Original Transcript

IN THE COURT OF COMMON PLEAS
OF CUYAHOGA COUNTY, OHIO

Richard Richnafsky, et al.,

Plaintiffs,

vs.

Case No. CV-05-559008

Shukri El-Khairi, M.D., et al.,

Defendants.

DEPOSITION OF

DAVID S. ETTINGER, M.D.

April 19, 2006
2:49 p.m.

Office of Dr. Ettinger
1650 Orleans Street, Suite 88
Baltimore, Maryland 21231

Chad Joseph, Court Reporter and Notary in and for the Commonwealth of Virginia

APPEARANCES

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Deposition of David S. Ettinger, M.D.

April 19, 2006

COURT REPORTER: My name is Chad Joseph I'm the court reporter who will be taking today's testimony. I'm with the firm of County Court Reporters located at 1160 Jordan Springs Road, Stephenson, Virginia. Today is the 19th day of April, 2006, the time is approximately 2:49 p.m. We are at the doctor's office in Baltimore, Maryland to take the deposition of Dr. David S. Ettinger in the matter of Richnafsky versus, the deponent's name is El-Khairi pending in the Court of Common Pleas, Cuyahoga County, Ohio, case number CV 05559008.

Will counsel please idea themselves for the record stating your name, firm, address and whom you represent?

MS. PANTAGES: Pamela Pantages with Becker & Mishkind, 134 Middle Avenue in Elyria, Ohio. Plaintiff's counsel.

MS. SANDACZ: I'm Beverly

Sandacz I'm the attorney for Dr. El-Khairi Northeast Cervical Associates of Ohio, LTD. My office address is 1375 East Ninth Street, One Cleveland Center, Cleveland, Ohio, 44114 and I am as I mentioned, defense counsel.

COURT REPORTER: Doctor, will you please raise your hand to be sworn. Do you solemnly swear or affirm that the testimony you are about to give shall be the truth, the whole truth and nothing but the truth so help you God?

THE WITNESS: I do.

COURT REPORTER: Thank you. Counsel, you may proceed.

DAVID S. ETTINGER, M.D. having first been duly sworn by the notary was examined and testified as follows:

EXAMINATION

BY-MS.PANTAGES:

Q. Would you please state your name for the record?

A. David S. Ettinger.

Q. Dr. Ettinger, good afternoon, you and I met a couple moments ago prior

to going on the record here my name is Pamela Pantages and I am one of the lawyers representing the family of Susan Richnafsky in this case that has been brought in Cleveland, Ohio.

You have had your deposition taken before?

A. I have.

Q. So, just for our purposes today, if I could just briefly run through what, what I would like to do, I'm going to be asking you some questions about your opinions in this case, how you arrived at those opinions, a little bit about your background and training in your own medical practice. If you don't understand one of my questions, please tell me and I will be happy to rephrase it. All right?

A. Yes.

Q. It is very important that you verbalize all your responses, yes, no, or something more descriptive because the court reporter is writing down everything that we say and it is easier for him if

we have verbal responses. Okay?

A. Okay.

Q. If you answer my questions the way that I phrase them, I'm going to presume that you understood them and gave me your best possible response. Fair enough?

A. Fair enough.

Q. All right. Dr. Ettinger, could you just describe for me a little bit about your current practice?

A. Well, 50 percent of my time is actually seeing formal patients, another 30 percent of my time is clinical research with the patient related. And then 20 percent of my time is administration and other things related to other things that are related to patients but not formally seeing patients at that particular time.

Q. You are a professor of medicine here at Johns Hopkins?

A. Professor of oncology and medicine.

Q. And medicine, I'm sorry. And

earlier did you say that you, 50 percent of your time is seeing formal patients?

A. Yes, I said it that way because I have clinic a day and a half, I do consultations a period of time which is a month -- five days a week and then I do a month of inpatient which is seven days a week and so, I would have to say, everything else I do that is patient-related I do formally, that is why I use the word formally. It would be 50 percent and 30 percent is clinical research which is also patient-related and then 20 percent is administration and some of that is patient-related but that may be related to guidelines and things like that.

Q. You actually have your own patients that make an appointment to see Dr. Ettinger?

A. Absolutely.

Q. And that's 50 percent of your professional time?

A. Absolutely.

Q. What kind of patients come to

see you?

A. 80 percent are lung cancer, 15 percent may be sarcomas and five percent is everything else.

Q. And when you say five percent is everything else, can you give me kind of a summary of what --

A. Thymomas, mesotheliomas, adrenal cortical carcinomas, anything that's strange that no one else wants to care for since I'm one of the senior people here.

Q. Right. Breast cancer, is that in the five percent?

A. I see breast cancer, well, I see breast cancer patients when I'm on the floor doing consultations and inpatient, obviously breast cancer is a common disease.

Q. And --

A. But do I formally see them in my clinic, for the most part I may have one or two or three.

Q. But you have testified as an expert witness in cases where the issue

is breast cancer?

A. Yes, I'm a medical oncologist.

Q. So, it doesn't matter that 80 percent of your practice is related to lung cancer and one or two percent of your practice is related to breast cancer, when it comes to testifying about oncology issues because of your education, training and experience, you are equally competent to testify in lung cancer cases as you are to testify in breast cancer cases.

MS. SANDACZ: Object to the question.

A. I believe that to be true, I'm more competent to deal with lung cancer because that's what I do more frequently.

Q. But certainly you know your way around a breast cancer case?

A. I do.

Q. All right. Of the patients that you treat that have lung cancer, what are the stages of the patient, of that population of patients?

A. The bulk would be stage four,

the next would be stage three. And then the last group would be one and two.

Q. Does the treatment differ as we talk about those stages?

A. Absolutely.

Q. All right. How does the treatment differ from stage one to stage two to stage three to stage four?

A. Stage 1 A would be surgery alone, for the most part. Stage 1 B would be surgery and adjuvant chemotherapy. Stage 2 would be surgery and adjuvant chemotherapy. Stage 3 is, could be a number of things, could be, it is multi modality meaning you can be using surgery, radiotherapy and chemotherapy. Chemotherapy followed by surgery, chemotherapy followed by radiation, concurrent chemo/radiation and stage 4 disease is chemotherapy and/or targeted therapy. Which is the lowest type of therapy.

Q. Did you give me a breakdown, I'm sorry if you did, did you give me a breakdown of what percentage of your

patient population is stage 1 and 2, 3 and 4 lung cancer?

A. Well, 70 percent of all lung cancer is 3 and 4. So, the bulk of it, in other words, that, I'm making a general statement about what lung cancer, the percentages of lung cancer. Ten percent make up stage 1 and 20 percent make up stage 2. So the bulk of anybody's, if they do a lot of lung cancer will be 3 and 4.

Now with adjuvant therapy you will see more one is and twos.

Q. Why is that, what is the relationship between ones and twos and adjuvant therapy?

A. Because adjuvant therapy is chemotherapy with a certain amount of people.

Q. I'm sorry?

A. A surgeon doesn't give chemotherapy.

Q. Oh. So it's not that stage 1 and stage 2 lung cancer patients are such a rarity, it is because of the nature of

your practice that the majority of stage 1 and stage 2 patients who came to Johns Hopkins, for example, would be seen by a surgical oncologist as opposed to someone like yourself?

