STATE OF OHIO)
) SS: IN THE COURT OF COMMON PLEAS
SUMMIT COUNTY)

CASE NO. CV-82-7-2203

Doc. 316

JANETTE BRIDGE, ADMRX.,	)	
PLAINTIFF,	)	VIDEOTAPE DEPOSITION
VS.	)	OF
AKRON GENERAL MEDICAL CENTER,	)	DR. CAROL MILLER
DEFENDANTS.	)	JUDGE MORGAN

VIDEOTAPE DEPOSITION taken before John Jastromb, a Notary Public within and for the State of Ohio, pursuant to Notice and as taken on February 25, 1986 in the office of Dr. Carole Miller, Ohio State University Hospital, 410 W. 10th Street, Doan Hall, Room N950, Columbus, Ohio. Said deposition taken of Dr. Carol Miller is to be used as evidence on behalf of the Defendant in the aforesaid cause of action, pending in the Court of Common Pleas, within and for the County of Summit, for the State of Ohio.

APPEARANCES:

MR. CHARLES MILLER,
On Behalf of the Plaintiff,

MR. CHARLES PIERSON,
On Behalf of the Defendant,
Akron General Medical Center,
Dr. Narraway, and Dr. Friedman,

MS. AMY TAYLOR,
On Behalf of the Defendant,
Dr. Sokol.

OPERATOR: We're on the record. Doctor, would you raise your right hand please. Do you solemly swear the testimony you are about to give in this matter to be the truth, the whole truth, and nothing but the truth so help you God?

DR, **MILLER:** I do.

MR. PIERSON: Let the record show that the deposition of Dr. Carol Miller is being taken on direct examination on behalf of the Defendant Friedman in this case for reading at the trial of this case,

DURING DIRECT EXAMINATION BY MR. CHARLES PIERSON:

Q **For** the record, would you state your name please?

A Carole Ann Miller.

Q And where do you live, ma'am?

A In Columbus, Ohio.

Q And what is your office address?

A It is Ohio State University Hospitals, 410 West 10th Avenue, Columbus, Ohio 43210.

Q What is your occupation?

A I am a physician and specifically a surgeon in the practice of neurological surgery.

Q Doctor, would you briefly tell us what your education has been beginning with your college?

A I was graduated from Ohio State in 1962 with a Bachelor of Arts Degree. I then attended Ohio State University College of Medicine from 1962 to E966 and was graduated in 1966. I interned following that at the University of Pennsylvania at the Graduate Hospital in Philadelphia. I then returned to Ohio State and did one year of general surgery residency and then completed the neurosurgery residency here. I did a fellowship in neurosurgery, actually in neurophysiology, at Yale University from January of 1972 through June of 1972. I was then on the faculty at The University of Michigan from 1972 to 1975. I became board certified in neurologic surgery in 1975 and returned to Ohio State and have been on the faculty here since that time.

Q What is your present rank, Doctor?

A I am an Associate Professor in the Department of Surgery of The Division of Neurological Surgery.

Q Doctor, I take it then that you, in addition to teaching, you are engaged in the clinical practice of medicine?

A My primary function is a clinical practitioner of neurological surgery,

Q And can you give us an estimate of what percentage of

your time is engaged in neurologic surgery?

A 85 to 90 percent.

Q All right. What does board certification mean, Doctor?

A In neurological surgery we have a written examination that is completed after the five year of residency training. Most programs require that the written examination be passed in order to successfully complete the residency training. Then one must be in practice for two years following completion of a recognized residency program. You present your credentials to The American Board of Neurological Surgery, and also having passed the written examination and then take an oral examination, and receive board certification.

Q I take it then that your work as a professor of medicine is here at The Ohio State Medical School?

A Correct.

Q Have you taught elsewhere?

A Yes

Q I think you mentioned at The University of Michigan?

A Yes.

Q And where do you practice medicine, doctor, with your patients?

A At University Hospital, and then I am also on the courtesy staff at Children's Hospital in Columbus, and I am

also on the consulting staff of Memorial Hospital in Marysville, Ohio.

Q Doctor, before the deposition began you handed me a synopsis or curriculum vitae of your career and professional qualifications. I would like to mark this as Exhibit "A" for the Defendant Friedman. Do you have an extra copy I can give to Mr. Miller?

A Yes, I do. Certainly,

Q Thank you. I mark that then Exhibit "A" and I offer it in evidence for use at the trial of this case,

3:58:09 - MR. MILLER: Objection as cumulative and hearsay,

Q All right. Doctor, at my request did you review certain medical records connected with the case of Janette Bridge, Administratrix, versus Akron General Medical Center and others?

A Yes, I did.

Q And what records did you review, Doctor?

A I'll refer back to my letter of May 3rd, 1985.

Q The letter you speak of is a letter you wrote to me I believe in response to your first survey or summary of these records?

A Yes, sir.

Q Go ahead.

A I reviewed the medical records of William C. Bridge,

Akron General Medical Center number 341575, and the synopsis of depositions of Dr. Sokol, Dr. Narraway, Dr. Harvey M. Friedman, and Dr. David P.L. Sacks,,

Q With the exception....well, not with the exception. Each of these synopses were synopses that my law office had prepared and sent to you along with the medical records, is that correct?

A That is correct. That was my understanding, yes.

Q Have you read any actual transcripts of depositions?

A Not all the way through. I believe today you brought a deposition of a Dr. Rogers from Pittsburgh.

Q Yes,

Q I very briefly reviewed some of that. Then yesterd y in some materials which were returned to me was a deposition of a Linda Cullen, C-U-L-L-E-N, and quite frankly I have not had an opportunity to totally review that.

Q All right. With reference to the various parts of this medical record I want to direct some questions to particular parts of it. Have you reviewed the medical dosages that were given to this patient, Mr. Bridge, subsequent to his cardiac surgery?

A Yes, 1 have.

Q Did you find that Nembutal was prescribed in this case?

A Yes, it was.

Q And by whom was it prescribed?

A It was recommended by Dr. Harvey Friedman.

Q And can you tell us generally what is your opinion about the use of Nembutal, in general, and then with respect to this particular patient given the history and the medical conditions that you have analyzed in this chart?

A Well, Nembutal or Pentobarbital is used in general in two situations. One, a patient who is restless and thrashing about, we sometimes use a drug such as Nembutal or Pentobarbital to sedate the patient. I have also used Pentobarbital extensively in the treatment of increased intercranial pressure associated with cerebral edema after a trauma, strokes, intercranial hemorrhages, brain tumors, et cetera.

Q In your opinion, was the use of Nembutal indicated in this case?

A I think it was certainly appropriate considering the situation, yes.

Q What is that situation and why was it used?

a Dr. Friedman used it, number one, because was presented with a patient with a very severe stroke, a patient who had been rendered hemiplegic and aphasic as a result, more likely than not, of an embolus, a complication of the surgical procedure which Mr. Bridge had undergone.

Q Excuse me, Doctor, can we, for the benefit of the

jury explain some of the medical terms you have used such as hemiplegic and aphasic, what does that mean?

