, no, I have not.

Q. So except for trauma patients, you've never had a patient die in surgery?

A. No.

Q. How many have you had die in surgery that were trauma patients?

A. One or two. I can't give you an exact number.

Q. When you were the primary attending?

A. Yes. It's very rare. I mean, it's not rare that trauma patients die. You'll get -- I mean, they come in extremis.

Q. Of those two who died, or one or two that died, were either of them in congestive heart failure?

A. That wasn't their primary problem.

Q. Or ischemic heart disease?

A. No. I wouldn't presume that. This is

emergent surgery where we have very little information on the patient's, really, past medical history. They come in after a multivehicle accident, some kind of ballistic trauma, et cetera, and we're left with, really, damage control. They stop bleeding from major vessels, the surgeons do that, and we resuscitate at the same time.

Q. I understand. What -- apart from the trauma patients, can you tell me, have you ever taken a patient to surgery with congestive heart failure?

A. Active congestive heart failure?

Q. Inactive.

A. Yes.

Q. And --

A. As -- as in stable?

Q. Stable.

A. Yes.

Q. Inactive.

A. Absolutely. I've taken patients to surgery with EF's of 15 percent.

Q. Ejection fraction?

A. Ejection fraction of 15 percent.

Q. Okay. And in this case the records indicate, if -- if I understand correctly, that Mrs. Armstrong had 40 percent -- 47 percent.

A. Forty-seven percent, right. So she had essentially preserved diastolic function.

Q. And of those patients you have taken into surgery with inactive congestive heart failure, they all survived?

A. Yes.

Q. Same question. Have you ever taken a patient in with remote ischemic heart disease?

A. Absolutely. All the time.

Q. And they've survived?

A. Yes.

Q. And is it unusual for a patient to have silent MI's?

A. No, I don't think it is, actually.

Q. Have you ever taken a patient to surgery who had a prior silent MI?

A. By history, yes. Have I taken a patient to surgery with a silent MI that hadn't been further -- further evaluated? No. If this is the first instance of a silent MI, the patient didn't know about it, hasn't been properly evaluated for other cardiovascular disease, in particular other myocardium at risk, they're not going to surgery.

Q. What do you mean by "evaluation"? What -- what is entailed, in the course of your

normal practice, in evaluating a patient?

A. Preoperative evaluation?

Q. Yes.

A. Preoperative evaluation entails obtaining a complete history and physical with a review of systems, meshing that with the surgery that's going to be -- that's going to go on, anticipating what the magnitude of the physiological trespass in that surgery is going to involve, and then decide what further risk assessment you need for that patient. A healthy, young, 24-year-old that's going to undergo a -- even major surgery probably needs little further preoperative evaluation other than checking electrolytes and the things like that and being typed and crossed. The patient with multisystem disease needs a much more thorough evaluation to -- to actually determine what their risks are so you can give proper informed consent.

Q. Who does the history and physical for your cases?

A. They're done in two different ways. For the perioperative patients, they're done by our nurse practitioners in our preoperative evaluation center, and then residents and the attending physician will see the patient and further verify those details, and

then decisions will be made about what needs to be further done if the patient is -- is ready for surgery based on what we think their comorbidities are and we think we understand their risks, so at that point I can give them the informed consent.

Q. Who is -- did I understand you to say earlier that the residents and attending physicians are responsible to verify the details of *a* patient's condition?

A. That's correct.

Q. So it's not the anesthesiologist who does that?

A. Well, the VPEC -- that will take place separately. Sorry. On the day of surgery -- that's in the preoperative clinic. On the day of surgery the patients will ccme down to our holding room and it's the anesthesiologist's responsibility to verify that the information and the preoperative assessment is correct, decide in their own mind if, in fact, that patient is ready for surgery based on the information at hand.

Q. What is entailed in the verification by the anesthesiologist that those conditions -- whether they're correct?

A. It entails looking at what medical

records are available in our electronic medical records system, looking at the current VPEC documentation, typically ECG's, if warranted, pertinent laboratory data, and pertinent radiographic data.

Q. Can you enlighten us what is VPEC?

A. Vanderbilt Preoperative Evaluation Clinic.

Q. Is that the same thing as pre --

A. It's preop --

Q. __ admission testing?

A. Exactly. It's the same thing.

Q. So, again, your statement was to review the medical records available and to review the test results in the PAT clinic?

A. Exactly. Now, all that, stuff -- for us all that. stuff is available on line, so we can actually review that the night before surgery.

Q. As an anesthesiologist, how often do you go beyond the medical records available and the test results in the PAT clinic? Let me Sack that up. Star', over with a question. Do you rely upon the accuracy of those medical records and test results in the computer, and the Vanderbilt records, when you -- routinely when you ~].eara patient for surgery?

A. It depends on what my own review of systems reveals.

Q. Okay.

A. And so --

Q. Under what circumstances do you go beyond, and what do you do?

A. Well, if my review of systems with the patient doesn't jibe with -- if my view of the patient doesn't jibe with the preoperative evaluation, then further things have to be done to clear up the issues. Let's say the patient now describes, because they -- they didn't originally describe, they have intermittent chest pain radiatrng into the left arm or chest tightness here. I've got to further evaluate that. I'm not going to take that patient to surgery, unless it's emergent surgery that has to be done, without further evaluating that.

Q. If, however, your observations upon examining the patient jibe with those in the medical records available and the preadmission testing, then you would see no further need to inquire further?

A. That's true. Now, my medical records typically include detailed histories in our electronic system.

Q. What is the extent to which you do any

independent examination of the patient?

A. Could you rephrase that?

Q. There's got to be a better way.

MS. TAYLOR-KOLIS: Ask him if performs a physical exam.

A. In the preoperative evaluation -- do you mean in the preoperative evaluation?

Q. (BY MR. RISPO) Let me distinguish. First of all, I know that preoperative testing would have already been done.

A. That's right.

Q. My question is independent of that testing, what is the extent to which you conduct any further examination.

A. What kind of examination? A physical exam?

Q. Any kind of examination before you clear a patient.

A. Oh. All -- all the patients I see will get a -- a -- I will go over the details of their past medical history, their medications, their past surgical history, do a separate review of systems on that, and then do a physical exam. Now, my physical exam is going to be focused towards those issues that I'm most worried about which are always

cardiopulmonary. Well, let's say it's a neuro patient. I'm going to check -- do a -- a neurological exam, et cetera. If it's an orthopaedic patient with a potentially ischemic limb, I'll check pulses. And so it's a focused exam about determining what I think my problems are.

Q. Is it the responsibility of preadmission testing to take into account the same history that you're looking at or to obtain the same history that your looking at?

A. To some extent.

Q. Is it the responsibility of preadmission testing to contact the attending physician and the primary care physician?

A. Not the primary care physician. We supervise the preoperative testing, we being anesthesiologists, and so within our group there are reference people. What I mean by reference, there are people that, depending on the service that the patient is coming from, they'll call an anesthesiologist, an expert in that area, okay. And so if one of the preop -- if one of our nurses has some questions about a patient in the preop center, they'll call us and we'll have a phone consultation or we'll go see them if there's an issue.

Q. Let me rephrase the question. Whose responsibility is it, if any, to contact the primary care physician if it is not the attending?

A. The primary care physician in terms of what?

Q. Internal medicine cardiology.

A. To obtain consultation?

Q. Correct.

A. To obtain consultation for further evaluation?

Q. To obtain, first of all, a history on the patient. Where do they get the history?

A. They elicit the history --

Q. From the patient?

A. -- from the patient.

Q. Okay. Does anyone have the duty to contact the primary care physician to obtain an independent history independent of what the patient conveys?

A. Those same nurses will do the same thing,

Q. Now, explain that for me. Are they getting it from the patient, or from the primary care physician, or both?

A. They get it from the patient. We will do an independent examination. Now, for instance, --

Q. Well, let's talk about history for the moment. Okay? Who gets the history and from whom?

A. We take the history directly.

Q. From whom?

A. From the patient.

Q. Okay. And does anyone have the responsibility to contact the primary care physician to obtain the history?

A. No. There's no explicit -- there's no explicit reason to do that. If we have -- if we're in a quandary about really what the patient is telling us *or* we need further clarification of their medical condition, we can contact -- we'll contact the primary care physician.

Q. So then they rely principally upon the plaintiff -- the patient to provide an adequate history?

A. That's correct.

Q. Does the attending physician or the surgeon have any duty to contact the primary care physician for clearance?

A. I can't speak to what the surgeon's responsibilities are.

Q. So you have no opinion on that?

A. I do have an opinion. I think if people

practice collaborative medicine.

Q. What do you mean by that?

A. They would all talk to each other.

Q. If there is a worry, and not otherwise?

A. Yes. I mean, in this situation the primary care physician -- I don't know what -- assuming the surgeon and the anesthesiologist thought that they had an accurate history, there's nothing further that the primary care physician is going to add. He's not going to have real insight into the physiology of the perioperative period.

Q. I'm sorry. I missed that. Who is not going to have insight?

A. I don't think the primary care physician is going to have any real insight into the physiology of the perioperative period.

Q. I'm going to ask you to assume, for the sake of this question -- my understanding of the records indicate that Mrs. Armstrong had several cardiac studies in the preceding six months under the direction of Dr. Richardson or consults from Dr. Richardson.

A. That's correct. That's a matter of record.

Q. Who has the duty to obtain the information and the results of those cardiac studies? Is it the nurses in PAT, is it the --

A. The final responsibility rests with the anesthesiologist.

Q. Who else has a duty to obtain that history?

A. I would think that the surgeon would as well.

Q. And how about the preadmission testing doctors?

A. Well, it's -- those aren't physicians. Those are nurses.

Q. Okay. How about them? Do they have a duty to obtain the results of those cardiac studies?

A. If they were so directed by the people that supervise them. I presume that they don't operate independently. They're under the direction of a physician.

Q. The nurses that are in the PAT department, I understood you to say, work under the direction of the Department of Anesthesia?

A. They do.

Q. So is it the responsibility of the doctors in the Department of Anesthesia then to

obtain the history from the primary care physician?

A. If we had a -- if we had a patient -- yes, we would do that.

Q. Now, let's suppose that the anesthesiologist is not aware of that information and the patient doesn't provide that information in the preadmission testing reports, but the surgeon is aware of the fact that she has had a cardiac workup by virtue of his contact with the primary care physician. Would it not then be the responsibility of the surgeon to obtain the details of that cardiac workup and provide it to the preadmission testing department and/or the anesthesiologist?

A. Is it his responsibility? I don't know that it's his responsibility. Certainly, it would be prudent to do that.

Q. You used the term --

A. And here's my -- here's my view. The anesthesiologist has an independent responsibility to accurately evaluate the patient.

Q. We all agree on that.

A. Okay.

Q. But the question is if the anesthesiologist has no information, but the surgeon does, that there is information out there at least to

be obtained, isn't it the responsibility of the surgeon to get that information and bring it in?

A. I would think that he would talk to the anesthesiologist about that, especially if it was significant.

Q. You used a term earlier, I didn't write it down, in which you described the responsibility of the physicians is to talk to each other. What did you --

A. Collaborative medicine.

Q. Collaborative medicine. Okay.

A. And I must say I'm biased by my training. Mayo Clinic generated its -- its name in collaborative medicine which is really nothing more than the physicians talking to each other.

Q. It's -- it's good medicine.

A. Yes.

Q. Okay.

MS. TAYLOR-KOLIS: If you need a break at any time, Doctor, we forgot to tell you, you're allowed to raise your hand and say you need a break.

THE WITNESS: The last break I saw was -- off the record,

MS. TAYLOR-KOLIS: The last break

you saw was --

THE WITNESS: In the deposition where you had to go take a break.

MS. TAYLOR-KOLIS: Oh. That's because the doctor's pager was going off.

Q. (BY MR. RISPO) Doctor, I'd like to ask you some questions based on your knowledge of the record here.

A. Okay. Which record is that? We have lots of records here.

Q. Well, the collective record that you've seen --

A. Oh, jeez.

Q. -- in this case. They won't be difficult. I think they're key issues and you probably have them uppermost in your mind. If you don't recall them, feel free to look them up or tell us that you don't know.

