#644

AFTERNOON SESSION, THURSDAY, JANUARY 8, 1987

P R O C E E D I N G S

~~Doc. 333~~

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THE COURT; Ms. Laverick,

MR. KALUR: Your Honor, Dr. Nearman is here, and the Plaintiff's counsel has been kind enough to allow me to call him out of order to accommodate his Intensive Care scheduled, and they have agreed to allow Ms. Laverick to finish after his testimony,

THE COURT: Ladies and gentlemen, we are going to take a witness aut of order. Plaintiff is going to put on one of his witnesses out of order,

MR. TOMBERG: Defendant, Your Honor,

THE COURT: Defendant; I am sorry. You may proceed.

MR. KALUR: Your Honor, as part of our case, when it is time to put on our case, we will call Dr. Nearman.

TBE COURT: All right. Will you come forward, sir, and raise your right hand.

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DR. HOWARD SLOMAN NEARMAN

a witness heroin, called on behalf of the

Defendant, having been first duly sworn as provided by law, was examined and testified as follows:

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DIRECT EXAMINATION BY MR. KALUR:

Q. Would you state your full name and your professional address, sir?

A. Howard Sloman Nearman. My professional address is 2074 Abington Road, Cleveland, Ohio.

Q. Are you licensed to practice medicine in the State of Ohio, Doctor?

A. Yes, I am.

Q. How long have you been licensed?

A. Approximately 10 years.

Q. Will you tell the jury the percentage of the time you spend in an active clinical practice of medicine?

A. About 95 percent.

Q. Have you ever had occasion to testify in the courtroom before, Doctor?

A. Not in the courtroom, no.

Q. You have testified at any occasion before?

A. I have testified at a video, videotape.

Q. Is that in my office?

A. For your office?: yes.

Q. Have you ever reviewed medical cases on behalf of someone who was suing a doctor?

A. Excuse me. Repeat that.

Q. Have you ever reviewed any medical case and medica: record, set of medical recorda for someone who was suing a doctor?

A, Yes, I have.

Q. Would you outline for the jury as briefly as possible your formal education starting with college righ up through the completion of your residency training?

A. Sure. My college asked me to do that several times.

I went to undergraduate school at Case Institute of Technology, starting 1966, graduating 1970. I then went to medical school and obtained a graduate degree, medical degree program, at Case Western Reserve University, obtaining an M.D. in 1976 and Masters of Science in Biomedical Engineering in 1975,

I then went to Philadelphia, did a surgical internship, '76, 77, Started July through the end of June. And then came back to Cleveland,

Q. I am sorry; it was an internship in what?

A. Surgery, general surgery.

Q. I am sorry,

A. And then came back to Cleveland at University Hospitals at Cleveland, spent another year in surgical residency '77 to '78.

And then '79 through '81, I then did an anesthesia residency and completed a critical care fellowship, again, all at the University Hospital of Cleveland.

Q. What is a critical care fellowship?

A, Xt is a program spent, variable amount of time, usually one year to two years, I spent one year learning about -- spend time in the Critical Care Intensive Care Units learning about the care of critically ill patients.

Q. What hospital are you currently affiliated with?

A. Currently with University Hospitals of Cleveland.

Q. And would you tell us what Board certifications yo hold?

A. Yes. I am Board certified in anesthesiology, having obtained that in '83; which consists of a written and an oral part. And I have special certification, specia recognition in critical care medicine as part of the Boards of anesthesia, which was obtained in the fall this past year, 1986.

Q. At University Hospitals in Cleveland what do you d on a day-to-day basis as a physician?

A, X -- my title is I am chief of the Surgical Intensive Care Unit, And on a day-to-day basis I am medical director of tha ICU. I am responsible for its care, as well as the conjunct care of the patients who ar

in Surgical Intensive Care Unit,

Q. In the field of anesthesia and of critical care, d you from time to time have an opportunity to deal with resuscitation of patients?

A, I have quite an opportunity to deal with it, Usually on a weekly basis, unfortunately*

Q. What does resuscitation mean?

A, Well, resuscitation reanimation is the act of trying to bring a person's -- bring a person back to the living, essentially. It is a person whose vital signs have deteriorated, his bodily functions, normal maintenance of bodily functions is severely jeopardized; and it is the act of giving this person the proper treatment -- whether it be fluid, drugs, oxygen, whatever -- to bring them back into a stable state.

