IN THE COURT OF COMMON PLEAS

OF CUYAHOGA COUNTY, OHIO

CURTIS RAY BROWN,

Doc. 243

ADMINISTRATOR, et al.,

Plaintiffs,

vs. Case No.

YOUNG S. HAHN, M.D., 98,756

et al.,

Defendants.

- - - - -

Deposition of PAUL J. KOPSCH, M.D., a witness herein, called by the Defendants for examination under the statute, taken before me, Claudine Kelly, a Notary Public in and for the State of Ohio, by agreement *of* counsel, at 710 Foster Park Road W., Lorain, Ohio, on Tuesday, March 28, 1989, at 10:30 a.m.

- - - - - -

COPY

MR. LICATA: Let the record reflect this is the deposition of Paul J. Kopsch, K O P S C H, M.D., in the case of Brown versus Hahn. We're here by agreement of parties.

PAUL J. KOPSCH, M.D., of lawful age, called for examination, as provided by the Ohio Rules of Civil Procedure, being by me first duly sworn, as hereinafter certified, deposed and said as follows:

EXAMINATION OF PAUL J. KOPSCH, M.D.

BY-MR. LICATA:

Q. Would you please state your name and spell it in its entirety for the record.

A. Paul, P A U L, J, which is short for John, J O H N, Kopsch, K O P S C H.

Q. Where are we today, Dr. Kopsch?

A. Morning of 28 March 1989 we're sitting in our living room at 710 Foster Park Road, Lorain, Ohio.

Q. Is that your residence?

A. Yes, sir.

Q. Is this also an office location or business address?

A. No, sir. My business address was Lorain Medical Group Incorporated on West 20th

1

Street in Lorain, Ohio.

Q. You said was. When did that cease being your business address?

A. When I retired from active medical practice.

Q. Which was when?

A. In late 1986.

Q. Am I to assume that you are no longer engaged in the act of practicing medicine?

A. That's correct, sir.

Q. When you were engaged in practice of medicine at the Lorain Medical Group, what was your position with the group?

A. President since its organization.

Q. When was that?

A. Roughly what was it?

MRS. KOPSCH: November '64.

A. November 1964, sir.

Q. What kind of medicine did you practice with the group?

A. The group was entirely engaged in the practice of anesthesiology.

Q. That was an anesthesiology group?

A. Yes, sir.

Q. Is the group still an active group practicing in the area of anesthesiology?

Q. You've spent no time practicing anesthesiology since your retirement, correct?

A. Correct, sir.

Q. Do you spend any time practicing or

retirement?

A. My only correction is that I still receive a financial settlement which would terminate this spring.

Q. They've, in essence, bought out your interest for several years?

A. Yes, sir.

a. Doctor, before we go any further

you ever been deposed before?

A. Yes, sir.

Q. You're familiar with this process?

A. No, sir. I'm not familiar with the process.

Q. You've been deposed before. You understand why we're here?

A. Yes, sir.

Q. You know that we're here to discuss the anesthetic management of Mary Lou Brown during her surgery of May 6, 1985?

MR. GOLDENSE: You want to assume the date, go ahead.

A. Assuming the date is correct, yes, sir.

Q. I'm going to ask you questions today concerning your opinions of her care and treatment on that date, concerning the care and treatment rendered by Judy Daus, Dr. Hahn and any other representatives of the hospital on that date. Do you understand that?

A. Yes, sir.

Q. I'm also going to be asking you questions concerning your experience and knowledge in the practice of anesthesiology and in the practice of anesthesia medicine as it relates to this case and the general area of anesthesia. Do you understand that?

A. Yes, sir.

Q. If at any time you don't understand my question or can't answer my question, please tell me.

A. Yes, sir.

Q. If you answer the question I will assume that you not only understood it, but that you could answer it and that the answer was responsive to the question. Is that fair enough?

A. Yes, sir.

Q. Let me ask you a preliminary question. How much per hour are you charging my clients for this deposition?

A. Including the antecedent study, I reviewed the case again for two hours on 10 March and one hour on 13 March. My charges will come out to $150 per hour.

Q. So you intend to charge us for the time that you prepared for this deposition?

A. Yes, sir.

Q. Then you intend to charge us, "us" meaning my clients, for the time giving this deposition?

A. Yes, sir.

Q. And that rate is $150 per hour?
A. Yes.
Q. Is that your usual and customary fee for depositions?
A. Yes, sir,
Q. If you testify at trial in this case, how much will you be charging?
A. The same.
Q. So you charge $150 regardless if it's trial testimony or deposition testimony?
A. Yes, sir.
Q. That's your usual and customary fee for trial testimony?
A. Actually it's my antecedent fee. As of this year I've raised it to $200 an hour. Since this is pre-existing, I will go on my old fee.
Q. I'm sorry. I apologize for interrupting you.
A. I'm sorry to interrupt you.
Q. As we sit here today any cases that you review would be up to --
A. De novo, yes.
Q. When did you start implementing the $200 per hour fee?

A. The beginning of this year.

(Discussion off the record.)

Q. Doctor, am I to assume that your fee is also the same when you review cases, in other words, when you spend time reviewing records and arriving at an ultimate opinion in the case?

A. Yes, sir.

Q. How much have you charged thus far in this case for reviewing it and rendering your preliminary opinion, or I should say, your opinion set forth in the statement of March 9, 1988?

A. I believe it was $240, sir.

Q. So if my calculation is correct, you spent approximately an hour and-a-half reviewing records and rendering your opinion?

A. Preliminary to this, yes, sir.

Q. You were retained in this case by Mr. Goldense, correct?

A. Yes, sir.

Q. Have you had any prior relationship with him in other cases?

A. No, sir.

Q. Have you ever had any prior

relationship with Mr. Michael Shapero?

A. Not that I recall, sir.

Q. Have you had any prior relationship, business or social, with any of Mr. Goldense's or Mr. Shapero's associates or partners?

A. Who are they, sir?

Q. That depends on whether you had any relationship with any of them.

A. Not that I know of, sir.

Q. Fine. How did you become involved with this case?

THE WITNESS: Was it not the court stenographer who referred you?

MR. GOLDENSE: For the record, he is asking me and so the answer to the witness is right.

Q. What court stenographer?

A. One of the ladies who is a court stenographer at the Lorain County Court.

Q. Would that be Kathleen A. Hopkins & Associates court reporting firm?

A. Must have been, sir.

Q. Are you listed on any expert referral services?

A. Not that I know of, sir.

Q. You indicated that you've given prior testimony before on deposition. Could you tell me about how many depositions you've given in the past?

A. Depositions. If I had to guess, it would be half a dozen, sir.

Q. So approximately six depositions?

A. Yes, sir.

Q. Within what time frame?

A. Over the last 10 years.

Q. How many times have you testified at trial in the past?

A. Scores of times. This was necessitated when I was Lorain County Coroner.

Q. I will ask you some questions about that position in a few moments. But before we get to that, aside from testimony that you provided as the county coroner, how many times did you testify at trial in other cases?

A. In trials, sir?

Q. Yes.

A. Two or three times.

Q. what time period was that?

A. Also within the last 10 years.

Does this include arbitration hearings? Is that a trial?

Q. Let's separate those. Have you testified at arbitration hearings?

A. Twice, sir.

Q. That's separate and apart from your testimony at trial?

A. No. I include that in the trial testimony.

Q. So you've testified two to three times at either arbitration or trial?

A. Yes, sir.

Q. Were those cases where you testified at either arbitration or trial medical malpractice cases?

A. Yes, sir.

Q. Were you testifying for the Plaintiff or the Defendant in those cases?

A. Let's narrow that down to two cases.

Q. All right.

A. Both were arbitration. In both cases I testified for the defense.

Q. Let's talk about one of those two cases first and then we'll talk about the other

one. Pick whichever one want. What do you remember about either of those cases, what were the issues in one of those cases? Did it involve anesthesiology?

A. Yes, sir.

Q. Do you remember the name of the case?

A. No, sir.

Q. Either case?

A. I don't remember the names in either case.

Q. Were both cases anesthesiology cases?

A. Yes, sir. One was in Norwalk. The other was Sandusky.

Q. Do you remember the attorneys that retained you?

A. No, sir.

Q. Do you remember any of the parties names?

THE WITNESS: What was the name of that guy in Sandusky?

MRS. KOPSCH: I don't know.

A. Because he was thinking of settling here and I talked with him years ago.

MRS. KOPSCH: I don't remember.

A. So the chap in Sandusky was a DP whose wife's father had been a Russian general. She offered me his insignia. I don't remember his name.

The doctor in Norwalk was a DO and a younger man. I don't remember his name. If that would help you in running them down.

Q. In addition to your testimony at arbitration, did you also give deposition testimony in those two cases?

A. I don't recall, sir.

Q. But you do recall giving approximately six depositions within the last 10 years?

A. Yes, sir.

Q. Let's talk about these arbitration cases. Were both of those cases involving general anesthesia or some other form of anesthesia?

A. Both involved general anesthesia, sir.

Q. Did either one of those cases involve the use of general anesthesia during a GYN procedure, gynecological procedure?

A. I don't remember.
Q. Did either one of those cases involve cardiac arrest?
A. Yes, sir.
Q. Both or one of them?
A. Both, sir.
Q. In both cases did the patient die as a result of the cardiac arrest?
A. Yes, sir.
Q. In both cases were you able to form an opinion as to the cause of death?
A. If I recall, sir, the one in Sandusky was inexplicable. The one in Norwalk, it was not the doctor's fault.
Q. Do you recall since it was not the doctor's fault, are you referring to the anesthesiologist or the surgeon?
A. The anesthesiologist, sir.
Q. Do you recall in the Norwalk case what was the ultimate cause of death if it was not the anesthesiologist's fault?
A. No, sir.
Q. Were either one of those cases the result of improper intubation?
A. No, sir.

Q. Were either one of those cases the result *of* improper administration of anesthetic prior to intubation?

A. Not that I could delineate. That's why I'm saying neither case was that.

Q. You say in either of those cases there was no problem with the administration or care and treatment rendered by the anesthesiologist?

A. That's why I testified for the defense, sir.

Q. Of the six cases that you can recall rendering deposition testimony within the past 10 years, how many of those do you recall involved the administration of general anesthesia?

A. I believe all of them, sir.

Q. **Do** you recall **if** any of those also involved the administration **of** general anesthesia during a gynecological procedure?

A. I don't remember them in that much detail.

Q. Do you remember if any of those six also resulted in cardiac arrest?

A. I think all of them did.

Q. Do you remember if any of those six resulted in the ultimate death of the patient?

A. One I recall, the girl survived for several months, spastic and decerebrate, an object of pity. The others I believe died and stayed dead.

Q. Of those six cases that you can recall, how many of those cases were for the Plaintiff that you testified for as opposed to cases for the defense?

A. I think those were about equally divided, sir. Half Plaintiff, half defense.

Q. In any of those cases that you testified for the Plaintiff, had you reached an opinion that the cardiac arrest was ultimately the result of improper intubation?

A. Intubation? No, sir.

Q. In those three cases where you testified for the Plaintiff, had you reached an opinion as to whether the cardiac arrest was ultimately the case of improper administration of anesthetic agents or gases?

A. Yes, sir.

Q. From all three of those, what is the number of the three? One or two or three?

A. Improper -- all I can tell you is improper management by the anesthesiologist. I don't remember them in that much detail.

Q. Do you remember the case names of any of those six cases?

A. No, sir.

Q. Do you remember any of the lawyers who retained you in any of those cases?

A. There was a chap up in Detroit. What was his name?

MRS. KOPSCH: Fried.

A. F R I E D .

Q. That was the attorney or doctor?

A. The attorney.

Q. It was an attorney in Detroit named Mr. Fried that you worked for in the case?

A. Yes, sir.

Q. Was he a Plaintiff's lawyer? Was that one of the Plaintiff cases?

A. Yes, sir.

Q. Do you remember any other names of the lawyers or the doctors in any of those six cases where you provided deposition testimony?

A. No, sir.

Q. In the last 10 years, how many

cases have you reviewed on the average per year involving the care and treatment rendered by an anesthesiologist?

A. Probably one or two a year. At most two.

Q. Are those cases typically cases reviewed for Plaintiffs or Defendants?

A. Both.

Q. What percentage would you estimate are for Plaintiffs as opposed to the Defendants?

A. Half and half, sir.

Q. In those cases that you have reviewed do you always give a report or a statement after you have reviewed the case?

A. Either verbal or written. Yes, sir.

Q. Prior to the last 10 years, because we've been talking about the past 10 years, did you also review before that 10 year period?

A. At the hospital level. Yes.

Q. When you say "at the hospital level" what do you mean?

A. In the various review committees which were set up in the hospital staff

organization, sir, tissue committee, death committees, whatnot.

Q. In a peer review sense?

A. Yes, sir.

Q. Would it be fair to say then, Doctor, that you have been reviewing cases as an expert and rendering opinions on those cases since 1979?

A. And before.

Q. When did you start reviewing cases and rendering opinions as an expert?

MR. GOLDENSE: Does that include his peer review committee?

MR. LICATA: No. Excluding the peer reviewing. I understand the peer reviewing committee is more hospital related and not expert related.

Q. You weren't retained by anyone to render an opinion on those cases? That was part of your job being on hospital staff?

A. Yes, sir.

Q. Aside from your duties and responsibilities on the hospital staff, when did you begin reviewing cases and rendering opinions as an expert for the purposes of

litigation?

A. Roughly 10 years.

Q. Approximately 1979?

A. Yes, sir.

Q. When were you coroner of Lorain County -- was it Lorain County?

A. Yes, sir.

Q. When were you coroner of Lorain County?

MRS. KOPSCH: 1958 to 1972.

A. 1958 to 1972, sir. Thank God I got the brains in the family here.

Q. When you were the coroner for Lorain County did you also engage in the active practice of medicine?

A. Yes, sir.

Q. As an anesthesiologist?

A. Yes, sir.

Q. Would you estimate for me the percentage of time you devoted to the practice of medicine during that time as opposed to the practice of being a coroner?

A. 90 percent practice, 10 percent coroner.

Q. In 1972 until 1986 I assume that

you were engaged in the practice of medicine as an anesthesiologist?

A. Before that as well, sir.

Q. I understand that. We've brought you up to 1972. My understanding is from 1958 to 1972 you practiced anesthesiology about 90 percent of the time and coroner 10 percent?

A. Yes, sir.

Q. From '72 until your retirement in 1986 you practiced anesthesiology?

A. Alone?

Q. That's my next question.

A. No, sir.

Q. You did engage in the practice of medicine, though, during that period of time from 1972 to '86?

A. Yes, sir.

Q. What percent of your professional time was directed towards practicing anesthesiology?

A. 90 percent of the time, sir.

Q. Was that consistent from 1972 through 1986?

A. Yes, sir.

Q. In other words, it didn't start out

at 95 percent and trail off to 90 percent or less? It was always about 90 percent?

A. Yes, sir. The other -- you want to know the other 10 percent of the time?

Q. That's the next question. What did you do for the other 10 percent?

A. Medical officer. The Army National Guard.

Q. During the time when you were a coroner from 1958 to 1972, that's the period in which you testified a number of times concerning your duties as a coroner, correct?

A. Yes, sir.

Q. Did your testimony in any of those cases deal with anesthesiology cases?

A. Only once that I remember.

Q. Could you relate that case to me. What do you remember of it? What did that case involve factually?

A. A gentleman over in Elyria who had a belly ache went in a bar to kill the pain, while there he got shot in the right chest. The surgeon went in to do a thoracotomy, did a thoracotomy, stopped the bleeding, cleared out his right chest. He died 24 hours later.

What he died of was a strangulated abdominal hernia which the surgeon had overlooked and the damn police wanted to hold the guy who shot him for murder. I persuaded -- the bullet wound was incidental, yet the poor man's death was goitrogenic. The got him on assault and battery instead of murder or manslaughter.

Q. Other than this case that you just described for us, I take it there have been no other cases where you have testified involving issues of death related to anesthesiology?

A. In surgery or anesthesia as the coroner that's the only one that stands out in my mind, sir.

Q. Is that also the only one that you recall seeing as a coroner, not testifying, but seeing in your 14 years of experience?

A. No. No. There's other cardiac arrests during or following surgery that came under my review.

Q. In any of those cases, did you recall if you concluded that cardiac arrest was caused by something that had been done by

either the surgeon or anesthesiologist?

A. No, sir.

Q. I notice that you have kind of a humorous response to that question. Is there a particular reason?

A. No, sir. No. What you're bringing up is a matter of fault or error. In many cases one suspicions it, but in the absence of positive findings cannot demonstrate it, sir. You know that. I know it.

Q. When you did your report, was it your responsibility as coroner to render an opinion in the report as to the cause of the death?

A. Yes, sir. On the death certificate there is a line, "Cause of death.

Q. " In cases where you had to review the cause of death as it related to any anesthesiology issues, did you ever conclude that the administration of anesthesia was the ultimate cause of death?

MR. GOLDENSE: Objection. Asked and answered.

Go ahead. You may answer.

A. No, sir.

Q. Did you ever form an impression that you articulated in a report that the ultimate cause of death was caused by the administration of anesthesia?

MR. GOLDENSE: Objection. Same basis.

You may answer.

A. I might have listed it as a contributory or incidental factor since it would have -- some of these deaths occurred during the state of anesthesia, therefore, I would have to list that as an incidental or contributory factor. I don't recall listing any of them as the primary cause, sir. I'm not trying to be evasive.

Q. I understand. I'm merely trying to sort out as much information as I can based on all of your experience over the years.

A. Yes, sir.

Q. In looking at cases that you reviewed as a coroner which ultimately resulted in death, did you ever come to the conclusion that death was caused by an anaphylactic reaction to some drug or medication?

A. Yes, sir.

Q. In those cases had you made any determination that the anaphylactic reaction occurred while the patient was under anesthesia?

A. No, sir. Because anaphylaxis is suppressed or absent during anesthesia.

Q. In all cases?

A. Under general anesthesia almost all cases.

Q. When is it not?

A. When one is dealing with the parasympathetic preponderance.

Q. Are there any other situations?

A. None spring to mind, sir.

Q. Why is it that in the parasympathetic category you could have an anaphylactic reaction while under general anesthesia, but you cannot have that reaction otherwise?

A. Because anaphylaxis is ordinarily an overwhelming sympathetic response.

Q. What you are telling me then is that while under general anesthesia a sympathetic response typically cannot occur?

A. It can occur. But it is not

overwhelming, ordinarily.

Q. When you said "ordinarily," does that mean that there are situations when it can be overwhelming and can ultimately lead to anaphylaxis?

A. Yes, sir.

Q. And the parasympathetic situations that you referred to, would you explain to me how that differs from your sympathetic response?

A. The sympathetic is easier to delineate in his response of hypertension, and causes in a conscious person, anxiety, hypertension, tachycardia, would be the predominant findings under general anesthesia.

Q. In a sympathetic response?

A. Parasympathetic would be bradycardia and hypotension in the anesthetized patient.

Q. So if a patient who is anesthetized has bradycardia and hypotension, are those signs that can be associated with anaphylaxis?

A. No, sir. The anaphylaxis. Yes, sir. It would be more anaphylaxis. One would have to consider this in trying to figure **out**

what was going on. One would have to consider it.

Q. In patients that don't have anaphylactic reaction but do develop cardiac arrest while under general anesthesia, is it your testimony that they would have sympathetic response prior to their cardiac arrest?

A. No, sir. One --

Q. They would have -- I'm sorry. I don't mean to cut you off.

A. One cannot rely on their having either parasympathetic or sympathetic since these are largely suppressed under general anesthesia. Since both types of responses are largely suppressed.

Q. You could have cardiac arrest without seeing either parasympathetic or sympathetic responses?

A. Yes. The hypo or hypertension and bradycardia or tachycardia may or may not appear as antecedents to the cardiac arrest under general anesthesia.