A. Oh, no, they are a rarity, in other words, when the numbers I gave you, 70 percent of stage 3 and 4, that's the general population in the United States. One and two make up only 20, most lung cancer is diagnosed in advanced stages. Only about 30 percent --

Q. I guess what my question is, and I understand what you are saying, looking at that statistic from a different perspective, is it true that stage 1 patients since you told me this treatment is -- strike that. Stage 1 A patients, treatment is surgery alone?

A. Yes.

Q. Do you see stage 1 A patients?

A. Usually not.

Q. Okay, who sees stage 1 A patients?

A. Thoracic oncologist.

Q. Okay. And stage 1 B patients are seen by a thoracic oncologist or surgical oncologist and you conjunctively?

MS. SANDACZ: Objection.

A. Yes, for chemotherapy.

Q. Okay. So the percentage of patients that you see that are stage 1 are almost exclusively stage 1 B? Correct?

A. Yes, unless it is a poor risk stage 1 A that might benefit from chemotherapy.

Q. And what's a poor risk stage 1 A?

A. A stage 1 A is less than three centimeters, so if it's, if it's 2.8 wholly differentiated, margin is close in a 45 year old, that is a poor risk patient, that patient, most likely if the patient understands the risks of the current disease, I would recommend chemotherapy.

Q. Okay. Do you have any stage 1 A patients that are currently patients of yours now that you are treating?

A. Yes, one, one or two.

Q. And how long ago was that patient diagnosed?

A. About a year ago.

Q. The patient has had surgery?

A. Absolutely.

Q. Do you conclude at this point in time based upon your exams and your studies that the patient presently is cancer free?

A. I do.

Q. And how long does that patient have to remain cancer free before you consider that patient to be cured?

A. Until they die.

Q. That makes sense. Of the patients that are stage 1 A that you have treated over the course of your career, what percentage of them have been cured?

MS. SANDACZ: Objection.

A. Oh, I don't have a number to give you. In the literature it's depending on stage 1 A, depending on the grade that is whether it is well

differentiated, or diffuse somewhere between 70 and 90 percent.

Q. And the differentiation of the tumor itself or the cancer cell itself doesn't impact on the stage of the cancer?

A. No.

Q. It is stage 1 A whether it is poorly differentiated, differentiated --

A. When you say stage 1 A you are basing it on the size of the tumor, regional node metastasis and distant metastasis, it is based on TNM classification. You add modifiers to that, would be everything else.

Q. Have you cured, I take it from your testimony that you have cured stage 1 A cancer over the course of your career?

A. I have cured 1 and 2 and 3s even.

Q. Stage 3s?

A. Yes.

Q. Have you cured any stage 4s?

A. Not that I know of.

Q. How do these patients come to you?

A. They could be either referred from a physician, self referred, the majority are referred by another physician.

Q. Do you have occasion in your practice to order CT scans on your patients?

A. We do.

Q. Do you attend the CT scanning procedure with your patients?

A. No.

Q. The information about the CT scan is passed on to you in some way?

A. Most of the CTs are, since most of the patients I see are already diagnosed, and if I'm going to treat them I follow them up with CTs, I usually try to get the CT at the time I would see them. So I see the patients on the first floor, the CT scanner is on the second floor, you always learn something, I go up and review with the radiologist or if the patient that comes in has a CT scan

I ask him to send me a report. So either way. But on the day of my clinic I'm more efficient by looking at them rather than wait to read them, I do impression on them.

Q. So, you may actually go and look at the film yourself and interpret the film yourself?

A. No, I don't interpret the film myself. A board certified radiologist does that.

Q. And how does the board certified radiologist communicate his or her interpretation to you?

A. Looking right at their faces, that's how they communicate with me. But otherwise putting it in a report on a computer and it gets to me.

Q. It is sent to your office in some way?

A. Yes.

Q. At some point in time does the information from that CT scan get communicated to the patient?

A. Usually since I'm making a

decision about treatment, it has to be communicated, yes.

Q. And are you the person that does that?

A. I'm the person that does that.

Q. How do you communicate the information to the patient?

A. I tell it to them.

Q. While the patient is sitting in front of you?

A. In front of me, that's right.

Q. Do you ever show the patient the CT scan or show the patient the report?

A. Some patients request a report and I give it to them.

Q. You don't have any problem doing that?

A. No.

Q. Do you ever mail a CT scan report to a patient?

A. No.

Q. Do you ever write a patient a letter about what's contained in a CT report?

A. No.

Q. But you typically do you in your practice communicate the information contained on a CT to a patient?

A. Yes.

Q. Do you document in the patient's chart that you told the patient about what was on the CT scan?

MS. SANDACZ: Objection, I'm going to object to any of this line of questioning, this witness is not offered as a standard of care expert, you are asking him standard of care or questions that relate to standard of care which he has not been identified for and you cannot show me any relevance of this questioning to the opinions that this doctor forms, so I'm going to object to that. Go ahead, Doctor, and I will move to strike the question and answer as it relates to communication, documentation or anything as it relates to CT scans because it is not in this particular case, go ahead.

A. My note does not contain that

I spoke, I told the patient that says what the CT scan results are.

Q. So you have the conversation with the patient on the day if it's possible the study is done, but you don't chart that, that you told the patient about the CT?

A. No, I say what the results are.

Q. Okay.

A. So, I don't tell them that I told the patient the results of this test and that's a phrase I've never used.

Q. Do you chart in some way that you discuss the findings of the CT with the patient?

MS. SANDACZ: Objection, asked and answered.

A. Sometimes, I have a PA so my PA does it, case discussed with Dr. Ettinger, she sees the patient, and then I discuss the findings, unless she documents it, if I'm seeing a patient on my own without my PA, then I routinely don't do that, I say these are the

results of the CT scan findings. Obviously it is implied since I have to make a decision on what I do next.

Q. Okay. But you feel it is important that you have a conversation with the patient about what's on a test that you ordered?

MS. SANDACZ: Objection.

A. I would.

Q. That is good medical care?

A. Good medical care.

MS. SANDACZ: Objection, move to strike all these questions related to communications, this doctor has not been for that purpose and this is absolutely irrelevant to the issues and the opinions that he is offered for. Go ahead.

Q. Thank you. How were you contacted in this case, Doctor?

A. I think either by phone, would I review the case and then a letter, so you have the letter I think.

Q. I think we marked it as an exhibit I think, didn't we? I'm going to hand you what we marked as Exhibit-3, is

that the letter you are referring to Dr. Ettinger?

A. Yes.

Q. Is that the first contact that you had relative to this case?

A. With the lawyer? I don't understand your question.

Q. Do you know when you were contacted about reviewing this case?

A. Must have been a week before, I don't know. I don't recall.

Q. Do you know how the first contact occurred?

A. By phone.

Q. Do you know who you spoke to?

A. No.

Q. Do you know, I'm sorry. You believe it was a phone call?

A. Yes.

Q. Do you know what you were asked to do or what the content of the phone call was?

A. Look at the case and review it for causation.

Q. And you agreed to do that?

A. Yes.

Q. You do accept as a valid medical proposition that there is such a thing as stage 1 A lung cancer?

A. Absolutely.

Q. And you do accept as a valid medical proposition that stage 1 A cancer or just stage 1 cancer can and is diagnosed in this country on a regular basis?