A. Okay.

Q. What is your understanding of Mrs. Armstrong's known medical history, apart from amyloidosis which we learned after the fact, prior to -- immediately prior to her surgery? What was her condition, and I'm then going to ask you what -- where was that information made available and who

obtained it.

a. From whose perspective?

Q. The patient's perspective and/or the attending primary care physician.

A. Well, that's a complete -- okay.

Q. Any and all medical providers is what I'm asking you. What was her known medical condition immediately prior to her surgery?

A. She had a history of hypertension, a history of benign meningioma, a history of lower extremity arterial thrombus, a history of protein C deficiency, a history of TIA which was explained on the basis of her -- on the basis of her meningioma. Let's see, a history of a lambda chain myelodysplastic dyscrasia, a history of anxiety -- I don't know that it was formally put down, but she certainly had an anxiety disorder. Well, I can't say that. She was certainly anxious and placed on medication for that. It was never labeled as such. And a history of dysmenorrhea originally and now chronic pelvic pain. And I think that's it.

Q. I counted nine conditions you've identified.

A. Yes. Now, let's add some other provisional diagnoses which are -- you can code them,

they were certainly accelerating and intermittent, dyspnea, orthopnea, angina, and there are workups to that effect in the -- in the -- in her chart.

Q. Are any one of these now 12 conditions you've described absolute contraindications to surgery?

A. Certainly unstable angina.

Q. Well, did she have unstable angina?

A. What kind of surgery are we talking about?

Q. The surgery she had in this case.

A. Elective -- elective surgery.

Q. Elective OB/GYN.

A. Elective OB/GYN. Unstable angina.

Q. Now, did she have unstable angina?

A. No. Escalating dyspnea.

Q. Okay. My -- do you have to make a call?

A. No.

Q. Okay. My question is of those conditions she had that were documented in the medical records, whether any of them were absolute contraindications to surgery, OB/GYN surgery.

A. Well, let me add two other diagnoses then. EKG abnormalities consistent with an anterior MI of undiagnosed condition, and cardiomegaly.

Q. Okay. Now, the same question. Were any of these conditions, now 14 in number, absolute contraindications to surgery?

A. Not with proper workup to establish risks. The issue --

Q. Let's talk --

A. I'm sorry --

Q. You finish, please.

A. The issue revolves around how do you tell the patient how serious of an operation this is going to be, and so you need to establish the risk. What's the relative risk of undergoing this operation versus weighing the risks and benefits of alternative therapies.

Q. Okay. I understand that, but I think, from the standpoint of my question, I'm trying to determine whether any of those were absolute.

A. No -- any -- any -- no -- no one of those would be an absolute contraindication, but if you get a constellation of those, I would cancel surgery until I could further verify what's going on if I had questions in my mind.

Q. Okay. Let me go back now and take these one by one.

A. Okay.

Q. Hypertension. Patients go to surgery with hypertension all the time, right?

A. Absolutely.

Q. Properly managed?

A. Absolutely. Can I stop you here for a second?

Q. Okay.

A. We can go down that whole list one by one and say can individual patients with those single entities go to surgery safely and I'll answer yes to all of those, but that's not the issue because we don't have such a patient here, and often we do have patients with single entities. We have a constellation of symptoms and diseases together which, once summated, change their risks dramatically. In particular, an ECG that has a Q -- well, essentially Q waves in your anterior leads of undetermined age.

Q. Okay. So then, if I may, with your permission, check off any one *of* these individual conditions, hypertension, benign meningioma, arterial clotting in the lower leg -- limbs, protein C deficiency, TIA's, the blood dyscrasia, anxiety attacks, dysmenorrhea, chronic angina, dys --

A. Chronic stable angina, *yes.*

23:25:04 Q. Stable angina.

23:25:04 A. Make it stable, please.

23:25:06 Q. Okay. -- dyspnea, orthopnea, any one of those 11, at least, are not absolute contraindications to surgery?

23:25:16 A. No, but does it change the risk of surgery? Depending on those conditions, the risks are going to be different.

23:25:24 Q. Okay. Then let's talk or focus on the EKG and cardiomegaly.

23:25:30 A. Okay.

23:25:30 Q. The EKG, to your understanding, what did it tell us in this case?

23:25:34 A. That she has cardiovascular disease. It looks like she has an old -- for all intents and purposes, an old anterior MI of undetermined age.

23:25:52 Q. Patients with that kind of profile on EKG go to surgery all the time, don't they?

23:25:58 A. No, they do not.

23:25:58 Q. Do you --

23:26:00 A. The age --

23:26:00 Q. -- do you refuse surgery to those patients who have an old anterior MI?

23:26:08 A" Not of undetermined age -- of undetermined age, I do.

Q. I'm sorry. I didn't understand the answer.

A. Sorry. It wasn't articulated well. Old anterior MI's of undetermined age with no historical reference of how old it is, yes, those patients don't go to elective surgery because the morbidity and mortality in the perioperative period -- if you do surgery right after MI, it goes way up.

Q. Okay. Let's inquire then how do you determine the age?

A. Previous electrocardiographic studies.

Q. And if those previous electrocardiographic studies indicate that the Mi is old --

A. If the MI is old and you've subsequently determined, in fact -- here's the things that you need to determine then, is why did they have an MI? Did they have ischemic disease? Is there new -- are there regions of myocardium at risk? If somebody has an anterior MI, that's a big deal. It's not like inferior MI's. People have inferior MI's all the time and don't even know it. Interior MI's -- usually that's a big portion of the muscle. So you would need subsequent evaluation to determine -- for instance, a cath and an echo, at least, to determine

what kind of functional reserve we have, and probably a dobutamine echo or a stress echo, some test to evaluate do we have other myocardium that's potentially ischemic under exercise conditions.

Q. Okay. Have you completed your answer?

A. Yes. I'm a little long-winded.

Q. Do you know whether Dr. Richardson ever established himself, or in consultation, whether Mrs. Armstrong had ischemic disease?

A. I don't think -- I don't think that he did. I mean, --

Q. Isn't it a fact that Dr. Richardson attributed her chest pain to anxiety attacks?

A. Let me look. I don't know that.

THE WITNESS: I don't know where to find that.

MS. TAYLOR-KOLIS: I think what you're --

A. He certainly -- I mean, he worked her up for -- he appropriately worked her up for her -- her chest pain --

MS. TAYLOR-KOLIS: Here you go. Here's his record. Sorry.

A. -- and so he took them seriously. He got a nuclear medicine scan. She was echoed, she was --

she had a nuclear medicine scan, so he worked her up for that. I don't remember his -- because I've read through his notes. I didn't --

Q. (BY MR. RISPO) Would you refer -- direct your attention to his note -- office note of July 6th, '99?

A. July 6th?

MS. TAYLOR-KOLIS: Do you have a Bates stamped copy or are you just looking up a -- it's all right if you don't.

MR. RISPO: I'm looking at a summary here.

MS. TAYLOR-KOLIS: Okay.

MR. RISPO: It looks like it's Bates stamped 0003.

MS. TAYLOR-KOLIS: I can't remember if we put these in reverse order or not. There you go.

A. Chest pain in the left breast, get out of breath walking up stairs, can't sleep because of --

Q. (BY MR. RISPO) Feel free to read through it, but I would direct your attention especially to his assessment.

A. I'm looking at his plan and assessment, assessment number 2, where -- she's at risk for

MI and PE secondary to protein C deficiency, my suspicion as well, and I think her anxiety is contributory.

Q. Contributing greatly to her symptoms?

A. He said contributory. He didn't say contributing greatly. He said contributory. But if I remember correctly, he subsequently worked her up -- let me see when his -- where his imaging studies fall in terms of the grand scheme of things Okay. So -- yes, he had worked her up previously.

Q. Previously?

A. Yes, in April of that year, and she continued to have symptoms.

Q. And he concluded that she'd had these symptoms for a period of three to four years.

A. I didn't see that.

Q. Well, in --

MS. TAYLOR-KOLIS: Point it out in the records to us.

MR. RISPO: Okay.

Q. (BY MR. RISPO) The April 13th of '99 progress note. This would be -- it looks like page 00012. You'll see the --

A. It says --

Q. -- pressure feeling right upper chest --

left upper chest --

A. And palpitation.

Q. -- and left shoulder over times four years.

A. Hurts when she walks a short distance.

Q. All right. Over a period of four years, correct?

A. I don't see that.

Q. End of the line under Allergies.

A. Oh, there --

Q. Third line under Allergies.

A. Right, uh-huh.

Q. Sne had that for a period of four years. And, again, he repeats in July that she had a period -- over a period of three years. So my question is what was Dr. Richardson's conclusion as to the cause for her chest pain?

A. You know, I'm not an internist and I don't want to speak to that.

Q. What information was provided by Dr. Richardson to the surgeon, Dr. Bartulica, if any, if you know, when Dr. Bartulica called Dr. Richardson to obtain clearance?

MS. TAYLOR-KOLIS: I'm going to object to the question. There's no evidence

established that he called him for clearance regarding the overall surgical picture, but you can try to answer it if you can.

MR. RISPO: Well, then let me break it up and let's make sure we're on the same page.

MS. TAYLOR-KOLIS: Sure.

Q. (BY MR. RISPO) Do you -- what is your understanding as to who obtained clearance from whom, and, specifically, did -- is it your understanding -- do you have any information in the record?

A. My understanding is that -- is that the OB/GYN contacted the internist to modify the anticoagulation profile -- anticoagulation medication for the perioperative period, and that's that, and that's what's -- in my reading of the deposition of Bartulica, that's what he says.

Q. Only to discuss the Coumadin and --

A. Yes, exactly. And so he made some recommendations to put the patient on Lovenox and things like that, and that was the extent of their -- that consultation.

Q. Then who obtained clearance, if anybody, from Dr. Richardson?

A. Clearance -- clearance for surgery is not obtained -- clearance for surgery is done twofold.

The surgeon decides the patient is ready, the anesthesiologist decides the patient is ready, and that's it.

Q. Did Dr. Richardson consult on that question at all?

A. Not that I can tell. I don't see any specific notes where he was consulted on that.

Q. Do you know if Dr. Bartulica sought or Dr. Richardson provided any other details of Mrs. Armstrong's medical history?

A. Not that I -- not that I can tell from the records. The only thing that I can really tell from my recollection is that he provided information on how to modify the anticoagulation.

Q. Have you seen the note in Dr. Bartulica's chart indicating he obtained clearance for surgery from Dr. Richardson?

MS. TAYLOR-KOLIS: Look at the note. Don't take it out of context. Why don't you read to him what the note says in the chart. If you don't have Bartulica's in that one, it will be in your other notebook. There you go.

THE WITNESS: Yes.

A. There's a note -- okay. There's a note on, I guess you guys call it the Bates stamp, on page

9, an 8-5-99 note that says, "Call to Dr. Richardson and prescribing -- making recommendations on the use of Lovenox," which is a fractionated heparin, and it says, "Court for surgery with above," meaning -- my interpretation of that is that she can undergo surgery with this modification of anticoagulation, and that was what he was specifically consulted for.

Q. (BY MR. RISPO) On the previous column there is another statement, "Cleared" -- let's see. "Okay for surgery per patient."

A. I see that.

Q. And preceding that comment is the note "Dr. Richardson," colon. What does that mean to you?

A. "patient report that -- that they're okay per Dr. Richardson" doesn't -- I would call Dr. Richardson myself.

Q. Okay. Does this record collectively indicate that Dr. Bartulica made a separate call to Dr. Richardson?

A. No. I pre -- yes, he called Dr. Richardson to get the Lovenox.

Q. Okay. So then is it your understanding that Dr. Bartulica did not ask Dr. Richardson whether Mrs. Armstrong would be a suitable candidate for

surgery but merely asked him about the Lovenox?