Q. We got off the track a little bit. Eventually I will come back to this area. Before we do, let me ask you some more

Excuse me for asking it again, but as a coroner was it your testimony that you did or did not see cases where individuals ultimately had cardiac arrest and death caused by an anaphylactic reaction while under anesthesia?

A. Not while under anesthesia. The anaphylaxis which I recognized was in conscious people.

Q. In the situations where you saw the anaphylactic reaction in conscious people, were those cases also involved with some surgical procedure?

A. No, sir.

Q. Were those cases strictly nonsurgical anaphylactic reaction to some drug or medication?

A. No, sir.

Q. What kinds of cases were they?

A. One that stands out in my mind was a paramedic here in town who died of anaphylaxis following a bee sting, which was not a therapeutic bee sting. He did not have

arthritis. Others -- couple of penicillin anaphylaxis. Those are the ones that I remember, sir.

Q. Would you agree that there are a number of drugs and medications that will cause anaphylactic reactions and ultimately lead to cardiac arrest?

A. Not will, but may in the anesthetized person. In some people it will not. In others it will.

Q. You've testified in Ohio, obviously. Have you testified in states other than Ohio?

A. Yes, sir.

Q. Which states would those be?

A. Michigan. Period.

Q. In the cases that you reviewed, have you reviewed cases for parties in states other than Ohio?

A. In Michigan. Yes, sir.

Q. Any other states?

A. Missouri.

Q. Any others?

A. Puerto Rico.

Q. Is that all or are there more?

A. Those are the only ones that spring to my mind, sir.

Q. You testified in cases in both Ohio and Michigan and you have reviewed cases in Ohio, Minnesota, Missouri, and Puerto Rico?

A. Not Minnesota.

Q. I apologize. You reviewed cases in, Ohio, Michigan, Missouri and Puerto Rico?

A. Yes, sir.

Q. As an anesthesiologist how many times have you been involved with the administration of general anesthesia during a gynecological procedure such as the one that Mary Lou Brown underwent in this case?

A. Thousands of times, sir.

Q. Have there been cases where you have been involved with the administration of anesthesia involving Ob/Gyn procedures, the gynecological procedure such as the one performed in this case on Mary Lou Brown, wherein some other form of anesthesia was used other than general anesthesia?

A. Yes, sir.

Q. What forms were those?

A. Spinal or epidural, sir.

Q. What percentage of the cases that you have been involved with during your experience were spinal, epidural, or general anesthetic cases when the gynecological procedures were performed such as the one performed on Mary Lou Brown?

A. Over the years I would guess 90 percent general anesthesia, eight percent spinal, two percent epidural.

Q. Would you agree, Doctor, that it's not a deviation from the acceptable standards of anesthesia care to administer general anesthesia for GYN procedures such as the one performed on Mary Lou Brown?

A. Yes, sir. I would agree.

Q. Do you have any criticisms of the anesthesiologist's decision in this case to administer general anesthesia to Mary Lou Brown for her procedure?

A. No, sir.

Q. Before I get any further, have you ever been named as a Defendant in any cases? Have you ever been sued?

A. Yes, sir.

Q. How many times?

A. Threatened once. Sued once.

Q. You've had one claim against you but no lawsuits? In other words, one claim against you that did not result in a lawsuit and one separate lawsuit?

A. Yes, sir.

Q. Let's talk about the claim that was asserted but not filed as a lawsuit. What kind of case was that?

MR. **GOLDENSE:** Show my continuing objection to the line of questioning about whether the doctor was a party to the action.

With that objection, go ahead and answer his question.

Q. What kind of situation was the one where a claim was named against you but a suit was not filed?

A. A little boy over at Oberlin, Allen Memorial Hospital, whose name escapes **me**. He was in for a squint operation. I asked **him** how he was since I'd seen him pre-op. He told me -- he responded to his first name. **I** put him to sleep. The surgeon started to fix his eye muscles. Part way through another surgeon busted in the room and says, "Fellows, you're

working on the wrong guy." Damned if the next kid didn't have the same first name.

The next kid was a squint. The kid that we were working on was supposed to have his hernia fixed. So the surgeon put his eye muscles back together. The other fellow fixed his hernia. We didn't do him any harm. We sent him back to bed.

Wouldn't you know his uncle was a lawyer over in Elyria. His uncle says "Do you want to settle this?" And the eye man and I said, "Oh, sure. We would like to settle it." We settled for a couple hundred bucks each out of our own pocket.

Q. That claim didn't involve anesthesia care?

A. Yes. I got the wrong kid with the same first name.

Q. There was no claim that you improperly administered anesthesia?

MR. GOLDENSE: Objection. Move to strike the last answer as immaterial.

(Record read.)

MR. GOLDENSE: I renew my objection and renew my motion to strike.

A. No, sir.

Q. Let's talk about the lawsuit that was filed against you? What did that entail?

A. It was a lady who was a welfare cheat and a barmaid. The surgeon takes out a small tumor from the posterior tracheal from the neck. She had a wing scapular from it -- from super scapular nerve damage and the lawyer sued everybody involved.

He wanted a couple hundred thousand bucks from me. I told him you could buy alot of barmaids for 100,000. He wasn't going to get a couple hundred thousand from me. He settled out of court for nuisance settlement of 50.

MR. GOLDENSE: I renew my objection on this line of questioning and renew my motion to strike the last answer.

A. When the lawyer came in and wanted his hernia fixed he said he didn't want any of the SOB's from the lawsuit performing the surgery. I pointed out he would get red carpet treatment. I wouldn't take any chances on him. He was an Avon Lake attorney.

Q. Did he have any claim that you had

case?

A. No. Just I was in the room with an unfortunate surgical result in that case.

Q. Were you deposed?

A. No, sir. I said I wasn't paying that much to the barmaid.

Q. Those are the only two cases where you could recall that were involving you as a party or potential party?

A. Yes, sir.

Q. Have you ever filed an action against anyone?

MR. **GOLDENSE**: Objection.

You may answer.

A. No, sir.

Q. Doctor, do you have a curriculum vitae?

A. Not current, sir. I've not renewed it since I retired.

Q. What I'd like to do is go through some of your credentials starting with where you went to medical school and what you did after medical school. Where did **you** go to medical school?

A. Long Island College of Medicine. Brooklyn, New York. It's presently the Down State campus of the State University of New York.

Q. When did you graduate?

A. 1948, sir.

Q. After that did you do an internship or residency?

A. After that I had a rotating internship at Indiana University Medical Center, Indianapolis, Indiana.

Q. How long were **you** there?

A. One year.

Q. When you were rotating, does that mean you rotated through various disciplines?

A. Services, sir.

Q. Services?

A. Services.

Q. Did you do a residency?

A. Yes, sir.

Q. Where was that and for how long?

A. University of Oklahoma Hospital, Oklahoma City, Oklahoma, for two years, sir.

Q. What years are we in now **by** the way, 1951?

A. 1949 to 1951.

Q. After you were finished with your residency in 1951 where did you go from there?

A. Practice in Lorain.

Q. Were you from the Lorain area?

A. No, sir.

Q. What brought you to Lorain?

A. Two men inveigled me into this and said it would be a good place to try and make a living, until I was called up for duty during the Korean war. One of them is still living, and every time I see him I curse him in Italian since he is of Italian extraction.

Q. I assume you were licensed to practice in Ohio?

A. Yes, sir.

Q. What was the date of your license?

A. 1951. It was issued by endorsement since previous to that I had passed the examinations of the National Board of Medical Examiners.

Q. Are you also licensed in any other states?

A. The only state that I put in for a license was Michigan over a several year

period, since we would go up there for annual training with the National Guard and it made my life a little easier to be licensed to practice medicine and surgery in Michigan.

Q. When did you obtain your Michigan license?

A. I don't know, sir. It would be probably 15 years ago.

Q. Did you say a specific kind of license or in other words --

A. No, sir. It was the regular licensure in Michigan issued by endorsement. I kept it up for probably 10 years.

Q. So as of this date you do not have a license in Michigan to practice medicine?

A. Correct, sir.

Q. Is your Ohio license still active and valid?

A. Yes, sir. I've kept up my postgraduate hours. I've kept up my Ohio licensure.

Q. Are you board certified, Doctor?

A. In anesthesiology. Yes, sir.

Q. Anything else?

A. No, sir.

Q. Have you ever engaged in the practice of gynecological medicine?

A. Okay. As a medical student, as an intern, and during my years with the National Guard. All of those had gynecological work involved.

Q. Before I ask you more about that, let me make sure I understand. In 1951 after you completed your residency you came to Lorain, Ohio; is that correct?

A. Yes, sir.

Q. Did you then, at some point after that, go into the military service?

A. Yes, sir.

Q. What year was that?

A. 1960, sir. Until 1986. 1960 to 1986.

Q. And that was in the National Guard?

A. That's in the -- no. The National Guard did not issue commissions. That's in the US, the Army, United States.

Q. You did not serve during the Korean war then?

A. No, sir.

Q. In 1960 when you became a member of

the Guard did you practice medicine for the Guard?

A. Yes, sir.

Q. Did you practice medicine for them from 1960 to 1986?

A. Yes, sir.

Q. What was the nature and extent of your practice with the guard?

A. General medical practice, sir.

Q. Approximately how many hours per week or per month, whichever is easier, did you spend practicing medicine with the Guard?

A. One weekend a month. Two weeks in the summer.

Q. Would those be 40 hour weeks and eight hour days?

A. No, sir. It would be like 20 hour days.

Q. Are you exaggerating?

A. No, sir. Because quite often I'd be the only medical officer available.

Q. So on the weekends you would be working?

A, Oh the weekends are just drill periods. Eight hours a day. Two weeks per

summer. Quite often I was the only medical officer available.

Q. Just so I understand, were you or were you not practicing medicine on the weekends for the Guard?

A. Yes, sir.

Q. As part of your drill?

A. Histories, physicals, treating emergencies.

Q. During the summer were you doing the same types of things, histories, physicals, treating emergencies, or were you doing something more extensive?

A. During the summer we had -- only rarely did we have the time to do the history and physical bit. We were doing essentially emergency room practice.

Q. When you were doing gynecological procedures did they involve D & C's, bilateral pelvic examinations, or hysterosalpingograms?

A. Pelvic exams. Yes, sir. No D & C's and no hysterosalpingography.

Q. Did your medical practice, other than with the Guard, require you to perform gynecological procedures?

A. No, sir.

Q. So your only gynecological involvement with patients was through the Guard?

A. Well, when the attending physician would not get to the delivery room on time on half a dozen occasions at least, I wound up doing the episiotomy and delivering the baby, sewing them up, and then keeping them asleep until the attending doctor got there and could tell them what they had.

Q. That would be the exceptions as opposed to the normal, wouldn't it?

A. Correct, sir.

MR. GOLDENSE: Hopefully.

A. We're like lawyers. We cover for each other.

Q. In your years with the Guard did you perform any radiological activities or services?

A. No, sir. We usually had other technologists along to do the radiology.

Q. Doctor, do you have any experience with the use *of* sinografin or are you familiar with it?

A. I know of the substance. I have no personal experience using it.

Q. Would you agree that you're not an expert and not qualified to render an opinion on the use of sinografin or its effects?

A. No, sir. Because I reviewed the worldwide literature on sinografin to see whether Miss Brown's death could have been due to it. And the worldwide literature gave me some information.

Q. Before this case would you agree that you were not an expert and not qualified to render an opinion in the use of sinografin or its effects?

A. Before this case I had no occasion to review the literature on it, sir.

Q. Would that mean yes or no?

A. Yes. I knew a little about it.

Q. So you were not an expert and not qualified to render an opinion on the use of sinografin or its effects prior to this case?

A. Correct, sir.

Q. Before this case, however, you're telling us that you have reviewed the literature, in addition to other records that

we'll talk about in a minute, and you now feel qualified and competent to render an opinion considering the use of sinografin and its effects?

A. Based on the literature, yes, sir.

Q. Would you agree that you are not qualified and not an expert to render an opinion on any of the gynecological procedures that were performed by Dr. El Hamshari on Mary Lou Brown?

A. Having been present at the time of these. No. I would not agree.

Q. So you feel that you are an expert and can render a qualified competent opinion on the gynecological procedures that were performed by Dr. El Hamshari in this case?

A. As a participant?

Q. As an anesthesiologist?

A. As a participant, no.

Q. As an anesthesiologist involved in the administration of general anesthesia in these cases, your expertise would be limited to that role. Is that a fair statement?

A. Yes, sir.

Q. We talked a little bit before about

anaphylactic reaction and whether that can or cannot occur under general anesthesia. Although you, I believe, stated that that typically does not occur, there are instances where anaphylaxis will occur under general anesthesia, correct?

A. Yes.

Q. Could you tell me the sequence you would expect to see in a patient who develops anaphylaxis while under general anesthesia?

A. I would expect to see increased bleeding, hypotension, bradycardia and cardiac arrest.

Q. Doctor, do you presently have any privileges at any hospital, staff privileges?

A. I'm on the honorary staff at St. Joseph Hospital, Lorain, Ohio.

Q. Is that since your retirement?

A. Yes, sir.

Q. Prior to your retirement did you have privileges at any other hospitals other than St. Joseph?

A. Over the years at various times I practiced at Allen Memorial Hospital at Lorain County Sanitarium and at Amherst Hospital. I

have visiting privileges at Mercy Hospital in Galien, Michigan.

Q. When you say you practice at Allen, Lorain County and Amherst, did that mean that you had staff privileges, or what was the extent of your relationship with those hospitals?

A. Anesthesiology, sir.

Q. Have you ever had any **of** these privileges suspended or revoked?

MR. **GOLDENSE:** Objection.

You may answer.

A. No, sir.

Q. Have you ever taught?

A. In an academic institution?

Q. Yes.

A. No, sir.

Q. Have **you** given lectures to medical students **or** residents?

A. On military courtesy. Yes, sir.

Q. Have you ever given any lectures or seminars involving the administration of anesthesia or the practice of anesthesia?

A. Okay. To the Ohio State Society **of** Anesthesiologist's. Twice in the early 1950's.

Q. What was the subject of each of those talks? If you remember.

A. I don't remember, sir. This was the State meetings of the Ohio Society of Anesthesiologist's.

Q. You were asked to speak at the State meeting on two separate occasions in the early 1950's?

A. Yes, sir.

Q. You don't remember the subject of your topic or your presentation or discussion?

A. No.

Q. Have you ever written any articles, Dr. Kopsch, concerning anesthesia care or the practice of anesthesiology?

A. No, sir.

Q. Have you ever prepared any papers at any symposiums or seminars on the practice of anesthesiology?

A. The two Ohio State meetings. One Lorain County Medical Society meeting.

Q. Anything else?

A. Not that I recall, sir.

Q. What was the subject at the Lorain County Medical Society meeting?

A. Anesthesiology in general. At that time I was the only anesthesiologist in the county.

Q. Do you remember the year of that presentation?

A. No, sir. It would have been, again, middle 1950's.

Q. Did you, on any of those occasions, the two times before the State Society, the one time before the Lorain County Medical Society, discuss cardiac arrest in the care and treatment of anesthesiology patients?

A. Only incidental to the overall picture, sir.

Q. When you say "only incidental to the overall picture," I'm not quite sure I understand the scope of that kind of presentation. Does that mean as a possible complication in the care and treatment or the care and administration of anesthesia?

A. One of the many possible complications.

Q. Do you have any papers that you have prepared or written concerning the practice of anesthesiology that have not been

published but that you still have in your

A. They would be from my residency, sir.

Q. Do you still have copies of those papers?

A. Somewhere in the attic, yes, sir.

Q. Do you remember what those papers addressed, the subject they addressed or the topic they addressed?

presented that to the Oklahoma State Society of Anesthesiologist's.

Q. Anything else?

A. Not that I recall, sir.

Q. Do you have any writings in the works right now as we sit here today concerning the practice of anesthesiology?

A. On my life and hard times. No, sir.

Q. Have you conducted any research since your retirement concerning the practice of anesthesiology?

A. No, sir.

Q. During your practice as an anesthesiologist did you conduct research on any issues involving anesthesiology?

A. Each and every case is a research.

Q. Separate and apart from the care and treatment of your patients, did you conduct any research?

A. No, sir. Each and every case is an item of research. How could I get through this safely? How could I get a living and happy patient at the end?

Q. I'm curious about your North American Ordinance Corporation. That's the name of your company, isn't it?

A. No, sir. KTW is the name of it.

Q. The actual name of the company is KTW?

A. Inc.

Q. What is North American Ordinance Corp. of Pontiac, Michigan?

A. An outfit which is making our armored piercing ammunition under royalty agreement.

Q. Are they still making --

A. No, sir. They never paid their

royalties. I'm a poorer and wiser man.

Where did you get the name of North American Ordinance?

MR. GOLDENSE: Thousands for defense, Doctor, but not a penny for Plaintiffs. Make sure that hits the record.

Q. When did you form KTW company?

THE WITNESS: When did we form, Mary?

MRS. KOPSCH: 1968.

Q. Was the KTW company formed as a result of your design of the Teflon bullet?

A. The Teflon coated ammunition.

Q. The ammunition that you designed being Teflon coated, was that something that you, for lack *of* a better term, discovered in 1968?

A. My partners and I did.

Q. That's when you formed the KTW company?

A. Yes, sir.

Q. How many years of research and time and development did you spend prior to 1968 to achieve that discovery?

MRS. KOPSCH: Most of it was after

it was incorporated.

A. Two years, sir.

Q. Now in 1968 you formed the company. What type of activity did the company engage in? What was the business practice of the company from 1968 on?

A. The development, manufacture, and marketing of armored piercing small arms.

Q. What role did you play in the business practice?

A. Bankrolling, and helping in the development, research and manufacture and marketing.

Q. 1 assume the KTW company still exists?

A. Yes, sir.

Q. Is still in full operation?

A. No, sir.

Q. When did it cease its full operation status?

A. A couple of years ago, sir, when the Bureau of Alcohol, Tobacco and Firearms tax raised the licensing fee for manufacture and sale of armored piercing ammunition from the previous level of $10 a year to a thousand per

year.

Q. So would it be fair to say from

A. No. Because we licensed North American to manufacture and sell this -- when did we license North American, Mary?

Six, eight years ago.

MRS. KOPSCH: When did Dan retire? It was '77 or '78?

A. Roughly 10 years.

Q. So up until the time that you licensed North American Ordinance Corporation to produce these bullets, had your KTW company been engaged in the full operation of developing, marketing and manufacturing of these bullets?

A. Yes, sir.

Q. How much time per week would you estimate that you devoted to the KTW company?

A. Six hours a week.

Q. In 1978, or about then when the license was given to North American Ordinance Corporation, did you continue to expend about six hours per week in the KTW company?

A. No, sir. We no longer had the manufacturing and marketing to worry about.

Q. What did the company do from the point when it gave the license to North American Ordinance Corporation up until 1986?

MRS. **KOPSCH:** Nothing.

A. We sat around and read the reports on the successful employment of our ammunition in neutralizing criminals.

Q. What motivated you or prompted you to develop this Teflon coated bullet?

A. A gun fight over in Elyria where the crooks were in a car and the police .38 Special bullets were bouncing off the car. I thought there must be a better way of getting the miscreants out of the car without going outside and opening the door and saying, "Will *you* gentlemen please step out."

Q. When did the company, if ever, start to produce a profit?

MR. GOLDENSE: Objection.

You may answer.

Q. The KTW company?

A. Never.

Q. Are you receiving any income or

royalties or monies as we sit here today from the KTW company?

MR. GOLDENSE: Objection.

You may answer.

THE WITNESS: Should I?

A. No, sir.

MR. GOLDENSE: When I say don't answer that question, that's when you don't answer.

A. All right.

(Recess had.)

Q. Doctor, when you told me about your residency, did you tell me what type of residency you did? Was it anesthesiology?

A. Yes, sir. Anesthesiology.

Q. As either an anesthesiologist or a coroner did you read or interpret radiographs?

A. In all three of my lives I did. Anesthesiologist, coroner and general medical officer in the Army.

Q. Other than the two presentations to the Ohio State Society and the presentation to the Lorain County Medical Society and the one you also mentioned about the Oklahoma Society, did you give any other presentations that you

can think of?