A Well, Mr. Bridge unfortunately had suffered a stroke to the dominate or the left hemisphere of his brain. The left side of the brain controls the right side of the body. In most individuals, particularly most right-handed individuals, the left side of the brain is also the area for speech, and recognition and understanding of speech, and ability to respond to the spoken word, and also to actually verbalize in response to recognition or a verbal input. When a patient has suffered damage to the left side of the brain that area may be more or less involved. In Dr. Friedman's description the patient was globally aphasic which indicates that not only could he not receive information and integrate it internally and understand, but he could not verbalize either; he could not speak.

Q Is that what aphasic means?

A In general, yes. We tend to classify aphasia but I think that as a lay person, most lay people think of aphasia as the inability to speak, yes.

Q And what does hemiplegia mean?

A Hemiplegia is a term which describes a disuse of an extremity. Particularly it describes disuse of an entire side of a body including the face, the arm, and the leg. Now hemiplegic means that there is absolutely no

function what so ever. Hemiparesis is one side, this side of that, where there may be some visible function. It may not be very useful or it may be what we call a mild hemiparesis where a patient may simply not be able to grip and so there may be a spectrum of a weakness or whatever present.

Q What did we have in this case?

A As it was described initially in the consult by Dr. Friedman the patient was globally aphasic., He could not understand the spoken word and could not verbalize. In addition he could not move the right side of his body. His arm was moving less well than his left and this....than his leg and this is quite consistent with a stroke in the distribution of the middle cerebral artery which is one of the main branches of the large artery going to the brain, That distribution of that artery happens to be to the face area, both for motor function and for speech, and to the right arm, and to a lesser extent to the right leg.

Q Doctor, I think you used the term cerebral edema, did you not?

A Yes.

Q What does that refer to3

A Cerebral edema, or brain edema, or brain swelling, or a brain that fills up with water is a response of the brain to an injury. Just as if I were to bang my hand hard

on this desk, after a while you would start seeing some redness and maybe some blue and some hemorrhage, you would see a clot forming and a bruise form there. When the brain is injured by various mechanisms, whether someone gets a blow to their head and injures their brain, whether or not a blood clot breaks off, say, from the heart and follows an artery up to the brain such as happened in this particular case, or that actually a blood vessel ruptures inside the brain so that there is actually a clot formed there, the response of the brain, just like the response to the hand here, is that something happens to the cell structure in the brain so that the fluid is no longer contained within the blood vessels of the brain where it is supposed to be and oozes out into the substance of the brain. When the water content of the brain increases because of damage to the cells, the brain swells inside this closed box, and a result that swelling causes increased pressure inside the head. This is bad because if allowed to progress it will eventually lead to the patient's death.

Q And is there treatment for this cerebral edema?

A There are some things that we can do sometimes to mitigate it and in certain cases it is inexorable and there is nothing that we can do. The best treatment, if it is possible, if it is response to a blood clot, say, after a blow to the brain, or a response to a brain abscess or a

response to a brain tumor, is to actually operate and remove the tumor, the abscess, the blood clot, and that often reduces the intercranial pressure and that really is the best treatment. Unfortunately in a case such a Mr. Bridge where you have had what we call an embolic stroke, where something has broken away inside the heart, floated in the artery, and lodged in one of the major arteries going to the brain so that that area of the brain is no longer getting its blood supply, and then those cells die, they become ischemic, they are not getting the oxygen and the glucose that they need, and this happens very rapidly. The brain swelling is something that is sort of like a vicious cycle, the cells immediately around the area of the infarct die, and then the cells around them die, and the cells around them die. So it is sort of this inexorable course and unfortunately in a case like this.... from a surgeon's standpoint it is unfortunate because there isn't really anything that we can do to go in, take out, and relieve the pressure. Now occasionally when brain swelling is present and if it is in a non-vital area of the brain, it is hard to think that there are non-vital areas of the brain, but we do go in and remove certain portions of the brain in very extreme cases in order to reduce the pressure inside the brain in order to save the patient's life, In general, we don't like to do that and

in a case such as this, that option really isn't open to you because this stroke had been in the....again, as I said, the dominate hemisphere of the brain, the most important one having to do with speech function and with the right side of the body.

Is there any alternative treatment then for cerebral edema?

There are medical treatments which we can institute, Steroids; Decadron is a common one that was used then and is used now. Maintaining the patient's oxygen and CO_2 at appropriate levels we know is very important. Making sure that there is glucose because the brain needs a constant supply of oxygen and glucose in order to do its metabolic work. In fact, if it is deprived of that for five minutes or longer, except in certain experimental condition, the brain dies; the cells immediately adjacent to it die.

An, Pentobarbital or Nambutal, if you will, is a drug along with other barbiturates which have been used and were used particularly in the late 70's and early 80's in the treatment of cerebral edema,

Would the use of Nembutal then be appropriate in this case for the treatment of cerebral edema?

It certainly could be considered appropriate, ***yes.***

Did Mr. Bridge have cerebral edema in your judgement?

Well as, again, as Dr. Friedman reported this man

was globally aphasic and had a right hemiplegia, or at least a severe hemiparesis, following surgery. The reasonable diagnosis as Dr. Friedman made it was an embolus to the middle cerebral artery. That results in edema. Now the edema isn't going to be there immediately. The edema is going to take 24, 48, to 72 hours to really become significant. What you want to try to do is reduce it as much as you can, Now when the brain cells start to die there is nothing unfortunately that we can do to totally reverse that. What you hope is that the stroke has not been so massive and plugged up such a vital artery that the whole side of the brain is going to become involved. If the whole side of the brain becomes involved, the inevitable course is death and even with giving the drugs that we use.....I didn't mention mannitol, but barbiturates, steroids, and mannitol isn't going to make all that much difference, If it is a lesser stroke) and you don't know that at the beginning when you first see the patient, there may be a chance that by giving these drugs you can reduce the peripheral swelling and therefore control within reason so that it doesn't....so that the swelling does not result in the demise of the patient.

Q Doctor) do you think that the Nembutal in this case, based upon this record, was prescribed in appropriate or approved amounts?

A Yes. In my opinion it was.

Q Do you think it was prescribed at appropriate intervals?

A Yes, I believe it was.

Q Have you reviewed the chart to determine whether there were any other central nervous system depressants given and, first of all, can you tell us what that term means, central nervous system depressants?

A When we apply the term central nervous system depressant to a drug we generally mean, again in lay terms something that the individual would recognize, that would make the person sleepy. For instance, the usual sleeping pills that are taken are central nervous system depressants. They produce a sleepy state, make the individual less restless or allow them to rest better if you will, and also may specifically cause depression of the centers for respiration. Usually when we refer to it we mean something that specifically acts more or less on the respiratory center.

Q Were such central nervous system depressants used in this case?

A Well, Nembutal is a central nervous system. ...

Q Were there others used?

A I have not had the opportunity to totally re-review these records, but I know that Valium was used also.

Q Do you have an opinion as to whether the Nembutal

in this case was used at an appropriate time with reference to the administration of the other depressants?

A Valium?

Q Yes.

A Yes. In my opinion, yes, they were used at appropriate times.

Q Do you have an opinion as to whether there was any cumulative effect of the various depressants that were used in this case?