A. I can't tell from the records because there's nothing in the records that would detail that discussion. That doesn't change -- the final decision has to be made --

Q. Okay. Let me ask it a little differently then. Based upon these records alone, would it be fair to understand that Dr. Bartulica was relying upon the patient and the patient's account of her conversation with Dr. Richardson as a clearance for surgery?

A. I can't tell that from that conver -- from this note.

Q. So the note is ambiguous?

A. The note is ambiguous. And here's the problem with anybody other than the people that are involved in the surgery clearing them for surgery. There are unique problems from the anesthesia perspective. I'm not going to talk to the surgical perspective. That's not my expertise. The set of drugs that we use have diverse physiological effects on patients that only we know, and so for even a cardiologist to say this patient is okay for surgery, they don't specifically understand the -- the trespass the surgeon's going to do and the kinds of

drugs that we use in order to achieve our ends, and so they can give us estimations *of* cardiac performance to allow us to then prescribe the appropriate drugs, but they can't -- they don't actually clear patients for surgery.

Q. We'll get to that in a moment, but before we leave the subject I'd like to finish this line of inquiry. Did Dr. Bartulica have a duty to inquire independently of Dr. Richardson, the primary care physician, whether the patient's condition was such that she could safely undergo surgery?

A. Oh, absolutely.

MR. FARCIONE: Objection. He is the obstetrician in this case.

MR. RISPO: What did I say?

MS. TAYLOR-KOLIS: I think you said -- gynecologist? Is that what you wanted to hear, Joe?

MR. FARCIONE: Big difference.

MS. TAYLOR-KOLIS: Okay.

A. Okay. Well, --

Q. (BY MR. RISPO) Okay. With that amendment, did Dr. Bartulica, as the OB/GYN, have an independent duty to obtain from Dr. Richardson her history that would be relevant and determine whether

she could be cleared for surgery?

A. My answer to that question is -- the way you worded it, no. Yes, he has an independent -- no. Just because he said "cleared," and -- he's got to -- he's got to take this patient to surgery and carry them through the postoperative period, so he has to know what the medical conditions of that patient are in order to know if she's strong enough to go through all that. So yes. Not to clear them for surgery, but are they going to survive the whole perioperative period.

Q. Okay. And if Dr. Bartulica had obtained the medical history as we know it and as you understand it to be, would it be his duty or would he have a duty to share that information with Dr. Celerio or any other anesthesiologist?

A. Moral or fiduciary?

Q. Medical.

A. I don't know if it's written in -- it would certainly be prudent. It would absolutely be prudent.

Q. Good collaborative medicine as you put it?

A. Absolutely. I don't have any debate with that.

Q. Okay. Do you have any evidence in the record to indicate that either -- Dr. Bartulica either obtained the complete medical history of this patient or that he provided it to -- that same information to Dr. Celerio?

A. No. There's only one conversation. I don't -- I don't see any written note saying discussed the case with Dr. Celerio. There is a line in his deposition that speaks to that that sounds like they discussed ECG findings.

MS. TAYLOR-KOLIS: Mr. Davis, I can clearly represent to you that you will not be able to make your 1:00 o'clock deposition. Is it okay if we take break? The doctor is looking through the deposition, the court reporter needs to make a phone call, and I can --

THE WITNESS: I'm working and you guys are a taking a break?

MS. TAYLOR-KOLIS: We're off the record.

(Recess taken.)

MR. RISPO: Back on the record.

Q. (BY MR. RISPO) Doctor, while we were in adjournment here, you had an opportunity to go back to the transcript of the deposition, I think, of

Dr. Bartulica.

A. That's correct.

Q. After having done so, can you answer the earlier question put to you which was, in essence, is there any record to indicate that Dr. Bartulica provided the information on Mrs. Armstrong from Dr. Richardson to Dr. Celerio?

A. No, I cannot.

Q. And if I understood your earlier testimony, Doctor, the only time you would call the -- as the anesthesiologist you would call the primary care physician is if there was something in the records or the history or the examination that you performed that created concern or alarm?

A. That's correct.

Q. Have you ever taken a patient to surgery who had a remote MI? I think you've already answered that, but I'll ask you again.

A. I have.

Q. Have you ever taken a patient to surgery who had --

A. Now, let me preface that, a remote MI where the patient was then further evaluated so we know what the cardiac function is like.

Q. Right. And your answer to that was yes?

A. Yes.

Q. Okay. Have you ever taken a patient to surgery who had atelectasis?

A. Atelectasis is a relative term.

Q. Broad term. Okay.

A. Yes. And so --

Q. How about in this case? Given the x-rays that were available in this case indicating -- was it left lower lobe?

MS. TAYLOR-KOLIS: Wait. Not the -- just to clarify, you mean the x-ray report.

MR. RISPO: Report. Excuse me.

MS. TAYLOR-KOLIS: Okay. I just wanted to clarify the question.

Q. (BY MR. RISPO) Actually, to be completely accurate, the wet readings of the chest films in this case. Are you familiar with those?

A. What readings? I'm not familiar with the term, and -- and Donna and I have talked about that.

MS. TAYLOR-KOLIS: Wet read in -- in Ohio legal parlance, we mean the preliminary findings of the radiologist that have not yet been reduced to transcription as a final report.

MR. RISPO: I'll accept that as --

MS. TAYLOR-KOLIS: Does work for

everybody?

MR. RISPO: -- my understanding, anyway.

A. Okay. Well, that's fine. So we all agree on -- that that's what a wet reading is.

Q. (BY MR. RISPO) Are you familiar with the wet readings in this case?

A. I am.

Q. Right lower lobe consoli -- consolidation and effusion.

MS. TAYLOR-KOLIS: Wait. Mr. Rispo, I'm sorry, you --

MR. RISPO: I'm looking at the final.

MS. TAYLOR-KOLIS: You're looking at the final.

MR. RISPO: Okay.

MS. TAYLOR-KOLIS: I would suggest to you that in Dr. Bartulica's chart, or at least I -- excuse me for mispronouncing his name, Joe, in his chart there was a faxed copy which arrived from the hospital from PAT. It's probably got PAT at the top of it.

MR. RISPO: Okay. I think --

MS. TAYLOR-KOLIS: That's the

correct document.

MR. RISPG: Thank you.

MS. TAYLOR-KGLIS: You're welcome.

Q. (BY MR. RISPO) I'm handing you what then has been identified as -- we probably should identify it by Exhibit -- Exhibit 4, the preliminary read.

MS. TAYLOR-KOLIS: You may not have it.

THE WITNESS: No, actually, I do. Oh, I may not have that one then.

MS. TAYLOR-KOLIS: Okay. Yes, you do. Okay.

(Deposition Exhibit 4 marked.)

Q. (BY MR. RISPO) Okay. Assuming that that was the information available to the anesthesiologist, Dr. Celerio, in this case, to the extent that that condition may have been common to your cases, Doctor, have you ever taken a patient to surgery with that condition?

A. With -- with atelectasis?

Q. Yes, to that extent.

A. I wouldn't take the patient to surgery until I saw the x-ray myself, if they have infiltrates, on elective surgery.

Q. Okay. Well, let's suppose they do have

infiltrates --

A. Well, then you --

Q. -- on elective surgery.

A. Then we have to decide what the infiltrates are due to. Their perioperative morbidity is significantly increased.

Q. Suppose that the record also indicates that there is no evidence of infection.

A. You can't determine that with -- by an x-ray.

Q. Well, let's suppose you look at the lab studies and find that there is no evidence *of* elevated blood cell -- white blood cell count or elevated temperatures.

A. I'm going to look at the x-ray.

Q. Okay. Suppose you have --

A. And -- and if I --

Q. Did you look at the x-ray in this case?

A. I did.

Q. Okay. And what did you see? Tell us what your understanding of --

A. Can I show you the x-ray?

Q. You may.

A. Have you seen the x-ray?

Q. I have not.

A. Okay. This is the x-ray of this woman.

Q. How would you interpret that?

A. Gross cardiomegaly, mild vascular congestion, possible infiltrate in the right middle lobe, right lower lobe infiltrate, and small right effusion --

Q. Okay. Now, --

A. -- with some -- with some volume loss.

Q. Okay. Assume that we're talking for the moment about the vascular congestion. I'm sorry. The -- did you say pulmonary congestion?

A. Vascular congestion. Just crowding of the vessels just because her heart is so big.

Q. Okay. What -- what does the pulmonary cavity look like?

A. What does the what?

Q. Pulmonary.

A. You mean what do -- do the lung fields look like.

Q. Yes.

A. Okay. The left lung field is clear. She's got a -- a -- what could be a potential infiltrate in the right middle, right lower lobe. That's a small effusion.

Q. Okay. Let's focus on the small effusion

on the right side.

A. Looking at this chest x-ray, --

Q. Yes.

A. -- if that's what you're asking me --

Q. Yes.

A. -- for my interpretation, --

Q. Right.

A. -- that effusion and that infiltrate wouldn't worry me. That's not what worries me here. This heart is huge.

Q. You're looking at the cardiomegaly, right?

A. Right.

Q. Okay.

A. The cardiomegaly is dramatic.

Q. Okay. Let's take it step by step. The atelectasis on that film alone wouldn't be such that it would --

A. No.

Q. -- prohibit elective surgery?

A. No, not -- not unless she was -- she had productive sputum, or an elevated white count, or a fever, or both, or a recent history of a URI, --

Q. Okay.

A. -- upper respiratory infection, none of

those which were present by history.

Q. Referring to Exhibit 4 again, is there any indication on this preliminary x-ray report from the x-ray lab and lab technician of cardiomegaly?

A. No, but I -- what I'm telling you is, if I can continue, is that if we have an infiltrate on the chest x-ray, I need to look at the chest x-ray to see how big this infiltrate is --

Q. Okay.

A. -- to make a decision about what kind of pulmonary problems we're going to get ourselves into. The other question I have is that -- I've got the official report. The official report was transcribed on 8-6 at 10:00 o'clock, so that should have been available for review on the day of surgery. Presumably it's in their system someplace where they can get that result. Here. Can I show you my copy?

Q. I think I have it.

MS. TAYLOR-KOLIS: He's got the same one.

THE WITNESS: Okay.

Q. (BY MR. RISPO) That same record that you're referring to has a handwritten note below it.

A. I don't have that.

Q. You don't have that one?

23:57:14 A. Yes, and I -- I -- I've seen two of them.
23:57:18 I've got one without the handwritten note and one
23:57:20 with the handwritten note, so I'm not quite sure
23:57:20 what's going on there.
23:57:22 Q. Okay. I don't know either, but the one
23:57:24 I'm looking at in Dr. Bartulica's chart indicates it
23:57:26 was received 8-10-99.
23:57:26 A. Well, --
23:57:28 MS. TAYLOR-KOLIS: At his office.
23:57:30 Q. (BY MR. RISPO) I -- I presume that means
23:57:32 at his office.
23:57:32 A. Okay.
23:57:36 Q. Okay. Do you have any information to
23:57:42 suggest that Dr. Celerio saw the final read on this?
23:57:50 A. I don't think he did, actually. I'm not
23:57:56 sure. He makes no -- I can look through his
23:58:00 deposition. I think he -- in fact, he never looked
23:58:08 at the chest x-ray. Okay.
23:58:32 Q. Is there any indication that the
23:58:34 radiologist called either Dr. Bartulica or
23:58:42 Dr. Richardson or Dr. Celerio to report what he found
23:58:48 as cardiomegaly?
23:58:52 A. No. I don't think that's his -- he -- it
23:58:56 was dictated in a timely fashion and put on their
23:59:00 system and available for all to peruse. I presume

they have a system like they had when I was an intern where you dial a number and --

Q. Remember, we're talking about a small community hospital here, Doctor.

MS. TAYLOR-KOLIS: They don't have this system.

Q. (BY MR. RISPO) Would it be fair then to say, Doctor, that Dr. Celerio was not aware of cardiomegaly before the surgery? Correct?

A. If indeed that's all he saw was a wet read, that is true.

Q. Would it be fair to say that he was operating on the assumption that the EKG reflected a remote MI?

A. Unclear whether he thought it -- how remote it was. That's not detailed in his discussion. In fact, in his discussion he writes on page 94 --

MS. TAYLOR-KOLIS: Of his deposition.