A. Yes, sir.

Q. What were those?

A. To the Ohio State Coroners Association.

Q. When was that?

A. I don't know.

Q. Do you remember the subject?

A. Gunshot wounds.

Q. Did you give any other --

MRS. KOPSCH: '64.

A. 1964, sir.

Q. Did you give any other presentations concerning the practice of anesthesiology?

A. No, sir. Not that I recall now, sir.

Q. It is my understanding that you have no paper, published or unpublished, other than the one that you did during your residency, concerning the practice of anesthesiology?

A. Well, the presentation to the Ohio State Society required the preparation of a paper since I was not speaking impromptu.

Q. I assume you don't have copies of those papers as we sit here today?

A. Not at my fingertips, sir.

Q. That's something you could get if you had to?

A. Yes, sir. It will require straightening up the attic.

Q. Would you also then be in a position, if you straighten up the attic, to maybe get a copy of the paper that you presented to the Lorain County Medical Society and Oklahoma group?

A. Perhaps.

Q. Other than the papers we've identified, are there any other papers that you've prepared or any other articles that you have written?

A. Yes, sir.

Q. Do those pertain to the practice of anesthesiology?

A. No, sir.

Q. In so far as we're talking about the practice of anesthesiology, have I exhausted the list of presentations and publications and written works?

A. I believe so, sir.
Q. Doctor, do you know Dr. Tom Brilliar?
A. No, sir.
Q. Do you know Dr. Young Hahn?
A. No, sir.
Q. Do you know CRNA Judy Daus?
A. No.
Q. And Dr. El Hamshari?
A. No, sir.
Q. Have you used CRNA's, certified nurse anesthetists, in the administration of general anesthesia?
A. Yes, sir.
Q. Would you agree that they are competent to administer general anesthesia under supervision of a physician?
A. Yes.
Q. Have you used the CRNA's during gynecological procedures such as those undergone by Mary Lou Brown?
A. Yes, sir.
Q. And in those cases where you have used CRNA's did they administer the general anesthesia in those cases under the supervision

of a physician?

A. Yes, sir.

Q. Could we agree, Doctor, that you don't have any criticisms concerning the decision to use a CRNA in Mary Lou Brown's case?

A. Yes.

Q. Yes. We can agree?

A. Yes, sir.

Q. Doctor, who do you consider to be the primary authority in the area of anesthesiology?

A. Myself.

Q. Anyone else? I think you'll agree, Doctor, you're not the only expert in the area, correct?

A. Correct, sir.

Q. Do you know of anyone else who you would recognize as being an authority or expert in the area of anesthesiology?

MR. **GOLDENSE**: Objection.

You may answer.

A. Yes, sir.

Q. Who would that be?

A. John Snow. S N O W. He was the

first doctor to specialize in anesthesia, 1806.

(Discussion off the record.)

Q. Are there any present day practicing anesthesiologists that you recognize to be a primary authority or expert in the area?

A. Experts? Yes. There is no primary authority, sir.

Q. That's fair enough. Who would the experts be that you recognize in the field of anesthesiology?

A. John Adriani. A D R I A N I.

Q. Where does he practice?

A. Tulane. T U L A N E.

Q. Do you have any professional or social relationship with him?

A. No, sir. His texts are widely accepted.

Q. Do you recognize his texts to be authoritative in the field of anesthesiology?

A. I recognize them to be widely accepted, sir.

Q. Do you recognize any text to be authoritative in the area of anesthesiology?

A. No, sir. Because in every one

there is both good and bad.

Q. Have you ever heard of Dr. Robert Dripps?

A. Yes, sir.

Q. Do you recognize him to be an expert in the area of anesthesiology?

A. That's right.

Q. And Dr. Eckenhoff?

A. I recognize him also as an expert, sure.

Q. Leroy Vandam?

A. He is a recognized expert as well.

Q. Have you heard of the text Introduction of Anesthesia, The Principal of Safe Practice, 6th edition?

A. By whom?

Q. Dripps, Eckenhoff and Vandam?

A. Yes.

Q. Would you also agree that is a widely accepted text in the area of anesthesiology?

A. It is a widely used text in the field of anesthesiology, sir.

Q. Have you ever used that text?

A. No, sir.

Q. What texts have you used, Doctor?
A. Earlier editions of that same book.
Q. Assuming that you would still be practicing in medicine today in the field of anesthesiology, would the 6th edition be one that you would feel comfortable referring to in the care and treatment of patients for anesthesiology purposes?
A. Yes, sir.
Q. When you were in medical school what book did you use to learn principles of anesthesiology?
A. We had no textbooks in medical school. We had a few lectures.
Q. Did you have a text in your residency?
A. A shelf full of them, sir.
Q. Do you still have those texts?
A. Yes, sir.
Q. Are those texts that you used during your day-to-day practice of anesthesiology?
A. Not day-to-day.
Q. In the sense of having them available for reference if necessary?

A. If necessary, sir.

Q. On occasion you would feel comfortable referring to those texts if you needed to?

A. Yes, sir.

Q. Could you tell me the names of those texts?

A. Adriani had several texts. Dr. Mushin has several texts on it.

Q. Dr. Adriani?

A. Yes, sir. Dr. Mushin has several texts out. Who is the guy up in Montreal? Digby Leigh, in pediatric anesthesia.

I had Anesthesiology, the monthly journal, from its inception in the 1940's and would look up pertinent articles in that.

Q. That was a widely accepted journal?

A. Journal. Monthly journal in anesthesia and analgesia. I had, back to 1928, another medical journal.

Q. Both those journals are widely accepted in the field of anesthesiology?

A. They're the two generally used American journals.

Q. And they're the ones you used?

A. Yes. For more current reference than any text book could encompass, since the texts are always several years behind the journals.

Q. Do you no longer subscribe to those puplications?

A. No longer.

Q. Since your retirement?

A. When I sold my back issues to Harvard Medical School.

Q. Are you aware of any specific articles or portions of texts that you find instructive or helpful to understanding the relationship between the administration of general anesthesia and the complication of cardiac arrest?

A. Specifically article or text? Okay. Dr. Beecher, B E E C H E R, from Harvard several years ago published a monumental study on the instance5 of death during anesthesia.

Q. Any other articles that you can recall?

A. Since the Beecher study other smaller studies have been done. I don't recall the authors of those smaller studies. I read

them.

Q. I take it you've read those articles?

A. I read Dr. Beecher's several antecedent articles and his book and the subsequent surveys of cardiac arrest as well, sir.

Q. Did you find those instructive?

A. Yes, sir.

Q. Did you find them helpful to your practice of anesthesiology?

A. No, sir.

Q. Why not?

A. Because they're dealing quite often with what to me was stupid errors of equipment failure, of esophageal intubation, of drug overdoses or mistakes. And without bragging, I'm methodical and relatively unshakeable and I did not make stupid mistakes. I detected esophageal intubation in almost all cases. And I did not make overdoses or make errors in drug administration.

Q. In the cases where you did not detect esophageal intubation, could you explain to me why you did not?

A. Yes. One case stands out in my mind and that was an old drunk who ran into a telephone pole. It just happened to be growing in the middle of West Erie Avenue. When he came in with extensive abdominal injuries, I put him to sleep, intubated him, and his breath damn near knocked me over. So I only took the one quick look with my laryngoscope and damned if I hadn't done an esophageal intubation on him. I didn't realize it until he died after an hour or an hour and-a-half of surgery.

In every other case that I know of where I intubated the esophagus I picked it up in quick time, since they weren't all drunk by a long shot, and their breaths did not knock me over.

Q. Do you consider that case, where you did not pick up the esophageal intubation, to be a deviation from the standard of case?

MR. GOLDENSE: Objection.

You may answer.

A. I sure didn't make a habit of it.

Q. Does that mean yes?

A. Yes. It was a deviation from the standard of care, sir.

MR. GOLDENSE: Objection and move to strike.

Q. Is it your testimony that the reason you didn't pick up the esophageal intubation in that one case was because you didn't properly monitor the breath sounds of the patient?

A. No, sir.

Q. Why didn't you pick it up?

A. Because monitoring the breath sounds of the patient is by no means conclusive. This had been brought out in study after study and I've seen it with my own eyes that when you intubate an esophagus a surgeon will often take the laryngoscope and -- yes, yes, that's right down there because you could hear breath sounds. When the esophagus is intubated one cannot rely on auscultation.

Q. What does one need to rely on, then, to determine whether there is proper intubation?

A. Clinical judgment and clinical capnography.

Q. What is that?

A. Capnography is the utilization of a

presently available instrument called a capnograph, which follows expiratory carbon dioxide. When one is intubated in the esophagus there is little or no expired carbon dioxide and within a breath or two one detects by a waive form of expired carbon dioxide that things are not as they should be. You're not connected with the lungs. You're connected with the esophagus and stomach.

Q. When did the capnography instrument become available and widely accepted in the area of anesthesiology?

A. I think it's been available perhaps five years and in wide use for three years. It's of this order of magnitude.

Q. I take it before its use, Doctor, that people administered general anesthesia without the use of the capnograph?

A. Yes, sir. All these years. Then we had to rely on our brains because the physical findings were deceptive. You could get breath sounds that will fool you every doggone time with esophageal intubation.

Q. Would it have been the deviation from the standard of care in 1985 to proceed in

the general administration of an anesthesia without the use of a capnograph?

A. No, sir.

Q. Referring to the other case where you stated that you always identified that you had an esophageal intubation, is it your testimony that the way you identified that in the past was based on your clinical judgment alone?

A. Yes, sir.

Q. In arriving at that judgment what steps did you take to determine whether intubation had been properly performed? In other words, did you listen for bilateral breath sounds?

A. No, sir.

Q. What did you do?

A. I looked to see whether the chest was expanding, rising and going down, whether the intercostal space would widen with inspiration, expiration, and I palpated the stomach, the abdomen over the stomach.

MR. BUCK: I didn't get the second one.

THE WITNESS: The widening and

Q. Other than those three things that you just identified, looking for chest expansion, looking at the intercostal spaces and palpating the abdomen, did you do anything

A. Look again with the laryngoscope.

Q. Anything else?

A. No, sir.

Q. Would you agree, Doctor, that it is more difficult to identify chest expansion and widening of the intercostal spaces in a fat person?

A. No, sir.

Q. So you would expect to see the same degree of chest expansion and the same amount of widening in the intercostal space in a fat person as you would a thin person?

A. Okay. You said degree. Yes. In the intercostal spaces I'm not seeing them widen. I'm feeling them widen. And no matter how fat the guy is I could still feel his intercostal spaces.

Q. Before you intubate the patient I

assume you administer anesthetic drugs?

A. In most cases. There is such a thing as awake intubation, which one sometimes has to do.

Q. Let's talk about the other kind. What is that called? Asleep intubation?

A. That's a good term for it.

Q. From the moment you begin to administer anesthetic drugs until the moment when the patient has been intubated, about how long does that process take for general anesthesia?

A. Several minutes.

Q. Would you expect it to take more than four minutes?

A. It depends.

Q. I understand --

A. It depends. During a crash induction it would take less than four minutes. With the leisurely induction it may very well take more.

Q. Assuming there were no complications, is there any reason to believe it would take more than four minutes?

A. It depends.

Q. Is there an outside limit where you could say that it couldn't take any longer, within a certain period of time, to properly intubate the patient?

A. It depends.

Q. It could in some instances take 15 minutes to intubate a patient without complication?

A. It could take longer. Okay. Now you said --

Q. Without complication, from the moment you begin to administer the anesthetic agents.

A. It's taken me an hour or more.

Q. Without complication?

A. In difficult intubation cases.

Q. How do you define a difficult intubation case?

A. One that I can't get the tube down.

Q. Would you consider that to be a case with complications?

A. Yes. If it's awfully complicated, I'm wondering what I'm doing there when I could be driving a nitroglycerin truck or doing something that's safe.

Q. Assuming, Doctor, that you had no problem intubating the patient from the moment you start to the moment when you place the tube in the trachea?

A. What you're asking is is four minutes realistic? Yes, sir.

MR. GOLDENSE: I'm sorry the four minutes is measured from the time that the drugs have commenced to be administered until the tube is placed?

MR. LICATA: Right. From the moment the anesthesia starts its job to the point where the tube is placed in the throat.

A. Yes. In a crash induction where a guy has a full stomach or he is bleeding, with a crash induction it would be less.

Q. We don't have that in this case in Mary Lou Brown's case?

A. Oh. No, sir. No, sir.

Q. What did Mr. Goldense ask you **to do** in this case, in the case of Mary Lou Brown?

A. He asked me to review her hospital chart and the depositions of Miss Daus. Dr. Hahn. Dr. EL Hamshari and Dr. Gerber's certificate of death.

Q. Did you review the first or second deposition of Dr. El Hamshari?

A. Only this morning have I become aware there was a second deposition of Dr. El Hamshari. I've not seen it.

Q. As of this moment you have only reviewed the first deposition, but not the second?

A. Correct, sir.

Q. I see you have in front of you a black notebook and also a transcription which appears to be a report dated March 9; is that correct?

A. March 9, 1988, sir.

Q. May I see the black book?

A. Certainly.

Q. Was this black book prepared for you or did you put everything in the notebook?

A. I carefully punched everything, filed and collated it.

Q. Doctor, the first thing I see in your notebook is an article that says ASA 87 annual meeting titled, Majority of Respiratory Complications are Preventable. Did you include this article in this notebook?

A. Yes, sir.
Q. Why did you use that?
A. May I look at it?
Because I found a pertinent statement in the national meeting that the standard technique of bilateral lung auscultation for esophageal intubation is potentially dangerous, and that seven percent of the respiratory mishap cases were due to esophageal intubation, and in the esophageal intubation 76 percent died.
Q. You found this article to be relevant to your review of this case?
A. Of the case of Miss Brown, yes, sir.
Q. Did you rely on this article in reaching your opinion?
A. No, sir.
Q. Does this article advocate the use of capnography?
A. I believe.
Q. When they refer to the standard technique of bilateral lung auscultation for esophageal intubation, is that referencing any prior standard of care for determining whether

the tube has been placed in the trachea as opposed to esophagus?

MR. GOLDENSE: Objection.

You may answer.

A. Not prior. But continuing.

Q. That's still a standard of care?

MR. GOLDENSE: Objection.

A. It's not a standard. It's an index which is widely used which I said was not reliable based on my own experience.

Q. I understand that. But someone who does use the standard technique of bilateral lung auscultation --

A. Will be deceived, as I myself have been.

Q. That's not my question. My question is: Someone who uses the standard technique of bilateral lung auscultation for esophageal intubation is not deviating from acceptable standards of anesthetic care, are they?

MR. GOLDENSE: Objection.

You may answer.

A. It is a widely used barometer. It can be deceptive and fatally so.

Q. I understand that it could be deceptive. But is it or is it not an accepted practice in the field of anesthesiology to use that standard technique?

A. It is an accepted technique.

Q. Even as we sit here today?

A. Even as we sit here today.

Q. Doctor, you have highlighted that seven percent of the cases involving respiratory mishap were related to esophageal intubation, correct?

A. Yes, sir.

Q. In that same paragraph does it not also indicate that eight percent were due to other respiratory complications?

A. Yes, sir.

Q. There are more cases with complications associated with other respiratory complications than there are with complications associated with esophageal intubation, correct?

THE WITNESS: Should I refer to this?

A. You can't go through this.

Q. Can't go through what?

MR. **GOLDENSE:** Are you relying on

anything to refresh your recollection? He's allowed to see anything you use as a basis for your testimony today.

Q. You have a file of information there, Doctor, may I ask you what is in that file?

A. Part of it are other letters from Mr. Goldense. My response. Okay.

Here's a study. These folks were in Harvard, sir. This is another widely quoted study. Part of the ASA findings were based on this. The Harvard study indicated misplaced endotracheal tubes accounted for an overall 3.6 percent.

Now here I have a study, table 2, cardiac arrest due to anesthesia, Journal American Medical Association, 1985.

Here, recognized esophageal intubation accounted for 14.8 percent of the anesthetic cardiac arrests. So these divergent figures are what --

Q. Could I see?

A. I didn't refer to the others.

Q. I'm entitled to see what you have, Doctor. I'd like to see it please.

MR. GOLDENSE: Are you referring to any of that stuff?

Q. You reviewed that material, didn't you, Doctor, as part of this case?

A. These other items?

Q. Yes.

A. They assisted me in forming an opinion.

MR. GOLDENSE: Then he's entitled to see them.

Q. Then I'd like to see them, please.

A. Certainly. But the divergence between those percentages is typical of the medical literature.

(Discussion off the record.)

Q. This brochure, Doctor, where did you get that?

A. From the BOC Group.

Q. What is BOC Group?

A. A British Oxygen -- what is known as Ohmeda, O H M E D A, which used to be Ohio Chemical Groups which makes the Heibrink anesthesia machines. H E I B R I N K. Which are the machines I used through the years. This was a brochure titled, "A report on

proactive management of anesthesia safety through the use of anesthesia system preventive and warning devices."

What I was quoting was abstracted from Keenan & Boyan. Cardiac arrests due to anesthesia. Journal American Medical Association, April 26, 1985.

Q. Now, Doctor, if I wanted to get a copy of this brochure, what would I have to do? Who would I contact?

A. Ohmeda.

MR. BUCK: Why don't you have the court reporter make copies of these and save a lot of time.

MR. LICATA: I agree.

MR. GOLDENSE: Yes. It's all right with me.

(Discussion off the record.)

Q. Doctor, you've handed me several articles --

A. Under duress.

Q. -- with different titles. One is Risk Modification in Anesthesiology. The other is Deaths During General Anesthesia. The other is a viewpoint in some article. Another is

Managing the Difficult Tracheal Intubation and Equipment, et cetera?

A. Yes, sir.

Q. These are going to be handed to the court reporter so she can copy them for us.

A. Do you want this one too?

Q. Yes. Please. That is the article in your book called Majority of Respiratory Complications are Preventable. These were articles that you reviewed in arriving at your opinion in this case, correct?

Have you reviewed that information that you just handed to me in arriving at your opinion in this case?

A. No, sir.

Q. You didn't review this information?

A. After I formed an opinion. Not before.

Q. I understand. But you still used it as the basis for your opinion even after the

fact, correct?

A. No, sir. I didn't use those as a basis for my opinion.

Q. What did you use them for?

A. To give you some grip on the national scope of the problem of death in cardiac arrest during anesthesia.

Q. But you did review them as part of your involvement with this case as an expert?

A. Yes, sir. I did not use them in forming my opinion.

Q. The court reporter is going to make copies of them for us and return them to you. All right?

A. Yes, sir.

(Discussion off the record.)

Q. Don't put those away.

MR. GOLDENSE: You are not getting that letter. I'll let you read it. That's all you get.

MR. LICATA: We should have it marked so we can fight about it in court.

Q. May I see that letter, please.

A. The one I just took?

Q. Yes.

Doctor, referring to a letter that was directed to you on December 6, 1985 from Mr. Goldense, you received that letter, did you not?

MR. GOLDENSE: Let me interrupt. For the record, we're referring to a letter on my stationary addressed to Dr. Kopsch dated December 6, 1985. It's my policy in this litigation that it's a work product of my office in anticipation of litigation, aware that this claim was pending.

I've been kind enough to show it to defense counsel. It is absolutely a privilege and has no place in this case. So as to any questions relative to this correspondence, please show my continuing objection.

Q. Doctor, you received that letter, correct?

A. Yes, sir.

Q. And the letter sets forth various facts relative to this case, correct?

A. Yes, sir.

Q. Did you look at that letter, and in conjunction with other documents, review it as part of your review for this case?

A. Yes, sir.

Q. Doctor, I'm also going to show you what appears to be a copy of a letter to

to this document that Mr. Licata identified, it

MR. LICATA: Not his signature.