Q. What responsibilities, if any, do you have with respect to training of physicians?

A, I -- we have -- through the ICU rotate anesthesia residents wha are assigned on a monthly basis to the Intensive Care Unit, I am also involved in the training of surgical house officers who rotate through the Surgica Intensive Care Unit, take care of patients in tho Surgica Intensive Care Units on a monthly basis, Every fourth month we have a fourth-year medical student who rotates through the Intensive Care Unit, as wall as occasional

first-year students and third-year students.

Q. Do you have any formal teaching positions with the medical school?

A. I am an assistant professor of anesthesiology and assistant professor of surgery.

Q. Would you tell us if you have written any articles in the field of anesthesiology or critical care? If so, how many? I don't think we need to clutter the record with the titles of those articles, but just the general subject matter.

A. I have authored or co-authored six or seven papers in the field of critical care, anesthesia, resuscitation.

Q. Would you tell the jury what written materials or -- written or other materials you have reviewed in order to familiarize yourself with the circumstances as they occurred or reportedly occurred in the records on March 23, 1984 with respect to the treatment and the surgery of Clarissa Laverick?

A, I have received and reviewed the hospital records up to through the time of the anesthesia and surgery and resuscitation. I have looked and reviewed depositions of Dr. Lee, of Nurse Fiehn, Nurse Lewis, Dr, Milo, an affidavit and deposition for Dr. Breitenbach, deposition of Dr. -- and deposition of Dr. Morris, and summary of deposition of Nurse Mawer-Schmidt.

Q. Doctor, I want to ask you a series of questions now all springing from the finding in the autopsy report which indicates that there was an accidental death due to the administration of a high concentration of Forane during the tonsillectomy and adenoidactomy.

Would you tell us, first of all, with respect to that conclusion of the coroner, what is Forane and how does it work, as best you can tell us?

A. Well, Forane, isoflurane, is a haloganatad hydrocarbon, It is an inhalational anesthetic agent. One administers -- breathes through into the lungs, gets into the bloodstream, and acts on many different organs, primarily the brain, in order to anesthetize people, to render them unconscious to pain, to painful stimuli, put to sleep, essentially. How it works, I don't understand that. I really couldn't tell you, because I don't think anybody can,

Q. What does the tarm "toxic!" mean as it applies to anesthetics?

A. Well, toxic means -- applied to anesthetics or any drug -- toxic is any drug when given, does what it should do, but it also may have side effects; and these side effects can occur when too much of the drug is given, and this is what is commonly referred to as toxic, That is, the toxic action of the drugs are actions beyond what it's

usual dosage levels are; side effects or reaction to drugs that occur when too much of a drug is given,

Q. What axe the generally accepted safe levels for concentration *of* Forane when it is given as an anesthetic agent during surgery?

A. That would be the usual alveolar concentrations which people put -- we term MAC, M-A-C, medial alveolar concentration.

MR. TOMBERG: Could you say that slowly, please?

THE WITNESS: MAC, M-A-C.

MR. TOMBERGt No, the --

THE WITNESS: Medial -- minimal -- medial, rather, aveolar concentration; alveolar being the lung, lung units. The definition of MAC is that concentration of an anesthetic which would put 50 percent of people -- would render 50 percent of people insensitive to a surgical stimulus.

And it has no real meaning in and of itself to any one patient, other than the fact it is used as a relative indication of strength of patients and about where one, you know, would assume half the patients would be asleep, per se, rendered numb to a surgical stimulus.

tha record, it is not at all clear that she turned it off There is a question of actually whether it was going full blast at that time or not,, Instead of turning it off, sh actually went to the wrong knob and turned it on, And it's not clear from my understanding when she -- when Forane actually did go off, But at least certainly up until the period of time where the patient arrested, all of that encompassed that period of tims -- could have bee the time she was receiving excessive isoflurane.

Q. What is the response of the human body, particularly ths heart and the brain, to an excessively high flow rate of Farane?

A, Well, Forane, as are other -- any other anesthetics, any time one uses an anesthetic agent to put one to sleep to render them unconscious to pain, it is a general depressant, and it depresses almost all cellular functions, The reason it works as an anesthetic agent, i renders people unconscious, is that it depresses the brain, So Forane as an anesthetic agent will depress the brain, The; higher the concentration you use, the more th brain becomes depressed.