A Well, I am not a toxicologist and I wouldn't pretend to be totally familiar with all of the ins and outs of this, but I am familiar with the use of these drugs and use them all the time. Much of the use of these drugs have to be titrated to the individual. What I mean by that is that, for instance, I might take 5 milligrams of Valium and it would put me to sleep on the spot. Another individual might take 5 milligrams of Valium and you won't even notice any effect. In another patient it might take 10 to 15 milligrams of the same drug. The same is true for Pentobarbital. For instance, I have used Pentobarbital actually quite frequently in the intensive care unit to reduce intercranial pressure and have given doses of 100 to 200 milligrams, I.V., in one push.

Q What is the significance of that as related to Mr. Bridge's case?

A Well, Mr. Bridge's was getting 200 to 250 milligrams

into his muscle. The release and the absorption of that is much slower. By I.V. I mean actually directly into the venous system, We have given up to 250 and even 300 milligrams in cases in order to try to reduce the inter-cranial pressure.

Q Intravenously?

A Yes.

Q Well then would you say that this particular dosage was not excessive?

A In my opinion, it was not excessive, no. Again, it depends on....you have to watch the response of the individual who is receiving the drug and part of how you use it depends on that. But it would appear that this was for this man a very reasonable dose and he was not overly responding to it.

Q Doctor, what is Cheyne-stokes breathing?

A Cheyne-stokes respiration describes a state of breathing in which if you were to observe the individual there is rise in the rapidity with which the breathing occurs, and then a slow falling off, followed by a period of non-breathing, and then this crescendo, decrescendo, and falling off with a slight period of apnea or non-breathing, and this is related to the retention of carbon dioxide. Carbon dioxide in our blood is one of the things that drives the respiratory center. If you hyperventilate and blow off the

CO_2, you tend to have a period where you don't breathe so that the CO_2 can build back up again. We do see this during normal sleep in some individuals where they have Cheyne-stokes respiration, particularly elderly people, and also sometimes small infants who have not...whose brains haven't totally matured yet will demonstrate this. If you have ever watched a baby, small baby sleep, in fact it is frightening sometimes, their mothers shake them because they have this period when they aren't actually breathing. But when we see it in a patient such as Mr. Bridge who has suffered some sort of severe injury to the brain, it is usually a very poor prognostic sign. That means that it is an indication to us that the patient does have increased intercranial pressure and that this increased intercranial pressure may be reaching a very significant point where there may actually be compression of the respiratory center in the brain stem. Not infrequently the presence of Cheyne-Stokes respirations may precede a respiratory arrest in a patient with increased intercranial pressure and be the result of the demise of the patient.

Q Well Doctor, was there Cheyne-stokes breathing in this case according to the records you have reviewed?

A It is very difficult for me to tell whether there was Cheyne-stokes breathing or not. This is not something that is common, If you are working in a neurosurgical

intensive care unit, or if you work with neurological patients frequently you might see this. But it is not something that is commonly encountered. I know the term has been used here. It is difficult for me from the descriptions to say whether it was or it wasn't present.

Q Would the clinical judgement of the neurologist in charge or who is actually in observation, would that be of greater significance to you than, or woulditnot, than simply reading the cold record?

A Well, to me the most significant thing would be the report of the neurologist because this is not something that just anyone is qualified to report on. I mean it is a neurologic sign and a neurological consultant, neurosurgeon or a neurologist, would be the most appropriate one to report on it,

Q In a case of a patient such as this one who had had a triple or quadruple bypass, and had had a stroke, and was of the age of Mr. Bridge, and if Cheyne-stokes breathing were to appear three days post-operatively or in that general area, what would be the particular significance and the prognosis of that combination of facts?

A Well, in this particular case and as described here it would be a very, very serious and significant prognosis or prognostic sign and indicate to me that indeed Dr. Friedmar s initial diagnosis of cerebral embolus to the middle cerebral

artery, with aphasia and hemiplegia, with resulting brain edema had indeed occurred and by the time ....by 72 hours later that this cerebral edema had indeed progressed and was producing enough swelling to result in this very significant neurologic sign: that is Cheyne-stokes respirations.

Q Given that combination of history and symptoms, what would be the prognosis in all probability, that is the greather probability of the facts medically, for such a patient at that stage 72 hours post-operatively?

A In all probability, and I have seen several patients exactly in this condition, the outcome would be the death of the patient more likely than not. If by some chance the patient should survive, he would undoubtedly be rendered extremely disabled with aphasia and a severe right hemiparesis at best.

Q Do you have an opinion, Doctor, on your medical education, your experience, and the review of these records as to what the cause of death of Ms. Bridge?

A Yes, I have an opinion.

Q What is your opinion?

A It is my opinion that Mr. Bridge unfortunately did suffer a complication, a very known and feared complication, of this surgery. That he had an embolus to his middle cerebral artery. That this embolus was quite massive. That

it resulted in occlusion and ischemia of the left hemisphere of his brain.

Q Excuse me. What does ischemia mean for the jury, Doctor?

A Ischemia means lack of blood supply.

Q Okay.

A And again, as I said before, the brain needs a constant supply of oxygen and sugar in order to survive. These was a very large area irrigated by this middle cerebral artery that no longer was getting its oxygen and glucose. As a result, the blood cells were damaged....or the brain cells were damaged. Those brain cells started reproducing or allowing fluid to leak out through them. The progressive leakage of the fluid led to brain swelling, the brain edema. The brain edema continually increased until there was pressure on the brain stem and depression of the vitals functions in this man. That the cause of death was directly a result of the increasing brain swelling and compression of the brain stem.

Q Doctor, do you feel that the administration of Nembutal in the amounts and at the times it was administered in this case was appropriate for good medical care, specifically good neurological care, in 1981?

A Yes, I do.

Q From a total review of this record and with all your

knowledge and education, do you feel that in any respect there was a departure from the appropriate standard of care by Dr.Friedman, the neurologist?

A Again, I have not had an opportunity to re-review all of this, but based on my letter to you of May 3rd, it is my opinion that Dr. Friedman was acting within the standard of care for a neurologist or neurosurgeon in treating this condition as 1981.

Q Thank you, Doctor. You may examine.

MR. MILLER: Off the record a moment, please.

OPERATOR: We're off the record.

OPERATOR: We're on the record.

DURING CROSS EXAMINATION BY MR. CHARLES MILLER:

Q Dr. Miller, my name is Charles Miller. We just met at the start of this deposition. I have never had any conversation or communication with you about this case.

A No.

Q Is that true3

A That is correct.

Q And our first acquaintance was just at the start of this deposition here down in the department of neurosurgery at Ohio State University Medical Hospital?

A Correct.

Q All right. Today is the 25th of February. This case is scheduled to go to trial in Cleveland...in Akron, excuse me, on or about the 30th of June or early July, Do I understand that you will not be able to or have other plans so that you will not be able to testify in person in Akron, Ohio in this case?

4:25:53 - MR. PIERSON: Objection. The question is irrelevant under the statute... ..

MR. MILLER: Well.....

MR. PIERSON: Excuse me. Let me make my point. The statute permits the taking of the deposition of physicians for use at the trial.

Q Do I understand that you don't have any plan to be at the trial in person?

A No. I have never said that.

Q All right. Well, do you whether or not you will be in person?

A I plan to if I am asked.

Q Oh, you haven't been asked, is that it?