MR. GOLDENSE: Fair enough. Again I assert an absolute work product privilege with respect to this document. I will allow Mr. Licata to ask his questions about it. But please show my continuing objection to any questions related to this correspondence.

Q. Doctor, this letter here -- first of all, is the date correct, December 13, 1985, is that the date that you did in fact have the letter prepared?

A. That I prepared the letter, yes, sir.

Q. Was that in response to Mr. Goldense's December 6, 1985 correspondence?

A. I believe so, sir.

Q. Does this set forth your

preliminary opinions reached and the bases for those preliminary opinions?

A. Yes, sir.

Q. Doctor, showing you what's dated as November 24, 1987, a letter to you from Mr. Goldense. I note on the back of that letter there is what appears to be a carbon copy of a letter or two letters, in fact, prepared by you, correct?

MR. GOLDENSE: For the same reasons with respect to the two previous items of correspondence identified from the Doctor's notebook, I assert a privilege to the front and back of this letter on my stationary, November 24, 1987, with a continuing objection to this document.

Go ahead and answer his questions.

Q. I note here that you have sent to Mr. Goldense two separate responses, one dated November 26, 1987 and another dated November 27, 1987; is that correct?

A. Yes, sir.

Q. In those responses you were further supplementing your opinion concerning the anesthetic care and treatment rendered to Mary

Lou Brown; are you not?

A. Yes, sir.

Q. Showing you what's been dated March 7, 1988, that is also a letter to you from Mr. Goldense; is it not?

A. Yes, sir.

Q. On the back of this letter, again, is what appears to be a carbon copy itemization of your fees for the services rendered on this case up through March 9, 1988, correct?

A. Yes, sir.

Q. You have itemized those fees based on your per hour rate of $125 per hour?

A. Yes, sir.

Q. I have on here that on March 7 you expended two hours, March 8 two hours and March 9 two hours. Would that be correct?

A. Yes, sir.

Q. The total as of March 9 you expended on this case was six hours; is that correct?

A. Yes, sir.

Q. Showing you what's been dated as March 15, 1988 --

MR. **GOLDENSE:** Note my continuing

objection to this document for the same reasons as the previous documents.

Q. This is a letter to Mr. Goldense. Over your signature is a copy -- is it a copy?

A. This is a carbon copy of a letter to Mr. Goldense dated 15 March '88.

Q. This letter sets forth additional information concerning your opinions in this case and the underlying bases for those opinions; does it not?

A. Only on the sinografin.

Q. But that is part of your review for this case, correct?

A. Yes, sir.

Q. I also note in the upper right hand corner you have two hours. Does that mean you expended an additional two hours **on** this case

Q. That would be an additional two hours from your prior calculation?

A. **I** believe so, sir.

Q. Then the last written -- this **is** handwritten. Maybe you could identify that **for**

me as well?

A. Okay. These are my handwritten notes when I first went over Miss Brown's chart.

Q. Those are notes that you took based on your review of her chart and other information forwarded to you by Mr. Goldense?

A. Yes, sir. This would have been my initial finding back in '87.

Q. And that's in handwritten form, correct?

A. Yes, sir.

Q. It's on the back of what appears to be stationary for the Army U.S. Service Clubs, correct?

A. From Fort Lee, Virginia.

MR. LICATA: I would ask that those be copied and produced for us.

MR. GOLDENSE: You get a court order.

MR. LICATA: All right. We will.

Q. Doctor, other than the literature that's been handed over to the court reporter and the records that we've identified here as being hospital records and the various

deposition transcripts and the correspondence or the information set forth in the correspondence, is there anything else that you have either prepared or reviewed in this case?

A. My experience.

Q. So you've relied on your experience. I understand that. Is there anything else?

A. No, sir

- - - - -

(Thereupon, Defendants' Deposition Exhibits 1 and 2 were mark'd for purposes of identification.)

- - - - -

Q. Doctor, I'm showing you what's been marked as Defendant's Exhibit 1. This is a copy of your statement in this case; is it not?

A. Yes, sir.

Q. This statement embodies your opinion as it pertains to the medical care and treatment including the anesthesia management of Mary Lou Brown in this case, correct?

A. This was based on the information I had at that time, sir.

Q. Since this report were you given

any other information, any additional information?

A. Either at or shortly after that time I went over Dr. El Hamshari's deposition. I had not been over it in detail at the time of this deposition.

Q. Showing you the letter dated March 7, 1988, Mr. Goldense indicates in that letter that he photocopied and provided the transcript of Dr. El Hamshari as well as Dr. Hahn.

A. May I submit to you, sir, that the deposition was March 9.

Q. I understand. That's the point of my question. Am I to assume that because Mr. Goldense forwarded you that transcript on the 7th that you were unable to review both of those transcripts, both Dr. El Hamshari's and Dr. Hahn's, before you rendered this opinion, this being Defendants' Exhibit 1?

A. Sir, in my letter to Mr. Goldense I referred to the fact that I had gone over Dr. El Hamshari's deposition.

MR. GOLDENSE: You're reference to having looked at, this is in the first paragraph of Defendants' Exhibit 1.

A. Thank you, sir. I obviously had not had time to go over it in detail since he deposition is dated 9 March.

Q. But you did have an opportunity to review both Dr. Hahn's depostion and Dr. El Hamshari's deposition prior to rendering this statement, correct?

A. I am saying I did. Obviously, it was only, at best, a cursory examination.

Q. Since then you've had an opportunity to review those depositions in more detail?

A. Yes, sir.

Q. How much additional time did you spend in reviewing those depositions since that time?

A. Since which time?

Q. Since the statement of March 9, 1988?

A. Okay. In preparation for this, I think earlier in my testimony I mentioned on 10 March '89 I spent two hours reviewing this. On 13 March '89 one hour.

Q. And those reviews include these

deposition transcripts?

A. Yes, sir.

Q. Since you have reviewed those deposition transcripts, do you have any opinions that are different than those set forth in this exhibit, Exhibit 1?

A. Dated March 9, '88?

Q. Correct.

A. Yes, sir.

Q. What additional opinions do you have?

A. Not additional, but in place of in my deposition of March 9, '88 --

MR. GOLDENSE: Excuse me, Doctor, that's not a deposition. And it's going to be misleading to all of us. Let's call this your statement.

A deposition implies that both sides of the case were there and were represented and there was an opportunity for objection much like we're doing today. But you'll recall on this day nobody else was here. It was just you and I and the court reporter. We'll call it a statement, Defendants' Exhibit 1.

Q. So the statement that you gave on March 9, 1988?

A. Deals at length with the probability of equipment failure.

Q. And?

A. Later review in more detail does not rule out equipment failure in my mind, but in light of Dr. Hamshari's deposition, makes esophageal intubation the more likely proximate cause, the immediate cause of Miss Brown's cardiac arrest.

Q. So the opinions rendered in your statement which include the possibility of equipment failure are a number of possibilities, but are not the more likely than not cause of her death. Is that your opinion?

A. In my present opinion that is correct, sir.

Q. Would it be fair to say, Doctor, that you cannot, to a reasonable degree of medical certainty, opine that equipment failure was the proximate cause of Mary Lou Brown's death in this case?

A. That is correct, sir.

Q. Other than the substitution of your

opinion that esophageal intubation was more likely than not the cause of her death, do you have any additional opinions that you developed since this statement?

A. No, sir.

Q. Doctor, this patient was admitted to Booth Memorial Hospital on May 6, 1985, correct?

If you need to refer to the records, I have marked the chart as Exhibit 2. You could look at that or your folder. Either one is fine.

MR. GOLDENSE: The problem with looking at your notes is he's got this marked as an exhibit. The only question before you is, was the date of her admission 5-6-85.

For the record he's referring to Defendant's Exhibit 2.

A. Yes, sir.

Q. On admission it was noted, was it not, that the patient had previously good health except for hypertension?

A. Yes, sir.

Q. And that she had apparent good health, correct?

A. Yes, sir.
Q. Her classification for purposes of anesthesia was ASA 2, correct?
A. I believe so.
Q. Do you have any criticisms of her classification as being ASA 2?
MR. BUCK: ASA 2?
A. Capitol A, capitol S, capitol A. She would have been either two or three, sir.
Should I elucidate?
Q. Please.
A. She has two complicating conditions. One is her hypertension. The second is her obesity.
Q. Would you agree, Doctor, that because she could have been either an ASA 2 or ASA 3 that it was not a departure from the acceptable standard of anesthesia practice to classify her as an ASA 2?
A. Yes, sir.
Q. Yes. You would agree?
A. Yes, sir. I agree.
Q. You note in your report, Doctor, and I assume you took this from the report, that she was recovering from upper respiratory

infection?

A. Are your pages numbered, sir?

Q. Do you need your opinion?

A. Page 10 of the hospital chart states she has, quote, "slight cold for years," unquote, "runny eyes; upper resp congestion."

Q. Is upper respiratory congestion the same as an upper respiratory infection?

A. It includes that.

Q. It's your opinion that the entry on the chart that she had upper respiratory congestion implied or inferred that she had an upper respiratory infection from which she had recovered?

A. That is her statement. At no place is it borne out by the physical findings.

Q. Doctor, is there anywhere in the chart that you can find that Mary Lou Brown was noted as having an upper respiratory infection to which she referred?

A. No. Page 11 is on physical findings and the HNT are circled as normal. This is her history. There are no corroborating findings.

Q. Your statement that she was

recovering from an upper respiratory infection at lines 19 and 20 of page 1 is incorrect?

A. No. This is based on her statement,

Q. Where, in the records, does she state that she was recovering from an upper respiratory infection?

A. I don't find it. That would be my inference from her statement to the admitting clerk.

Q. From her statement that she had a slight cold for years and upper respiratory congestion, you inferred that she was recovering from an upper respiratory infection?

A. It would seem that way.

Q. On the bottom of page 10 on the chart --

A. This is the secondary numbering?

Q. Correct. In the lower right-hand corner it lists medications. Unless I cannot read those, which I will agree it's a problem, it looks like Corgard, Lozol and Slo-K?

A. What is your question?

Q. My question is: Would those medications present any type of a problem as

far as determining the anesthesia to administer to a patient?

A. Some folks think they do and some folks think they don't.

Q. What is your opinion?

A. That they don't.

Q. Now, Doctor, the procedure or the decision to administer general anesthesia in this case was not contraindicated, was it?

A. No, sir.

Q. It would have been within the acceptable standard of anesthesia practice to ultimately administer general anesthesia in this case?

A. Yes, sir.

Q. And you don't find any fault with the decision to proceed with general anesthesia, do you?

A. No.

Q. Doctor, would you agree that the ultimate decision of whether to proceed with the surgical operation rests with the surgeon himself or herself?

A. Yes, sir.

Q. In your report at the bottom of

page 1 at the top of page 2 you state that there was no premedication?

A. Okay.

Q. I assume you're referring to presurgery medication for anesthesia purposes?

A. That would be premedication before she entered the surgical suite.

Q. Would the premedication that you've identified in your report relate to anesthesia or some other aspect of her care and treatment during her surgery?

A. I would only be commenting on the pre-anesthetic medication.

Q. Doctor, would you agree that it is not uncommon to administer general anesthesia on a patient like Mary Lou Brown for procedures that she underwent without administering presurgical medication?

A. Pes, sir. Because this is in the category of outpatient anesthesia.

Q. It wouldn't be a deviation from the standards of acceptable care in anesthesia practice to proceed without administering presurgery medication?

A. Correct.

Q. Doctor, you are going to have to help me out a little bit here. I don't really know a whole lot about these various drugs that were administered. You've identified from the record that anesthesia commenced at 11:45 a.m., which means that's when they first commenced introducing medications for anesthetic purposes, correct?

A. Yes, sir.

Q. The first thing you've identified in your statement is intravenous atropine sulfate of four milligrams?

A. Point four.

Q. Point four. Thank you. What is the purpose of administering atropine sulfate?

A. To dry up the nasal, salivary and pulmonary secretions, and to at least partially block the sympathetic -- I beg your pardon -- the parasympathetic impulse to the heart, the slowing of the heart, which should be incidental to death to administer both, if you will, in a couple of minutes.

Q. What are the side effects of atropine sulfate?

A. Flushing, dryness, excessive

dryness if you give too much, and tachycardia.

Q. One of the side effects could include speeding up the heart? In other words, the drug itself would speed up the heart?

A. That wouldn't be a side effect. That would be one of the primary effects.

Q. That would be a direct effect of the drug itself?

A. Yes.

Q. Would you agree, Doctor, that point four milligrams was within the recommended range for this person?

A. She is how heavy?

MR. **BUCK:** 5'5" 240 you have in your report.

A. Yes. For a 240 pound lady who had been on antihypertensive medication this would be the lower range of atropine in which one would use.

Q. But it would be within the recommended range?

A. Yes, sir. The lower recommended range.

Q. So you don't find any fault with the amount of atropine administered at this

point?

A. No, sir.

Q. Now the next drug that was administered was Vesprin, two milligrams?

A. Yes, sir.

Q. What is the effect of this drug?

A. That's a long lasting tranquilizer and antiemetic.

Q. Antiemetic?

A. Yes, sir.

Q. What does that mean?

A. Helps prevent vomiting.

Q. Are those the only effects of the

Those are what you give it for. I have no -- I never used Vesprin.

Q. Why not?

A. Because I used other agents of that same chemical -- not chemical but the same pharmacological preparation. My favorite was

two milligrams is a deviation from the acceptable standard of anesthesia care?

A. In the PDR, which is your accepted authority, it lists the intravenous dosage as one milligram.

Q. Does that mean it would be inappropriate to administer two milligrams in this case?

Do you have an opinion as to whether it was inappropriate?

A. Yes. If it was published in an authoritative text and listed as intravenous dosage of one milligram, then two milligrams is inappropriate.

Q. Did the administration of two milligrams of Vesprin in any way cause Mary Lou Brown's cardiac arrest and ultimate death?

A. I don't think so because it's listed as a slow onset, long acting tranquilizer and antiemetic. Since all of this is occurring within the first 10 minutes, say from induction, then I wouldn't expect the Vesprin to play any significant role.

Q. Is there a point in time where the Vesprin could play a significant role?

Q. You are unfamiliar with it?

A. It's a drug that I never used.

(Recess had.)

Q. The next drug that was administered was atracurium three milligrams. What is the effect of that drug?

A. It is a skeletal muscle relaxant.

Q. Why do you use it? Or do you use it?

A. No. I don't use it. Here it was used to cut down the muscle fasciculation from the succinylcholine which is used in a couple of minutes.

Q. Doctor, you indicated you didn't use Vesprin and you don't use atracurium. I assume it wouldn't be a deviation from the acceptable standard of care to use those drugs for the induction of general anesthesia?

A. My only question would be on the Vesprin dosages. The atracurium dosage is within the usual limits.

Q. An anesthesiologist's decision to use either of those drugs or both of those drugs is not a departure from the standard of care?

A. No, sir.

Q. The amount of those drugs used may play a role in determining whether there is a departure?

A. Only in the Vesprin. The atracurium is within the usual limits.

Q. Three milligrams of atracurium is within the acceptable limit and not a departure from the standard of care, but two milligram may be?

A. The two milligrams of Vesprin?

Q. Yes.

A. Yes, sir.

Q. Looking at fentanyl three cc's, what is the purpose of that drug?

A. A short acting narcotic and tranquilizer.

Q. How short?

A. Actually this is a narcotic -- fentanyl is the narcotic short -- how short, 30 seconds intravenously.

Q. What is the effect of that narcotic, the short acting narcotic? I missed the effect?

A. Painkilling.

Q. Side effects?

A. Of any narcotic, respiratory depression. Miosis. That's a pinpoint pupil. That's how you tell a hophead.

Q. Do you have any criticisms regarding the decision to use three cc's of fentanyl in this case?

A, No.

Q. The use of three cc's of fentanyl was within the recommended range and was not a departure from the acceptable standards of anesthetic care?

A. Right. This was given to cut down on any postoperative pain or discomfort.

Q. And it lasts for 30 seconds?

A. No. Starts in 30 seconds. Lasts for a couple of hours.

Q. I missed that point. I'm sorry. It takes 30 seconds to take effect and then it last for --

A. A couple of hours.

Q. Sodium pentothal 500 milligrams and succinylcholine 120 milligrams. I take it those were used for induction? That's what you indicated in your report?

A. The pentothal would be used for induction. The succinylcholine is used purely for muscle relaxation.

Q. What is the duration period for 500 milligrams of sodium pentothal?

A. You could find traces of it 24 hours later.

effects of sodium pentothal?

A. Depends on the dosage.

Q. 500 milligrams.

A. On a 240 pound lady?

Q. Yes.

A. I would expect it to knock her out for a couple of minutes.

Q. Is that for the purpose of intubating her, in other words, having her knocked out, as you put it, long enough to intubate her?

A. Yes, sir.

Q. And succinylcholine?

A. I would have given her more because she's 240 pounds. If she can get the intubation done with 120 milligrams fine.

Q. It's not a departure from

acceptable standards of care to render 120 milligrams of succinylcholine?

A. You could use that as a first approximation.

Q. I assume the 120 milligrams of that drug is within the recommended range?

A. On a 240 pound woman?

Q. Yes.

A. It would be at the lower level of what one would use.

Q. At this point could we have respiratory paralysis?

MR. GOLDENSE: At this point of course referring to the administration of these six drugs?

MR. LICATA: Exactly.

Q. At this point in the sequence of the administration of those various drugs, do we have respiratory paralysis?

A. We have paralysis of the skeletal muscles. We don't have paralysis of the respiratory drive coming from the respiratory center.

When you say "respiratory paralysis," she can not breathe on her own

because the skeletal muscles are paralyzed. She would still have a central respiratory drive. Do I make myself clear?

Q. I believe.

A. She could not breathe on her own.

Q. She needs assistance?

A. Yes, sir.

Q. Would you agree, Doctor, that the combination of these six drugs that we've discussed were within acceptable standards of anesthesia care?

A. My only quibble here would be the Vesprin dosage as being twice the textbook level in the Physicians' Desk Reference.

Q. Which, in your opinion, did not proximately cause the cardiac arrest or ultimate death in Mary Lou Brown?

A. Yes, sir.

Q. Meaning correct?

A. Yes. You are correct.

Q. All right. I just wanted to make sure the record is clear.

A. And succinylcholine might have been a little inadequate. We've got one thing going for us. We have an upper plate which is out so

that you could get a look at her larynx more readly.

MR. GOLDENSE: For the record, the Doctor is indicating upper dental plate as he's making this explanation.

Q. It's easier to visualize the trachea?

A. You never see the trachea. It's easier to visualize the larynx.

Q. You have to visualize the larynx to properly intubate?

A. In most cases.

Q. In which cases don't you?

A. If you're blind intubating,

Q. They weren't blind.

A. No. They are intubating under vision.

Q. The fact she had an upper plate removed would be more helpful to the intubation process?

A. Yes, sir.

Q. You indicate in your report that orotracheal intubation with a number 7 tube was noted as atraumatic. That means there was a problem with the intubation, correct?

A. Yes, sir.

Q. And that nitrous oxide and ethrane were used for maintaining this patient while under anesthesia?

A. Yes, sir.

Q. Again, I would assume that it's within acceptable standards of anesthetic care to use nitrous oxide and ethrane to maintain the patient?

A. Yes, sir.

Q. You don't have any criticism of the anesthetic care up to this point?

A. Only what I already told you on the Vesprin and succinylcholine.

Q. Other than that, you have no criticisms up to this point?

A. No, sir.

Q. I'm going to jump just a little bit to the --

A. I figured you would, because your first indication of trouble is the rest of that sentence.

Q. Which one?

A. "The breath sounds are noted as wheezing."

Q. I'll get to that. Go to page 4, almost too small.

A. I'm looking here because seven refers to diameter. An old-timer like me uses a circumference. Number 7 is seven millimeter diameter, which is equivalent to a 30 millimeter circumference tube and old-timers like me are used to referring to tubes in circumference, which used to be a way of rating them.