And toxic levels -- even before toxic level is when we depress the normal respiration drive. One breathes normally high enough levels of anesthetic agent, the patient stops breathing,

A, Toxic levels are any levels that are too much for that particular patient, They may be defined as low as two percent in some patients, if that particular patient is sensitive to the agent. Certainly there io no one particular level that one can say that's -- that it's toxic for everbody, but certainly when you get up above three, four percent, any period of time, those are areas you show grave concern about giving,

Q. Based upon your review of the anesthesia record in this case and based upon your experience and training, do you have an opinion as to the period of time when it is more likely than not that an excessive concentration of Forme was being given to Clarissa Laverick?

A. Yes, 1 do.

Q. What is that opinion?

A. It appears that she received an excessive level of Forane for a period of at least ffvo to eight minutes, perhaps mora,

Q. Now, we know from the record that Nurse Mawer indicated she tuxned it on at about 1:42, and then there! is -- at least she claims she thinks she turned it *off* about six minutes later. Where does thio -- about the time you have just talked about, where does that came in in relationship to that?

A. Well, it is not at all -- from my understanding of

Q. Does that translate into a percentage?

A. Yes. The MAC for: isoflurane is 1.16 percent; so the usual concentration one would see in use of -- clinical use in order to anesthetize patients, render ther unconscious to a surgical stimuli, would be anywhere from a very small percentage, half percent or less in patients who are sensitive, or to have other anesthetic agents on board, anywhere up to 2 mayba, 2-1/2 percent for patients who are a little less susceptible to it,

Q. When you say in excess of one percent, this MAC figure, what -- what: are you talking about with respect - one percent of what? What is the patient receiving altogether?

A. One percent of the gas concentration, of the total gas concentration.

Q. That the patient is receiving?

A+ That the patient is receiving; that's correct,

Q. And if I understand you, 50 percent: of the people who receive that should be insensitive to pain?

A, Correct,

Q. But where -- when do toxic levels begin to rise with respect -- arise with respect to percentage of concentrations of Forane during anesthetics?

A. When do toxic levels?

Q. Yes.

It also affects the heart, cardiovascular system, as do any other inhalation anesthetic agents. Low, usually used levels, Forane is relatively safe for the? heart. It maintains the cardiac output of the blood that tha heart is pumping out. As when it gets to higher levels, the amount of blood the heart: pumps out becomes progressively depressed because it acts as what; we call a myocardial heart depressant, It also works on the blood vessels that connect to the heart to the myocardiovascula system. It takes the blood vessels and dilates them up.

Toxic levels of Forane, one would gat low blood pressure, not because the heart necessarily is compromised or not pumping out enough, but all of sudden is pumping things into a small channel, like a straw. It is pumping into a much bigger area, and even though the amounts of fluid is the same, the pressure is going to be markedly different because there is a lot more places for it to go.

Q. Can you tell to e reasonable degree of medical probability how long a high rate of Forane, a toxic level of Forane, would have to be administered before it would cause a severe drop in the heart rate?

A. Well, that's really difficult to say. It's -- it' really too variable to give a specific amount, specific time.

Q. How about with respect to a surgeon on seeing dark blood? Would the heart rate fall first before you saw the dark blood, or wauld the dark blood be first and then the heart rats fall?

A. Again, each patient reacts differently to any type of -- any type af inhalation agent, Any patient reacts differently to dosage amounts, It is really hard to say which would come first in any given patient,

Q. Now, we have this blowup of the anesthesia record, and I will show it to you and then turn fit to that jury so we can all see.