A Not specifically yet,

Q Okay, Well, in the event that you are not asked to appear in person, now is the time that I have got to ask you a few questions on cross examination on behalf of

my client Janette Bridge, and so we will proceed on that basis then now. Doctor, as you described in your testimony on behalf of Dr. Friedman for Mr. Pierson, Nembutal is a depressant of the center located in the brain that controls and regulates breathing, is that correct?

A Correct.

Q And Valium also is a depressant of the breathing control and regulator center located in the brain?

A It can be, yes.

Q And is that also true about Morphine?

A Yes.

Q And each of these three drugs, that is Nembutal, Valium, and Morphine, through its action on the brain also can depress consciousness?

A That is true.

Q And each, if given in excess, can cause what is known I believe as obtundation?

A Right.

Q What is the meaning of that word, Doctor?

A It simply means sleepy.

Q All right. And each of the three drugs, that is Valium, Nembutal, or Morphine, if given in excess can cause aphasia, is that also true?

A No, that is not true.

Q Is that true of Nembutal?

A No, that is not true.
Q Is that true of Valium?
A No, not that I am aware of.
Q All right. Or if given concomitantly, that is more or less at the same time, can Valium and barbi....and the barbituate, Nembutal, cause aphasia?
A No.
Q Aphasia means the inability to communicate and receive information?
A Yes,
Q And if one is heavily sedated then one may lose that ability or be aphasic?
A This is.....well, no, not aphasic. That is different. Aphasia is a specific neurologic diagnosis. If someone is obtunded, sleepy, for whatever reason, whether from medication or from the effects of increased intercranial pressure, let's say, then they may appear to be the same, but it is not aphasia.
Q Uh-huh. Well.. ...
A An experienced neurologist would recognize the difference because there is a specific difference.
Q All right. But Valium Nembutal, if given in excess, can cause loss of consciousness?
A Oh, sure. Yes, absolutely.
Q And when one loses consciousness one loses the ability

to communicate?

A Yes.

Q Or to integrate, as you said, information coming to him?

A Of course.

Q All right, And Nembutal and Valium, if given in excess, may cause coma, may they not?:

A Yes.

Q And they may cause coma that progresses to death of the patient, if given in excess?

A Certainly.

Q Doctor, if Nembutal and Valium, which are both depressants of the central nervous system, are in the circulatory system of a patient at the same time, may each potentiate or increase the depressant effect of the other?

A Well, potentiation is different than the second thing that you said. If something potentiates another that means that simply by giving one drug you enhance the action of another drug. To my knowledge none of these drugs enhance the activity of the others.

Q But you....

A And they act in different ways.

Q You are not trained in toxicology, do I understand?

A No, I am not.

Q All right.

A But I have had pharmacology.

Q Pardon me?

A I have had some pharmacology.

Q Well, every doctor studies some pharmacology, don't they?

A Right.

Q All right. Well, if Nembutal and Valium are given to the same patient concomitantly, that is during a period of time at different points that each drug is given to the patient, may one be considered an additive to the effect of the other in terms of the effect on the central nervous system?

A I guess in a general way one might say that.

Q All right.

A But a lot would depend on the dosage.

Q Oh, certainly. Doctor, does the word apnea mean, if I understand your testimony, a stopping or cessation of breathing?

A Yes.

Q All right. From your knowledge and training, Doctor, as well as your experience, can overdosing of a post-operative patient in an I.C.U. setting with the barbituate, Nembutal, and the drug Valium so depress the breathing control center in the brain as to cause him to stop breathing for part of consecutive minutes?

A No. I mean it would cause cessation of breathing, period, and then it wouldn't resume. But it would not cause a situation such as Cheyne-stokes respiration.

Q My question is not directed to Cheyne-stokes respiration.

A YOU are asking me about apnea?

Q Yes, just apnea,

A Well, in the context in which you are using it it doesn't cause apnea, no. It total cess....it may cause.... if these drugs, given in excess, produce a respiratory effect it is absolute and that is it. The patient has the respiratory arrest and they don't come back from it. It is not something where he would be likely after, say, fifteen, twenty seconds, or whatever, to start breathing again.

Do I....

That is what apnea means.

Yes., Do I understand you to say, Doctor, that a patient may react to Nembutal, multiple doses of Nembutal.. let me withdraw that,, I'll rephrase the question, Dr. Miller Do I understand you to indicate that a patient may not react to multiple doses of Nembutal with that sign that is referred to apnea or cessation of breathing?

Well, apnea....yes, a patient who is given an overdose of Nembutal, Valium, or Morphine can have cessation of breathing.

Q All right, And may we regard cessation of breathing as synonomous with apnea?

A In the context in which you are using it, no, I will not.

Q Well, I don't know what context you think I am using it and I don't mean to be cloudy about this. By apnea I am suggesting or saying, Doctor, in the question a cessation or stopping of breathing that occurs and then the breathing resumes?

A No. In that context Nembutal or Valium does not cause it.

Q And are you saying that it can cause apnea only to the point that the patient stops breathing forever?

A If it is given in the dose that is going to cause cessation of breathing, the patient doesn't start breathing again, that is correct. That is what I am saying.

Q That is your understanding of Nembutal?

A Nembutal, Valium, and Morphine and I have had direct experience with all of these drugs, used them clinically, and witnessed the cessation of respirations, and had to intubate patients and manage them after their respirations have ceased.

Q Do you know what is commonly referred to as the "PDR", Physicians Desk Reference?

A Yes, I do.

Q And what does that consist of?

A It is put out, number one, by the drug companies. It is a compilation of commonly used and current medications. In that are the chemical aspects of the drug, the recognized side effects, and also the purpose for which the drugs should be used, and the standard dosages.

Q Does that information also contain the contra-indications to the use of the drugs?

A Yes.

Q And also does it set forth as published by the manufacturer of each drug any precautions or warnings that are to be considered in connection with the use of the drug?

A Yes, from the manufacturers point of view.

Q Do you understand that one or more of the attending doctors did also prescribe Morphine?

A Yes.

Q Post operatively. And is it known, Doctor, that Morphine when given post-operatively may cause some patients to be agitated or to show restlessness?

A In general, Morphine is given for just the opposite reason to....

Q No, my question, Doctor.....

MR. PIERSON: Excuse me. Let her finish the answer, please,

Q Doctor, if you can answer a question either yes or no, if you fairly can answer it yes or no I will appreciate it.

A Uh-huh.

Q Do you know whether or not Morphine may cause some patients post-operatively to show signs of agitation or restlessness?

A I have never experienced that in my use of Morphine.

Q So beyond your use of Morphine you are not aware then of whether it may show those?

A 1 have never seen it.

Q All right. Does thrashing mean to move about in a bed?

A In general, yes.

Q And may that term refer to movement of the extremities?

A Yes.

Q Doctor, you have told us that you are board certified in the area of neurosurgery. That is a different specialty than the area of either toxicology or pharmacology?

A Oh, yes.

Doctor, are you aware of what the effect, if any, is of the administration of Tagamet on the metabolism of Valium?

A No, I am not.

Q All right. I take it then you don't know or you are not aware of whether or not Tagamet inhibits, that is slows down or reduces, the metabolism by the body of Valium?