A. -- of his deposition, "Question: The patient can have an MRI," this is by Donna, "The patient can have an MRI, you not know how old it is, that would be a contraindication?" That's a question mark. "It is a contrain -- contraindication if you

00:00:40 ask the patient if they have a history of MI and they
00:00:44 say no."
00:00:48 Q. (BY MR. RISPO) Let's assume that the
00:00:50 patient reported to Dr. Celerio that she did not have
00:00:54 a myocardial infarction. Would that be an
00:01:00 accurate --
00:01:00 A. That's true.
00:01:00 Q. -- interpretation of the record?
00:01:02 A. And his answer is "It is a
00:01:04 contraindication if you ask a patient if they have a
00:01:08 history of MI and they say no."
00:01:08 Q. Okay. You're assuming that the
00:01:10 transcript is accurate?
00:01:12 A. Well, I have to assume that.
00:01:14 Q. Okay.
00:01:22 A. And either way, when you don't -- when
00:01:26 you don't have a clear idea of the remoteness of an
00:01:30 MI in the perioperative period, you've got to figure
00:01:36 that out because if you take somebody to surgery
00:01:38 within the first six weeks of an MI, their risk goes
00:01:42 way up.
00:01:44 Q. Would it be a fair assumption then, also,
00:01:46 Doctor, from your understanding of the record, that
00:01:52 Dr. Celerio was informed by Dr. Bartulica that the
00:01:58 patient had been cleared for surgery by

Dr. Richardson?

A. Did he say those exact words. I don't think he said those exact words. Do you know where in his -- in his deposition he says that?

Q. I don't have the citation offhand.

A. Okay.

Q. I'm just asking you what is your understanding.

MS. TAYLOR-KOLIS: What do you remember from reading the deposition?

A. I don't remember him saying that exactly. And, as I've said before, and you've heard me say this before, the final decision rests with Dr. Celerio on what's appropriate.

Q. (BY MR. RISPO) Let's take that for the moment. The final decision --

MS. TAYLOR-KOLIS: I'm sorry. I'm just teaching him. There's an index in the back. That was easy.

THE WITNESS: Okay.

Q. (BY MR. RISPO) Have you found something --

A. Yes.

Q. __ in the deposition? What have you found?

00:03:08 A. No. All I heard was the patient was cleared by Dr. Richardson.

00:03:12 Q. Okay. And that is on page what?

00:03:14 A. Sixty-two, line 11 and 12.

00:03:16 Q. Okay. So would it be fair then to assume, based on that deposition testimony and the records as you -- as you understand them, that Dr. Celerio was informed that the patient had been cleared for surgery by Dr. Celerio?

00:03:34 A. No. By Dr. Richardson you mean?

00:03:38 Q. I'm sorry. By Cr. Richardson. Thank you for the correction.

00:03:40 A. That's what it says here. Dr. Richardson doesn't clear the patient for surgery.

00:03:48 Q. Is that what the deposition transcript says?

00:03:52 A. No, no. Sorry. That's my comment on top of that.

00:03:56 Q. All right. Let's, first of all, make sure our record is complete and accurate. What does the deposition say?

00:04:00 A. The deposition -- deposition says, "No. All I heard was the patient was cleared by Dr. Richardson."

00:04:06 Q. Okay. Now, you -- you quarrel with the

use of the word clear, and I think, for the record, we want to be sure what you're saying is that the evidence is that Dr. Richardson had no objection to the patient provide -- proceeding to surgery. Is that your understanding?

A. No, I don't know that. There's nothing in Dr. Richardson's record that supports that. All I know is what is said secondhand in this transcript, so --

Q. We also know what is said in Dr. Bartulica's chart, don't we?

A. Right, but we -- we don't have any direct evidence that Dr. Richardson ever said that.

Q. But we have a record in Dr. Bartulica's chart which says, "Dr. Richardson," colon, "okay for surgery per patient.''

A. "Per patient."

Q. And then another note in the same page -- on the same page, "Call to Dr. Richardson. Cleared for surgery with above." Above referring to the Lovenox?

A. Right. So --

Q. So if Dr. Bartulica told Dr. Celerio what occurs or is written in his chart, Bartulica's chart, then Dr. Celerio would be fair in assuming that

Dr. Richardson had no objection to the patient proceeding to surgery?

A. I would assume, from a family practice standpoint, that would be true, if, in fact, that -- that were the -- a statement of fact.

Q. Okay.

A. I'd be much more comfortable if Dr. Richardson had a note to that effect. But it doesn't change that the primary responsibility for making the decision to go to surgery is with the surgeon and the anesthesiologist.

Q. What you're saying is there's -- there should have been a note in Dr. Richardson's chart indicating that he cleared the patient for surgery?

A. Well, it -- that doesn't -- to document --

Q. If, in fact, he did.

A. To document that -- that conversation, that would have been nice, but we've gone over the -- the issue of clearing or not clearing. The final responsibility rests with the anesthesiologist and the surgeon.

Q. Okay. I -- I'm sorry I keep going back to the word "clearing," but I didn't intend to confuse the record. What you would prefer to see is,

00:06:40 if Dr. Richardson had a conversation with
00:06:42 Dr. Bartulica concerning the prospect for surgery,
00:06:48 that fact should have been noted in his record?
00:06:50 A. Yes, it would have been nice.
00:06:52 Q. And it was not?
00:06:54 A. I couldn't find it.
00:06:54 Q. Okay. Would Dr. Celerio have a right to
00:07:08 rely upon the information provided to him by
00:07:14 Dr. Bartulica if, in fact, Dr. Bartulica told him
00:07:18 that he spoke to Dr. Richardson and Richard --
00:07:22 Dr. Richardson had no objection to the patient
00:07:24 proceeding to surgery'?
00:07:28 A. I -- I think that would be reasonable.
00:07:36 I -- I would be more comfortable if these gentlemen
00:07:40 had an established practice pattern where, in fact,
00:07:44 they talk to each other all the time about their
00:07:48 surgical patients, et cetera, et cetera, so the
00:07:52 expectations of what anesthesiologists and surgeons
00:07:56 need from a family practitioner are clear in terms of
00:08:00 what they really need to know to make sure the
00:08:04 patient is safe. The problem lies with you can't --
00:08:24 you can't just get a blanket clearing of a patient
00:08:26 for surgery without knowing their complete history
00:08:30 because you can't get -- give good informed consent.
00:08:34 You can't tell the patient what their risks are if

you don't know what the risks are yourself.

Q. You -- you don't call the attending physician yourself on every patient; do you?

A. No. When I have worries -- you -- you mean the surgeon?

Q. As -- as an anesthesiologist, you don't call the primary care physician to discuss the patient's history in every case; do you?

A. No, I do not. When I have -- when I have things before me that need answering and I need further answers that can be resolved by the primary care physician, I will call them or search out their records or have somebody call them to get additional records. If I'm still in question, and this is an elective case, then I seek further consultation and appropriate risk stratification for the patient.

Q. Can we agree then that there was no information provided to Dr. Celerio by Dr. Bartulica or Dr. Richardson which would indicate there was an absolute contradict -- contraindication for surgery?

A. That's true, but he didn't need any more information than was before him. Can I elaborate?

Q. At the appropriate time. Just a minute. Can we agree that there's no evidence that Dr. Celerio spoke with either the radiologist or

Dr. Richardson?

A. I agree. That's true.

Q. Can we agree that Dr. Celerio did not see the final reading of the x-ray films?

A. I don't know that to be true. I -- I certainly -- in his testimony it -- it -- it sounds like he read the wet read --

Q. Okay.

A. -- as you guys call it.

Q. All right. At least there's no evidence in the record --

A. That's right.

Q. -- to indicate that he saw --

A. Exactly.

Q. -- the final?

A. Exactly.

Q. Okay.

A. I don't know when it made it to the record. It was clearly dictated in time and transcribed in time for it to be in the record.

Q. Can we agree that the patient told Dr. Celerio that she never had an MI?

A. That's true.

Q. Is it reasonable for Dr. Celerio to rely upon the patient's history?

A. It is reasonable. In the past she has been a good historian. Her -- in previous admissions and other treatments the same things come up, shortness of breath, dyspnea on exertion, orthopnea.

Q. The last topic we need to cover preoperatively, Doctor, is signs and symptoms of cardiac decompensation. I think you mentioned them on the first page of your report, --

A. Yes.

Q. -- at least your final report. I don't know where that appears in your original report.

MS. TAYLOR-KOLIS: It doesn't because I subsequently got these records, I think.

MR. RISPO: Oh, okay.

Q. (BY MR. RISPO) Doctor, what, in your understanding, are the signs and symptoms of the -- of cardiac decompensation that were in the hospital charts as distinguished from Dr. Richardson's charts?

A. As distinguished from Dr. Richardson's charts?

Q. Right.

MS. TAYLOR-KOLIS: He's asking what is in the hospital chart PAT or the day of surgery, what --

THE WITNESS: Oh, okay. Fine.

00:13:16 A. In her -- the preanesthetic
00:13:20 self-assessment, the patient describes orthopnea,
00:13:30 let's see, short of breath with normal activity, so
00:13:34 dyspnea on exertion, peripheral edema, and previous
00:13:46 cardiac evaluation.
00:13:54 Q. (BY MR. RISPO) Any other record that
00:13:56 would indicate de -- signs and symptoms of cardiac
00:14:00 decompensation?
00:14:04 A. Her chest x-ray and her ECG.
00:14:06 Q. Now, you're talking about the final read,
00:14:08 right?
00:14:10 A. No, the chest x-ray, the plastic
00:14:12 celluloid piece of film itself, and her ECG which
00:14:16 is -- this is an entirely abnormal rhythm.
00:14:20 Q. Okay.
00:14:24 A. So we have these symptoms -- Dr. Celerio
00:14:28 doesn't know about any of this. In -- in his
00:14:30 testimony he says he didn't know she had a cardiac
00:14:30 problem.
00:14:32 Q. Okay.
00:14:32 A. It's all over the testimony.
00:14:34 Q. We -- we know that he didn't look at the
00:14:36 original films.
00:14:38 A. That's right. Okay?
00:14:38 Q. Okay.

A. But what's before him is a patient that describes these signs and symptoms of cardiac decompensation. He's never seen her ECG before, and then she sees this -- he sees this ECG with a big anterior -- with anterior Q waves.

Q. Uh-huh.

A. That's a huge red flag.

Q. Okay. Doctor, these signs and symptoms that you've described, there are five of them other than the chest x-ray films, are they equally signs and symptoms of other conditions?

A. Are they specific?

Q. I guess another way of putting it, are they diagnostic of cardiac decompensation, either individually or collectively?

A. Collectively, I would say they -- they are. I wouldn't say individually. Certainly orthopnea, dyspnea, dyspnea on exertion, peripheral edema, all would suggest cardiac decompensation.

Q. You said "suggest." Is consistent with, in other words?

A. Yes, strongly consistent with. It's -- it's enough that you -- you go and you work somebody -- if somebody presents to you the first time with those symptoms, you work them up.

00:15:54 Q. Isn't it a fact --

00:15:56 A. Can I pause for a second and get some

00:15:58 coffee?

00:16:00 Q. Sure.

00:16:00 A. Thanks.

00:16:00 Q. If you can answer this while you're

00:16:02 getting coffee, Doctor, isn't it a fact that the

00:16:06 admitting history and physical had no reference to

00:16:12 heart disease or a subjective complaint of dyspnea --

00:16:16 A. The immediate history and physical by

00:16:16 Dr. Bartulica's office which would be --

00:16:20 Q. Actually, in the hospital chart is what

00:16:22 I'm talking about.

00:16:22 A. That would be Dr. Bartulica's admitting

00:16:26 history and physical. Where would that be?

00:16:44 Q. I'm going to hand to you what I

00:16:46 understood to be his -- the admitting history which

00:16:50 is on pages 5, 6, and 7 of the chart.

00:16:58 A. Yes, that's it.