The heart rate at 1 -- at 1:50 is shown at 147, we will say. And then five minutes later it is down here at 60. Assuming it -- if that five-minute period was in a gradual period of fall, would the; initial droppage o the haart rate -- what would that signify to the anesthesiologist who had been giving Forane while it was initially dropped, what should that --

A. The heart rate is at 1:50 as you haw indicated wa somewhere in the high 140 range, which io really a fairly rapid heart rata for a nine-year old patient, and would indicate a number of different things, could indicate a number of different things to an anesthesiologist, depending upon the clinical circumstances; probably in this case one of which was that the patient was light;

that is, was not receiving -- may not have been receiving enough anesthetic agent, was feeling the surgical stimulus, And as a response to that, more anesthetic wgant was given,

And if the heart rate began to fall, that would have been within limits that would signify the patient was becoming more anesthetized, was not having as much sympathetic output; was becoming less synergized, wa becoming more anesthetized,

Q. As It dropped from 1U7 at 1:50, how far would it drop before the reasonably prudent anesthetist or anesthesiologist would say, "Gee, it is dropping too far. I shouldn't let that happen"?

A. Certainly one would like to see the heart fall bac into the 110-120 range, even down to maybe as low as 80 o 90, depending on the rate of fall before one then starts to say, "Well, if it goes much below 80, perhaps it is falling a little too low or too fast, I will have to look into what is going on."

Q. Would the first step to those circumstances be to give atropine?

A. That could be one of the reactions to what you would do.

Q. Now, despite about all the CPR we have heard being carried out here with, cardiac massage, sodium bicarb and

all them drugs baing given, and tha bagging and all the rest of the things being done, the heart rata as charted by Mr. Sturniolo here stays down for 5, 10, 15 minutes.

Why is that with respect to the Forme administration? Why did it stay down so long before it went up?

A, With an overdose of anesthetic agent such as was received here, it would take awhile for tho heart to respond to any pharmacologic manipulation, administration of resuscitative drugs. The heart is severely depressed by the anesthetic agent, It takes awhile for the anesthetic agent to get out of the body, to get out of the tissues.

The patient probably also was acidotic at the time, low blood flow, lack of oxygen to tissues, had built up with acid bypxoducts, Again, acidotic state is a little bit more difficult for the heart to respond to resuscitative drugs.

Q. Dr. Nearman, I want you to assume just for purposes of my question that the resuscitation efforts in this case actually started or -- started about 30 to 60 seconds before they did, In other words, earlier than Dx. Milo reports; let's say -- let's say he really saw dark blood 30 to 60 seconds before the record indicates that he says he did,

A, Okay,

Q. Do you have an opinion based upon reasonable medical probability and your experience and training and your review of these records whether that would have mads any difference at all with respect to the survival of Clarissa Laverick?

A. Yes, I do.

Q, And what is that opinion?

Q. In my opinion, it probably would not have made a difference.

Q. Why not?

A. I think that this patient received so much Forme, was so depressed, the blood pressure had probably been down for so long, that whatever damage had been done had probably already bean done at that period of time,

Q. Well, let's go on another assumption, then, Let's assume that instead of reintubating a patient himself the two times that Dr. Milo did it, that you learned from the records, instead, Dr. Milo the first time had called in Dr. Lee to do the intubation. Do you hwva an opinion basad upon reasonable medical probability and your experience and training as to whether that process or that step would have altered the outcome?

A. Yes, I do.

Q. What is that?

A, I don't see haw that would hava made a difference in the outcome,

Q. Would you explain the basis of your opinion?

A. I don't think that there was any indication from what was going on at that period of time that there was any problem or anything that Dr. Lee might have -- Dr. Lee or any reasonably prudent anesthesiologist would have noted going on at that time that would have mads; him suspect anything happening such as an overdose,

He might have seen the patient was slightly tachycardic, mention that to the person who is administering anesthesia* The nurse anesthetist might have said, I think she was light, that is the *Forme*, or she may be light because of the leak, there is a leak around the tuba and not enough Forane is getting in,

There is several different explanations, and I don't think it would have made a difference,

Q. Well, *if* a reasonably prudent anesthesiologist came in thsrs and smelled the Forane -- you know, play the devil's advocate -- smells the Forane, what would he do undar the circumstances if he is reasonably prudent?

A, He would assume that the reason ha smells the Forane is the reason he was called into the room and that io there is a leak in the system, and the leak in the system is that there is a cuff -- sorry -- there is a tub

in the trachea without a cuff, the, diameter of the tube is smaller than the diameter of the trachea, and some air is escaping or some gas, Forane, is escaping out, and that's the reason for the small of the Forane,

Q. Let's assume the gas is very strong to the doctor -- I will still be the devil's advocate -- this is a very strong noxious smell, should that alert him to anything unusual?