A No, I do not know that.

Q Doctor, do you know based on a reasonable medical certainty what the half life of Valium became after it was injected into the patient, William Bridge, in multiple daily doses in the presence of Tagamet administration to Mr. Bridge?

A No, I don't. (VO)

4:39:22 - MR. PIERSON: Objection. Objection to the question in as much as it uses the word multiple. It is not an accurate description.

Q Well Doctor, can you state without taking too much time to look at the record, am I correct when I say that there were multiple doses of Valium on a daily basis on Tuesday the 28th.....correction....on Tuesday the 27th of January and Wednesday the 28th of January?

Let me take a quick look if I may?

Certainly, Doctor. Off the record while the doctor looks.

OPERAT R: We're off the record,

OPERATOR: We're on the record.

Q Doctor, in the interest of saving time I'll refer to a summary that I have here. I will ask you to assume as being true, Dr. Miller, that on the 27th of January there were approximately 17.....

A That is the 27th?

Q Yes, Doctor. ....17 doses of Valium administered intravenously to Mr. Bridge between 1:25 a.m. and 7:35 p.m. that day.

A Yes, in 2.5 milligram doses.

Q Correct. That would be considered multiple doses, would it not?

A Well, more than two is multiple.

Q Right. Okay. And similarly, Doctor, am I correct in saying that between 8:30 a.m. on Wednesday the 28th and 4:45 p.m. of that same day there were exactly or approximately 9 doses of Valium injected intravenously into Mr. Bridge, each of which was 2.5 milligrams?

A Well, I'm going on the basis of what you are telling me since I can't find that.

Q Well, assuming that to be substantially correct, Doctor, that again would be considered multiple dosing of the drug Valium?

A And I would consider it.....

Q Is that correct, Doctor?

A That is multiple doses, yes.

Q All right. Thank you, Doctor. Now Doctor, do you know based upon a reasonable medica certainty what the duration of the effective action in a patient is of a 2.5 milligram dose of Valium if it is given multiple times daily to a patient who also is being administered Tagamet?

A No, I do not.

Q All right. Doctor, do you know based upon a reasonable medical certainty what the probable range of concentration of Valium in the blood of William Bridge was on the mid-morning or early afternoon of January 29th?

A It isn't recorded, and I would say that it would be impossible to know without having a blood sample.

Q The answer is you don't know, is that correct?

MR. PIERSON: No, that isn't what she said.

A No, that is not what I said.

Q Well my question, Doctor, was can you state based upon reasonable medical certainty what the concentration of Valium was on the 29th in the morning or early afternoon3 I take it your answer is, no, you don't know.

A No, I can not. I don't think anyone can.

Q All right. Again, you are not a trained toxicologist, are you, Doctor?

A No.

Q Now Doctor, do you know again based on a reasonable medical certainty what effect the administration of Tagamet had on the half life of each of the multiple doses of Nembutal which were injected into Mr. Bridge?

A No, I don't.

Q Doctor, do you know based upon reasonable medical certainty what the half life of Nembutal became after it was injected in Mr. Bridge in multiple daily doses of 100 milligram or more in the presence of Tagamet administration to the patient?

A No, I do not.

Q All right. Doctor, do you know based on reasonable medical certainty what the duration of the effective action became of 100 milligram or of a 200 milligram dose of Nembutal where it is injected in multiple daily doses to a patient who is also being administered Tagamet?

A No, but I have given Nembutal or Pentobarbital to patients who are also on Tagamet and can speak from experience of I.V. dosage. From my experience it has not appeared to having any effect on how long the Pentobarbital stays in the system. In other words, it hasn't influenced our having to decrease or increase the amount of Nembutal in order to control the intercranial pressure which is what we primarily used it for, But I can not say

specifically what Tagamet does to Nembutal half life, no.

Q Doctor,. do you or can you tell me the patient that you have referred to or patients you referred to whom you were attempting to control intercranial pressure in an I.C.U. unit, do you know whether there were controls being utilized or some monitoring being done to protect the patient against over sedation with a central nervous system depressant?

A Mr. Pierson In which case? Her patient or this case?

Q No. Her experience in the I.C.U. that she spoke of,

A In our patients, actually we were usingitas a central nervous system depressant and specifically in most cases attempting to depress the respiratory center and the conscious center. So these patients were, in general, intubated and we were monitoring their intercranial pressures.

Q Okay. And those are part of strict controls for the safety of the patient, aren't they?

A In the doses that we were using, yes.

Q And by intubated you mean they were on a mechanical respirator?

A Yes.

Q And that breathes for the patient?

A Correct.

Q So that if per chance too much central nervous system depressant were to be given, so depressing the breathing center, that the patient's life would not be in danger because of the mechanical respirator?

A No, that is not what I said.

Q But is that correct?

A No.

Q Well, the mechanical respirator is there to help the patient breathe?

A But that is not why we did it because in our use of the Nembutal we specifically wanted to depress the respiratory center and therefore it was essential. If we were to use lesser doses it might not be necessary to intubate the patient.

Q Were you intending to put the patient into a coma?

A Yes.

Q Or a slight coma?

A Well, there is no such thing as a slight coma. It is like being a little bit pregnant. You are either in coma or, you know, or you are not.

Q Right, Doctor. And when you said you were measuring the intercranial pressure you had a gauge in the skull, did you, to....

A Either in the skull or into the fluid areas of the brain.

Q So that you would.....

A Not always,

Q But by using the gauge you were able to detect or to measure, if I may, whether the therapy, the medical therapy with the depressant if it was barbituate, whatever it was, was achieving the desired effect?

A Correct.

Q And were you also taking blood studies of the concentration in the blood of the barbituate?

A Usually, yes. At periodic intervals.

Q All right. Do you know whether or not there was any deliberate attempt here by Dr. Friedman or Dr. Sokol in their use of the barbituate, Nembutal, on Mr. Bridge to induce him into some state of coma?

A I think that it was being used here more to reduce the restlessness and not to induce coma.

Q Doctor, by the way, referring back to something you said very early on, you said that Nembutal had been recommended by Dr. Friedman. The fact is, Doctor, that actually the orders for Nembutal were signed....written and signed or countersigned by both Dr. Sokol and Dr. Friedman, isn't that true?

A It may be. I would have to go back and re-review the chart.

Q All right. Doctor, at the time a physician writes

or signs a physician order in a hospital chart authorizing nurses to inject one or more than one prescriptive drug or prescription drug into the body of their patient, does the prudent practice of medicine require that the ordering doctor should know or be familiar with what the warnings are, if any, which are to be taken into account in connection with the use of that drug?

A In general.

Q And Doctor, in that same circumstance about physicians ordering prescription drugs for patients who are in the hospital to be administered by the nurse or nurses, does acceptable medical practice requiring that the ordering doctor should know or be familiar with what the precautions are, if any, which should be taken in connection with his use on that patient of each of the drugs he has ordered?

A I think that is a reasonable statement, yes, in general.

Q And Doctor, also does the careful practice of medicine dictate that the ordering doctor should know or be familiar with what the potential toxic effects and adverse reactions are which are associated with the administration of each drug he orders?

Yes, but I don't necessarily recognize the P.D.R. as, "the be all and the end all."