00:16:58 Q. Okay. Now that you have it in front of

00:17:02 you, is it true that the admitting history has no

00:17:06 record of history of heart disease or leg edema or a

00:17:14 suggestive complaint of dyspnea?

00:17:16 A. No, that's not true. Let me go into his

00:17:20 review of systems. General -- let me find this in my

own records. 006. History and physical. No, nothing specifically for cardiovascular. The only reference is for the decrease in breath sounds at base and the pulmonary issues which is checked.

Q. So there's no record of heart disease --

A. No.

Q. __ or dyspnea?

A. So it makes you wonder if he -- if he actually -- now, where is -- here is the review of systems. There are two review of systems. What is this from?

MS. TAYLOR-KOLIS: One is from -- I don't want to testify.

A. No, this *is* all the same, review of systems. Do you have a page 8 on yours?

Q. (BY MR. RISPO) I do, and I don't know how that fits in myself.

A. And so -- it does have shortness of breath here, it does have palpitations, and so I don't know if this is additional review of systems -- no, this is the physical exam. Sorry. That's the physical exam. This is the review of systems. So, in fact, it does based on the review of systems.

Q. But the physical exam itself does not?

A. No, which -- well, other than the

decreased breath sounds. So they did not auscultate an S_3 or something like that. But the review of systems is consistent with the review of systems previously obtained.

Q. Okay. And is it not true that the patient denied a history of cardiovascular problems in the admitting history and in the nursing assessment?

A. No. The admitting history under the review of systems, shortness of breath.

Q. I -- I'm sorry. I'm directing you --

A. Palpitations.

Q. -- to the nursing assessment.

A. Where is that? I haven't memorized this.

Q. Paragraph -- or pages 56, 7, 8, and 9, I believe.

A. Nursing notes. Can I see your copy? I'm sorry.

Q. Sure.

THE REPORTER: I need to hear you, Doctor, if you're --

MS. TAYLOR-KOLIS: He's mumbling while he looks. I'll try to keep him quite.

A. No. It -- under General for her family health history, now, I presume this to be her own,

cardiac and hypertension is checked right here.

Q. (BY MR. RISPO) Okay.

A. And then --

Q. What about cardiac history besides hypertension?

A. Well, they're both checked. Hypertension and cardiac are both checked. So I presume that to be her -- her own history and not the -- or they'd check off the other boxes.

Q. As distinguished from family history?

A. Yes, exactly.

Q. I'm having difficulty finding where you were.

A. Right here. I'll show you. Right there.

Q. Okay. Oh, I see.

A. See. And so this is --

Q. That's under -- that's under the column for Mother and Siblings?

A. No, no, no -- but we've got both checked here, so I presumed that they were referring to her. It may not be, but that's what I presumed.

Q. The top of that column says "Family History," doesn't it?

A. It does.

Q. Okay. So everything below that column

would be ordinarily read to mean family history, wouldn't it?

A. It depends on how the form -- how they use the form.

Q. In -- in particular, when the next column is Mother, Father, Siblings, and Grandparents, then the logical reading of that would be individual members of the family, would it not?

A. That part of the form, yes.

Q. Okay.

A. I mean, --

Q. There is no -- any -- there is no point at any other part of the form which indicates a history of cardiac complications on the nursing assessment?

A. Not that I can see.

Q. Okay. So then Dr. Celerio couldn't find anything in the admitting history and physical or in the nursing history or -- assessment which would indicate the patient was having cardiac complications, and, in fact, the patient told her -- Dr. Celerio that she had no previous heart attack?

A. That's right.

Q. Okay.

A. That's all he asked, "Have you ever had

00:23:10 an MI?" But in his own preadmission testing review
00:23:16 of systems it's clear that she does describe those
00:23:18 symptoms.
00:23:20 Q. Symptoms being shortness of breath on
00:23:24 exertion?
00:23:24 A. Yes. That's --
00:23:26 Q. And --
00:23:26 A. -- page 16.
00:23:26 Q. And a previous cardiac workup?
00:23:28 A. That's right.
00:23:30 Q. Okay. In fact, she described the cardiac
00:23:32 workup as negative, did she not?
00:23:34 A. Per her own -- her -- no, she described
00:23:38 her cardiac cath as negative.
00:23:38 Q. Okay.
00:23:42 A. She had a more extensive workup, but that
00:23:46 history was not elicited.
00:23:48 Q. Okay. Let's go on to postoperative or,
00:23:50 let's say, intraoperative management, Doctor. The
00:23:56 management of the code. Would you agree the records
00:23:58 reflect that the arrest didn't occur until 12:02?
00:24:04 A. 12:02. I think, in fact, the arrest
00:24:10 occurred at 11:55. Where is Dr. --
00:24:18 MS. TAYLOR-KOLIS: Here you go. I'm
00:24:18 sorry.

00:24:20 THE WITNESS: Yes.

00:24:22 A. I think by Dr. Celerio's own admission it
00:24:26 was at 11:55, and I'll have to check on that.

00:24:30 Q. (BY MR. RISPO) Well, I'm looking at your
00:24:30 report of May 31st, 2001, and in your report you
00:24:36 indicated that she arrested at 12:02.

00:24:40 A. No, I said the code was called at 12:02,
00:24:46 and I think if you take me out of context that's
00:24:50 probably true, but I think I said the code really
00:24:54 occurred at -- at this point the patient was -- it
00:24:58 was not until 12:03 that therapy was initiated.

00:25:04 Q. Well, in your --

00:25:06 A. And that's -- and so given -- I only have
00:25:14 a -- a -- a birds-eye view of what went on. If
00:25:16 Dr. Celerio said she coded at 11:55, I would think
00:25:20 that he is right. He was there.

00:25:24 Q. Well, what happened at 11:55?

00:25:26 A. Her -- the bottom dropped out of her
00:25:28 pressure.

00:25:28 Q. Okay. She didn't code, did she? She was
00:25:32 still -- her heart was functioning, was it not?

00:25:40 A. She had a rhythm. It's not clear if she
00:25:42 had a pulse. Well, she had a pulse, but her blood
00:25:50 pressure was extremely low.

00:25:52 Q. In your report you quoted Dr. Celerio,

00:25:56 page 78, line 4 to 10, --

00:26:02 A. Seventy-eight, line 4 to 10. Page 78,

00:26:06 line -- okay.

00:26:08 Q. -- and you said that quotation in the

00:26:12 record would support his understanding that she

00:26:16 arrested at 12:02.

00:26:40 A. Uh-huh.

00:26:40 Q. Okay. So now that --

00:26:42 A. That's when the code was actually called.

00:26:46 That's -- that's when, in fact, he asked for help.

00:26:48 Q. Well, you said in your report the arrest

00:26:52 occurred at 12:02, --

00:26:52 A. Okay.

00:26:54 Q. -- so which -- which is correct? What

00:26:56 you said in your report?

00:27:06 A. Well, from his anesthetic records I

00:27:12 can -- I would -- I would think that it's -- let me

00:27:22 look at the record. 12:02?

00:27:38 Q. Yes. Is that correct?

00:27:40 A. Yes.

00:27:40 Q. Okay. And ephedrine was administered one

00:27:48 minute after she arrested, was it not?

00:27:50 A. That's correct.

00:27:52 Q. You criticized Dr. Celerio, nevertheless,

00:27:54 indicating that in your view ephedrine should have

00:27:58 been administered earlier?

00:28:02 A. That's correct. Her blood pressure was

00:28:04 already -- already falling at -- earlier than that.

00:28:10 Q. Does the standard of care require

00:28:14 administrations of ephedrine before an arrest?

00:28:16 A. No, but to maintain normal physiological

00:28:20 parameters it does.

00:28:20 Q. Okay.

00:28:22 A. So you don't wait until everybody

00:28:28 arrests. You -- you -- as their blood pressure

00:28:30 drops, you try to treat that before they arrest.

00:28:32 Q. Okay. What 'treatment, if any, did

00:28:36 Dr. Celerio employ as the blood pressure was

00:28:40 dropping?

00:28:40 A. He used solely ephedrine

00:28:44 Q. Okay. Is ephedrine effective to improve

00:28:48 blood pressure?

00:28:50 A. in some situations it is. Not in code

00:28:54 situations. It's not a typical ACLS kind of -- it's

00:28:58 not even in ACLS.

00:29:00 Q. Well, she didn't code until 12:02, did

00:29:04 she?

00:29:04 A. Right.

00:29:04 Q. so --

00:29:04 A. He gave ephedrine and it didn't work.

00:29:12 Q. Was there anything wrong with giving ephedrine?

00:29:20 A. The problem is, in fact, in this situation, with her undergoing pathophysiology, ephedrine is not going to help.

00:29:32 Q. Underlying pathophysiology including her amyloidosis?

00:29:34 A. And her cardiomegaly --

00:29:36 Q. And her cardiomegaly.

00:29:36 A. -- in -- in particular.

00:29:40 Q. Neither of which were known to Dr. Celerio at the time of these events?

00:29:44 A. That's correct.

00:29:46 Q. Okay. So if this patient had been an average healthy patient, ephedrine would have been effective?

00:29:54 A. I would agree with that.

00:29:54 Q. Okay. So administering ephedrine, in and of itself, was not a breach of the standard of care?

00:30:06 A. But we don't have an average healthy patient here.

00:30:10 Q. Okay. But for the fact that she had cardiomegaly and amyloidosis, --

00:30:18 A. Well, we didn't know any of that.

00:30:18 Q. We -- we didn't know that. I know --

00:30:20 A. All we know is she had big Q waves in her
00:30:24 anterior leads and --
00:30:28 Q. Okay. But if -- I'm asking you now,
00:30:28 knowing what we know now from hindsight, if she had a
00:30:34 normal cardiac silhouette, no cardiomegaly, in other
00:30:38 words, and did not have the underlying condition of
00:30:40 amyloidosis, would you expect ephedrine to be
00:30:46 effective to improve her blood pressure?
00:30:48 A. I would. That's absolutely true.
00:30:52 Q. In addition to the ephedrine, did he
00:30:56 utilize other cardiac drugs to rescue the patient or
00:31:06 in an attempt to rescue the patient?
00:31:08 A. He utilized several interesting cardiac
00:31:12 drugs during the issuance of the code, ephedrine,
00:31:20 fentanyl, which I don't fully understand, and
00:31:28 atropine.
00:31:30 Q. Okay, Is there anything wrong with any
00:31:34 one of those individual drugs?
00:31:36 A. Absolutely, fentanyl. So, according to
00:31:40 his record, from 1210 on through 1300 he delivered --
00:31:52 it's hard to tell.
00:32:04 Q. I'm not sure I understood your answer.
00:32:06 Are you saying that any one of those medications were
00:32:10 inappropriate?
00:32:12 A. The fentanyl was inappropriate, fully

00:32:16 inappropriate.

00:32:16 Q. Why is that?

00:32:18 A. Because it's a cardio depressant. Well, in this situation what it will do is drop her preload because of its sympatholytic actions.

00:32:26 Q. Were all the other medications appropriate?

00:32:32 MS. TAYLOR-KOLIS: Do you mean during the code?

00:32:40 MR. RISPO: Yes.

00:32:42 MS. TAYLOR-KOLIS: Okay.

00:32:44 A. I think it's -- it's reasonable to give a patient atropine.

00:32:44 Q. (BY MR. RISPO) And the other medications as well?

00:32:52 A. The other medications were not given by Dr. Celerio. They were directed by Dr. Trocio, I think that's how you pronounce his name, and I could use a break.

00:32:52 Q. Okay. That's fine. Let's do that. We'll take a short break.

00:32:54 A. Thank you.

00:32:58 (Recess taken.)