A. I have already given you the percentages as diagnosed.

Q. And how is a stage 1 cancer diagnosed?

A. The best way to diagnose it would be studies, CT scan, possibly a PET scan depending upon whether you have blood studies. Pulmonary function studies. Depending on where the lesion is, whether it is peripheral or central, you might do a mediastinoscopy and and surgical resection and surgical staging the patient.

Q. Would you agree with me that stage 1 cancers are typically diagnosed

or typically first detected on a chest X-ray?

A. It might be but chest X-rays are a poor screen.

Q. I'm not asking about screening, I'm asking about how they are diagnosed, how the diagnosis is made or how they are detected?

A. Detected many ways, they are detected just like in this case you go in for surgery and you can have a routine chest X-ray a lesion can be picked up, you can't stage anybody with a chest X-ray or an incomplete work up.

Q. But at some point in time something has to be detected that is ultimately staged as a stage 1?

A. Staged as an abnormality, it's determined to be an abnormality, then the appropriate stage are used to stage the patient.

Q. I, we are on the same page, I understand you can't stage a cancer by an imaging study, but you can detect a cancer by an imaging study, correct?

A. You can detect an abnormality.

Q. And then the diagnosis is made at some point in time?

A. Pathologically.

Q. I guess what I want to, to learn from you, your opinion with respect to how is a stage 1 cancer typically first detected? For example, are stage 1 cancers typically symptomatic or asymptomatic?

A. They could be asymptomatic or they -- first of all, you can have anywhere from stage 1 to stage 4 and be asymptomatic.

Q. Okay.

A. 15 percent of stage 4 are asymptomatic.

Q. What percentage of stage 1 are --

MS. SANDACZ: Objection, go ahead, finish your answer. Go ahead.

MS. PANTAGES: It's my deposition. You can just stop.

MS. SANDACZ: You can't interrupt

the witness, that's rude.

MS. PANTAGES: Come on.

MS. SANDACZ: Come on.

MS. PANTAGES: For heaven's sake.

MS. SANDACZ: Show this gentleman some respect that he deserves. Go ahead, Doctor.

A. I would assume that more cases, more patients are asymptomatic at stage 1. And that the patient may have a cough and goes in to their primary care physician, gets a chest X-ray and finds an abnormality. And then there is a work-up that ensues.

Q. Do you have an opinion as to what percentage of stage 1 patients are symptomatic versus what percentage of stage 1 patients are not symptomatic?

A. I would have to say the bulk are probably asymptomatic, I don't have the data for that.

Q. So more likely than not a stage 1 patient is asymptomatic, correct?

A. I would have to believe that.

Q. All right.

A. I don't know the hard data.

Q. So, recognizing that the majority of stage 1 patients are asymptomatic, how are those cancers detected?

A. By accident.

Q. And I'm not a doctor, you are, by chest X-ray that is done as pre-admission testing?

A. No, because the bulk, what I'm saying to you the bulk of those studies, the bulk of those studies are not stage 1, even on chest X-ray. It would be the best way now would be the CT scan, screening CT scan, spiral CT, low dose spiral CT.

Q. Something like we had in this case?

A. No, you didn't have it, you had a, you didn't have a complete scan, you had a scan that just showed the lower side, missed everything else above, in the hilum and the and the mediastinum.

Q. But that's how this cancer was

first detected?

A. That's correct.

Q. Was by CT scan?

A. That's correct.

Q. I guess that is kind of what my question is, what I'm what I'm trying to focus us on, recognizing that you accept the medical proposition that there is such a thing as a stage 1 cancer that can be diagnosed and treated for cure, how does a physician like you or a surgeon come across those patients?

A. There are many ways, by chest X-ray, patient comes in symptomatic, by CT scan, by accident, by screening. Screening and CT scans, by someone going to the jack in the box CT scan people that said for $744 I can get you a virtual scan, that is how it is all done. If you have a fear of cancer, you get, you get, you might get a scan. Do you, does an internist usually get a chest X-ray as part of a physical examination, many do. However, is it a valid thing? Is it a valid procedure to

use for screening for cancer, the answer to that is no, it's not.

Q. And I have seen those, I have seen those studies that it's not like a pap test or mammogram where you have the same results, these are things that happen kind of fortuitously for the patient, but my point is Doctor, when you have a patient, we already talked about you have different treatments for different stages of cancer, you personally in your practice when you are caring for patients, you accept that there is such an animal as a stage 1 cancer and you treat a stage 1 cancer patient differently than you treat a stage 4 cancer patient?

A. That's correct.

Q. Absolutely, right?

A. Absolutely.

Q. You don't presume in your patients where there is a stage 1 cancer diagnosis that these patients are in reality because of micrometastatic disease or whatever stage 4 cancers and treat

them like stage 4 cancers, do you?

A. No, you always err on the side of what's curable.

Q. And, and you accept as a valid medical proposition that there is such a thing as a diagnosable and treatable stage 1 cancer, correct?

MS. SANDACZ: Asked and answered.

A. I have said that I think.

Q. A couple of times?

A. Right.

Q. In this case you reviewed the Mrs. Richnafsky's CT scan of November 18th, 2001, is that correct?

A. Yes.

Q. And I understand that you have reviewed a CT scan from June of 2003?

A. That's correct.

Q. Have you reviewed, and you have looked at the films yourself?

A. Correct.

Q. Did you, did you also review the radiology reports that were the actual interpretations in this case?

A. Yes.

Q. Do you agree with, does your review of the imaging studies that you did comport with the analysis by the radiologists in Cleveland?

A. Yes.

Q. You didn't find any error by anybody?

A. No.

Q. Have you reviewed any other imaging studies other than the two CT scans?

A. No.

Q. You haven't seen the PET scan?

A. No.

Q. Have you asked to see any other scans other than those two?

A. No.

Q. Do you know whether or not the dimensions of the cancer as it was diagnosed in 2003 is the same on the CT scan that was done in 2003 as it is on the PET scan in 2003?

A. I don't know that, actually unless it is a PET CT, the PET is not

going to give you good size, the better thing for size is the CT scan.

Q. All right. Can you get a size from a PET scan?

A. Not well, you have to have a PET CT.

Q. When you in formulating your opinions in this case, did you accept as a fact that the two centimeter lesion on Mrs. Richnafsky's lung that was described in the November 2001 CT was cancer?

A. Yes.

Q. Was there any other finding on that CT that you accepted as cancer?

A. There was a five millimeter nodule right below it, inferior to it that I said was indeterminate, only time will tell whether it was.

Q. So in formulating your opinions in this case, did you reject that as cancer or include that as cancer?

A. No, I rejected it as cancer.

Q. In formulating your opinions in this case, did you accept that two centimeter lesion that was apparent on

the 2001 CT as the primary tumor?

A. Yes.

Q. How are you at drawing?

A. What?

Q. How are you at drawing?

A. Not good. Otherwise I'd be an artist.

Q. Can you draw a picture for me?

A. What do you want to see?

Q. I would like you to draw me a picture of the entire lung, both lungs on Mrs. Richnafsky. Okay, what is that, that you drew?