A. Forane is an agent which has a pungent odor, It is a very nice agent for -- we use when we put children to sleep, Children usually do not like I.V.s. They usually have small veins, they don't hold still for us mean anesthesiologists sticking them,, We generally use what's called an inhalation induction. That is give than a mask, say it is a space mask, and let them breath the inhalation agent, the anesthetic through the mask, and they drift off the sleep.

We like agents that get into the lungs, into the bloodstream very quickly, because that makes the children go to sleep very quickly, Forane is an agent that is vary rapid induction, is very rapid. They go to sleep vary rapidly. It is an ideal agent for that, with the one exception is it smells objectionable. It does have a pungent odor, and it limits ths rate at which we give it to people to go to sleep. And it does have a

smell. And I think certainly one cannot tell what concentration it is in the room by smelling it. All one knows, there is some in the room.

Q. Well, does a little Forane in the room smell pungent, or does it just take a lot to make it smell pungent?

A. I don't think one can say,

Q. Can you, yourself, as an anesthesiologist and critical care physician tell the concentration by smelling?

A, No, I don't have a meter: in my nose, I really cannot say for sure there has to be a lot in the room, A lot in the room can be just because there is a large leak and there is a lot of gas leaking around, One cannot tel the concentration by the smell,

Q. Dr. Nearman, based upon your examination of the records and your experience and training, do you have an opinion based upon reasonable medical certainty as to whether or not Dr. Milo moat the standard of care for a reasonably prudent physician at the time he changed the endotracheal tubes during surgery?

A. Yes, I do.

Q. Would you tell the jury what that opinion is?

A, My opinion is he acted in a reasonable, responsible manner as a physician in the times that he changed the

tubes. This is the -- these types of procedures are ofte called -- we call in our institution is a shared airway, and that is --

Q. Shared airway?

A. Shared airway, That means the airway is shared between the anesthesiologist and the: surgeon who is doing the procedure. Any time a surgeon is operating in the vicinity of the head, neck, inside the oral cavity, et cetera, we determine it is a shared airway. We have our business in there with the tubes; the surgeon has their business in there with the surgical procedure. And when they are there, they are -- they are seeing the tube, They are looking at the airway, They know, also, what's going on, And if -- if the tube need3 to be changed, it' reasonable, as far as I am concerned, that the person who is there can change the tube in a shared airway experience.

MR. KALURt Those are all the question I have of Dr, Nearman, Your Honor,

THE COURT: All right, Mr. Tomberg.

MR. TOMBERC: May it please the Court, Your Honor:

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CROSS-EXAMINATION BY MR. TOMBERG:

Q. Doctor Nearman, what is succinylcholine?

A, Succinylcholfne? Succinylcholine is a non -- I am sorry -- it is a *depolarizing* neuromuscular blocking agent ,

Q. What is it used for?

A, It is used to -- it is used for paralysis, chemica paralysis.

Q. What does it paralyze?

A. It paralyzes the -- paralyzes the skeletal muscle, breathing muscles.

Q. It wouldn't affect the heart?

A, No, sir, It can affec the heart, It does not affect the heart as a muscle, per se. It can affect the rhythmicity of the heart, the electrophysiology af the heart.

Q. In which way?

A. Because it is produces essentially an overproduction of acetylcholine, which is a chemical. At certain junctions of the heart it can cause a slowing *of* the heart rate,

Q. Mow, you have reviewed this anesthesia chart; have you not, sir?

A. Yes, I have.

Q. Tell that ladies and gentlemen of the jur how much succinylcholine was administered to this patient?

A, I am sorry. I don't remember the exact: amount

what's written.

Eighty milligrams.

Q. Is that an appropriate dose for a 33 kilogram child?

A. It is a little high, The appropriate dose would be somewhere around one, maybe up to one to two milligrams per kilogram,

Q. In fact, there was a continuous drip of succinylcholine throughout the anesthetic procedure; is that correct?

A, I am not aware of that,

Q. Well, perhaps you can tell us what SDCXTT stands for?

A, Well, G, I think.

Q. GT.

A. GTT is an abbreviation for dropsy so succinylcholine in drops. And I assume that that -- perhaps that's that. My -- the way we usually write it i we gut down where it starts and where it ends and what the concentration is and et cetera. I don't see that charted so I would have a difficult time interpreting that,

Q. You would have a difficult time interpreting that,

And if you gave an extremely high dosage of succinylcholine to a 33 kilo child, you would not expect tachycardia, would you, sir?