On a 240 pound woman I would expect to use at least a number 8 and perhaps a number 9.

Q. Doctor, would you agree that the weight of the patient makes no difference as to the size of the trachea?

A. No. I wouldn't.

Q. Is it your opinion that a person who is heavier has a larger trachea?

A. We're talking larynx, not trachea.

Q. Explain to me where the tube passes for purposes of intubation?

A. Through the larynx into the upper part of the trachea. A heavy framed big boned

guy like him or me in the male would take at least a 36, which should be almost a number 10 on here.

A big woman like this, in this terminology would take an 8 or 9.

Q. When you say "big woman," you're referring to weight as opposed to bone structure?

A. The whole shooting match. This girl is 5'5" and 240. She's carrying a lot of weight on her frame.

A little girl like Claudine here would be one to take a number 7.

Q. What would this patient's optimal weight be here?

MR. GOLDENSE: Objection.

A. For 5'5"?

Q. Yes.

A. I'll have to look in the Army physical tables. At 5'5" if she's big boned and heavy framed, you would expect her to weigh maybe 150.

Q. You don't know whether she **was** big boned and heavy framed, do you?

A. No, sir. I never saw this lady.

Q. Assuming she was 5'5", big boned, and heavy framed and weighed 150, 155 --

A. I'd be using a number 8.

MR. **GOLDENSE:** Let him finish his question. You're assuming he was going to --

A. Excuse me for interrupting.

Q. You said you would use a number 8 based on those facts I gave you, based on the bone structure for this woman or the weight?

A. It's based on what **I** feel. I feel the throat before **I** ever start.

Q. Is it important to feel the throat before you decide the size of the endotracheal tube?

A. Certainly it is a big help.

Q. Would it be fair to say the person who would be in the best position to determine the size of the tube would be the person who was there to see the patient and could make a decision as to the tube to use for the patient?

A. That would be fair to say, sir.

Q. In your report you state that the number 7 tube is almost too small. Can **I** conclude from that that the use of a number 7 tube in this case being almost too small

wouldn't be a departure from acceptable standards of anesthetic care?

A. Okay. Yes, You could ventilate satisfactorily a big girl like this from a number 7.

Q. There would be no departure from the acceptable standard of anesthetic care to use a number 7 tube?

A. No, sir.

Q. Let's go back to the section on page 2 where we talked about "breath sounds are noted as wheezing." It's your opinion, Doctor, that you would hear wheezing if the patient was intubated in the esophagus as opposed to the trachea?

A. Yes, sir.

Q. Why is that your opinion?

A. Because I've had it happen to me. This lady is cleared auscultation and percussion preoperatively according to the hospital chart. Which means her lungs are clear to auscultation.

All of a sudden with anesthetic induction and intubation her breath sounds are wheezing. Why are they wheezing? If she had a

history of asthma than one would think perhaps the pentothal had induced bronchoconstriction and she was wheezing on that, that she was having an asthmatic attack. But in my suspicious mind I would want to know why she is wheezing now and she wasn't preoperatively. What have I done?

Q. What would you expect to hear in this patient, if she were properly intubated, as opposed to wheezing?

A. Perfectly clear breath sounds. Tubular breathing, since we bypassed the larynx, and we expect to hear tubular breathing so-called on auscultating the lungs or listening to the breathing tubes.

I would not expect to hear wheezing. Wheezing is a sign of obstruction. Is the tube kinked? Is it blocked? Have I got the tube in the wrong place?

Q. Would you expect to hear bilateral wheezing if the tube were in the esophagus as opposed to the trachea?

A. Yes, sir.

Q. would you expect to hear bilateral wheezing in a patient who had been, by way of

anesthetic agents, prevented from breathing on her own?

(Record read.)

A. In the absence of any gas exchange you would hear nothing.

Q. If the intubation had occurred, whether properly or improperly, and there was no breathing done for the patient, you would hear nothing?

A. You would hear nothing.

Q. If the intubation had occurred properly through the trachea and there was breathing performed for the patient, you would hear clear sounds of breathing?

A. So-called tubular sound.

Q. Tubular sound bilaterally?

MR. GOLDENSE: For the record, the breathing sound you were just making was how you would demonstrate a tubular breathing sound.

THE WITNESS: Yes, sir.

Q. If the tube were placed in the trachea through the larynx and the patient were being ventilated properly you would expect to hear wheezing?

A. No, sir.
Q. What would you hear?
A. I would expect to hear no wheezing.
Q. Why?
A. Because there is no moisture in your line -- in your respiratory line and there, is no bronchoconstriction.
Q. Am I to conclude, Doctor, from what, you just told us that if the tube were misplaced you would hear nothing?
A. No. No. That's not what you asked.
Q. I think what I asked you was if the tube is placed in the esophagus through the trachea and the patient --
A. In the esophagus?
Q. Through the larynx.
A. You don't reach the esophagus through the --
MR. GOLDENSE: We know that. He just misspoke.
(Discussion off the record.)
Q. Doctor, let's back up just a few questions. We're still talking about the same page, but I'm backing up a few questions on

that issue.

You stated that the wheeze was a sign of obstruction?

A. Or bronchoconstriction.

Q. You have ruled out bronchoconstriction in this case?

A. I haven't ruled it out.

Q. Is that a possibility here?

A. Yes, sir. She has no history of asthma. But we've given her a slug of pentothal which is parasympathetic and antiemetic and which maybe triggered the bronchoconstriction.

Q. Bronchoconstriction could have been one of the causes of the wheezing?

A. Yes, sir.

Q. As well as some of the other

or faulty intubation.

Q. There is no way for you to determine exactly which one of those it was,

Q. Correct.

A. No. I cannot tell at this remote distance. I could have a pretty good idea if I was there.

Q. You can't tell as you sit here today what caused the wheeze of those multiple causes, correct, of the ones you've identified?

A. As we're going through the case?

Q. Yes.

A. Up to this point. No. I cannot.

Q. If those causes that you've listed for the wheeze could have existed, what would you hear if you intubated through the esophagus as opposed to the trachea? Would you --

A. The wheezing.

Q. You still hear wheezing?

A. Yes.

Q. Where does the wheeze come from?

A. From the fact the trachea is a normally opened tube re-enforced with the C-ring cartilage and opened all the times. The esophagus is normally a closed tube except when a bolus of food if passing through it it will open. Okay?

Q. Yes.

A. If one intubates the esophagus by error as one is forcing gas down it, one is opening this normally closed tube and you're hearing a wheeze as the gas goes along, past the moisture, and is opening the normally closed tube. That's the wheeze you're hearing with esophageal intubation.

Q. Is that the same type of wheeze you would hear with an obstruction in the trachea?

A. The wheeze you'd hear with an obstruction of trachea you only hear with a partial obstruction. If it's completely obstructed you don't hear a thing. There is no gas moving back and forth to generate the sound.

Q. Right. You indicated there could be a multiple --

A. I said when wheezing occurs you have to think of all these things and you better do something about it.

Q. My question is: Do you hear a different sound? Although it's a wheeze, do you hear a different sound as the wheeze occurs because the tube is in the trachea as opposed to the esophagus?

A. I don't know. To me a wheeze is a wheeze. Is the timbre or note different, you're asking me? I don't know. I don't think so. I don't think so, sir.

Q. You have bradycardia noted here at 12:05 and surgery was well under way. I take it you concluded that surgery was well under way from your review of the records?

A. Yes, sir.

Q. And bradycardia at 12:05 includes the pulse rate of less than 30?

A. Yes, sir.

Q. There are several causes for bradycardia, correct?

A. Yes, sir.

Q. One of the causes could be intrinsic?

A. Yes, sir.

Q. And one doing a vagal reflex --

A. It's talked *of.* Not everybody believes in vagal reflex.

Q. Do you?

A. Do I?

Q. Yes. Is it your opinion that vagal reflex can cause bradycardia?

A. I haven't seen it except for ophthalmological cases. This is not a ophthalmological case. The only place I myself, in my limited experience, have seen the vagal reflex is with pressure on the eyeball in an ophthalmology case.

Q. Would you rule out the possibility, not knowing anything else, but in the vacuum of our hypothetical, would you rule out the possibility of a vagal reflex in the case where a GYN procedure were being performed which included dilation of the cervix and the use of a toothed tenaculum forceps?

MR. GOLDENSE: Objection. Because I think your hypothet -- are you talking about a hypothetical case with those facts you just listed?

MR. LICATA: Exactly.

MR. GOLDENSE: Objection.

You can answer the question.

A. The only facts you mentioned were dilatation of the cervix and traction of the cervix and the vagus does not go that far down to supply, so, yes, I would rule out vagal stimulation.

Q. Is it your opinion that you would never have vagal stimulation with any GYN procedure in the cervical uterine area?

A. Anything is possible. The uterus and cervix are below the area of the vagal nerves.

Q. Your opinion is that because --

A. Which we can see vagal effects with uterine surgery sure. When a guy is doing a Cesarean section, packing off the intestines and pulling on them, then you see the vagal, per se. When he's working from below and she's in lithotomy, I wouldn't expect the vagus to play any role.

Q. Would you agree, Doctor, that you could have a parasympathetic reflex that is not necessarily a vagal reflex as a result of the stimulation to the cervical area?

A. Parasympathetic. Sure.

Q. Would you also agree that certain parasympathetic reflexes can cause bradycardia?

A. Yes. Sure.

Q. Of the causes, hypoxia is also another cause known for bradycardia? Hypoxia in your earlier responses could give you

Q. In this case, isn't it true that bradycardia was a sudden development?

A. No.

A. It's suddenly noted. At precisely 12:05 p.m., which is the interval that this lady was using, She's using five minute intervals. That doesn't mean that at 12:04 or 12:03 bradycardia wasn't present. It means that she isn't noting it until 12:05.

Q. That assumes that she's not monitoring the patient during that five minute interval, correct? It's one thing to note it and another thing to monitor, correct?

A. You could put it that way. I put it that she isn't charting it until 12:05. Maybe she noticed it before and did nothing. I don't know. She's charting it for the first time at 12:05.

Q. Is there any reason to believe from your review of the deposition testimony in this case that this patient developed bradycardia prior to 12:05?

A. The slipshod work on the rest of the chart.

MR. BUCK: What?

THE WITNESS: Slipshod work.

Q. Where on the chart does it lead you to believe that bradycardia developed before

12:05?

A. I said it may have. The post-op finishing notes were made and then crossed out.

Q. Is there anything in the chart that --

A. It may have. I didn't say it did.

Q. To a reasonable degree of medical certainty, is there anything in the chart that leads you to the conclusion that bradycardia occurred before 12:05?

A. There is nothing to indicate any significant change between the one charted observation at 12:00 and the next charted observation at 12:05. In fact, I'm looking at this and I don't even see the pulse. Okay. Usually one charts pulse as a solid dot.

Q. Do you see the pulse on the chart?

A. I see what may be the respiration. One charts it as a hollow circle. What she has here is hollow circles.

Q. Assuming that those hollow circles represent her methods of charting the pulse, would you agree there is no evidence in the chart that bradycardia occurred before 12:05?

A. Looking at this chart, bradycardia

hasn't occurred at 12:05. Up here at the top she has 12:00. At 12:05 she has the pulse still charted at 70. At 12:10 she has the pulse still charted at 70.

Q. What did you see in the right-hand corner?

Don't write on that.

A. I'm not writing. I am a bibliophile.

Q. What do you see?

A. The notes, 12:05 patient developed bradycardia of greater than 30 ASA point four I.V.

Q. Again, Doctor, to a reasonable degree of medical certainty --

A. What the hell --

MR. GOLDENSE: Wait for a question.

Q. To a reasonable degree of medical certainty there is nothing in the chart to indicate that this patient developed bradycardia any earlier than 12:05?

A. This is the first mention of it, sir.

Q. In fact, based on this portion of the chart, this portion being a TVX rate, it's

even probable that bradycardia monitor 12:05

A. There is no indication of bradycardia.

Q. That's my point. You stated there is a chart notation even as late as 12:00, correct?

A. Indicating a pulse rate within normal range.

Q. So it is possible, is it not, Doctor, that bradycardia didn't develop until after 12:05, correct, based on the chart?

A. Based on the graph as opposed to the marginal note.

Q. Back to my original point, your opinion is that this is not sudden bradycardia?

A. When you said "sudden bradycardia," I don't often see that. Coming events cast a shadow before.

Q. Do you see any shadow before?

A. From this chart, no.

Q. Would you agree, Doctor, that based on only that which you've been able to review, that being the chart and depositions, that bradycardia was a sudden event in this case?

A. I don't even see bradycardia on the

graph.

MR. GOLDENSE: He's now expanded the question to everything you reviewed in the case including depositions which would include --

A. I see a discrepancy between the graphs and the written notes, sir.

Q. Do those discrepancies lead you to believe that bradycardia was not a sudden result?

A. I don't know.

Q. Would it be fair to say you have no opinion either way as to whether bradycardia is a sudden result in this case?

A. This would be correct, sir.

Q. Would you agree, Doctor, that bradycardia can occur suddenly? It is a result that can occur suddenly?

A. Yes, sir.

Q. When it does occur suddenly it can be the result of the multiple causes that we discussed before, those intrinsic causes, sympathetic causes?

A. Parasympathetic causes.

Q. Parasympathetic causes. Excuse

me. And even secondary to drug reaction?

A. The cause of a sudden onset?

Q. Yes.

A. Yes, sir.

Q. After bradycardia occurs, atropine sulfate at point four milligrams was given I.V. Is that an appropriate response to bradycardia?

A. Yes, sir. It's an inadequate response and it's one done without thinking. But, yes, it is a response.

Q. Why is it an inadequate response?

A. Because point four is not a full dose of atropine for bradycardia. Point six or point eight milligrams would be more of a full dose for bradycardia, and is doing nothing to find out why the bradycardia occurred.

Q. It wouldn't be a deviation of acceptable standard of anesthetic care to administer point four milligrams of atropine sulfate at this point?

A. Yes. It's a deviation. You haven't found the cause and an inadequate dose.

Q. What should have been done?

A. Find out why the bradycardia is there.

Q. How do you do that? What would be the steps? What would you do, Doctor? What would be the acceptable steps of an anesthesiologist?

A. What I'd do?

Q. Yes.

A. I would have started looking as soon as the wheezing is noted. What the hell has gone wrong? Why is she wheezing when she had perfectly clear lungs preoperatively? Have I got a kink in the tube? Is there an obstructed tube? Am I down the esophagus?

Q. Would you agree that bradycardia was caused by a lack of oxygen and atropine would have no effect? The only thing you could do at that point was to supply the oxygen?

A. Right. You're whipping a tired horse when you give atropine to a failing heart.

Q. Would CPR be indicated at that point, in other words, at that point where the oxygen was supplied?

A. What was your question?

Q. Would CPR be indicated if the bradycardia was caused by lack of oxygen?

A. In this case, no. CPR would do nothing, but whatever oxygen you supply is not going into the lungs.

Q. Once you provide the oxygen that should resolve the problem?

A. In this lady?

Q. In a person who has been deprived of oxygen?

A. No, sir. The brain is one of the first things to die. The heart is one of the last things to die. I'm glad you asked that question.

If I might digress briefly, Dr. Hahn, according to his deposition, was educated in Korea. I happen to know that in Korea they take the medical students down to the local jail and show them a judicial hanging or two. When a guy is hanged, his neck is broken and his airway is shut off and up to -- he's gone man and it takes up to 14 minutes for his heart to stop beating. In the absence of oxygen and with a severed spinal cord his brain is dead long before his heart stops beating.

In something like this where this lady has had inadequate oxygen delivery over a

period of many minutes, her heart could keep beating long after the brain is dead. She can not be resuscitated successfully.

Does this answer your question?

Q. Yes. Hold on a second, please.

(Recess had.)

Q. Doctor, whose decision would it be to render CPR in this case?

A. The first person that recognizes cardiac arrest.

Q. If the CRNA were to recognize the cardiac arrest and report it to the attending physician for the surgery, being Dr. El Hamshari, would it be his decision as to the next step to take?

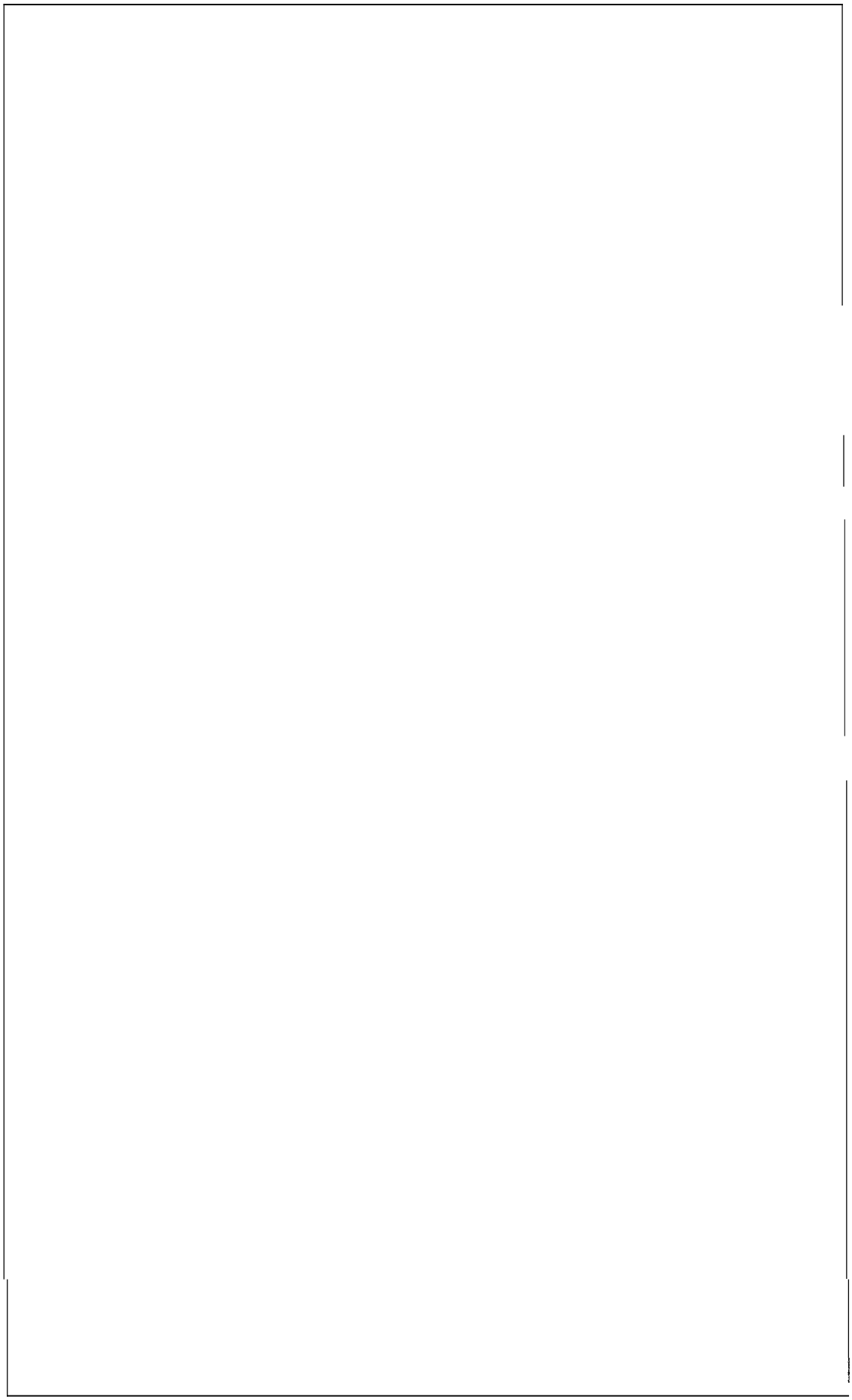
A. Of the people in this room?

Q. Yes.

A. Yes. Ultimately the circulating nurse would have gone out and hollered code.

Q. That may have happened as that situation develops as the surgeon is sitting in the operating room and he is the person who makes all the decisions as to what steps to take next, correct?