A. This is the diaphragm, this is the heart, these are the two lungs on the side.

Q. So this is the right lung?

A. That's the left.

Q. Because when you look, when you look at it, I'm looking at it upside down, I apologize, that's the left, that's the right.

A. And the lesion was right over here.

Q. All right. Can you also, and

you know what, I'm going to give you a different color pen. I don't know the red one, let's do the highlighter, not to scale. Okay. Can you with the yellow highlighter I brought out, Dr. Ettinger, can you make a boundary as to where the CT scan stopped?

A. Oh, I think it is about here somewhere.

Q. Now, do you hold that where you highlighted, do you hold that to a reasonable degree of medical probability?

A. No, I'm not an artist I would rather you look at the scan and show, do that.

Q. I'm just asking how strongly you feel about --

A. Not that strongly about it.

Q. Okay, so you can just put a little arrow, that's the lesion. You are editorializing on the drawing, that --

A. If you are going to use it for something I will tell you what the facts are.

Q. Absolutely. I have no problem

with that.

A. Go ahead.

Q. And the yellow line is the, however you want to designate the cutoff for the CT?

A. Right. For abdominal CT, this is 2001.

Q. Okay. We are going to do 2003, can you do the same drawing? That's the heart, right?

A. That's the heart but there's a diaphragm as well, there is a lesion, there is a consolidation here.

Q. Okay, that's a consolidation, that is what I was going to ask you, what's your understanding of what the cancer looked like?

A. Well, could have been, since the patient had an endobronchial lesion, meaning it was in the bronchus, could have had atelectasis and compression and consolidation plus a mass within it.

Q. Okay.

A. So that's what that was and then up here there was a six centimeter

hilar mass that was separate from the lung mass.

Q. All right.

A. And then there was mediastinal, subcarinal lymph nodes, let's see how we do this. Let's see, this is the carina here, so there was subcarinal lymph nodes here, I think four by 3.2, 4.2 by something, so this would be a hilar mass, up to six centimeters, I think it was a subcarinal lymph node.

Q. Is the carina part of --

A. Mediastinum.

Q. Is it part of the bronchus, is it, is the --

A. No, it is the lymph nodes below it.

Q. Okay.

A. In other words, the bifurcation, when you say subcarinal, it is below the carina which is the bifurcation of the, of the, of the, I just want to get the exact measurements, 4.2, subcarinal, 4.2 by 3.2 that was six, okay.

Q. All right.

A. Then there is a right paratracheal mass right up here, it's a little 1.7. Right paratracheal, right, paratracheal, whatever it is, something like that.

Q. On what do you base your opinion that the hilar mass was separate from the mass in the lower right lung?

A. I looked at it, the report the radiologist ran was separate.

Q. All right.

A. In other words, he saw two distinct masses, he said this is a six centimeter hilar mass and then he said below that is a consolidation, it wasn't continuous.

Q. All right. And when you say below that there is a consolidation, what does that mean exactly?

A. The way the report is read by Dr. Meyers, the radiologist, at the University Hospital of Cleveland, six by four centimeter right hilar mass, distal to it in the anterior right lower lobe,

mass-like structure about seven centimeters, so, distal to it. Not attached to it, distal to it. Distal to it is my understanding I look at it, it is separate.

Q. And do you know whether or not each of those areas were biopsied?

A. No, the thing that was biopsied I think was the subcarinal, I want to be sure of that, there was an F&A of the mediastinum lymph node.

Q. Okay.

A. And there was a bronchoscopy, I think they made a diagnosis that way, of course they also made a diagnosis when they looked at the pancreas, the subcarinal lymph node if I'm not mistaken that was biopsied.

Q. So, the manner in which the biopsy was conducted assumed that this was all one process? Correct?

MS. SANDACZ: Objection.

A. Well it's a metastatic process but it is not really one process.

Q. They did separately biopsy --

A. You don't have to do that.

Q. Why not?

A. Why not, because they assumed the primary was here and they went to the hilum and mediastinum, and wherever else they would biopsy. You don't have to do different biopsies.

Q. So when you say, the court reporter can't write down what you are writing, they assumed in your opinion that the primary was the mass in the lower right lung?

A. That's correct.

Q. And that it, it spread to the hilar?

A. The hilar mass and the mediastinum.

Q. Okay. Let's mark this as 2003.

A. I would say --

Q. And just for the purpose of consistency, if you can mark where that cutoff would have been on the 2001 CT?

MS. SANDACZ: Chest CT in 2003.

Q. Can you make a notation that

that's what that is? Okay. Thank you. Thank you, Doctor. You are not such a bad artist, better than I would do.

MS. SANDACZ: Let me ask that they both be entered as exhibits.

MS. PANTAGES: That is what I was just going to do.

MS. SANDACZ: Okay.

MS. PANTAGES: Give me a moment. Thank you.

Q. Doctor, you and I talked a little bit about the TNM staging system.

A. That's correct.

Q. What is that exactly?

A. It is based on the American Joint Committee on cancer, it is how we stage cancer, all cancer so we talk in the same language, so if I'm in China and I say it is stage 1, the Chinese would know that as well.

Q. It is the gold standard, isn't it?

MS. SANDACZ: Objection.

A. The gold standard is based on the size of the tumor, whether there is

normal metastasis, or whether it is distal metastasis.

Q. And it is the staging center, staging, it is the staging system that is used around the globe?

A. That's correct.

Q. It is internationally accepted?

A. Internationally accepted.

Q. Can we say that it is used by all oncologists in staging their patients?

A. That's correct.

Q. And for what purpose do oncologists use the TNM system?

A. So they can determine what the treatment is and talk about prognosis to the patient.

Q. All right. So it is used in patient care?

A. That's correct.

Q. Is TNM staging also routinely used in peer review literature?

A. Yes.

Q. Is it also the accepted standard for staging in the clinical and academic research that you do?

A. That's correct.

Q. You already told me it was recognized by the American Drug Committee on Cancer Staging, correct?

A. Right.

Q. It's used by the International Union Against Cancer?

A. That's correct.

Q. Used by the American Cancer Society?

A. Yes.

Q. Used by the National Cancer Institute?

A. It is used by everybody.

Q. Everybody. And I don't know if you have textbooks in here, do you have textbooks?

A. I do.

Q. You do. What textbooks do you have?

A. Cancer Medicine.

Q. That's K-U-F-E is the editor?

A. K-U-F-E, I have Devita's book up there I have Abeloff's book up there. I have my own book over there, Thoracic

Oncology. They all have the same staging.

Q. For the purpose of my question, I'm going to ask you to assume a hypothetical for me. Okay?

A. Yes.

Q. Assume that in Mrs. Richnafsky's case as of November 2001 the two centimeter mass that is described on the CT is cancer. All right? Assume that for me. Assume that it's the only cancer in her body, there's no positive nodes, there's no metastatic disease, would you agree with me that if you accept that hypothetical as true that she is a stage 1 A cancer?

MS. SANDACZ: Objection to the hypothetical.

A. That hypothetical case, if her T lesion is two centimeters, maybe a T-1 and she had no nodal metastasis at all and she had no distal metastasis, that is a stage 1 cancer.

Q. All right. And, and what would have happened to Mrs. Richnafsky had appropriate follow-up by anybody been done

in November of 2001, what would have happened next? There's this finding on this CT scan, a doctor sees it, suspects it as cancer, what is the next thing that happens?