Q Of course not. There are multiple references in the hospital pharmacy generally, are there not, Doctor?

A I recognize Goodman and Gillman as the fundamental pharmacology text.

Q Excellent. It is the bible in the trade so to speak, isn't it?

A Correct.

Q And similarly, Doctor, does good and acceptable medical practice requiring that the ordering doctor, with respect to drugs for hospitalized patients, be familiar with or know what drug interactions may be expected to occur in his patient's body as to the drugs he is ordering or the drugs that any other attending physician is ordering being given to that same patient during that same post-operative period?

A I think in a general way, yes. I don't think that any of us knows specifically all of the drug interactions. In fact, this is an area of medicine that is only starting to come to light in view of all of the different drugs which we have available to us.

Q Well how many years, to your knowledge, has Nembutal been on the market?

A Pentobarbital, a long time.

Q 20 years or more?

A I don't know. I think at least 20 years.

Q And similarly Valium?
A Valium has been around 20 years, yes.
Q And Morphine Sulfate?
A It has been around longer than 20,
Q Right. When a nurse prepares to execute a physician order by administering a prescription drug to a hospital patient, does good and acceptable nursing practice require that before she injects a particular drugs such as a drug that depresses the central nervous system into her patient, the nurse either should know or be familiar with the indications and the contraindications for the use of that drug?
A In general,
Q And similarly with respect to a post-operative patient, one say in an I.C.U., that is intensive care unit, does the prudent and appropriate practice of nursing require that the nurse, before she administers a central nervous system depressant drug to her patient, should know or at least be familiar with what the potential toxic effects and adverse reactions are which are associated with the use of that particular drug?

4:54:42 - MR. PIERSON: Excuse me. Let me object to questions about nursing care which do not come within the bounds of cross examination of the

testimony of this witness. I move to strike this question and the previous question and the answer.

MR. MILLER: Thank you, Mr. Pierson.

Q You may answer, Dr. Miller.

A Again, in general, yes.

Q All right.

4:55:03 - MR. PIERSON: Same objection.

Q And lastly, Doctor, if you can fairly answer either yes or no, do the standards of proper nursing practice require that the nurse should at least be aware of, or make herself aware of if she doesn't know, what drug interactions may be expected to occur in her patient with respect to the drug that she is giving and concerning other drugs that either she or another nurse is giving that same patient?

4:55:45 - MR. PIERSON: Same objection and move to strike,

MR. MILLER: Thank you.

You may answer, Dr. Miller,

I am not an expert on what the standard of care is for nursing. I don't feel I can answer that question.

You don't feel that as a doctor on the faculty, who works daily, I presume, with nurses that you can answer that question?

A No, I don't, (VO)

4:56:03 - MR. PIERSON: Objection. Argumentative,

Q All right.

OPERATOR: Excuse me. We're off the record.

END OF TAPE ONE.

START OF TAPE TWO.

OPERATOR: We're on the record.

DURING CROSS EXAMINATION BY MR. CHARLES MILLER CONTINUED.

Q Doctor, are you aware of how many doses of Valium were injected into Mr. Bridge intramuscularly between Monday January 26th at 11:45 p.m. at night when he received his first dose of Valium and Wednesday the 28th of January at 4:45 p.m. when he was injected with the last dose of Valium?

No. I think I reviewed all of that at one time and unfortunately I haven't had time to re-review all of those specifics.

All right,

So I can't answer that sight now.

And do you know how much Nembutal Mr. Bridge was injected with during the same period of time within which the Valium was injected into him?

Again, I would have to re-review to know the

specific number.

Q Doctor, can you state, again based upon a reasonable medical certainty, what the amount of Valium probably was that was still left in Mr. Bridge's circulating blood stream at 4:45 p.m. on Wednesday afternoon, the 28th of January?

A No. And I don't think anyone can.

Q Well, Doctor, what other people may or may not be able to do we won't decide here today. But at least you are not able to with reasonable medical certainty, are you?

A No. And I don't think anyone can. That is my opinion.

Q All right, But I didn't ask you about what other people thought, did I, Doctor?

A I am allowed to give my opinion.

Q But you are volunteering that, aren't you, Doctor?

MR. PIERSON: Let's not argue with the witness. Let's get on with the testimony.

Q Well Doctor, if you will please try to limit yourself to the question and we will have other witnesses testifying as to what their opinions are, okay?

5:00:02 - MR. PIERSON: I move to strike the admonitions of counsel.

Q Well.. ...

A I am only giving my opinions.

Q All right, Doctor, if you can answer a question without volunteering, would you please do so?

5:00:18 - MR. PIERSON: Objection, She is not required to do that. She can answer it in whatever she regards as responsive to the question.

A I'll answer them as best I can.

Q All right. Responsive if you will please, Doctor. By the way, what is the medical science known as toxicology?

A It is.....I suppose it could even be considered again a specialty within medicine or pharmacology. I am not sure that a toxicologist would necessarily have to be an M.D. physician. It could be an M.D. physician or a Ph.D. I guess I would consider it more of someone who had specific knowledge of drugs and with special knowledge as to what the undue side effects were of not only dangerous drugs such as poisons, but also commonly used drugs if given in excessive amounts.

Q And what is a pharmacologist, assuming the doctor is also a pharmacologist or has a degree in pharmacology?

A Well actually a degree of pharmacology is separate than a degree in medicine. A pharmacologist is an individual who deals specifically with drugs, knowledge of

them, their chemical makeup, the indications, countra-indications, and side effects. For instance, pharmacists are probably, in general, more versed in specifically medications, per se, in drugs than, say, physicians. They have more training in it, but it is a very specialized area.

Q But a doctor who has a specialty....a medical doctor who has a specialty in pharmacology has had extensive training or studies on the effect of drugs on the human body?

A A special competence in that area just as I have special competence in neurological surgery.

Q Sure. Doctor, the hospital chart shows that Dr. A.I. Narraway, who was one of Mr. Bridge's three attending physicians, visited and checked Mr. Bridge at 7:00 o'clock in the morning of Thursday, January 29th. Now I ask you, Doctor, are you aware of the opinion of Dr, Narraway who has testified by deposition previously in this case that from what he we observed in the hospital chart that morning his patient, William Bridge, was improved neurologically over the condition he was in when he had been examined by Dr. Friedman on the afternoon of Tuesday, the 27th, almost two days earlier? Are you aware of that fact, Doctor?

5:03:52 - MR. **PIERSON**: Objection.

A I don't recall it from reading the notes, no.

Q All right. Are you aware, Doctor, of the opinion of Dr. Narraway in his earlier testimony that where improvement in William Bridge's neurological condition may have been indicated by increased movement on the morning of the 29th, this meant to Dr. Narraway that any cerebral edema was resolving, and that the resolution or resolving of edema is a positive step forward to health? Were you aware of his testimony to that effect?

5:04:37 - MR. PIERSON: Objection. I think it is irrelevant to her neurological opinions in this case.

Q I take it you were not aware of Dr. Narraway's earlier testimony, were you?

A I don't recall it. I may have read it, but I don't recall it right now.

5:04:48 - MR. PIERSON: Move to strike the question and the answer, both questions and answers, with reference to Dr. Narraway's opinions.