MR. KALUR: Your Honor, can we approac the bench?

(An off-the-record discussion was had between Court and counsel at side bar,)

THE REPORTER: "You would have a difficul time interpreting that,

"And if you gave an extremely high dosage of succinylcholine to a 33 kilo child, you would not expect tachycardia, would you, sir?"

THE WITNESS: No, I would not,

By Mr. Tomberg:

Q. I beg your pardon. I did not hear you,

A, I would not expect tachycardia from the succinylcholine in extreme amounts,

Q. And that is --

A* I would not necessarily categorize 80 milligrams a an extreme amount of it. That is more than usual, which is what you asked in the beginning, but I am not sure I would put it as an extreme amount,

Q. But that's a qualification you are making as an expert witness hired by Mr. Kalur to come in and testify as to the facts?

MR. KALUR: I object to that, It's argumentative,

THE COURT: Sustained,

Ask another question.

MR. TOMBERG: Thank you, sir.

By Mr. Tomberg:

Q. Now, Doctor, what are the, requirements for Board certification in critical care, sir?

A. Thio is a new subspecialty. It is not -- still not Board certification. It is called special qualifications, Each of the major subspecialities offers special certifications or special qualifications, One -- by each of the major subspecialities, I am talking about anesthesiology, surgery, medicine and pediatrics,

In order to -- in each of them, within the last year, has recognized critical care -- even though it is a multi-disciplinary field, they were not able to agree upon a multi-disciplinary test or a certain common denominator for which a patient -- fox which people who have had special training in that should have received in order to gat separate Boards, so they each have their own special certification.

Essentially, one needs to pass the Boards in any one of those four particular specialties, than one needs a certain amount *of* extra training. The extra training varies in anesthesiology, It is now a minimum of either two years of special training after one receives their anesthesia Boards or an extra year of training plus

at least 50 percent of one's time dedicated to the practice in critical care for a period of two years after that.

Q. Okay.

A. And then one takes a written examine,,

Q. And that's what you did the last -- say from 1983 when you received your Board in anesthesiology, up until 1986 when you got your: special certification; isn't that correct, sir?

A. Yes.

Q. In fact, you have devoted more than 50 percent of your time to that particular area; is that correct, sir?

A. That's correct,

Q. In fact, in the last four years you have not performed many anesthesia tasks involved in a tonsillectomy and adenoidactomy; have you, sir?

A. That's correct,

Q. In fact, in ordar to know what the standards *of* otolaryngologists, anesthesiologists or otolaryngologists in this area, you had to discuss With your colleagues, didn't you, *sir?*

A. I had discussed certain aspects in this case with them to make sure the standards of practice now are the same as I was doing therm back in 1981, and received an affirmative answer.

Q. Now, you recall that Dr, Milo's testimony in his deposition was this was a highly objectionable odor?

A. I don't recall the specific words. I did -- the gist of that, yes. I don't know if that's the exact word he used.

Q. You were also familiar with the fact that Dr. Milo was aware of the smell of Forane as an anesthetic gas as a result of his prior experiences with leaks?

A. Yes. I remember that being in the deposition.

Q. Now, let's assume facts are simply the student nurse anesthetist noticed this tachycardia,

A. Okay.

Q. And, appropriately -- I mean, would an appropriate response at that time be to turn on the anesthetic agent, Forane?

A. I think that is an appropriate response, assuming that the person who was there, the student nurse anesthetist, felt that the patient was light, which is what it apparently is, because this tachycardia occurred at the approximate time that the surgical stimulus also appeared,

Q. Now, would it be your testimony that she turned that all the way on full blast?

A. I can't be sure what she turned it on at that poin in time.

Q. Wouldn't it be reasonable to assume that ache turned it on partway?

A. It might be, yes.

Q. Would it be --

A* I can't tell from the records, and I can't tell- from the testimony how -- how much it was turned on.

Q. Would it also not be reasonable, sir, that as soon as she turned it on, that's when Dr. Milo and Nurse Lewis, the scrub nurse, began complaining about the odor of Farane?