A. First of all she had an abdominal CT scan for, for a different, for a different reason for acute appendicitis. And the recommendation would have been then to have a complete chest CT scan.

Q. All right, and if the abdominal CT scan is dated November 18th, 2001, what would your expectation as a diligent medical oncologist be with respect to when that chest CT would be done?

MS. SANDACZ: Objection, you may answer.

A. After she recovered from her acute appendicitis, I think within a month you get the CT scan.

Q. Can we say December 1, 2001?

A. You can say December 1, 2001.

Q. Earlier if she feels well and

that can be scheduled?

A. Yes.

Q. She gets the, I'm sorry, she gets the chest CT and it shows a two centimeter mass.

A. Yes.

Q. What happens next?

MS. SANDACZ: Objection, hypothetical.

A. You mean hypothetically? Hypothetically if that's the only thing --

Q. Hypothetically. Absolutely. I'm not trying to trick you, this is a hypothetical, we will say it every question.

A. Hypothetically, then she would have had surgery.

Q. And when would that have occurred?

A. Whenever the surgeon is available.

Q. What would you like to see, hypothetically?

A. I think within the month.

Q. All right. So by the end of December?

A. By the end of December, since it would be the holidays she would probably want to wait until after the holidays, after Christmas, after New Years have it done then.

Q. All right, so, what date are you comfortable with?

A. Doesn't make a difference, sometime January 1, 2nd, January 3rd.

Q. Okay, January 3rd. So she has this surgery January 3rd and then what happens?

A. She may have had the mediastenoscopy first. Depending on the surgeon, same with the lymph nodes depending what he said, then she would have been surgically staged.

Q. All right. And assume it is a two centimeter mass and she's node negative?

A. Node negative and the CT scan of course was negative of the abdomen except for the mass, so then she would

have had the surgery, lobectomy and hypothetically speaking since she had stage 1 disease, since it was a wholly differentiated tumor, she would have on the lower side of that cure rate, 70 percent.

Q. So more likely than not taking our hypothetical to its logical conclusion, more likely than not in our hypothetical Mrs. Richnafsky would be alive today and you and I would not be sitting here having this conversation, correct?

MS. SANDACZ: Objection.

A. Well hypothetical case that five years she would still be here, still be risk of 30 percent at that time at that stage disease having a recurrence.

Q. You testified enough as an expert witness all we need to talk about is more likely than not?

A. More likely than not.

Q. So in our hypothetical, more likely than not Mrs. Richnafsky would be alive and well in Ohio today?

A. That's correct.

Q. Do you agree with the medical maxim that early detection of cancer increases the probability of cure?

A. That's correct.

Q. You used doubling time in this case, right?

A. I used it.

Q. You had lots of conversations with lots of lawyers about doubling time, I'm almost embarrassed to embark upon it. You have had lots of this analyzed by you and by other people in the past, right?

A. I have.

Q. You have. What is doubling time?

A. How fast the tumor doubles in size.

Q. What is doubling time, the doubling time theory used for?

A. Well the doubling time theory depends on what they are talking about. The doubling time theory is used to determine growth of tumors, in the one

situation that it is used clinically is an osteogenic sarcoma whereby a tumor is that is less than, if the patient has an osteogenic sarcoma with lung metastasis, if the doubling time that is measuring two points on the curve is less than 40 days, normally they're not going to try to resect that disease.

If it is greater than 40 days, you would attempt to resect the disease, you have, the patient would have a better chance of having what they call a metastastectomy. But it's obviously the doubling time, when you have two points on the curve is easy to do, there has been some research done in the '70s and '80s looking at, and in some textbooks the intent of looking at the growth of tumors, you talk about science, it is part of our culture, when we're talking science. Do we use it to talk to a patient? No, we talk about fast growing tumors, slow growing tumors and moderately growing tumors. Because a tumor has to grow.

Q. You don't use doubling time in your medical practice, do you?

A. No.

Q. Not even with your sarcoma patients?

A. No.

Q. No you don't?

A. I would, I haven't recently had an osteogenic sarcoma that had, had lung metastasis to consider a metastastectomy. So that is usually in children, osteogenics therefore is not that common, and when I usually see them it's usually with metastatic disease.

Q. When was the last time you used doubling time in one of your sarcoma patients?

A. I don't use doubling time.

Q. You don't use doubling time in your medical practice? Correct?

A. That's correct.

Q. In fact, the only time that you use doubling time is to testify in a courtroom?

A. That's correct.

Q. Is there a reason why you don't stage this cancer in this case using the TNM staging?

A. I did, I used the doubling time to confirm what I believe. The patient, the patient in my opinion at the, in the letter I sent, that in my opinion in November of 2001 had a stage 3 carcinoma based on the TNM classification. That is, T 1, T 2, the patient had a two centimeter, the patient two centimeter we use T 1, in my opinion the patient had disease in the subcarinal lymph node and in the hilar lymph node she had a six centimeter hilar lymph node and she had distal metastasis as best we could determine at that point in time. That is based on a TNM classification. That belief was based on what I know about lung cancer, my experience and treating thousands of patients with lung cancer over 32 years. However, I wanted to confirm that that made sense, that is why I used the doubling time.

I understand the doubling time

has issues, that tumors don't grow at a constant rate, that tumors, that somebody used that as calculation of the volume of a sphere, the cancer is not a sphere as it has fibrous tissue in it and everything else. And of course of course as I said it was not constant rate, but I took under consideration that this was an anaplastic wholly differentiated tumor and used a 30 day doubling time.

That is a very fast growth of a tumor to see if there can be any cells there in 2001 and there were. And for the most part, if you look at article by Dr. Shackeny from the National Cancer Institute that actually looked at tumors, metastatic disease and they calculated that adenocarcinoma of a lung had a mean doubling time of 134 days with a range of 15 days over 500 days, Shackeny, 1978, Annals of Internal Medicine.

I took, I took a fairly fast tumor, the fastest tumors that we know in solid tumors are testicular carcinoma in

immunology, would be leukemia and lymphoma, and the fastest lung cancer would be small cell. I took a 30 day doubling time and at least on the doubling time calculations with all the vagaries, still had cells in there. Therefore, it was stage 3, not based on the doubling time, the doubling time confirmed what I believed based on the TNM classification.

Q. Stage 3 shows she's T what in 2001?

A. T-1.

Q. You accept the two centimeter size?

A. Absolutely.

Q. Okay, so that's a fact, that's something you and I can agree on in 2001 Mrs. Richnafsky's primary tumor was two centimeters in size?

A. Yes, we can agree on that.

Q. Was it a two centimeter sphere?

A. It was more of a sphere but it didn't -- you know, close.

Q. You don't know?

A. It was, you know, whether it is a sphere or not doesn't make a difference, the largest diameter was two centimeters.

Q. All right.

A. That is how you base it.

Q. All right. So the end was --

A. Based on the, based on the, on the 2003 six centimeter lesion, my belief it was, well, subcarinal lymph node, it was two. But there, we have no CT scan to demonstrate that either way.

Q. And that's what I'm trying to understand, what is the basis of your opinion that she was node positive in 2001?

A. My basis of that opinion is based on what I said, what I understand about her disease, the growth of the tumor, what the size was in 2003.