Q Do you agree that the resolving of cerebral edema after a stroke is a positive step forward and certainly to be desired?

A Well, it is obviously a positive step, but I don't know....but there are specific things that have to be done in order to come to that conclusion and I don't know that they

were done.

Q I take it you have found no fault with Dr. Narraway's judgement in this matter?

5:05:29 - MR. PIERSON: Objection.

A I did not really review this with respect to Dr. Narraway,

Q Well, summaries of his testimony were mailed to you, isn't that correct?

A Yes.

Q Did you read those summaries?

A Again, I haven't re-reviewed them and I can't recall them in specifics enough to answer you right now.

Q Did you review the summary of the testimony given by Dr. Narraway which Mr. Pierson sent to you?

5:05:53 - MR. PIERSON: Objection on the grounds of relevance and competence.

You may answer, Doctor.

Again, I did review them almost a year ago and I don't recall what I read.

All right, Doctor, I hand you a copy of one of those summaries prepared by Mr. Pierson's associate in his law firm, or one of his associates, in the firm of Buckingham, Doolittle, and Burrouqhs, and this review is dated....the summary, excuse me, is dated...of Dr. Narraway's testimony is dated May 17, 1984. Now do you recall having

seen that summary some months ago?

A Frankly right now I don't, no.

Q Uh-huh.

A But, you know, I did review them and this may be the one that I reviewed, I don't remember.

2 And the last page over the initials of Seth Jacobs who was the attorney who attended the depositions of Dr. Narraway and prepared the summary, that Past page which is page 6, is it correct that it is stated in the last, or second to third last sentence of the second paragraph, that after he, referring to the patient, Mr. Bridge,..... quote, "After he was off the respirator he could recognize or respond to people around him."

5:07:30 - MR. **PIERSON:** Objection, If the question is whether the testimony is correct or not, I don't know that the doctor is qualified to answer. I think it is irrelevant and improper to ask this doctor to comment upon the veracity or the accuracy of another witnesses' opinions or observations.

Doctor, do you recall reading that paragraph?

A Well, I recall it because I read it about 5 seconds ago.

All right.

A It is in the report.

Q All right. Doctor, may it make it difficult for attending physicians to find improvement in the post-operative condition of their stroke patient if, whenever there is movement by the patient, that movement is suppressed by dosing the patient with a sedative? Can you answer that question yes or no, Doctor?

A No, I can not.

Q All right. Doctor, when you made reference in your direct testimony to that pattern of breathing that is called Cheyne-stokes breathing, do I understand that with respect to the treatment of Mr. Bridge that term, Cheyne-stokes, came to your attention because it was testified to by Dr. Friedman in one of his depositions?

A As far as I can recall, yes.

Q In other words, am I correct, Doctor, that in so far as you can remember the term, quote, "Cheyne-Stokes," or, quote, "Cheyne-Stokes respirations," was not written in the hospital chart by anyone of the three attending physicians?

A Again, it has been a time unfortunately since I Rad a chance to review these. I don't recall all the specifics of that review. I only got these records back yesterday. Before I could answer yes or no to that statement I would have to go back and re-review them.

Q Doctor, and also with respect again in the similar vain to the term you used early in your direct testimony, quote, "global aphasia.'' You said I believe that Dr. Friedman reported, quote, "global aphasia." When you said that I take it that you meant that that term, global aphasia, was referred to in the summary by the Sawyers of Dr. Friedman's testimony?

A No. Actually I believe that I was referring specifically to Dr. Friedman's consultation on the day that he initially saw Mr. Bridge.

Q Am I correct, Doctor, in believing that the word used in Dr. Friedman's consultation to describe one of his findings was the word aphasia without the adjective, quote, "global."

A Well again, if I could find that consult which I had here I could answer that specifically.

Well suppose I loan you for a moment my copy of that page and you indicate whether I am correct?

Sure.

Thank you, Doctor.

Sure. "The patient is aphasic with spontaneous mumbling, et cetera."

Fine. So the word, quote, "global," is not part of Dr. Friedman's consult record, is it?

That is correct.

Q All right. And in the same ~~vain~~ vein, Dr. Miller, is it also correct that no where in the hospital record did Dr. Friedman, or Dr. Sokol, or Dr. Narraway ever write that the patient, William Bridge, at any time during his post operative period was hemiplegic?

A Could I see that again? No, actually I remember because Dr. Friedman said that he was moving his leg or his arm less well than his leg. It doesn't say hemiplegic. Severe hemi....I don't even know if it says severe hemiparesis, but the implication was severe hemiparesis.

Q All right, Doctor, that is the implication that you make, is that correct?

A No. I think that was the implication that was made in the chart,

Well, isn't it true, Doctor, that what Dr. Friedman wrote on the 27th, on the day of his consultation, were the words, quote, "Right hemiparesis, arm more than leg."

Yes.

And you don't know of any entry by Dr. Friedman after that or before that time or by any other doctor that says that William Bridge at any time in his post-operative period was, quote, "hemiplegic," do you, Doctor?

Again, I would have to re-review the chart again

before I would answer yes or no to that statement,

Q If I indicate to *you* that.....off the record,

OPERATOR: We're off the record.

OFF THE RECORD DUE TO MICROPHONE ADJUSTMENT.

OPERATOR: We're on the record.

If I indicate to you that no where in the hospital chart does any one of the attending physicians or anybody else use the descriptive term hemiplegia or paralysis with respect to Mr. Bridge's condition post-operatively, will *you* accept that representation?

5:14:56 - MR. PIERSON: Object.

Well again, I would rather have the opportunity to re-review these myself before I answer yes or no, and 1 apologize to you.

But as of this moment now and it is close to your quitting time, I see it is a little bit after 5:00.....

No, not really quitting time, Just quitting time for this deposition.

All right. At least as of this moment, Dr. Miller, *you* are not able to remember any entry in the hospital chart that refers or describes to Mr. Bridge's condition post-operatively as being a condition in which he had hemiplegia, isn't that true?

A Again, I really don't want to answer that without

adequate opportunity to review the record.

Q Doctor, are you aware of whether or not over sedation, that is over dosing, with barbituates can cause what is known as Cheyne-stokes breathing?

A I am not aware that it can, no. I have never seen it.

Q Well, do you know whether Goodman and Gillman indicates or other drug references that are considered reliable in the field indicates that Cheyne-stokes breathing may be caused by overdosing with barbituates?

A I guess I would have to re-review it to know for sure if it said it.

Q All right. Can you help me understand, Doctor, what the importance is of monitoring of blood levels when you are intentionally inducing coma by the use of barbituate therapy?

5:17:46 - MR. PIERSON: Objection to the relevance of that question in this case.

Q You may answer, Doctor.

A Of blood levels?

3 Yes, Doctor,

A Well, we generally get them primarily to determine what the next dosage of Pentobarbital, for instance, may be in the intensive care unit situation. As I said before,

the way I have usually used Pentobarbital is to induce coma and to stop the patient's respirations. Now if you are using it to a lesser degree to, say, reduce restlessness it might even be....it would be important so that you wouldn't overdose the patient. Again, different patients respond differently to medications. They metabolize them differently. So you monitor the patient's response to the drug with what the blood level is. There is....particularly with barbiturates there often are not absolutes with regard to the patient's blood level and what you anticipate to observe in the patient's response.