A. No. The way you're putting it the



A. It already has.

Q. I understand it already has. I'm not sure what you mean it already has happened. To what point in time when the person develops bradycardia it is essential that --

A. Not bradycardia, but a total cardiac arrest.

Q. Were you saying asystole?

A. One wouldn't start CPR if it's bradycardia.

Q. If it's asystole, it's vital that CPR be commenced immediately?

A. That's quite important.

Q. The surgeon in this case, when asystole developed, should have recommended immediately and started compressing the chest?

A. I see what you're getting at and let me defend Dr. Hamshari. The question in his mind is why in such a simple procedure has cardiac arrest occurred.

Q. That may be. But my question to you, Doctor, is that it is essential once asystole occurs --

A. He's making the diagnosis.

MR. GOLDENSE: Let him finish his question. Once asystole occurs.

Q. It's essential that once asystole occur that somebody commence CPR so as to avoid the possibility of ultimate brain death? Yes or no?

A. No.

Q. Why not?

A. Because asystole was diagnosed by electrocardiogram, and more than once to me and to everybody -- once the electrodes has come loose and you have a flat EXG, but you still have adequate heart action, one listens quickly to make sure with the stethoscope to make sure that there is an asystole.

You don't screw around with the electral terminals. You listen to the beat to make sure that the heart is not beating.

Q. Is there any reason to believe that asystole did not actually develop in this case *of* Mary Lou Brown?

A. You mean at the stated time?

Q. Yes.

A. I'm saying what is usual and customary is to confirm that by listening to

the chest.

Q. Is there any reason to believe that that wasn't confirmed in this case?

A. When he listened to her chest, no. He confirmed it.

Q. You're saying that **Dr.** El Hamshari confirmed that asystole had developed with her chest?

A. He confirmed the electrical findings.

Q. At that point should he not have started the CPR?

A. After he confirmed asystole?

Q. Yes.

A. Then and only then would he start a manual compression.

Q. That's important to avoid any possibility of brain death, correct?

A. Yes, sir.

Q. Ultimately the CPR equipment would arrive in the emergency room and then they use the equipment to try to resuscitate the patient, correct?

MR. **GOLDENSE:** Your answer is yes?

A. No.

Q. Why not?

A. Because all the equipment is there in surgery except for the defibrillator and looking -- I'm not a cardiologist, but looking at the EKG's which are taken during this period I'm not seeing fibrillation.

Q. Which means what?

A. That they didn't need all the external action. They were just given as matter of routine happening. There would be some response.

Q. That's beyond the point of --

A. Initial stuff.

Q. Right. Exactly.

A. The initial treatment, everybody being present in the operating room.

Q. Which includes what?

A. Oxygen, people who can manually compress the heart, people who could ventilate, the people -- you don't have to wait for any equipment.

Q. The surgeon would be responsible for immediately decompressing the heart after he confirms asystole and would be available for ensuring administration of oxygen which would

be applied to the patient as well as whatever else was necessary to resuscitate this woman?

A. Yes, sir.

Q. Is it true that bradycardia does not need or does not necessarily precede asystole?

A. It does not necessarily?

Q. Precede asystole.

A. Yes, sir. Asystole could be preceded by any heart rate.

Q. This happens very quickly. I assume when you state that the nitrous oxygen and ethrane are turned off and CPR has begun, this all occurs at the same time?

A. Ultimately. You turn off the nitrous oxide and the ethrane when you noted the bradycardia, when things first started to go to pot.

Q. Then what do you do?

A. Give 100 percent oxygen.

Q. Is that what they did in this case?

A. I don't know. She's saying, patient then developed asystole, dash, N-20, turned off oxygen flow. If I'm to believe the charting she kept up the nitrous oxygen and

ethrane after bradycardia developed, assuming this is correct.

Q. Would you agree, Doctor, that the surgeon shouldn't, at the point of asystole, become involved with the anesthesia management of the patient? In other words, that's not his responsibility?

A. He's responsible.

Q. So he is responsible for the anesthesia management of the patient even after asystole?

A. With the CRNA my understanding of the work is that the surgeon is the captain of the ship.

MR. **GOLDENSE:** Objection. Move **to** strike.

A. I'm not sure what **--**

MR. **GOLDENSE:** That's right. That's why I moved to strike.

Q. Your understanding is from a medical standpoint that the surgeon has the ultimate responsibility for controlling the CRNA in that operating room?

A. In the absence of an anesthesiologist?

Q. Correct. That's your understanding?

A. That's my understanding.

Q. And once the anesthesiologist arrives or appears, at that point the surgeon has no longer a role in the care and management, of the patient as it pertains to anesthesia?

A. I don't agree with that, because a bunch of times the surgeon would see something that I didn't. Just as I would see something the surgeon didn't and, by Jove, I would be helping the surgeon and I would expect the surgeon to be helping me. This is not an adversary relationship.

Q. I understand. I'm trying to determine the scope of everyone's relationship. Someone has to make the ultimate decision in these cases?

A. Yes. Somebody makes the ultimate decision. But it's not an adversarial relationship. It's a cooperative one.

Q. Would you agree that the ultimate decision with respect to the anesthesia would be made by the anesthesiologist once he's present?

A. Once he gets in the room. Yes, sir.

Q. In your report, Doctor, you state that, "CPR was continued with no effective response until she was pronounced dead at 1:50 p.m." Is it fair to conclude that the duration of the CPR is really not relevant to your analysis of this problem?

A. The duration is not relevant?

MR. GOLDENSE: Is that a fair conclusion?

THE WITNESS: No. It isn't.

Q. So the duration of the CPR is important?

A. The lack of response is the important thing.

Q. The lack of response is one thing, but the fact that CPR was commenced and continued for an hour or two hours is not relevant to your opinion, is it?

A. The lack of response is.

Q. But the duration isn't important, the lack of response is?

A. Right, sir.

Q. Doctor, this patient was on a blood

pressure gauge, correct?

A. Yes, sir.

Q. If the patient had had a reaction to the two milligrams of Vesprin, you would have seen hypotension on the blood pressure

A. Not necessarily.

Q. You wouldn't?

A. Remember she's up in lithotomy. Lithotomy means her legs are up in

returned to the venous system of the legs. So the volume is somewhere between 500 and 750 cc's -- quite often when a guy is shocky or hypotensive, if you put his legs up his pressure will return to normal from the increased venous return. When you put his legs down the blood is back to the venous system of the legs, but the pressure will go to pot.

Q. If the legs are up what you're telling me is there is no upward effect of the hypotension at that point?

A. One is less likely to see it. You could see shock in the lithotomy position.

Q. One of the apparent effects of using two milligrams of Vesprin would be hypotension?

A. Yes, sir.

Q. Are there any others, by the way, other than hypotension?

A. Bradycardia.

Q. You indicated to me before you do not see any cause or relationship between that Vesprin and bradycardia in this case?

A. Because of the prolonged onset of action. It's my understanding from reading about it, since I never use the stuff, it's my understanding from reading about it it's 15, 20 minutes before it hits a peak action on the intravenous.

Q. The effect of the Vesprin in a form of hypotension would be seen relatively soon, wouldn't it?

A. In lithotomy it's masked by the increased venous return from the legs being up.

Q. Does it present a problem if it's masked?

A. You see it done when you put them back in the supine position and you would

handle it when you recognized it.

Q. You would see it on the blood

bottom of page 2?

A. Yes.

Q. You state, "There is nothing on the chart to indicate any assisted or controlled respirations." Are you referring to assisted in the sense that the patient starts to breathe and you assist the breathing? Are you referring to assisted respiration in the form of mechanical or machine breathing?

A. Assisted when the patient has an inadequate respiratory volume on his or her own and you're giving an extra boost so that they

will have an adequate tidal volume. This could be either mechanical or machine controlled. It is when you take over the breathing entirely for the patient.

Q. Don't we have the mechanical assisted respiration in this case?

A. Where is it indicated? I found no indication.

Q. Isn't it a fact that we have assisted respiration?

Doctor, how would it normally be indicated?

A. CR or AR and a line on the very bottom of the anesthetic chart.

Q. Does the fact that the chart in this case reflects at the top of the graph TVX rate 850 times 10 support the conclusion that we have mechanical assisted respiration in this case?

A. Where are you seeing that, sir?

Q. Right here.

A. It doesn't tell me a thing.

Q. That doesn't tell you that. The 850 times 10 next to that TVX rate doesn't tell you this patient is on mechanical respiration?

A. I could infer that. It doesn't mean it.

Q. Did you review the testimony of Judy Daus and Dr. Hahn?

A. Yes, sir. I said there is nothing on the chart.

Q. You're stating there is nothing on the chart that rejects the idea that the 850 times 10 is the mechanical rate of assisted respiration, correct?

A. I can assume it, but it isn't saying it.

Q. Would you, as a doctor who typically practices anesthesia, conclude to a reasonable degree of medical certainty from reviewing this chart that the 850 by 10 does indicate, even though it's my assumption, that we have mechanically assisted respiration in this case?

A. I would expect to see some note down here of AR or CO.

Q. I understand what you would expect to see. I think my question is a little bit different.

As a doctor in anesthesiology would

it be reasonable to conclude -- even though by assumption, would it be reasonable to conclude to a reasonable degree of medical certainty that the 850 by 10 reveals mechanical assisted respiration?

A. I hope it would.

Q. You do agree, don't you, that both Dr. Hahn and Judy Daus testified that there was mechanical assisted respiration, correct?

A. Sure. In the deposition they state that.

Q. When you state "her ventilation is manifestly inadequate" --

MR. GOLDENSE: Please. If you're going to read the whole sentence, don't take out the two key words "If so, her ventilation. . ."

MR. LICATA: I don't see how that's relevant to my question. But if you insist.

Q. The last line on the paragraph that ends on page 3 you state at lines two and three, "If so, her ventilation is manifestly inadequate." "If so," referring to the prior statement that there is nothing on the chart to indicate any assisted or controlled

respirations. All right.

What do you mean by ventilation? Would you define for me, as you use it in this sentence, what you mean by ventilation?

A. The volume, the minute volume, the cc's per minute of oxygen reach gaseous mixture that are going in and out of her lungs.

Q. You are talking about oxygenation?

A. Yes, sir.

Q. As opposed to ventilation?

In other words, is the term ventilation referring to her level of oxygenation?

A. No. Oxygenation is how much oxygen is in her **blood**. Ventilation is the amount of air or gaseous mixture moved in and out of her lungs.

Q. Does ventilation include oxygenation when you use it in this sentence?

A. Does it include oxygenation? No.

Q. In this sentence when you're referring to ventilation you are not referring to the level of oxygen in her blood?

A. No. I'm referring to the minute volume of gaseous mixture going in and out **of**

her lungs.

Q. What do you mean by manifestly inadequate?

A. I refer back to my previous sentence, "There is nothing on the chart to indicate any assisted or controlled respirations." She's paralyzed by the atracurium and the succinylcholine. She could not breathe on her own.

Q. If the patient has proper mechanically assisted respiration, would that then change your conclusion here, that is, the ventilation is manifestly inadequate?

A. Yes, sir.

Q. If the person has manifestly inadequate ventilation, what signs would you expect to see if anything?

MR. GOLDENSE: Are you talking about this patient or generically?

MR. LICATA: Generally.

Q. If a person has manifestly inadequate ventilation, what signs would you expect to see?

A. If he's conscious he would have respiratory distress and he would be restless.

He wouldn't be hardly ventilating and he'd be restless.

Q. What if they're under a general anesthetic?

A. He wouldn't be showing any signs except cyanosis.

Q. Is that because of paralyzation?

A. Yes, sir.

Q. And you would see signs of cyanosis?

A. And in a Negro that's hard to pick up.

Q. Where would you look for signs of cyanosis?

A. Finger nails and eyelids.

Q. Could you also see signs of cyanosis in the vaginal area?

A. That isn't too good because the mucous is normally of a purplish color and you wouldn't.

Q. The cervical mucous of the patient is purple?

A. Kind of purplish. The cervix is pink. You said vagina.

Q. Let's talk about the cervical area

examination and they're using toothed tenaculum

A. No. After the iodine. The iodine

note any abnormalities in that region, wouldn't you?

A. Anatomical, yes.

Q. Would you expect the surgeon to note any color change in the cervical region?

MR. **GOLDENSE**: Objection. Asked and answered.

Go ahead.

A. Not after an iodine prep.

Q. ***So*** your basis for that is because there is an iodine prep there is no way you could determine whether cyanosis has set into the cervical region?

MR. **GOLDENSE**: Objection.

You may answer.

A. It would certainly mask any color

the cervical area?

MR. GOLDENSE: Objection.

one expect to see cyanosis in the fluid and blood?

A. No, sir.

Q. So the blood coloration in that area would be the same regardless of whether

cyanosis had set in?

A. Wait a second. This girl -- it's not dysfunctional uterine bleeding and he dilates the cervix, he may be getting out old blood. He may be getting out clots if the tenaculum -- with the two teeth gripping the cervix I wouldn't check to see blood loss he's getting out through the cervical -- if that was old blood or new. Old blood would be the darker, what would have been there for days or weeks. I wouldn't expect the surgeon to be getting any clues from down where he is.

Q. If the blood that came from the cervical os and cervical region were red and normal in appearance, would there be any reason to believe at that point that cyanosis set in?

A. He hasn't even started curettage. He wouldn't be getting any fresh blood.

Q. That's not responsive to my question.

Assuming, Doctor, working in the cervical area, that is, using a toothed tenaculum forceps, pulling on the cervix, and dilating the cervix and doing all the things we just talked about, that the surgeon did see

fresh blood, would there been any reason to believe that cyanosis had set in at that point?

MR. GOLDENSE: From looking at the fresh blood?

MR. LICATA: From looking at the fresh blood.

A. If this is fresh blood and all likelihood it's venous, not arterial. It would be dark venous blood in all likelihood which he is seeing.

MR. GOLDENSE: The real question is would it be probative of the diagnosis of cyanosis?

MR. LICATA: Right.

A. I wouldn't expect him to see any bright red blood.

Q. If he did, would that be an indication that cyanosis had not set in?

A. If he did. If he saw bright red blood that would be an indication that cyanosis had not set in. But I would not expect him to see it.

Q. Doctor, referring to the first paragraph on page 3, you state that Miss Daus'

deposition reveals the patient was put on a ventilator following intubation and that it is not charted, that she tells you that she put the patient on 850 cc's tidal volume at a respiratory rate of 10 times a minute.

Isn't it true that the chart reflects that Judy Daus indicated in her deposition that the patient was on 850 cc's tidal volume at a rate of 10 per minute?

A. When we go back those are what the figures may be.

Q. Is it a deviation from acceptable standard of anesthesia care to not mention the developed pressure on the ventilator?

A. Okay. I see what you mean. If one is going to chart the cc's and the volume, then one charts the developed pressure, because in the presence of total obstruction, say an obstructed tube, the endotracheal tube or the Y which connects that tube, the pressure developed will be exceedingly high. You will have an apparent volume delivered at this rate. But it's not actually getting down to the patient's lungs.

In other words, the guy could be

totally obstructed and these cc's and the rate the ventilator's telling you this, but the pressure is way up.

Q. Doctor, assuming the pressure is normal, would you agree that it is not a deviation from acceptable standards of anesthetic care to not chart the developed pressure?

A. **No.** I wouldn't.

Q. So you would also chart it even if it's normal?

A. If **I** was going to put down the tidal volume and the time per minute, **I** would put down the pressure developed as well to indicate at a later time they had been awake and alert enough -- that an obstruction had occurred.

Q. So you chart developed pressures all the time?

A. **Yes**, sir. If I'm charting tidal volume and respiratory rate, I chart the developed pressure as well.

Q. Doctor, you stated that you would put this information on the chart and that you would chart it even if it were normal, is that

what you would do? Or is that what acceptable standards of anesthesia practice require?

MR. GOLDENSE: Now we're talking only about the instance where tidal volume and respirations are the chosen method of charting, because earlier in his testimony he indicated there was an entirely different way to chart this.

In the context of tidal volume per minute, is it the standard of care to also chart developed pressures?

Q. If it's normal?

A. Yes, sir.

Q. Anything else?

A. The guy wasn't looking.

Q. Is there any way for you to

your review of the deposition transcript that there was a pressure volume in this case?

A. An absence of any findings?

Q. Yes.

A. No.

Q. So you cannot render an opinion to a reasonable degree of medical certainty that there was in fact a pressure problem in this

case, correct?

A. I have no information.

Q. That means you can't. That means you can't render an opinion because of that, correct?

A. What *you* are asking me in the absence of information can I not have an opinion?

Q. No. My question is this: Because of no information before you on the developed pressure, you are not in a position to render an opinion to a reasonable degree of medical certainty that there was a pressure problem in this case, correct?

MR. GOLDENSE: The problem is you have an affirmative antecedent reference in the first half of the question, and when you ask the question you ask it in the negative.

Why don't you ask the question, do you have an opinion based upon a reasonable degree --

MR. LICATA: Fine,

Q. Do you have an opinion to a reasonable degree of medical certainty as to whether there was a pressure problem in this

case?

MR. **GOLDENSE:** You can answer the question.

A. Yes. I have an opinion.

Q. What is that opinion?

A. Based on the wheezing respiration and the hindsight afforded by Dr. Hamshari's deposition, the developed pressure would have been quite high, higher than normal.

Q. You based that not only on the wheezing respiration but on Dr. **El** Hamshari's deposition?

A. Yes.

Q. What aspect of Dr. El Hamshari's deposition are you relying on?

A. That he heard no air moving in and out of the lungs at the time he auscultated the lungs.

Q. Why would Dr. El Hamshari hear no air when he auscultated the lungs if this person were on a mechanically assisted system **of** ventilation?

A. Because none was moving in and out of the lungs.

Q. Then why would Judy Daus hear

wheezing in the same set of lungs under the same set of circumstances?

MR. GOLDENSE: Objection. I don't think there was any evidence that the circumstances were the same. When she recorded her observation and when Dr. El Hamshari recorded his the circumstances were not the same.

Factually, that's an incorrect question to ask.

Q. Doctor, it's true that Judy Daus charted in any high breath sounds which included wheezing?

A. On this chart.

Q. That's her recollection as well in her deposition?

A. Yes, sir.

Q. She indicated that, she noted that, she charted that by auscultation, this person was on a mechanically assisted respirator, correct?

A. Yes, sir.

Q. Based on that she still heard wheezing, correct?

A. I don't know that she still did.

Q. Initially the person was on the respirator?

A. Initially. I think that she made an initial --

Q. Did the wheezing go away?

A. I don't know.

Q. If she heard it initially why would she not hear it later?

A. If she heard it initially why would she not hear it later? Okay. We went through the various causes of wheezing. If it were bronchoconstriction like an asthmatic attack in anesthetic, the ethrane may have relaxed the bronchi.

Q. So she would no longer hear a wheeze or anything?

A. No longer hear wheezing.

Q. Would she then hear normal breath sounds?

A. If the agent had relaxed the bronchi and asthmatic attack no longer existed, if the tube was partially obstructed or kinked and she got that straightened out, then she would no longer hear the wheezing.

Q. But she would hear normal breath

sounds?

A. If the cause is in the esophagus and that's why she heard the wheezing, she would not hear it later on perhaps because all of the saliva and fluid in the esophagus had passed away and there was no esophagus -- the gullet was then dry and there is no bubbling, no wheezing, for it to be heard when the gas mixture passes in and out.

Q. Even though gas were being forced through the esophagus there would be no noise?

A. Later on you could -- it's possible that the wheezing would have cleared, there would be no more noise in the esophagus.

Q. Would you hear anything at all when you listened?

A. If you listened to the stomach you hear a gurgle, but that's not well transmitted.

Q. If you listen to the chest what would you hear?

A. You may still hear breathing that you heard initially, but the chest isn't responding.

Q. I understand that. But my question is, maybe you answered this, why would Judy

Daus hear wheezing and breath sounds at first and not later if the tubes were in the esophagus and not the endotrachea?