Q. The size of the tumor in 2003?

A. Size of the hilar mass and subcarinal lymph node.

Q. All right.

A. In 2003.

Q. So you looked at the size of the nodes in 2003 and interpreted that they were likewise affected with cancer in 2001?

A. But much less. Much less. As a matter of fact, even one cubic centimeter of cells is a billion cells. Whether you have, if you could see one cell, or you can see big bulky disease that is still stage 3. So what I did to prove my point is I did the calculation. Now with all the vagaries, all the doubling time, I don't have to say, I used it to confirm what I believe, that is how I used doubling time.

Q. So getting back to our staging in 2001, we have a two centimeter lesion which we know is a fact because it is present on the film?

A. That's correct.

Q. Okay, so there is no dispute about that. With respect to the nodes, your, it is your opinion that the nodes were positive in 2001 because of the way

that they appear on the film in 2003.

A. That's correct.

Q. You accept as an equally likely circumstance or scenario that the nodes were negative in 2001?

A. No, I don't.

Q. Why?

A. Based on the size of the lymph nodes, based on the size of the lymph nodes on 2003, based on my education, based on my experience and based on what I know about cancer, irrespective of anything else I say statistically, 70 percent of lung cancer is stage 3 or 4, so if you if you just go by statistics alone, more likely than not she has advanced disease. I'm not even doing that, but what I will say is based on a six centimeter lesion, based on a 4.2 subcarinal lesion based on a 19 month delay and based on the growth of her tumor, it was there. And based on the TNM classification.

Q. When we are talking about the lymph nodes you are giving me the

measurements from the CT of Mrs. Richnafsky's chest on June 5th, 2003, correct?

A. Correct.

Q. And the measurements that you are using are what, Doctor?

A. I took the six by 4.7, well, the measurement, the only measurement I did is looked at the density of the lymph node, subcarinal 4.2 and again, with all the vagaries of the doubling time, I took the 4.2 and the volume of the sphere and of course that is not a sphere, it is 4.2 by 3.2 and I took the biggest measurement 4.2 and then calculated the volume and assumed 30 day doubling time because that's fast and she had an anaplastic or differentiated tumor. And what I wanted to know is to find out if there were cells in there to confirm what I believed.

Q. Did you add to your calculations the, the paratracheal lymph nodes that measured 17 by 13 millimeters?

A. No, I didn't. And I didn't

even do the hilar either for the simple reason is the hilar is N 1, N 2 is the paratracheal and, and the subcarinal, you don't have to have ten lymph nodes to make it N 2, all you have to do is have one lymph node and I took the lymph node subcarinal 4.2 centimeters. If I took the six centimeter lesion which is even bigger, by the way, so it would have been N 1 disease and by the way, the, if you ask me if she was forgetting about the subcarinal she was stage 2, more likely than not she would have died of her lung cancer with that stage, stage 2. It's 30 to 50 percent.

Q. The 6 by 4 point centimeter mass is the hilar mass?

A. Yes, it is N 1.

Q. And why are you referring to that as an N?

A. It is N 1, hilar mass is N 1.

Q. Okay, so that's --

A. It is a lymph node.

Q. So you are referring to that as a lymph node?

A. As a lymph node.

Q. Okay. And then you are also referring to --

A. The right paratracheal 1.7 and 1.3 subcarinal.

Q. Those are essentially normal, aren't they, 1.7 and 1.3?

A. No. Less than normal --

Q. All right. But you didn't use that in your calculations?

A. No, wasn't necessary.

Q. And the report said, describes the pretracheal lymph nodes as measuring 17 by 13 millimeters?

A. Yes, that's 1.7 centimeters. Ten centimeters.

Q. But it is referring to more than one node?

A. Yeah, again, it didn't, I don't care if they had three or four nodes mixed in, it wouldn't change anything.

Q. And if it is three or four nodes, it is not, they are not larger than a centimeter?

A. But again, I --

Q. There are three of them and it is 17 by 13 millimeters.

A. I think there were three nodes it would be normal, correct.

Q. Okay. Same with respect to the subcarinal adenopathy. That's not saying that is one node.

A. I didn't say it was three nodes.

Q. It doesn't say it is one node.

A. You would have to consider it as one node.

Q. Why is that?

A. Because that's -- it says -- the subcarinal is at least 4.2 by 3.2. Normally a radiologist, normally a radiologist would say no to the nodes, they didn't do that.

Q. Well it doesn't say it is a single node either, does it?

A. It says, now we are playing with semantics.

Q. Right.

A. You can say anything you want.

That's what that means to me.

Q. All right.

A. Okay? If you looked at what the radiologist said that is multiple lymph nodes, that is not what that, now we're looking at an interpretation, you can't have it both ways, all I'm saying is I read that as one node.

Q. That is your interpretation. Does it make a difference to your opinion if it is multiple nodes?

A. No because then I would take the hilar mass which is six centimeters which is even bigger and more likely than not you had a different stage more likely than not she would have died from her cancer.

Q. You've staged her as T 1, N 1.

A. No, N 2.

Q. Sorry, N 2, let me start again. You staged her at T 1, N 2, M 0?

A. That's correct. And by the way, staging her, yeah, M0, that's correct.

Q. And why are you staging her as M 0?

A. Because in 2001 I believe that there was no evidence of metastatic disease in the pancreas.

Q. And what do you base than opinion on?

A. The reason being the pancreas was very small was anaplastic formula, different -- didn't describe it as consistent with non-small cell, they said anaplastic malignant cells, and we are making the assumption that it's, it's the same primary by the way and what's even more interesting where small cell lung cancer goes to the pancreas, it is very uncommon for non-small cell to go to the pancreas, as a matter of fact, I may have seen maybe one. I don't recall seeing that, that is a very uncommon place, it is not uncommon for small cell but very uncommon for non-small cell so it is possible we're even dealing with another primary, but I'm, that wasn't what I, what I said, you don't like to

say there's two different primary cells, so I'm willing to say it was metastatic disease.

Q. All right. You do accept as a general proposition that lung cancer can metastasize to the pancreas, correct?

A. I said small cell can easily, non-small cell, very, very uncommon.

Q. Uncommon but it happens?

A. Less than five percent probably.

Q. But it happens?

MS. SANDACZ: Objection.

A. Anything can happen, yes.

Q. It is reported in the medical literature?

A. That's correct.

Q. That lung cancer, non-small cell lung cancer metastasizes to the pancreas?

A. That's correct.

Q. Did you consider in formulating your opinion as to the M0 staging of Mrs. Richnafsky's cancer in 2001 that the CT that was done in 2001 did not show

any evidence of cancer in the pancreas?

A. Since I didn't have both disease, I used that in my information, but the truth of the matter is a CT scan could miss a very small tumor, it could miss a four millimeter, a CT scan can miss a four millimeter tumor easily. Four millimeters if you believe that one cubic centimeter is ten to the ninth cells, a billion cells.

Four millimeters would have a lot of cells as well, it could be missed on the CT scan. But since the CT scan, the pancreas there was no evidence of disease in that since, in my opinion I try to be objective as I can, I felt it was M0.