00:33:02 Q. (BY MR. RISPO) Okay. Doctor, before we broke you referred to a medication given during the

00:33:04

00:33:04

00:33:06

00:33:06

00:39:18

00:39:18

00:39:24

00:39:28 code which you objected to, and I can't find in the
00:39:32 record where that medication was given. Can you
00:39:34 point to me in the record where and when that
00:39:40 was --
00:39:48 A. I stand corrected. Here. Okay.
00:39:58 Q. You're pointing to --
00:39:58 A. This chart here, but, in fact -- I stand
00:40:00 corrected. This is -- I saw this last night and I
00:40:04 couldn't figure it out. This is atropine -- I -- I
00:40:08 presume this is atropine sulfate, so this is the
00:40:10 atropine that he actually gave -- that was given.
00:40:14 Q. So it's not --
00:40:14 A. It's not fentanyl.
00:43:14 Q. Okay. So --
00:40:16 A. So I stand corrected.
00:40:16 Q. Would it be accurate to say, then, that
00:40:18 you do not criticize the use of any of the
00:40:22 medications that were used during the code?
00:40:26 A. No, I have criticisms of these
00:40:28 medications. There were ineffective.
00:40:30 Q. Well, they were ineffective, --
00:40:32 A. Okay. And -- and -- and --
00:40:32 Q. -- but you don't -- you don't feel that
00:40:32 they were inappropriate; do you?
00:40:36 A. Inappropriate in this situation, yes.

00:40:38 Q. Well, they were -- they were
00:40:40 inappropriate perhaps in -- to the extent that they
00:40:44 weren't sufficient to overcome the patient's
00:40:46 underlying condition, but in the average healthy
00:40:50 patient these medications would be appropriate, would
00:40:54 they not?
00:40:54 A. As a first -- as a first go around,
00:40:58 absolutely.
00:40:58 Q. Okay.
00:40:58 A. But failing that, as this happened, then
00:41:02 you would escalate. Ephedrine is like light beer
00:41:10 compared to a more powerful drug like epinephrine
00:41:12 which would be more appropriate --
00:41:12 Q. Okay.
00:41:14 A. -- in this dire situa -- situation.
00:41:16 Q. Okay. Let's -- let's break the question
00:41:18 apart then. First of all, assuming we had a normal
00:41:20 healthy patient, the medications that were given here
00:41:24 should have been sufficient to resuscitate the
00:41:26 patient; is that correct?
00:41:28 A. That's correct, assuming they had
00:41:28 appropriate volume status, they weren't dehydrated,
00:41:32 or something like that.
00:41:34 Q. Now, in this case, given that the patient
00:41:36 had an unknown preexisting condition, cardiomegaly

and --

A. It wasn't unknown though.

Q. Well, it was unknown to Dr. Celerio.

A. All the stuff is in front of his face. The ECG -- he didn't synthesize the information. The information is available.

Q. Okay. But he didn't see the final read of cardiomegaly in the EKG, I'm sorry, in the x-ray?

A. That's correct.

Q. Okay.

A. He didn't --

Q. And no one -- and no one knew that she had amyloiditis (SIC)?

A. Amyloidosis?

Q. Amyloi -- amyloidosis.

A. That's correct. Nobody knew that.

Q. Now, given that she did have those two conditions, it's your opinion that epinephrine should have been used?

A. Epinephrine should have been tried in volume loading and she should have been qiven two liters of fluid within a period of 10 minutes.

Q. Okay. My next question is if she had been given epinephrine in volume loading and two liters of fluid, would she have survived this code

given her underlying conditions of amyloidosis and cardiomegaly?

A. Do you want my gut feeling? Do you want my --

Q. Do you have an opinion, to a degree *of* reasonable medical certainty, whether she would have survived?

A. I have -- SO-50. If you could have -- I think if you could have got the blood pressure up within a reasonable amount of time, her arrhythmia would have went away. So here's the problem with her condition. As I said before, her left ventricle was stiff. What happens when you give propofol is you drop the filling pressure of that left ventricle and so it doesn't work anymore. You solve that problem by taking a bunch of fluid to fill the pump up again, and you can sometimes support it with other pressors. And, obviously, I can't -- it's hard to tell whether she would have survived. What's my gut level feeling? I think she may have survived.

Q. Is that it?

A. If -- if -- if you could have reversed the hypotension within five minutes, I think she -- she would have survived.

Q. Okay.

00:44:20 1 A. But the problem is -- the problem is the
00:44:24 2 ventricle got starved because her blood pressure
00:44:28 3 dropped too low and it stayed down too low for too
00:44:30 4 long. We have this thick ventricle that's not
00:44:34 5 getting any blood so it got ischemic. People can
00:44:38 6 tolerate ischemia, oh, you know, five, 10 minutes,
00:44:42 7 and you can bring them back and they'll do okay, but
00:44:44 8 if it lasts much longer than that, it's very
00:44:50 9 difficult.
00:44:52 10 Q. And drawing upon my recollection of your
00:44:54 11 initial report, Doctor, your criticism of the
00:44:58 12 preoperative anesthetic drugs for induction was
00:44:58 13 directed to propofol?
00:45:04 14 A. Propofol.
00:45:06 15 Q. Do you have criticism of any other. drug
00:45:08 16 that was used in the induction?
00:45:10 17 A. I mean, that -- that's induction. I
00:45:12 18 wouldn't call that preoperative. That's operative.
00:45:16 19 Let's see. No, it's primarily the propofol which is
00:45:22 20 the -- the -- I think is the bad actor here in that
00:45:28 21 propofol, because of its -- each of our induction
00:45:32 22 drugs, which there are four or five, have -- change
00:45:38 23 the physiology of the patient a certain amount.
00:45:40 24 Propofol drops your blood pressure by vasodilating
00:45:40 25 the patient and it also directly inhibits myocardial

00:45:52 contracture.

00:45:52 Q. Your reference here, if I may quote, with

00:45:58 respect to side effects, is a decrease in contract --

00:45:58 contractility --

00:46:02 A. That's right.

00:46:02 Q. -- and peripheral vasodilation.

00:46:06 A. I think that's what I just said.

00:46:06 Q. And then you follow that with the

00:46:08 comment, "Both due to alterations in the calcium

00:46:12 handling by the corresponding cells." Could you

00:46:16 explain that?

00:46:18 A. That's what we think is the mechanism --

00:46:20 the common mechanism for some of the actions of

00:46:28 propofol in that it inhibits calcium uptake by the

00:46:30 various myocytes and by the peripheral vasculature,

00:46:38 so the -- the smooth muscle, as well as cardiac

00:46:38 muscle, is inhibited in alterations in calcium

00:46:46 uptake. Calcium is in the contractile process.

00:46:50 It's -- it's instrumental in the contract --

00:46:52 contractile process.

00:46:54 Q. Is that --

00:46:54 A. Now -- and that's a -- that's -- that's

00:46:58 more basic science. The clinical experience is clear

00:47:04 that, and there's lots of literature on that, that

00:47:08 propofol drops your pressure dramatically,

00:47:12 particularly in patients with poor cardiac function,
00:47:16 in patients that are volume depleted, because it
00:47:20 drops your preload.
00:47:20 Q. Are -- are you indicating or explaining,
00:47:22 and I'm not sure if I'm getting this right, that
00:47:26 propofol interferes with the electrical conduction of
00:47:32 the heart muscle?
00:47:32 A. No, it doesn't do that.
00:47:34 Q. What do you --
00:47:34 A. It's the -- it's the contraction of --
00:47:40 your myofibrils, your muscle cells, not -- not the
00:47:42 conduction, but your muscle cells, they need calcium
00:47:46 to contract. It inhibits that contraction.
00:47:52 Q. Does amyloidosis also inhibit the calcium
00:47:56 contractility of the muscles?
00:47:58 A. Not that I know of. It replaces muscle
00:48:02 as far as I know.
00:48:02 Q. Okay. So is the propofol inappropriate
00:48:06 because of her amyloidosis or because of her meg --
00:48:10 cardiomegaly or neither?
00:48:14 A. Propofol was inappropriate because she
00:48:16 told Dr. Celerio, "I have shortness of breath. I get
00:48:20 short of breath when I walk around. I sleep on two
00:48:24 pillows," or three pillows, "I sleep on a bunch of
00:48:28 pillows." And that all suggests, well, maybe this

00:48:30 heart muscle isn't as good as we think it is. And so
00:48:34 you don't pick an induction drug that dings the heart
00:48:38 muscle, that reduces contractility. We have -- we
00:48:40 have other drugs that are more appropriate.
00:48:50 Q. Okay. I have -- I believe -- I believe
00:49:10 I've concluded my questioning. At this point I'm
00:49:14 going to turn it over to Mr. Farcione by telephone.
00:49:18 MR. RISPO: Joe, are you there?
00:49:28 MS. TAYLOR-KOLIS: Joe?
00:49:36 MR. FARCIONE: Yes. Can you hear
00:49:36 me?
00:49:36 MR. RISPO: Hello, Joe?
00:49:36 EXAMINATION
00:49:36 BY MR. FARCIONE:
00:49:42 Q. I've only got a few questions. Doctor,
00:49:44 can you hear me?
00:49:46 A. Yes, I can.
00:49:46 Q. Doctor, my name is Joe Farcione. I
00:49:50 represent Dr. Bartulica in this lawsuit. I have a
00:49:50 couple of questions for you. First of all, would you
00:49:54 agree with me that surgery and anesthesia each have a
00:49:58 role regarding the clearance of a patient for
00:50:02 surgery?
00:50:02 A. Absolutely.
00:50:04 Q. They both need to give clearance from the

00:50:06 point of view of their particular specialty?

00:50:10 A. That's true.

00:50:10 Q. I'm sorry. I didn't hear the answer, Doctor.

00:50:12 A. Yes, that's true.

00:50:18 MS. TAYLOR-KOLIS: Joe, --

00:50:18 MR. FARCIONE: Yes.

00:50:18 MS. TAYLOR-KOLIS: -- you're going in and out. It could be our speaker phone.

00:50:22 MR. FARCIONE: Yes, I think it is because I picked up the receiver on this. I'm not talking through the speaker.

00:50:28 MS. TAYLOR-KOLIS: Okay.

00:50:28 MR. RISPO: We're doing pretty well now so keep --

00:50:30 MS. TAYLOR-KOLIS: Keep going.

00:50:32 MR. FARCIONE: All right.

00:50:34 Q. (BY MR. FARCIONE) In this particular case, Dr. Bartulica, being the gynecologist, needs to give clearance from the viewpoint *of* a gynecologist, correct?

00:50:44 A. Exactly. He's got to determine is this patient going to be able to survive his surgical intervention and that postoperative course that goes along with that which includes his own estimations of

00:50:56 risk, for instance, the estimated blood loss.

00:50:56 Q. And Dr. Celerio was the anesthesiologist and he must give clearance --

00:51:36 MS. TAYLOR-KOLIS: Joe, Joe, you've got to start that sentence over because the court reporter didn't catch the first part of it.

MR. FARCIONE: Can you hear me now?

MS. TAYLOR-KOLIS: No, we can't hear you.

MR. FARCIONE: Can you hear me now? Hello?

MS. TAYLOR-KOLIS: Okay. We can hear you now.

MR. RISPO: Oh, I -- I think I know what the problem is, Joe. Any noise on -- on our end cuts you off, so we'll have to be more careful about avoiding noise on this end.

MR. FARCIONE: All right.

Q. (BY MR. FARCIONE) Dr. Celerio was the

00:51:36 anesthesiologist and he must give clearance from the

00:51:38 viewpoint of anesthesia, correct?

00:51:38 A. Correct.