Q And Dr. Miller when you do use Sodium Pentobarbital, that is Nembutal, to induce a state of coma and stop.... and thereby stop the breathing of the....or suppress the breathing of the patient, the mechanical respirator is operating, is it?

A When we do it for....when we make the patient comatose, yes.

Q And what dosages do you use when you involve yourself in that type of barbiturate therapy?

5:19:54- MR. **PIERSON:** Objection to the relevance of that in this case.

MS. TAYLOR: Objection.

Q You may answer, Doctor.

A It is actually quite variable. Not infrequently

we may start out with a bolus dose of 500 milligrams, I.V., giving it over a period of 5 to 10 minutes, and watch the patient's response and what their respiratory rate is. I have given as much as 200 milligrams every 2 to 4 hours, I.V. Again, depending on the response and the level of unresponsiveness that I want to achieve in that particular patient, and also related to what is happening to the intercranial pressure.

Q As shown by the gauge?

A Uh-huh.

Q And that is 200 to 400 milligrams of Nembutal., how many times a day?

A Sometimes every 2 to 4 hours as needed.

Q For 12 hours or 14 hours?

A Sometimes for 5, 6, 7 days.

And they are comatose during that period of time?

Yes.

Thank you, Doctor. No further questions on cross at this time.

Thank you.

MR. PIERSON: Any cross examination?

MS. TAYLOR: No. We have no cross examination.

MR. PIERSON: I may have one or two questions. Just a moment. May we

go off the record a second?

OPERATOR: We're off the record,

OPERATOR: We're on the record.

DURING **REDIRECT** EXAMINATION BY MR. CHARLES **PIERSON:**

Doctor, there have been a number of questions about interaction of various drugs that are used, and particularly these central nervous system depressants. I take it that a neurologist or a neurosurgeon in using these drugs does have occasion to switch from one drug to another?

Quite often,

And has that been your experience also?

Yes.

And in doing that kind of thing, do you have a general knowledge of the effect in terms of the life, or the half life, or the effective rate of these drugs before you administer another drug?

A In general.

And I assume that you know that and have been aware of that in your practice when you administered successive drugs of different types?

In general, yes,

In your review,.,..

And not infrequently when we are giving a drug I may re-review it at that time in order to refresh my memory about specifics. I don't necessarily always just depend

upon my memory for that.

Q With reference to the successive drugs that were prescribed by Dr. Friedman in this case, in your review of them, and particularly when you reviewed them a year ago to make your preliminary report, did you find anything in that record that was surprising or that you found outside the normal standard of care for a neurologist in administering successive drugs of different types?

A Again, as I said earlier, I felt that at that time in reviewing it that it appeared to be reasonable considering the status of Mr. Bridge at the time he was seen by Dr. Friedman and considering the diagnosis, of course.

Q Would the presence of Cheyne-stokes breathing be necessarily reported in the chart if it occurred, and particularly if it occurred toward the end of his life?

A I could conceive that quite....unless it were a trained neurologist, for instance, or neurosurgeon, or a trained neurosurgery or neurological intensive care unit nurse, that it might well be missed.

Q Is it possible that the attending physician, either the neurosurgeon or neurologist, or one of the others, might observe it but not write it in the record?

5:24:04 - MR. MILLER: Objection as to possibilities on direct examination.

Q You may answer,

A Of course, that is always possible.

5:24:11 - MR. MILLER: Ask the answer be stricken.

Q You have referred several times to your previous to me made last year. I would like to offer a copy of that as Defendant Friedman's Exhibit "2"....or Exhibit "B", I think, for this deposition. I believe, Mr. Miller, has a copy and I will make another copy available to Amy Taylor, okay?

5:24:45 - MR. MILLER: Object as to hearsay testimony.

Q Thank you. Excuse me, This letter that I have marked Defendant Friedman's Exhibit "B" is in fact a copy of the letter that you wrote to me and that you were referring to earlier in your testimony?

A Well actually this is the original letter. It is not a copy of it,

Q Okay. Thank you.

5:25:03 - MR. MILLIER: Object to the admission of that document.

Q All right. Nothing further.

DURING RECROSS EXAMINATION BY MR. CHARLES MILLER:

Q Very briefly, Dr. Miller, if you please. I am curious, Doctor, are there to you knowledge on the staff of this Ohio State University Hospital here in Columbus, Ohio

any medical doctors on the staff who are also or who also is a pharmacologist, that is has a subspecialty of pharmacology?

A I imagine there probably are. I don't know one specifically, I don't know a name that I can give you.

Q Do you know whether there happens to be any doctor on the staff here at the Ohio State University Hospital who may be trained in internal medicine with a subspecialty in the science of toxicology?

No, I do not know.

And do you know of your own knowledge or have you been informed of what Dr. Friedman told Mrs. Bridge when he met her for the first time on Friday,....correction.... Thursday morning, the 29th of January at approximately 11:30 or so in the morning after Mr. Bridge had been transferred to his service?

5:26:35 - MR. PIERSON: Objection. Irrelevant, I don't think the question should be asked of this witness. I don't think it requires an answer.

Do you kno what Dr. Friedman told Mrs. Bridge?

1 have no idea.

You haven't been told?

I don't remember, to tell you the truth, if I have been told or not. If I was told I don't remember.

Q Thank you.

A Okay,

MR. PIERSON: Thank you.

DR. MILLER: Thank you.

OPERATOR: We're off the record. Dr. Miller, you have a right to review this videotape to prove its accuracy or you may waive that right.

DR. MILLER: I will waive the right. Thank you.

OPERATOR: And will all counsel waive any filing requirements of the videotape?

MR. MILLER: Waive what?

OPERATOR: The filing requirements for the videotape?

MR. PIERSON: The filing requirements.

OPERATOR: There is a 24 hour in Summit County.

MR. PIERSON: He said finding....filing.

MR. MILLER: Oh, the filing you said?

OPERATOR: Filing requirement. Sorry,

MR. MILLER: Oh. Yes, I don't object to what hour it is. Charles, if we can have a mutual agreement between counsel to waive the filing of all transcripts

of any depositions, I will certainly agree to this.

MR. PIERSON: That is agreeable to me.

MS. TAYLOR: I can't agree to anything right now. I am not going to right now.

OPERATOR: We're off the record.

END OF THE TESTIMONY AS GIVEN BY DR. CAROL MILLER.

STATE OF OHIO)
) SS:
SUMMIT COUNTY)

IN THE COURT OF COMMON PLEAS

JANETTE BRIDGE, ADMRX.,)
PLAINTIFF.)
VS.)
AKRON GENERAL MEDICAL CENTER,)
DEFENDANT.)

CASE NO. CV-82-7-2203
VIDEOTAPE DEPOSITION
OF
DR. CAROLE MILLER
JUDGE MORGAN

wh

I further certify that the testimony then given by her was transcribed to typewritten form and that the foregoing is a true and correct transcription of the testimony so given by her as aforesaid.

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IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office to attest these facts to be true at Kent, Ohio on this 28 day of March, 1986.

Jon Jastromb Notary Public
and Videotape Reporter

My Commission Expires:

May 22, 19.88

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