Q. And that's what I'm trying to find out what the basis of your opinion is, I'm sorry, but I didn't understand your response, did you consider in formulating your opinion that she was M 0 in 2001 that the CT that was done in 2001 did not show any evidence of cancer in the pancreas, or was that not part of

--

A. I used that piece of evidence plus the CT, that is the data from 2003.

Q. All right.

A. Obviously it would be easy if she had a mass in the pancreas we wouldn't be here.

Q. Correct.

A. So, since what was given was given, is it possible she did, yes, but I just said, I try to be objective in my, in my determination, that's why I said it was M 0.

Q. All right. Do you have an opinion as to when the metastasis to the pancreas occurred?

A. No. Obviously if I said it was M 0 it had to be between 2001 and 2003.

Q. And that is what I'm asking you if you have an opinion to a medical --

A. I didn't make that calculation, the answer, I didn't try to.

Q. In formulating your opinion in this case, did you examine or review the

health of the lymph nodes that were visible on the CT for 2001?

MS. SANDACZ: Objection.

A. Chest in 2001 because there's no, the CT scan didn't go high enough.

Q. So there are no lymph nodes present anywhere on that study?

A. They may be abdominal lymph nodes but I didn't focus, I didn't focus --

Q. That's what I'm asking.

A. I didn't focus on the abdomen. Unless the report says there is abdominal lymph nodes, if I'm not mistaken it says there was 4 by 3 point centimeter cyst, cyst fluid collection in the right lower lobe, there is no mention of a, of a lymph node in the abdomen, so, and since lung cancer going to the abdominal lymph nodes as a site would be very unusual, I didn't focus on that, no.

Q. You didn't make any assessment of the lymph nodes at all on the film from 2001 in formulating your opinion?

A. The only one, no, the

assessment I did note is try to find lymph nodes in the chest. They didn't have any because they didn't have any, they didn't go high enough up the finding.

Q. You mentioned earlier that one of the, I think using a word you used, one of the vagaries of doubling time theory is that it requires you to make a number of assumptions to get to the end result, correct?

A. You make some assumptions, that's correct.

Q. What assumptions did you make in this case?

A. I made the assumption that the, that the tumor number of spheres you can calculate the volume. I made the assumption that the growth rate is constant which we know it isn't. And I made the assumption that the double time was 30 days.

Now if the tumor grows fast, slow, fast and the 30 days is the fastest part and the tumor at some point

grows slower at 150, the tumor is bigger than in 2001. So it is, it would be hard to believe that a solid tumor could grow, would double in size in 15 days, because if that was the case, then that is even worse. The 30 days is pretty fast doubling time.

Q. What is the range of days for lung cancer that is available to you?

A. Numbers 15 to 500. The mean of 134.

Q. And what value did you use?

A. 30.

Q. Did you calculate the doubling time using any other value besides 30?

A. No.

Q. You could do that though, couldn't you?

A. Sure, if I, I could do it at zero, I could do it at one to every day, I mean I could it to change, I can do it at 500 days. Either way, in either extreme, I can do it that way.

Q. And the stage would be different --

A. No, no, the stage, the stage would be different maybe at 10 days and 15 days. It wouldn't be different at 30, now remember, I based, in other words, to confirm what I said based on the TNM process, anything above probably 25 days, 30 days, let's say 30 days, anything above that wouldn't change the stage whatsoever.

Q. What doubling time, what value would you have, would you use if you wanted the end result to be a stage 1?

A. It is not what I want, if you want to do a calculation, you have to probably have a 15 day doubling time, probably have a 15 day doubling time. Then you still might have cells.

Q. So, if we used 15 as opposed to 30, we would have stage 1?

A. We might, I don't know, I have to do it.

Q. And then there are other values we could use if we the end number was stage 2, that would require a different value?

A. No, you know, stage 2, remember, stage 2 would be a six centimeter lesion, so it would be actually probably not only the 30 day, you can -- you can go lower than that and you'd still probably have stage 2 because that is a bigger lesion.

Q. All right, what would be the value that you would use in that equation?

A. I don't know, again, I used, I'm going to repeat it, I don't usually determine the stage based on the doubling time. I use it for confirming what I believe and since obviously they're in sync, then obviously that's why I'm testifying.

Q. Well I'm confused though as to where you got the 30?

A. Oh, I'm sorry, normally when you talk about, when people that know about, know about doubling time, they normally say 30 to 60 would be a fast growing tumor, 60 to 90 would be moderate growing tumor and above 90 would be a, a

slow growing tumor. Since this was a differentiated tumor I took 30.

I actually could have taken 60. And it would have made the, the more tumor cells there. If you took a 15 day, illogical to take 15 day doubling time is that you'd then are talking about small cell lung cancer, testicular carcinoma, lymphoma.

In other words, when you look at, when you see some diffuse lymphomas, you can actually watch the tumors double before your eyes. That's not lung cancer. And since -- in the growth rate of tumors the adenocarcinomas I already told you was a, was 134 day doubling time with a range of say 15 days to 500 days, 30 days is fast.

Q. If we pulled any one of those text books off your shelf, the Divita, the Kufe or any of those books, could you point to a place in that book where it says that 30 days is the, the doubling time of --

A. I don't know, I didn't look at

any of those textbooks to find that out.

Q. Well I did before I came here.

A. Did you find any?

Q. I looked in three different editions of Devita. And each edition is two volumes, each volume is 1500 pages. 9,000 pages of Devita I went through and I did not see one reference to doubling time in adenocarcinoma or lung cancer or anything like that.

MS. SANDACZ: Object. Go ahead.

A. How many, how much time is devoted into that book on the issue of tumor growth and doubling time, tumor growth?

Q. He doesn't even mention doubling time.

A. So, does that mean it is not, it is not, there is no such thing?

Q. That is what I'm trying to understand --

A. I really --

Q. Where does the 30 number come from, what is your authority for that

number?

A. I have given you the reference, Shackeny, Annals of Internal Medicine, 1978.

Q. An article that is 28 years old?

A. You know, it is 28 years old. Tennent 's book on the Basic Science of Oncology by Tennent. He talks about doubling time.

Q. What has happened to the state of knowledge in oncology in 28 years in this country?

A. Doubling time, I gave you reference to doubling time because doubling time is as we talked about, you talk about growth of tumors exponential growth, as a matter of fact, you talk tumors as I said in the situation, you talk about well differentiated, poorly differentiated, moderately differentiated.

Does that have, talk about anaplastic cells. When you, when you talk to someone if you have a wholly differentiated tumor, everybody knows what

that means, that means a fast growing tumor. However, in certain, in the 30 day doubling time is considered fast. 30 to 60. Is there data? There is data as I said to you in the articles I gave you there is data to support that.

Q. Can you cite anything more recent to me that says that doubling time is a reliable method of calculating tumor growth? Anything written between 1978 and 2006 that says that doubling time is a reliable method of calculating tumor growth?

A. I didn't say, I hope you are not, I didn't say is a reliable method, I admitted to you it had its drawbacks. And I already said to you, I didn't base my opinion on the doubling time. I based it on the TNM classification. All I did was use the doubling time to confirm what I believe. That's all.