00:51:40 Q. What may be important to one specialty,

00:51:42 whether it's part of the history, the physical exam,

00:51:46 x-ray interpretation, or lab results, that may not be

00:51:50 important to the other specialty in terms of
00:51:52 clearance. Is that a fair statement?
00:51:56 A. That's a fair state -- statement, but
00:51:56 those issues are not necessarily mutually exclusive.
00:52:00 Q. Right. There could be some overlap --
00:52:00 A. Exactly.
00:52:02 Q. -- and there may be some exclusions,
00:52:04 correct?
00:52:06 A. That's right.
00:52:06 Q. Doctor, you mentioned earlier that you
00:52:10 review chest x-rays before surgical procedures. Did
00:52:12 I remember that correctly?
00:52:14 A. In a -- in a subset of patients where I
00:52:18 order them for specific reasons or there's issues
00:52:20 related to that, yes.
00:52:22 Q. That's what I wanted to get clarification
00:52:24 on. You've -- you've mentioned several times the
00:52:28 word, quote, "ultimate," unquote, as it relates to
00:52:32 Dr. Celerio. What do you mean by that?
00:52:34 A. Did I use ultimate?
00:52:36 Q. Ultimate decision-maker I think is what
00:52:38 you had said at one point.
00:52:40 A. Okay. Well, independently, both the
00:52:44 anesthesiologist and the surgeon have to make a
00:52:48 decision about whether the patient is suitable, from

00:52:50 their own perspective, of whether they go to surgery
00:52:52 or not. They cannot be cleared by a practitioner
00:52:56 that's not involved in that procedure. Hello?
00:53:06 Q. I'm still tying to understand what you
00:53:06 meant by ultimate decision-maker as far as
00:53:08 Dr. Celerio is concerned. I'm not -- I'm not exactly
00:53:12 clear what you mean by that answer.
00:53:14 A. I guess it -- it would have to be read
00:53:16 back to me in context.
00:53:20 Q. There's no point in going back on that
00:53:22 after three hours here.
00:53:24 A. Well, ultimately -- well, okay.
00:53:28 Q. Let me ask you this, Doctor. In your --
00:53:30 in your report you use some pretty strong language as
00:53:32 it relates to Dr. Celerio. You call him reckless and
00:53:36 you even make reference to a referral to the State
00:53:40 Medical Board to report him and his conduct in this
00:53:44 case. What specifically about his conduct do you
00:53:48 feel was reckless and something that should be
00:53:52 reported to the State Medical Board?
00:53:54 A. It was taken in context with the
00:54:02 deposition that he was -- that was taken. It was
00:54:02 clear from the deposition that not alone did he not
00:54:06 have a bad outcome in this case, but his basic
00:54:12 understanding of the practice of anesthesiology is

very circumscribed, and so --

Q. What basic understanding are you referring to?

A. His basic understanding in terms -- in terms of what the risks are associated with perioperative MI's, what are -- he makes reference to anesthetic agents as if they're all equal. He doesn't understand the significance of benign meningioma, et cetera, et cetera.

Q. Any other examples that come to mind?

A. Pardon me?

Q. Any other examples that come to mind?

A. Let me go through his deposition.

Q. There's no need to do that, Doctor. I'm just looking to see what comes to mind right now, and if there's nothing else, then that's fine.

A. Okay. Well, and that -- his phrase -- for instance, he makes reference to ECG. If we see an ECG like this and the patient never -- says they never had an MI, then they're okay, and I'm paraphrasing him. That's clearly not in -- in step with the current medical practice, and I think it reflects on his punctuated or discontinuous training.

Q. Discontinuous training meaning what, Doctor?

00:56:04 A. His CV is -- is -- it's really hard to follow his medical career.

00:56:14 Q. That's all I have, Doctor.

00:56:14 A. Okay.

00:56:16 MR. RISPO: Doctor, you have the right to review the transcript of this deposition before it's used at the time of trial, not to change it, but to review it and make any corrections that might have occurred if the court reporter missed a statement. You have the option, however, to waive. It's entirely fine with us either way, but we have to ask you on the record what is your preference.

00:56:38 MS. TAYLOR-KOLIS: Counsel advises that you read.

00:56:40 THE WITNESS: Fine.

00:56:42 MR. RISPO: Okay. The record will so reflect, and we'll conclude at this point.

(Deposition concluded.)

CORRECTIONS AND SIGNATURE

PAGE	LINE	CORRECTION	REASON FOR CHANGE

I, **KENNETH GEORGE SMITHSON, D.O.,** Ph.D., have read the foregoing deposition and hereby affix my signature that same is true and correct, except as noted herein.

KENNETH GEORGE SMITHSON, D.O., Ph.D.

SUBSCRIBED AND SWORN to before me this the _____ day of _____ , 2001.

NOTARY PUBLIC IN AND FOR THE STATE OF TENNESSEE

My commission expires: _____

DEPOSITION EXHIBIT /

CURRICULUM VITAE

Kenneth G. Smithson, D.O., Ph.D.

Assistant Professor
Department Anesthesiology
Vanderbilt University Medical Center
Nashville, TN 37232-4125

EDUCATIONAL EXPERIENCE

Michigan State University, E. Lansing, MI	B.S.	1982	Physical Sciences
Michigan State University, E. Lansing, MI	Ph.D.	1990	Physiology & Neuroscience
Michigan State University, E. Lansing, MI	D.O.	1991	

PROFESSIONAL EXPERIENCE

1991-1992	Medical intern	Detroit Osteopathic Hospital
1992-1993	Research Fellow	Division of Anesthesia Research Mayo Clinic
1993-1996	Resident	Department of Anesthesiology, Mayo Clinic
1996-1997	Clinical Fellow	Critical Care Medicine, Mayo Clinic
1997-present	Assistant Professor	Department of Anesthesiology Vanderbilt Univ.
1998-present	Director of Perioperative Medicine	Department of Anesthesiology Vanclerbilt Univ.

AWARDS AND HONORS

1984-1991,	Fellowship from the Medical Scientist Training Program, College of Osteopathic Medicine, Michigan State University E. Lansing, MI 48824
1989	Jack Hoffert Memorial Award for Outstanding Contributions as a Graduate Student in the Department of Physiology, Michigan State University E. Lansing, MI 48824
1992	Research Fellowship, NIH training grant in the Division of Anesthesia Research, Mayo Clinic, Rochester MN 55905

PROFESSIONAL SOCIETIES

American Society of Anesthesiologists
International Anesthesia Research Society
American College of Chest Physicians
Society for Neuroscience
American Thoracic Society
Society of Critical Care Medicine
American Osteopathic Association
American Medical Association

CERTIFICATIONS

ABA-Board Certified 10199
Critical Care Medicine-Board Certified-11/99

MEDICAL LISCEINCE

Tennessee

PUBLICATIONS

1. Smithson, K. G., MacVicar, B. A. and Hatton, G. I. Polyethylene glycol: A superior embedding compound compatible with immunocytochemistry and intracellular staining. *Soc. Neurosci. Abstr. 7:490,* 1981.

2. Cobbett, P., Smithson, K. G., MacVicar, B. A. and Hatton, G. I. immunoreactivity to neurophysins I and II in dye-coupled magnocellular hypothalamic neurons. *Soc. Neurosci. Abstr.* 8: 531, 1952.

3. Salm, A. K., Smithson, K. G. and Hatton, G. I. Lactation-associated glial plasticity in the supraoptic nucleus of the rat. *Soc. Neurosci. Abstr.* 9: 451, 1983.

4. Smithson, K. G., MacVicar, B. A. and Hatton, G. I. Polyethylene glycol embedding: **a** technique compatible with immunocytochemistry, enzyme histochemistry, histofluorescence and intracellular staining. *J. Neurosci. Meth. 7:*27-41, 1983.

5. Cobbett, P., Smithson, K. G. and Hatton, G. I, Phasic neurons of rat hypothalamic paraventricular nucleus are immunoreactive *to* vasopressin — but not oxytocin-associated neurophysin antiserum. *Soc. Neurosci. Abstr.* 10: 609, 1984.

6. Smithson, K. G., Cobbett, P., MacVicar, B. A. and Hatton. G. I. A reliable method for immunocytochemical identification of Lucifer Yellow injected, pepticle-containing mammalian central neurons. *J. Neurosci. Meth.* 10: 59-69, 1984.

7. Smithson, K. G., MacVicar, B. A. and Hatton, G. I. An incubation chamber for the simultaneous, on-slide treatment of brain sections with different reagents. *Brain Res Bull.* 12(6): 745-747, 1981.

8. Cobbett, P., Smithson, K. G. and Hatton, G. I. Dye-coupled magnocellular peptidergic neurons of the rat paraventricular nucleus show homotypic immunoreactivity. *Neuroscience.* 16(4): 885-895, 1985.

9. Salm, A. IC., Smithson, K. G. and Hatton, G. I. Lactatiou associated redistribution of the glial fibrillary acidic protein within the supraoptic nucleus: an immunocytochemical study. *Cell Tissue Res.* 242: 9-15, 1985.

10. Cobbett, P., Smithson, K. G. and Hatton, G. I. Immunoreactivity to vasopressin- but not oxytocin-associated neurophysin antiserum in phasic neurons of rat hypothalamic paraventricular nucleus. *Brain Res.* 362: 7-16, 1986.

11. Hollowell, D. E., Smithson, K. G. and Hatton, G. I. Anatomical evidence for olfactory input to the supraoptic nucleus of the rat: an anterograde stucly employing the lectin "Phaseolus vulgaris" leucoagglutinin (PHA-L). *Sac. Neurosci. Abstr.* 12: 1256, 1984.

12. Smithson, K. G. and Hatton. G. I. Evidence for zona incerta/perifornical projections to the supraoptic arid paraventricular nuclei of the rat hypothalamus. *Soc. Neurosci. Abstr* 12: *1256,* 1986.

13. Smithson, K. G., Weiss, M. L. and Hatton, G. I. Anterograde arid retrograde tracing studies of the main olfactory bulb inputs to rat supraoptic neurons. *Soc. Neurosci. Abstr.* 13: 1594, 1987.

14. Taubitz, I. L., Smithson. K. G. and Hatton, G. I. Dendritic zone of the supraoptic nucleus (SON): Ultrastructural changes in motherhood. *Soc. Neurosci. Abstr.* 13: 1594, 1987.

15. Hatton, G. I., Yang, Q. Z. arid Smithson, K. G. Synaptic inputs and electrical coupling among magnocellular neuroendocrine cells. *Brain Res Bull.* 20: 751-755, 1988.

16. Smithson, K. G., Suarez. I. and Hatton, G. I. ß-adrenergic stimulation decreases glial, and concomitantly increases neural contact with the basal lamina in rat neurointermediate lobes incubated in vitro. *Soc. Neurosci. Abstr.* 14: I 176, 1988.

17. Smithson, K. G., Zapp, A. R. Hatton, G. I. and Weiss, M. L. Accessory olfactory bulb inputs to the rat supraoptic nucleus: an anterograde and retrograde study. *Anat. Rec.* 220: 91A, 1988.

18. Tweedle, C. D., Smithson, K. G. arid Hatton, G. I. Neurosecretory axons make en passant contacts with the basal lamina of the rat neurohypophysis. *Anat. Rec.* 220: 99A, 1988.

19. Tweedle, C. D., Smithson, K. G. and Hatton, G. I. Evidence for dendritic and axonal hormone release in the rat hypothalamo-neurohypophysial system. *Soc. Neurosci. Abstr.* 14: I 176, 1988.

20. Smithson, I. L., Smithson, K. G. and Hatton, G. I. Immunogold silver staining of intracellularly injected supraoptic neurons. *Sac. Neurosci. Abstr.* 15: 309, 1989.

21. Smithson, K. G., Weiss, M. L. and Hatton, G. I. Supraoptic nucleus afferents from the main olfactory bulb-I. Anatomical evidence from anterograde and retrograde tracers in rat. *Neuroscience.* 31: 277-287, 1989.

22. Tweedle, C. D., Smithson, K. G. and Hatton, G. I. Neurosecretory endings in the rat neurohypophysis are en passant. *Exp. Neurol.* 106: 20-26, 1989.

23. Tweedle, C. D., Smithson, K. G. and Hatton, G. I. Rapid morphological changes in the supraoptico-neurohypophysial system of the perfused rat brain. *Soc. Neurosci. Abstr.* 15: 1224, *1989.*

24. Smithson, K. G. and Hatton, G. I. "Immunocytochemical identification of electrophysiologically characterized cells in brain slices." In: *Analysis of neuronal*

microcircuits and synaptic interactions, **A.** Björklund, T Hökfelt, F. G. Wouterlood and **A.** N. van den Pol (Eds), Amsterdam, Elsevier Science Publishers B.V., pp. 305-350, 1990.