A. It seems that within a short period after: she turned it on that there was the mention, yes, the mention of the odor Forane.

Q. And than at that point in time a decision had to be made, didn't it, Doctor, a medical decision had to ba made; io that correct?

A. What decision are are you talking about?

Q. As to what to do about that leak?

A. I don't know if a decision had to be made. There was a leak. Oftentimes we do cases -- we have done cases where the leak is sustained throughout the entire case, I am not sure I understand -- there is an urgent decision had to be made, A decision was made; yes, sir. I am not sure the decision had to be made,

Q. Qn about this point in time wasn't the;:scrub nurse

complaining about light-headedness or feeling ill?

A. Yes.

Q. And wouldn't that indicate to you that there was an abnormal flow or an excessive flow of Forane from the patient into the operating room?

A. Not necessarily. People get ill for lots of different reasons. She was the only person who felt ill.

Q. And that goes back to your point about what the MAC concentration would be as far as affecting different patients, wouldn't it, Doctor?

A. Certain people are -- get ill from just opening the cap when thay poor it into the vaporizer and the odor is strong and they don't like it. This is highly individual, and it does not necessarily have anything to do with the concentration*

Q. Okay. Now, Doctor, if you were in a room, and a patient is being maintained, and there was a leak, do you think you could make a determination between an appropriate level of anesthesia gas as apposed to a clearly excessive level?

A. From smelling it alone?

Q. Yes, sir.

Q. I mean, if I sprayed a can of Lysol from here just lightly, you would be able to smell that; is that correct,

sir? But if I held it for about 30 seconds, it would inundates you? I mean, that would make a difference in the concentration, sir?

A. I don't think one can necessarily guess the dose of it. Certainly more would mean you had a better chance of smelling it, I don't think -- the interpretation of dosage from smell is something one as an individual cannot do.

Q. Unless one is trained in that area?

A. Even if one is trained in that area, I really doesn't see any correlation, Certainly more out is the higher likelihood of smelling it, Could be more out because there was a larger leak and more was reaching the room area as opposed to going into the patient, The concentration that was baing administered still cannot be ascertained from that,

Q. But don't you think a reasonably prudent medical practitioner could determine what that concentration is in terms of making a person light headed?

A, I will answer your question again. No, sir, I don't.

Q. And you are saying you don't believe Dr. Lee, as a reasonably prudent anesthesiologist, would have checked the dials an the machine to see the levels of Forane that was baing registered had he been consulted at the time of

the first intubation?

A. Had ha been consulted at the time of the first intubation and he smelled it in the room, most likely -- in medicine, if we hear hoofbeats we listen for horses? we don't look for unicorns or zebras, necessarily. If he was called into the room because there was a leak and there was a small of Borane, I would think any reasonably prudsnt anesthesiologist would, given that the patient -- that there was no other problems at that point in time, he will say, "Well, there was a leak, and the Forane in the room was because it was leaking out of the patient into the room,"

Q. And is that true?

A. He may have checked the dials; he may not have. Somatimes people sweep their eyes and look at dials, too. I can't tall if that's the circumstances of what happened at the time, and not something I can judge.

Q. That's something that you can't judge, air?

A. It is not something I can judge. Depending upon the clinical condition *of* the patient at the time.

MR. TOMBERGt That's all I have, Your Honor.

THE COURT: Any other questions?

MR. KALURt I have no redirect.

THE COURT: All right, You may step

down.

(Witness excused.)

THE COURT: Okay, We are back --

MR. TOMBERG: Pardon me.

THE COURT: We are back to your case, aren't we?

MR. TOMBERGt Yes, sir.

MR. SPALL: Thank you, Your Honor,

Before we proceed, I just want to admit *or* move to admit Plaintiff's Exhibit Number 3 which i tha letters appointing Kathleen Laverick as administratrix; as well as Plaintiff's Exhibit 4, the composite exhibit; and alas the funeral expenses, Plaintiff's Exhibit Number 5.

THE COURT; Any objaction?

MR. KALUR: What is the composite exhibit?

MR. TOMBERG: The photographs*

MR. SPALLt That's the photogxaphs.

MR. KALURt The photographs are together now?

MR. TOMBERGt Well, they are A through --

MR. KALURt I understand what you are saying,

We have no objection.