A. Because the esophagus may have died out.

Q. That's the only reason?

A. Why she wouldn't hear the wheezing. She could still hear what she first thought was breath sounds in both lungs.

Q. The sound that you would hear in the lower portion of the stomach, that bubbling or wheezing or gurgling, what is that sound?

A. Usually it's a gurgle and it's the gastric juices.

Q. It's a different sound than wheezing?

A. Yes, sir. It's more of a bubbling sound.

Q. So you base your opinion that there was a developed pressure problem on the wheezing respirations charted by Judy Daus and on the fact that Dr. El Hamshari had heard no air at all when he auscultated the lungs? That's what you base that opinion on?

A. Yes, sir.

he's an observer --

Q. The question is: Is your opinion, which is based in part on the testimony by Dr. El Hamshari, and the fact that this patient was on mechanically assisted respiration still that there was a develope pressure problem?

A. As if she'd been on manual

A. Yes, sir.

Q. Is there anything else in Dr. El Hamshari's deposition testimony that led you to the opinion that there was a developed pressure problem in this case?

A. Oh, I have an inference of mine.

Q. It's an inference that there was a developed pressure problem?

A. That she was not at this volume -- this tidal volume was not being delivered to her lungs.

Q. Right. But that inference is based on wheezing respirations noted by Judy Daus and by Dr. El Hamshari's testimony that he didn't hear any wheezing?

A. Yes, sir.

Q. Is there anything else that Dr. El Hamshari said in his deposition that support that opinion?

A. Not that I recall.

Q. On page 3 of your statement you state in the second full paragraph, "From the sequence of events, intubation and cardiac arrest seven minutes later, this exactly fits a failure of delivery of an adequate oxygen concentration to the patient's lungs." Bear

with me one moment.

Based on the statement that you made, "From the sequence of the events. . ." would you explain to me why the sequence of events fits exactly the failure of delivery of adequate oxygen concentration to the patient's lungs?

A. I mentioned the matter of judicial hangings where the person continues breathing after the rope got tighter on the guy's neck was 14 minutes, In a case with a person of weak heart or otherwise severe systemic disease, if you cut off their oxygen they may be dead like that.

This fits the one to 14 minute time frame that cardiac arrest follows cutting off the oxygen supply.

Q. Why does it take one to 14 minutes for cardiac arrest to occur?

A. It depends on the guy's previous condition, his state of health.

Q. In other words, why physiologically not? Why not?

A. Because the body, as a whole, requires the oxygen to keep on functioning and

the heart muscle requires oxygen to keep on constricting.

Q. Where is the heart and body getting the oxygen to last 14 minutes if the oxygen supply has been cut off?

A. For several minutes out of the circulating blood. Beyond that it goes into anaerobic work, work accomplished without oxygen.

Q. When you say several minutes the oxygen is circulating in the blood, what is the time duration for that to occur before that supply runs out?

A. Again, several minutes. That's all the more specific I could be.

Q. You said aerobic?

A. Anaerobic work out, oxygen is a matter of minutes, several minutes, again.

Q. A combination of those two, the circulating blood with the oxygen supply and anaerobic work will ultimately result in asystole?

A. Yes, sir. The heart muscle can no longer function. It's doing work in contracting.

Q. Can an individual go for more than 15 minutes? Because you've said the one to 14 minutes, can an individual go for more than 15 minutes without oxygen?

A. Yes. If he's hypothermic. You see this in the children that fall through the ice every winter and 30 and 40 minutes later are successfully resuscitated because the body temperature has been brought down in the cold water. But in this case we're dealing with a person with normal temperature.

Q. A person like Mary Lou Brown wouldn't be able to go €or more than 15 minutes if she were developing asystole without getting any oxygen?

A. If she's maintaining her normal body temperature. I gave the 14 minutes as the one I know with the judicial hanging where the guy's heart keeps on beating.

Q. Let me understand you, if a patient has normal body temperature and they are deprived of oxygen under general anesthesia --

A. Completely deprived?

Q. -- completely deprived of oxygen under general anesthesia, that patient will not

be able to last for more than 14 minutes before they will develop asystole?

A. This is the figure from my knowledge. I don't know whether anybody has lasted longer than that.

Q. Your opinion is that the duration in time is 14 minutes before asystole would ultimately develop?

A. Yes, sir.

Q. That's your opinion to a reasonable degree of medical certainty?

A. That was not in an anesthetized patient a --

Q. We're talking about an anesthetized patient.

A. I don't think the anesthesia would have prolonged that.

Q. Your opinion would still be 14 minutes?

A. I would think that.

Q. To a reasonable degree of medical certainty, that's your opinion?

A. That is medical or coroner?

MR. GOLDENSE: Same thing.

A. Yes, sir.

Q. Now the multiple causes that you've listed here as being possibilities, page 3, we've already established are no longer still or no longer the causes that serve as the basis for your opinion, correct?

A. Yes, sir. May I repeat?

Q. Yes. Am I correct?

A. Yes, sir.

Q. What were you going to say?

A. These thoughts were before I studied Dr. El Hamshari's deposition in detail.

Q. I understand that. What you are telling us today is your opinion has changed from when you gave this statement on March 9, 1988?

It's changed from that date because of the deposition testimony of Dr. El Hamshari, correct?

A. Yes, sir.

Q. First of all, is there anything else, other than Dr. El Hamshari's testimony, that has served as a basis for this supplemental or new opinion?

A. Supplemental, yes. We have not ruled these out.

Q. I think you indicated at the outset of this deposition to a reasonable degree of medical certainty you could not state these other conditions are the cause of this individuals cardiac arrest and ultimate death?

A. Please say that again.

Q. I said, we established at the outset or earlier on in this deposition that you could not state to a reasonable degree of medical certainty that these possibilities were the cause --

MR. BUCK: The possibilities you are referring to are what?

MR. LICATA: Possibilities set forth in the statement of March 9, 1988 identified as Defendant's Exhibit 1 on page 3.

Q. You could not state to a reasonable degree of medical certainty that they were the cause of the cardiac arrest and ultimate death in Mary Lou Brown's case?

A. I'm saying these have to be considered among the possibilities.

Q. I understand that. But in considering them among the possibilities could you state to a reasonable degree of medical

certainty that any one of these possibilities caused Mary Lou Brown's cardiac arrest and ultimate death?

A. No, sir.

Q. So the only possibility that you can state caused her death to a reasonable degree of medical certainty is the placement of the endotracheal tube in the esophagus?

A, Considering all the evidence at my disposal that's my conclusion.

that supplemental position, on Dr. El

Q. Have you based it on anything else? In other words, in addition to what you've already reviewed, has anything else supported this additional position?

MR. GOLDENSE: Any other evidence?

A. No. I have no additional evidence.

Q. What does Dr. El Hamshari state in his deposition testimony that led you to this opinion that the endotracheal tube was misplaced?

A. On page 3 of Dr. El Hamshari's

first deposition -- I don't have the second one.

Q. I understand.

A. On page 3 of the initial deposition, line 11, the doctor is saying, "In my opinion the endotracheal tube, the first endotracheal tube was placed in the esophagus and not in the trachea."

Q. Is there anything else?

A. He elaborates on this response to Mr. Buck's question.

Q. Okay. So based on what Dr. El Hamshari's opinion is and the basis for that opinion, you have developed an opinion?

A. Yes, sir.

Q. Anything else that Dr. El Hamshari stated?

A. As I said, he was not a naive observer. He's a very experienced one. I assume he's telling the truth. He has eight years of experience -- seven years of experience, I beg your pardon, back on page 68 line 11, "Because I could not hear good entry into the chest."

Q. All right. Anything else?

A. He repeats this.

Q. So we have basically two points that you raised out of the deposition, one being in Dr. El Hamshari's opinion the endotracheal tube was misplaced and the other being there was no good air entry into the chest, which is what he states in --

MR. GOLDENSE: In fairness, he already said three times now the man was not a naive observer.

Q. And the fact he was not a naive observer, is there anything else?

A. No. It's the same way I'd have gone about it.

Q. Doctor, you stated that you assumed that Dr. El Hamshari was telling the truth, are you assuming that Judy Daus or Dr. Hahn are not telling the truth?

A. I'm assuming they're telling the truth insofar as they say anything. The CRNA is not saying that she looked again or that she listened throughout. She's saying she heard the wheezing breath sounds, bradycardia. We've explained the wheezing breath sound. We've explained the development of bradycardia. She

never looked again to check her place. She suctioned the tube. There is no obstruction in the tube.

Q. You're assuming what Dr. Hahn and Judy Daus have not stated is important?

A. Yes, sir. They're telling you the truth and nothing but the truth. But not the whole truth.

Q. Let's go to page 4 of your report.

A. Yes, sir.

Q. The top of your report says her failure to respond to an hour and-a-half of resuscitation indicates a prolonged period of hypoxia or anoxia?

A. Yes, sir.

Q. Would you tell us the difference, first of all, between anoxia and hypoxia?

A. Hypoxia is a decrease in oxygen in the circulating blood and anoxia *is* an absence of oxygen.

Q. Are you uncertain as to whether she had a prolonged period of hypoxia versus anoxia? Or are you indicating she had both?

MR. GOLDENSE: Or how about the third alternative that she had either one?

MR. LICATA: That's fine.

Q. The first question is: If she had either one why can't he determine which one?

A. She has either a decrease or an absence. I don't think the terms are mutually exclusive.

Q. Is there any way to state to a reasonable degree of medical certainty which she had?

A. She would start with hypoxia, a decrease in oxygen in the blood, and that would progress to anoxia, an absence of oxygen.

Q. As the oxygen supply is depleting from her system she moves from one state to another?

A. Yes, sir. She goes from the decreased oxygen to the state of no oxygen in her blood.

Q. Is it true that regardless of the level of oxygen in the blood, even if it were theoretically 100 percent, without a heart rate you would still have brain damage?

A. Yes. This is true. You have to know the blood circulation to keep the brain alive.

Q. Which is why CPR becomes important once asystole developed?

A. Yes, sir. You have to keep the brain alive.

Q. Doctor, I want you to assume that the tidal volume of oxygen received by the ventilation system was in fact 850 by 10, would you agree on that basis that she had more than enough oxygen under controlled ventilation?

MR. **GOLDENSE:** How was she intubated in your assumption?

MR. **LICATA:** She was properly intubated, obviously, for the purpose of the hypothetical.

Q. In other words, assuming that she's properly intubated and that she's getting mechanically assisted ventilation at the rate of 850 times 10, would you agree, Doctor, that that's adequate under the circumstances?

A. Okay. I have to pick a niche with you again.

MR. **GOLDENSE:** Wait a minute. He's not asking you to look at this. He's now asking you a hypothetical question. He's asking you to assume away a lot of things that

you've already testified to.

Assume that this woman was intubated in the trachea and assume that she was receiving tidal volume of 850 with 10 respirations per minute, is that adequate? Assume all those things.

A. It cannot be answered until you tell me the oxygen concentration. If there is no oxygen in the mixture she won't live.

Q. Assuming that the oxygen concentration is at the appropriate levels and all the other assumptions?

A. Yes.

Q. So the 850 times 10 would be enough?

A. Yes, sir.

Q. Adequate?

A. Yes, sir. You left out the oxygen.

Q. That's my next question. What is the appropriate level of oxygen?

A. According to the charting, the three liters per minute of nitrous oxide, two liters per minute of oxygen, which gives a 40 percent oxygen concentration which is quite adequate.

Q. Doctor, you stated that you've become familiar with sinografin based on this case, correct?

A. No. I've become familiar with the literature on sinografin.

Q. Because of this case?

A. Yes, sir. I looked up the worldwide literature.

Q. Did you look at the page inserts for sinografin?

A. No, sir.

Q. Are you aware that one of the complications for sinografin is severe anaphylaxis resulting in death?

MR. GOLDENSE: Do you have a page insert for him to examine.

MR. LICATA: No. I don't. I'm asking if he's aware.

A. No, sir. That's a standard practice.

Q. Would you agree that the use of sinografin hysterosalpingogram carries with it a risk of anaphylaxis, which is why you typically do procedure on a patient who is not under general anesthesia?

A. No, sir. I wouldn't agree. Because according to the literature, death was much more common when sinografin was in an oil vehicle rather than in aqueous vehicle, which Dr. Hamshari used. On careful autopsy the deaths were not due to anaphylaxis but to oil embolism. *So* that at first glance you'd say she had an anaphylactic reaction. Careful autopsy showed oil globules in the lungs.

Q. That sinografin is oil based?

MR. GOLDENSE: No. No.

A. No. It previously was oil based. It has gone out because of the embolic deaths. The water based deaths have been miniscule. Infinitesimal.

MR. ALLISON: The way you use the term sinografin, meaning contrast medium, I think is what the confusion was. You said sinografin used to be oil based, now it's water based product. Sinografin, which is the particular one you'd mix, is water based and not oil based, correct.

THE WITNESS: Yes, sir.

Q. Your opinion is based on the autopsy and that there was something in the

anesthesia. Only in eosinophilia you would find that, but a postmortem complete blood count -- I think as you bring up the point, she process of resuscitation. I think she did. There were all kinds of blood chemistries and stuff. I don't think they're mentioning any eosinophilia, so nothing indicates anaphylaxis, sir. Any CBC done during resuscitation?

Q. Yes. I appreciate it if you could look for that because I didn't see it.

A. I imagine all I got was the blood chemistry.

- - - - -

(Thereupon, Defendants' Deposition Exhibit 3 was mark'd for purposes of identification.)

- - - - -

A. The only CBC was undoubtedly the preoperative, but they had the eosinophils in there which is within normal limits. I don't

think she had any other. So we have no indication of anaphylaxis. That's not to say that it did not occur, You usually see the tachycardia and hypotention before the hypotension -- the bradycardia occur.

Q. Do you have an opinion to a reasonable degree of medical certainty whether this person suffered an anaphylactic reaction?

A. Yes.

Q. What is that opinion?

A. There is no evidence of it.

Q. What evidence would you expect to see to determine anaphylaxis?

A. An immediate collapse during surgery.

Q. If you had a sudden bradycardia which resulted in asystole that would be an immediate crash?

A. Okay. I'd expect to be seeing hypotension, bradycardia and death, almost immediately and she isn't showing this.

Q. You would expect to see hypotension, bradycardia, asystole and no recovery immediately?

A. In a much shorter time frame.

Q. Within a matter of immediate sequence?

A. Yes, sir. Within a matter of one or two.

Q. If that did occur you would agree that would be evidence of anaphylactic reaction?

A. It would be an immediate catastrophe which may be anaphylaxis.

Q. It would be consistent with the diagnosis of anaphylactic reaction?

A. Yes, sir.

Q. Would you expect to see anything in the autopsy to confirm anaphylaxis?

A. Only the eosinophilia.

Q. Is there any way for you to determine whether that exists in this case by looking at the autopsy report, which I'm going to show you which has been marked Defendants' Exhibit 3?

A. It's not reported.

Q. There is no way of determining, based on the autopsy report, whether that exists?

A. I'm seeing as a micro everything is

negative except for lung edema.

Q. None is reported? Are you telling us the test was not done or the test was done and there is no evidence?

A. In the preferred slides of tissues blood cells would be seen. It's not -- they're not describing, so we presume that it didn't attract the obvious. JME is this microscopist. I don't know who JME is.

Q. What do you mean they --

A. As he or she did not look at those slides, he or she does not type in eosinophils in the section.

Q. Is that something you have to look for? Or is that something you will see as a matter of diagnosis?

A. Depends how observant are you.

Q. If one is not looking for that in microscopic review, one might not see it?

A. That's right.

Q. That would --

A. It's like anything else. You have to see it. It has to register.

Q. In this case this would be something if someone were looking for and did

not find it, that they would chart an absence of it on the report?

A. I have to assume that the coroners office, since the first examination is cardiopulmonary, are finding intrauterine injection of sinografin. I would assume they would have picked up the eosinophilia, since this would be along with the anaphylactic reaction.

Q. Would you agree that if they were going to be looking for that they would chart the absence in the report?

A. No.

Q. They would just not mention it?

A. We have to assume that they were acute and observant. Okay.

Q. I'm not sure I understand why they wouldn't chart it if they were looking for it?

A. In the absence?

Q. Yes.

A. Probably because they did not expect us to be quibbling. They're just saying negative normal, patient negative. They're assuming that we will take that as proof of their observation.

Q. Didn't we state earlier, though, if it's not charted it wasn't done. Wasn't that your position earlier with respect to the charting of Judy Daus in this case?

A. That's right.

Q. Can't we assume if it's not charted in this case it wasn't looked for?

MR. GOLDENSE: Objection. The context is totally different.

Go ahead.

A. **No**. Because I think the pathologist is looking at this stuff weeks **or** months later.

Q. Doctor, I'm sorry.

A. I'm assuming the pathologist, who is an M.D., is more competent than the girl who is doing sloppy work in anesthesia.

Q. That assumes that the girl doing the work is doing sloppy work, doesn't it, Doctor?

A. That's right.

Q. What do you base that assumption on?

A. I think we mentioned that the signs of what appeared on page 4, my previous

statement, post-op notes which were made on the chart and crossed out when trouble supervenes.

Q. Are you telling us, Doctor, that it's your opinion that the charting in this case proximately caused this woman's death?

A. No. I'm saying it's an indication of sloppy work. There is no indication of sloppy work in the microscopic which the coroner's office did.

Q. Don't you agree, Doctor, that when charting on patients there are a number of times when inaccurate information will be charted and that information is corrected, isn't it the obligation of the person charting that information to correct that chart?

A. If he writes it down before the event has occurred. Well, better -- why did he write it down before the event occurred?

Q. We'll have to ask her, won't we?

A. Yes. We will.

Q. My question to you is: Regardless of the reason why she wrote it down before it occurred, isn't it proper practice to place the appropriate information on the chart after the event transpired?

A. No -- okay. If you are going to pin me like this --

MR. GOLDENSE: The question is: Is it appropriate practice to change your mistakes

findings to the best of my knowledge are nonspecific.

Q. Are there any other findings to determine anaphylaxis on the autopsy rather than the eosinophils?

A. No. The liquidity of the blood, when you make an incision the blood is still liquid. No clots are formed because prothrombin has been destroyed.

Q. Do we have that in this case?

A. We have no indication of it.

Q. Either way?

MR. GOLDENSE: Indicating no.

A. Indicating no.

Q. Doctor, would you agree that the coroner's report in this case makes no findings of the death relating to the administration of anesthesia?

MR. GOLDENSE: Would you agree with that?

A. Yes, sir.

Q. Would you also agree that the purpose of the autopsy is to determine the cause of death?

A. Yes, sir.

Q. To the extent that the coroner can determine the cause of death, the coroner will put that cause underneath the heading called Cause of death ?

A. Yes, sir

Q And as a coroner, doctor, would you, in a case such as this one, be looking for multiple causes of death including death as a result of improper anesthetic management?

A. I'd be looking for any possible cause based on the information given and available to me at the time.

Q In this case that would also include the possibility of death resulting from improper anesthetic management, correct?

A. I saw no indication of that information being given to Mr. Gerber.

MR. GOLDENSE: Or Mr Gerber's staff To be fair.

Q If the information had been given to Mr Gerber, or Mr. Gerber's staff, that would have been one of the possible issues to consider, wouldn't it?

MR. GOLDENSE: Objection. That calls for blatant speculation by the witness

A. Yes.

Q. Isn't it appropriate practice, Doctor, to give the coroner as much information about the person's death and the event that led up to that death as possible?

MR. GOLDENSE: Objection.

You may answer.

A. Yes, sir.

Q. Is there any reason to believe that in this case that information was not provided to the coroner's office?

A. It doesn't appear in his thinking as reflected in the death certificate.

Q. When you say, "It doesn't appear in **his** thinking," does that mean the coroner did not indicate that he had insufficient or lack of information in the events concerning the person's death and the events that led up to the death?