25. Smithson, K. G. and Hatton, G. I. Kynurenic acid blocks excitatory synaptic responses of rat supraoptic nucleus neurons to lateral olfactory tract stimulation. *Soc. Neurosci. Abstr.* 16: **1313,** 1990.

26. Smithson, K. G., Suarez, I. and Hatton, G. I. Beta-adrenergic stimulation decreases glial and increases neural contact with the basal lamina in rat neurointermediate lobes incubated in vitro. *J. Neuroendocrinol.* 2: 693-699, 1990.

27 Smithson, K. G., Weiss, M. L. and Hatton, G. I. Supraoptic nucleus afferents from the accessory olfactory bulb: Evidence from anterograde and retrograde tract tracing in the rat. *Brain Res. Bull.* 29(2): 209-220, 1992.

28. Prakash, Y. S., Smithson, K. G. **arid** Sieck, G. C. Measurements of motoneuron somal volumes using laser confocal microscopy: Cortiparisons with shaped-based stereological estimates. *NeuroImage* I: 95- 107, 1993.

29. Prakash, Y. S., Smithson, K. ti. and Sieck, G. C. Measurements of motoneuron somal volumes using laser confocal microscopy: Comparisons with estimates using the Cavalieri principle and the nucleator. *Soc. Neurosci. Abst.* 19: 11 12, 1993.

30. Tweedle,C. D., Smithson, K.G. and Hatton, G.I. Rapid synaptic changes and bundling in the supraoptic dendritic zone of the perfused rat brain. *Experimental Neurology* 124:200-207, 1993

31. Smithson, K. G., Prakash, Y. S. and Sieck, G. C. Dendritic **morphology** of rat phrenic motoneurons visualized by retrograde tracing with cholera toxin-B subunit (CTB). *Soc. Neurosci. Abst.* 19: 993, 1993.

32. Prakash, Y.S., Smithson, K.G. and Sieck, G.C. Application of the Cavalieri principle using laser confocal microscopy. *NeuroImage* 2:325-333, 1994.

33. Prakash, Y.S., Smithson, K.G. and Sieck, G.C. Growth-related adaptations of endplates on diaphragm muscle fibers: a 3D study using confocal microscopy. *Soc. Neurosci. Abstr. 20,* 1994.

34. Smithson, K.G., Prakash, Y.S. and Sieck, G.C. Three-dimensional dendritic analysis of rat phrenic motoneurons during postnatal growth. *Soc. Neurosci. Abstr.* 20, 1994.

35. Yang, Q.Z., Smithson, K. G. and Hatton, G. I. NMDA and non-NMDA receptors on rat supraoptic nucleus neurons activated monosynaptically by olfactory afferents. *Bruin Research* , 680:207-2 16, 1995.

36. Prakash, Y.S., Smithson, K.G. and Sieck, G.C. Growth-related plasticity of motor endplates in type-identified diaphragm muscle fibers. *J. Neurocytol.*, 24: 225-235, 1995.

37. Sieck, G.C., Zhan, W.Z. Miyata, H. Prakash, Y.S. arid Smithson, K.G. Phrenic motoneurons adapt to inactivity. *Soc. Neurosci. Abstr.*, 21, 1995.

38. Prakash, Y.S., Zhan, W.Z., Miyata, H., Smithson, K.G., and Sieck, G.C. Phrenic motoneuron adaptations induced by removal of excitatory drive, *Neural Control of Breathing: Molecular to Organismal Perspectives (APS Conference),* 1996.

39. Prakash, Y.S., Kinkead, R., Zhan, W.Z., Smithson, K., Zhan, P., Sieck G.C., and Mitchell, G.S. Serotonergic innervation of phrenic motoneurons is increased by cervical dorsal rhizotomy (CDR). *Faseb J.*, 1997.

40. Zhan, W.Z., Zhan, P., Prakash, Y.S., Kinkead, R., Smithson, K., Mitchell, G.S., arid Sieck, G.C. Cervical dorsal rhizotomy (CDR) enlarges phrenic motoneurons in rats. *Faseb J.*, 1997.

41. Smithson, K. G., and K. Strange. Physical properties and transport of body fluids and electrolytes. In: *in press,* 1999.

42. Smithson, K. G., and K. Clarkson. Body Fluid Compartments. In: *in press,* 1999.

20 cats / 42 publications

Donna Taylor-Kolis
Donna Taylor-Kolis Co., L. **P.A.**
Third Floor Standard Building
1370 Ontario Street
Cleveland OH 44113-1701

Dear Ms. Taylor-Kolis:

I apologize for not getting this to you sooner. My travel and clinical schedules have been a bit hectic. I have accepted new clinical responsibilities at Vanderbilt and will become the Director of Critical Care for the Department, and thus my attention has been focused on making a smooth transition between the current Chief and myself.

Contained in the following pages is my detailed assessment of Dr. Celerio's performance as an anesthesiologist. I trust that I have his name spelled correctly, but it is hard to decipher in the records. In terms of his performance, there are several additional items that you may wish to inquire.

1. Is he a Board Certified Anesthesiologist?
2. When was the last time he renewed his ACLS training?
3. What Institution did he do his training at, and was he ever placed on academic probation?

Also included is my *Curriculum Vitae,* as you can see I am boarded in both Anesthesiology, and Critical Care.

The time it took to review these records and prepare and opinion was four hours. If I remember correctly, we agreed on $250.00 per hour for this evaluation. You may send the check to my academic address. If you have any further questions I can be reached by email at the address listed (this is the preferred method), or if urgent by telephone at 615-343-6268. This is my secretary's telephone–she will know how to reach me.

Sincerely,

K G Smithson

Kenneth G. Smithson D.Q., Ph.D.
Assistant Professor of Anesthesiology,
Director of Perioperative Medicine,

504 Oxford House
Department of Anesthesiology
Vanderbilt University
Nashville, TN 37232
kenneth.smithson@mcmail.vanderbilt.edu
kgsmithson@home.com

DEPOSITION EXHIBIT 2

Donna Taylor-Kolis
Donna Taylor-Kolis Co., L. P.A.
Third Floor Standard Building
1370 Ontario Street
Cleveland OH 44113-1701

Dear Ms. Taylor-Kolis:

I have reviewed in detail the medical records of Nancy Armstrong as it pertains to the care rendered by her anesthesiologist, Dr. Celerio during her intraoperative death on August 7, 1999.

My general impression is that Dr. Celerio did not perform a practice of anesthesiology consistent with the current standards as detailed by either the American Board of Anesthesiologists (ABA), or American Society of Anesthesiologists (ASA)–the two peer-reviewed societies which develop standard for the profession.

My impressions are based on the following observations and illustrate medical incompetence in the practice of anesthesiology.

Preoperative Evaluation:
Several documents throughout the chart clearly illustrate that the patient is developing symptoms of cardiac decompensation. This is also detailed in the pre-anesthetic self-assessment, by affirmative answers to question 1 of the respiratory review of systems, and questions ***2, 6,*** 8, and 12 of the cardiac review of systems. Together these all indicate symptoms of severe cardiopulmonary decline.

This is further supported, by radiographic studies that demonstrate cardiomegaly and pleural effusions. (In fact in retrospect, the cardiac silhouette likely represents a pericardial effusion).

Even Dr. Celerio's own exam documents decreased breath sounds consistent with this effusion. Yet, I can find nothing in his notes that raise a specter of doubt, nor any integration of the patient medical history. Further evidence supporting this supposition is the abnormal SPECT scan on 4/20/99 which demonstrates dyskinesis of the left anterior wall, right ventricular hypertrophy, and an ECG consistent with a previous anterior infarction. He, however, makes no reference to these new studies, but does note a previous cardiac study but has not reviewed the results. Rather he depends only on the patient's own recollection of the study.

Operative Management:
Despite all the clues that this patient may have some cardiac dysfunction, Dr. Celerio's choice of induction drugs likely lead to the demise of the patient. Propofol was employed for induction; it has many desirable properties including fast redistribution and rapid wakeups. One of the most significant side effects of propofol is the decrease in cardiac contractility, and peripheral vasodilation, both due to alterations in the calcium handling by the corresponding cells. This can result in a precipitous fall in blood pressure. This is well known, and described in the literature.

It is not the drug of choice for a failing heart. We have other induction agents that are much better suited in these situations (e.g. etomidate).

This significant side effect of propofol was demonstrated in the case of Nancy Armstrong. Immediately following induction with 200 mg of propofol the patient's blood pressure dropped 60 mmHg (systolic) within a matter of a few minutes. Clearly, this was not well tolerated by the patient, and represented a somewhat exaggerated response to this amount of propofol. Despite this, the patient remained on nitrous oxide while the blood pressure was falling precipitously.

Code Management:

In my mind, the "code" began when the patient's blood pressure fell dramatically. This was not a normal response to a propofol induction and heralded an impending cardiac arrest. This started, per the anesthesia record, many minutes before an intervention was initiated. Dr. Celerio was not vigilant. At 11:55 the patient's blood pressure dropped to 80/35. At this point, the patient's large hypertrophied ventricle was no longer perfused; since blood flow to the left heart muscle occurs in diastole. It was not until 12:03 that therapy was initiated. As it turned out this delay was unrecoverable, and the patient developed a significant bradycardia.

The choice of therapy during the resuscitation depends critically on your insight of the underlying problem. The success of the code (assuming a reversible process) also depends on the rapidity with which the therapies are initiated. Per the code records, it took 10 minutes to initiate one therapeutic maneuver-one dose of ephedrine, and to then turn off the nitrous oxide. Thus from 11:55 to 12:10, fifteen minutes of gross hypoperfusion to the heart took place with one dose of ephedrine given as the sole therapy. This would not be considered a reasonable standard of practice. Other therapeutic maneuvers should have been undertaken, more quickly, and sooner in the patient's decline. The fact that Dr. Celerio likely lacked insight into the patient pathophysiology severely hampered his ability to care for the patient. Unfortunately, all the clues were in the patient's medical record.

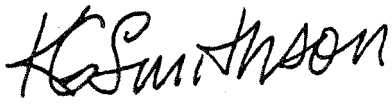
The remainder of the code was uninspired. I'm surprised that epinephrine (a drug that is readily available in all anesthesia and code carts) was never employed. In hindsight, Mrs. Armstrong had likely developed either tamponade physiology due to her pericardial effusion, or acute right heart failure-both of these should be treated with aggressive fluid resuscitation and epinephrine, or phenylephrine.

The code was called at 13:02 after only 1400 cc of fluid had been infused over the hour that the code had taken place. This is not an adequate resuscitative effort.

It is not clear from the records why the code was terminated. My only clue is the reference to fixed and dilated pupils, yet this is not a reliable sign after atropine is given. Atropine will fix and dilate the eyes. The unfortunate fact is that because the patient was given propofol on induction (a dose high enough to render the brain silent) the patient could tolerate a much longer period of hypoperfusion. This sad fact opens the possibility that the patient may have still been alive when the code was called.

Summary:
In summary, my review of Dr. Celerio's conduct of the practice of anesthesiology find him grossly deficient in relationship to a nationwide standard of practice as detailed by our governing bodies.

Sincerely,



Kenneth G. Smithson D.Q., Ph.D.
Assistant Professor of Anesthesiology,
Director of Perioperative Medicine,
504 Oxford House
Department of Anesthesiology
Vanderbilt University
Nashville, TN 37232
kenneth.smithson@mcmail.vanderbilt.edu
kgsmithson@horne.com

C E R T I F I C A T E

I, B. J. Davis, Certified Shorthand Reporter and Notary Public, State of Tennessee at Large, do hereby certify that I recorded to the best of my skill and ability by machine shorthand the deposition contained herein, that same was reduced to computer transcription by myself, and that the foregoing is a true, accurate, and complete transcript of the deposition testimony heard in this cause.

I further certify that the witness was first duly sworn by me and that I am not an attorney or counsel of any of the parties, nor a relative or employee of any attorney or counsel connected with the action, nor financially interested in the action.

This 16th day of September, 2001.

B. J. Davis

B. J. Davis

My Commission Expires:

November 30, 2002