A. Now you're getting hypothetical and **I** think in a hospital where you have a release sheet, which the funeral director signed, which would have accompanied the body to the county morgue.

Q. All right.

A. Based on this sheet, that is all the coroner has to go on.

Q. Can you find that sheet in the record?

A. All I'm finding here is the coroner notified of death. Where the heck is the release sheet?

Because you have the body released to the coroner and the sheet which accompanies the body to the morgue.

MR. BUCK: The last page says coroner notified of death.

A. Here we are. Page 4 in the hospital records, Statement and Particulars in the Death of: Mary Lou Brown.

Q. What page?

A. It's unnumbered. One that follows page.

MR. GOLDENSE: At the top it says, "This form should accompany the body to the county coroner's office."

Can you find it?

MR. LICATA: Yes.

A. Now this information is all that Sam would have had available.

Q. "Sam" meaning the coroner?

MR. GOLDENSE: You keep making an assumption that **Sam** Gerber, in any way shape or form, performed the autopsy. If he was even in -- I think he was living in Wade Park. We all know that it's the coroner's stamp.

A. Yes. The office of the coroner.

Q. This page that you're referring to, the form that should accompany the body to the coroner's office, specifically sets forth in two separate sections, the first section being here where it says, "Symptoms, subjective and objective, clinical, x-ray and laboratory findings"?

A. Yes, sir.

Q. The second section below where it says, "Therapy instituted including operations"?

A. Yes, sir.

Q. In reading both of those it indicates, does it not, that there was replacement of the endotracheal tube, pulmonary resuscitation, and it provides other information relevant to the problems that arose during the surgical procedure in Mary Lou

Brown's case?

A. I don't know. But I can't read all of this writing. Can you?

Q. I could read some of it.

A. I'm reading 75 percent.

Q. Take a moment and read what you can on this form and tell me when you're done.

In your opinion, what is the probable cause of death? Cardiac arrest?

MR. GOLDENSE: He wants you to start reading right here.

Q. I'd like you to look at the whole form and read it as much as you can.

A. Okay. They're mentioning the procedure, how far they had gotten, and the fact that she had the endotracheal tube, was replaced, the resuscitation was carried out without response, sir, and the various drugs which were administered during the period of resuscitation.

Q. Does it not also indicate there was general anesthesia?

A. Yes.

Q. Wouldn't you agree if this were to accompany Mary Lou Brown's body to the coroner

that this should put the coroner at least on notice that there was a problem of death resulting from mismanagement of anesthesia?

MR. GOLDENSE: Objection.

If you know you can answer that.

A. I don't know about the Cuyahoga County office.

Q. When you were a coroner, Doctor, if you had received this form, would this form, in your mind, raise the question that cause of death would have been the result of anesthesia mismanagement?

MR. GOLDENSE: Objection.

A. Oh, yes.

Q. And that's something you would attempt to rule out or determine as the proximate cause of the death?

A. Yes.

Q. That would be something that you would ultimately report in your coroner's report, in other words, the cause of the death, having considered those possibilities?

A. Would I put it down in writing? I think I would. As well as having a talk with the people involved,

Q. Doctor, I don't think I need to ask you anything else about this yet. Going back

Q. Sinografin is one?

A. Let me elaborate just a tad because the contents of sinografin which would cause this would be the iodine.

She may have some history or previous allergy to iodine. Dr. Hamshari preped her with iodine, she didn't show any rash or any reaction to it. So I would not expect her to have any anaphylactic reaction to iodine introduced into her uterine cavity, and with the of history, you don't get anaphylaxis on the first exposure.

Anaphylactic occurs as hypersensitive reaction in repeat exposure. She has no history or even rash. She doesn't develop a rash when a surgeon preps you with iodine containing reagent. I don't see how she

could show anaphylaxis to iodine containing salt when she has no history to make representation.

Q. You're telling us that sinografin is from iodine?

A. Iodine containing. That's why it's radiopaque, since iodine is opaque to x-rays.

Q. You're understanding is that's the only chemical agent in the substance that being cause?

A. Right. No. It's complicated --

Q. So there are a number of things in the sinografin that can ultimately cause anaphylaxis, correct?

A. Okay. When we look at it the only content mentioned in Goodman Gillman -- oh, it wasn't mentioned in Goodman Gillman. It's the only component they mention as proprietary is iodine containing aqueous medium.

Q. It doesn't give the chemical components?

A. No. The only compound that one would expect an allergy to is the iodine. She has no history of evidence of any iodine allergy.

Q. You would agree though, wouldn't you, Doctor, that people who have never had a reaction to prior substance can still have anaphylactic reaction to a substance that's introduced into their body such as sinografin, wouldn't you?

A. It's not introduced into her body.

Q. Why not?

A. When you say introduced into the body, you're implying that it's introduced within her system.

Q. It's introduced into her cervical area?

A. It's directed to the atmosphere.

Q. There are two things. One, if the body absorbs that substance because it's water soluble that could ultimately produce your reaction?

A. If any were absorbed.

Q. Second, if it's forced into the cervix for whatever reason by way of, let's say, tissue injection, that's another way that you could have anaphylactic reaction, correct?

A. Yes, sir. Putting it into the uterine cavity is not introducing it into the

body.

Q. You could have the anaphylactic reaction by introducing it into the uterine cavity?

A. If it's absorbed.

Q. If it's absorbed or alternatively the substance is forced into the tissue?

A. Yes, sir. That's why he puts the stuff in before the D & C because a curettage may open vascular channel.

Q. I'm going to ask you something a little different. When do you pre-oxygenate the patient?

A. It depends.

Q. Is there any basis for pre-oxygenating a patient such as Mary Lou Brown?

A. Oh, yes.

Q. Was she pre-oxygenated in this case?

A. First I'll have to ask you to

Q. Why don't you tell me what you

A. Pre-oxygenation can occur either of two ways. You could give the person supplemental oxygen to inhale before you give them anything. In this case, Miss Brown was given oxygen by mask after she was put to sleep before the tube was put down. The other types of pre-oxygenation, as I mentioned, would be giving supplemental pre-oxygen before you do the thing -- for 10 or 15 minutes before the procedure to wash out the nitrogen before you start the anesthetic.

Q. That was not done in this case?

A. I don't believe so, sir.

Q. Would you agree that you don't need pre-oxygenation in a routine case?

A. Of the type I mentioned before the anesthetic is started, no. You don't need it in a routine case. The other type I mentioned before where you give oxygen before the tube, yes, you do.

Q. So the oxygen mask before intubating is the kind where you do need pre-oxygenation in a routine case?

A. Where you're paralyzing the person, yes. You want to get as much oxygen into him

in a few breaths as you can before intubating them.

Q. Would you agree that, the Plaintiff in this case, Mary Lou Brown, her functional residual capacity is probably less because of her size?

MR. GOLDENSE: Objection.

Measured at what point in time, functional residual capacity?

MR. LICATA: Right.

MR. GOLDENSE: Measured when?

MR. LICATA: At any time.

THE WITNESS: Should I answer?

MR. GOLDENSE: Yes.

A. Her FR? My definition, yes, it is down.

Q. Would you agree, Doctor, that there is no evidence in the records that Mary Lou Brown had any changes consistent with hypoxia until asystole?

A. No. Bradycardia could very well have been hypoxia.

Q. Other than the bradycardia is there any other changes that you noted that were consistent with hypoxia up until asystole?

A. Let me look again. No, sir.

Q. Doctor, do you attach any significance at all to the x-ray finding or the x-ray report taken after CPR was unsuccessful which is page 16?

A. On 16.

MR. GOLDENSE: The question is do and you attach any significance to that report?

Q. At it pertains to the opinion you've rendered today?

A. Yes, sir.

Q. What is that significance you attach?

A. Nothing. What little I do, this patchy density business could be atelectasis rather than pulmonary edema.

Q. Which means?

A. The atelectasis being areas that lungs collapsed -- where parts of the lung, all the gases have been collapsed in the alveoli. The lung collapse will give exactly the same appearance as the patchy density, which here Dr. Patel is determining as pulmonary edema. Patchy atelectasis will give you the same

picture.

The gaseous distention of the stomach, one does not normally see that with the routine endotrachea anesthetic. The endotrachea tube being present, I'm touched by that because always you take just anterior posterior view to make sure the tube is not down too far.

This doesn't tell you whether the tube is in the trachea or not. You have to take a lateral shot from the side to indicate where the tube actually is. This just tells you how far down the tube is, down whatever passage it happens to be in.

Q. Is there anything else that you attached any significance to as it pertains to your opinion today?

A. No.

Q. So would you agree, Doctor, that it's not uncommon for anesthetic gases to be forced into a patient's stomach without the anesthetic process?

A. Not with an endotracheal tube.

Q. Would you agree that mask breathing can force gas into the anesthesia patient?

A. Yes. If you squeeze real hard.

Q. Do you agree that changing the endotrachea tube in the middle of anesthesia could force gas into the patient's stomach?

A. No.

Q. Why not?

A. You said changing the tube?

Q. Right.

A. Changing the tube, you aren't ventilating the patient without the tube. So if your first tube was down the trachea, the gas has been forced into the stomach. You pull out that tube, put another one down the trachea, no gas has been forced into the stomach.

Q. Would you agree that CPR efforts typically force gas into the patient's stomach?

A. Not in the presence of an endotracheal tube.

Q. Under no circumstances at all?

A. Because all the gases are being delivered into the trachea and lungs, none into the stomach.

Q. But isn't it true that through CPR efforts that there is a significant volume of

gases, some of which find their way into the stomach?

A. No, sir.

Q. Is there --

A. In fact, usually it goes the other way. As you are pushing on the chest.

Q. Is there any other explanation as to why there would be gaseous distention of the stomach other than the placement of the endotrachea tube in the esophagus?

A. You're mask breathing initially after the patient is paralyzed before the endotracheal tube is passed. You're squeezing the bag and forcing oxygen in through the mask over the nose and mouth. Some gas may go into the stomach.

Q. Does that account for gaseous distention of the stomach?

A. As time goes on this is absorbed in the stomach.

Q. How long is time?

A. An hour. By the time the patient wakes up there is no more gas in the stomach.

Q. If the patient is masked and gas is stored in the patient's stomach and the x-ray

is taken of that stomach within an hour?

A. Some would still be there.

Q. You would see the gaseous distention of the stomach on the x-ray?

A. No distention. Distention refers to a large quantity. You should see some, but I wouldn't expect it to be distended.

Q. Would you agree if you were masking the patient long enough to force sufficient air and gases through the nose into the stomach that you would ultimately have distention of the stomach?

A. If you're using excessive pressure over a long period of time. With normal pressure it doesn't occur.

Q. I missed the point you made about the patchy density. You use the word --

A. Atelectasis. Those are collapsed lung tissues. Nonair-bearing tissue in the lung.

Q. Atelectasis is the result of a collapsed portion of the lung because of no oxygen to that portion of the lung?

A. No gas is delivered.

Q. No gas is delivered to the lung?

A. Yes, sir. Or absorption of all gases which had been in that part of the lung.

blood circulating. So the gases would no longer be absorbed from the lung.

Q. So what you're saying is that if blood is circulating with insufficient oxygen in it that that can result in atelectasis?

A. If blood is circulating in insufficient oxygen, no this wouldn't give atelectasis.

Q. I guess I'm not sure I understand the significance in that finding as it pertains to your opinion?

A. The blood is circulating, picking up the gases from the lungs, and the gases are not being replaced in the lungs. Okay.

Q. All right. So the gases are not being replaced because why?

A. Because they aren't being delivered to the lungs.

Q. Can that occur even if the endotracheal tube is in the correct place?

A. No.

Q. Is it your opinion that the only time you could have this atelectasis during the general anesthetic procedure is if the endotracheal tube is in the esophagus?

MR. GOLDENSE: Objection. That's not a fair rendition of what he said.

Go ahead if that's your opinion.

A. No. That's not. The only time you get atelectasis.

Q. When else?

A. In the presence of antecedent infection where the bronchi would be inflamed and air is not going in and out preoperatively.

Q. What else?

A. With bronchocontriction, like in the asthmatic attack which we mentioned, atelectasis will develop there in the presence of obstruction, mucus, foreign body, any reason.

Q. Would you agree that the

atelectasis could be consistent with the upper respiratory infection that Mary Lou Brown had?

A. Not when she's cleared auscultation. There is no evidence.

Q. There is no evidence of what?

A. Pulmonary obstruction or any function in her lungs.

Q. Is it your opinion, to a reasonable degree of medical certainty, that this woman had atelectasis as opposed to patchy density that indicates pulmonary edema?

A. Her pre-op chest plate shows nothing abnormal. Even a normal cardiac -- your question is could this?

Q. No.

A. Do I think it's atelectasis rather than pulmonary edema?

Q. To a reasonable degree of medical certainty.

A. It could be either one.

Q. You don't have an opinion as to whether it is one or the other?

A. On autopsy --

Q. One step at a time. Do you have an opinion as to whether it's one as opposed to

the other?

A. No. It could be either, sir, on the basis of lung x-ray.

Q. You didn't see these x-rays I assume?

A. No.

Q. I assume that you haven't seen the x-ray films?

A. No.

Q. Doctor, would you agree that gas in the stomach does not necessarily indicate that the endotracheal tube was in the esophagus?

A. Oh, yes. This could be air swallowing before she ever comes to surgery, if she's nervous.

Q. Doctor, would you agree that if the endotracheal tube is in the proper place that you will hear good vascular air movement bilaterally in the lower portion of the lung vesicular?

Would you agree that if the endotracheal tube is in the proper place you would hear visicluar air movement bilaterally in the lower portion of the lung?

A. With an adequate tidal volume, yes.

Q. Would you agree that the appropriate manner of intubation is direct visualization?

A. In this case, yes.

(Recess had.)

Q. Just a couple of follow-up questions. One, I'm not sure I asked you, in fact I don't think I did ask you, how long the effects of succinylcholine last?

A. A couple of minutes.

Q. How long does the atracurium last?

probably 10 minutes.

Q. Using both succinylcholine and atracurium together?

by the succinylcholine, then the duration of the atracurium is less?

A. No. More.

Q. Longer?

A. Yes.

Q. But the effects of the succinylcholine is only two minutes?

A. Transient two, three, four minutes.

Q. After the succinylcholine is given, how long did the atracurium last?

A. I would guess 10 minutes.

Q. Atracurium effect is 10 minutes if you give it with the succinylcholine?

A. Yes, sir.

Q. For whatever reason you abort the procedure and you don't give the succinylcholine, how long does it last?

A. Three milligrams I wouldn't expect to do a doggone thing. She might say I can't close my hand real tightly but she'd be able tc breathe.

Q. Other than the opinions that we explored today, Doctor, do you have any criticisms or opinions concerning the care and treatment rendered to Mary Lou Brown on May 6,

1985 by all actors concerned, by Dr. Hahn, Judy Daus or any of the other personnel? Do you have any other criticisms other than what we've discussed today?

A. I think we covered everything, sir.

Q. Do you expect to read Dr. El Hamshari's second deposition?

A. Once that becomes available to me, yes, sir.

Q. If any of these opinions change, or if the basis for your opinions are all different, whether they be different in the same respect or totally different, based on your review of Dr. El Hamshari's second deposition, or based on anything else that may come to your attention between now and the trial, would you please tell Mr. Goldense that so we would have another opportunity to inquire about those additional opinions or the bases?

MR. GOLDENSE: Would you please tell me. That's his question.

A. Any change?

Q. Any change.

MR. GOLDENSE: Would you relate those to me.

THE WITNESS: Yes, sir.

Q. What I mean by any change is if you find something in Dr. El Hamshari's deposition that further supports your opinion, I need to know that.

A. I wouldn't be telling you. I'll be telling Mr. Goldense.

Q. Exactly. And he could communicate it to me and we could decide whether we need to inquire further about that supplemental or different opinion. Is that fair enough?

A. Yes, sir.

MR. LICATA: I don't have any other questions.

MR. BUCK: No questions.

(Discussion off the record.)

THE WITNESS: I do not waive.

(Deposition concluded.)

- - - - -

CERTIFICATE

The State of Ohio,)

SS:

County of Cuyahoga.)

I, Claudine Kelly, a Notary Public within and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within named witness, PAUL J. KOPSCH, M.D., was by me first duly sworn to testify the truth, the whole truth and nothing but the truth in the cause aforesaid; that the testimony then given by the above-referenced witness was by me reduced to stenotypy in the presence of said witness; afterwards transcribed, and that the foregoing is a true and correct transcription of the testimony so given by the above-referenced witness.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified and was completed without adjournment.

I do further certify that I am not a relative, counsel or attorney for either party, or otherwise interested in the event of this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Cleveland, Ohio, on this 15th day of August, 1989.

Claudine Kelly

Claudine Kelly, Notary Public
within and for the State of Ohio

My commission expires November 8, 1992.

March 9th, 1988.

DOC. 244

El Hamshari, as well as much of her hospital

Her previous health had been good, save for hypertension for which she had been receiving medication from Dr. El Hamshari. Her height is given as 5'5", her weight is 240 pounds. Post mortem she was measured as 5'8", 262 pounds. She was recovering from an upper respiratory infection. Her chest plate was not remarkable. She had a full upper denture which was removed preoperatively.

She was taken to surgery for an elective gynecological procedure. There was no

premedication. Anesthesia was commenced at 11:45 a.m. with intravenous atropine sulfate 0.4 mg., Vesprin two mg., atracurium 3 mg. and fentanyl 3 cc's. Sodium pentothal 500 mg. and succinylcholine 120 mg. were used for induction. Orotracheal intubation with a #7 endotracheal tube is noted as atraumatic. Nitrous oxide and ethrane are noted as "wheezing."

Bradycardia, with a pulse rate of less than 30 is noted at 12:05 p.m. after the surgery was well underway. The next note is that atropine sulfate 0.4 mg. was given IV without response and and ethrane are turned off and cardiopulmonary resuscitation is begun. CPR was continued with no effective response until she was pronounced dead at 1:50 p.m..

There are several things quite wrong with the anesthesia management of this case. Vesprin is a long-acting tranquilizer akin to Thorazine, and its stated intravenous dosage is one mg.

There is nothing on the chart to indicate any assisted or controlled respirations, which forces us to the conclusion from the anesthesia record

that this paralyzed and intubated patient was left to breathe spontaneously. If so, her ventilation is manifestly inadequate.

From Miss Daus' deposition, the patient was put on a ventilator following intubation. She is recalling this at a remote time. It is not charted. And she tells us that she put the patient on 850 cc's tidal volume at a respiratory rate of 10 times a minute. At no time does she mention the developed pressure and every ventilator has a pressure gauge on it.

From the sequence of events, intubation and cardiac arrest seven minutes later, this exactly fits a failure of delivery of an adequate oxygen concentration to the patient's lungs. Whether it's from a kinked endotracheal tube, a Y at the connection between the hoses and the endotracheal tube connector which is left closed so that the volume is not delivered to the patient but instead is delivered to the atmosphere, whether it is a torn bellows in the ventilator which was not observed, any one of these multiplicity of causes can cause this failure of delivery of the gas mixture to the patient's lungs. And we are left completely in the dark on this.

Her failure of response to an hour and a half of resuscitation indicates a prolonged period of hypoxia or anoxia. Her vital machinery was wrecked. And she showed no response to resuscitation. Somewhere along the line there is a failure of ventilation.

Part of this dismal picture is painted by the postop Finishing Notes, which are made on the chart and then crossed out when trouble supervenes. Somebody was in an awful hurry. And a #7 tube is almost too small a diameter to efficiently handle the tidal volume needed for a large lady.

Sincerely yours,

(signature waived)

Paul J. Kopsch, M.D.

C E R T I F I C A T E

I, Kathleen A. Hopkins, a stenotype reporter, do hereby certify that I attended the taking of the foregoing statement, wrote the same in stenotype, and that this is a true and correct transcript of my stenotype notes.

_____

Kathleen A. Hopkins, Notary Public
My commission expires 1-8-90
Filed in Lorain County, Ohio