Q. But you are going to talk to our jury in this case about the doubling time theory, are you not?

A. Yes.

Q. So that is what I'm asking you, I'm asking you Dr. Ettinger to give me a citation.

A. I have given you a citation, Shackeny's article and Tennant's book.

Q. Okay, what year was Tennant's book?

A. 1992.

Q. Okay, and what is that book called?

A. The Basic Science of Oncology.

Q. And I want to make sure I understand --

A. The Basic Science of Oncology.

Q. What are you referring to?

A. That's the book.

Q. You have notes?

A. And I refer to--of, of-- the Annals of Thoracic Surgery the doubling time for osteogenic sarcoma 1984--

Q. This case isn't about osteogenic sarcoma--

A. No, but it uses--it gives you the use of the-- for the clinical use of doubling times, and then there is Gettis'

book of 1979 it talks about tumor volumes, it's all yours.

MS. SANDACZ: Is that an exhibit too?

MS. PANTAGES: Yeah--

MS. SANDACZ: Well, then we're going to copy it before you take it.

THE WITNESS: And Shackney's article.

MS. SANDACZ: No, no, no, don't-- don't --don't do that.

MS. PANTAGES: No, don't go through all my stuff. Okay. Let me just put it down here --

MS. SANDACZ: All right. Okay.

THE WITNESS: Shackney's, I think that's how you spell it, Shackney's Annals of Internal Medicine, 1978.

And the others are Annals of Thoracic Surgery, 1984. And that's Rosenberg, surgical oncologist. And the other was Gettis' British, right--British Journal of --

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EXAMINATION

BY-MS.PANTAGES:

Q. Of diseases something?

A. British Journal of Diseases of the Chest, 1979. And Tennent--Tennent--Tennent Book of Basic Science of Oncology.

Q. Do you intend to testify before our jury that doubling time is a reliable method of calculating tumor growth?

A. Reliable? No, I-- it's flawed. That's what I'm going to say.

Q. Would you agree with me that is an unreliable method of calculating tumor growth?

A. No. It's flawed.

Q. But you don't way it's a reliable method of tumor growth?

A. I would not say it is a reliable method.

Q. You would agree with me that it has not been accepted by the scientific and medical community as a reliable method of calculating tumor

growth?

A. It's not been accepted as a reliable method of calculating tumor growth as I just said, it's flawed. It has -- reliable, I didn't say its unreliable and I didn't say it's reliable, its somewhere in between.

Q. But you agreed with me that it's not been accepted by the medical community as a reliable method of calculating --

A. I don't know what medical community you're talking about? Are you talking about a clinician? I don't use doubling time in my practice.

Q. That's my point.

A. Yes.

Q. So you agree with me that-- that doubling time has not been accepted by the medical community, oncologists such as yourself, as a reliable method of calculating tumor growth, that's true, right?

A. That's true, yes.

Q. We're talking about the

assumptions that you made in this case. You assumed, and I'm still, I don't mean to be argumentative, I'm not sure where you got the 30 days. You picked the 30 days, correct, you didn't go to a table or to a textbook or to an article, you took a range of values, 15 days to 500 days and you picked the 30 day figure?

A. Yes. Now, I could have picked, tell you that 500 -- I could have picked the 500 days. The mean is 134 in the Shackney article. It's my understanding about tumor growth, I've given you a range of 30 to 60 days, 60 to 90 days, and 90 to 120 days.

Say a tumor has a one day doubling time would be as fast -- to say a tumor has a 15 day doubling time would be extremely fast. That's where the range is what we say is the 30 to 60, 60 to 90, 90 to 120. You know-- Could it be different? The answer is yes. And I've already said to you, and I'm not trying to be argumentative either, is that I use it to confirm what I believe.

Remember one thing, the CAT scan didn't show on 2001 the hilum or the mediastinum. So I was a little confused when I read Dr. Goldfarb's testimony, that he was able to stage it as T1N0M0. In truth, the best he could have done since he doesn't use the other CAT scan of 2003 was to stage it as T1NXMX, because he didn't have any other data to look at the scans.

Q. Nor did you?

A. No. That's why -- absolutely I didn't. That's why one has to use the previous -- the scan in 2003 to try to get some idea of what happened in 2001. That's what I did.

Q. I think my understanding could be, because I was at Dr. Goldfarb's deposition, my understanding was that he based his opinion that it was T1N0M0 days based upon his clinical training and experience and review of the literature where the probability of a tumor, a primary tumor of two centimeters more likely than not was node negative

disease?

A. But of course he did not use the data, he just took that in isolation, and did not look at the 2003 scan and saw a 6 centimeter hilar lymph node and a 4.2 centimeter subcarinal lymph node. And to be honest with you, he's a surgeon.

Q. And what does that mean?

A. Well--He doesn't do lung cancer. As a matter of fact, it's my understanding he rarely does lung cancer.

Q. Well, you rarely do breast cancer but you testify in breast cancer cases?

A. That's true. But this is not a breast cancer case, this is a lung cancer case.

Q. But you don't have any problem testifying in a breast cancer case though?

A. No, but I see breast cancer -- I'm not here to argue with you.

Q. No, I don't want to argue with you either. That's why I asked that you

line of questioning at the beginning.

A. I know.

Q. It's still within your realm of knowledge?

A. Still within my realm of knowledge, that's correct.

Q. And likewise lung cancer is still within Dr. Goldfarb's realm of knowledge?

MS. SANDACZ: Objection.

THE WITNESS: That's correct.

MS. SANDACZ: He -- yeah.

THE WITNESS: He had said in his own deposition that he would refer to a thoracic surgeon.

EXAMINATION

BY-MS.PANTAGES:

Q. He also said that he sits on tumor boards where lung cancer patients are --

A. That's arguing --

MS. SANDACZ: Objection. You know the testimony was absolutely not that. Go ahead.

MS. PANTAGES: You don't need

to editorialize, Bev.

MS. SANDACZ: No, no, I'm not editorializing, I'm just telling you that I'm objecting to the based upon it and the facts that that is not the way the testimony is. I'm not telling you what his testimony was, but I'm telling you that's not what it was. Don't mischaracterize and be unfair to this witness--

EXAMINATION

BY-MS.PANTAGES:

Q. Do you remember a case, a case captioned Fry versus Humana Health?

A. No.

Q. You testified in this case in September -- on September 11, 1998. The issue in that case, you were again a defense expert in that case, the issue in that case was 17 month delay in diagnosing lung cancer. You and I can agree that in this case there was a 19 month delay in diagnosing Susan's cancer, right?

A. That's correct.

Q. No dispute about that?

A. That's correct.

Q. In this case there was a 17 month delay in diagnosing cancer and the cancer that was missed was observed as a 1 centimeter lesion both on a chest film and on a CT scan. And it was a CT scan of the chest?

A. Yes.

Q. No evidence of any nodal disease, no evidence of any metastatic disease, a lesion that was half the size of Susan's?

A. Yes.

Q. Your opinions in that case were identical to the opinions in this case?

MS. SANDACZ: Objection, I'm going to -- unless you want to show him the deposition and give him all the facts in the case.

MS. PANTAGES: Well, I haven't asked my question yet.

MS. SANDACZ: I understand that.

EXAMINATION

BY-MS.PANTAGES:

Q. You have testified in cases, have you not, Dr. Ettinger, where you did have a full view of the lung and it was clean and you still held the opinion that there was nodal involvement and potential for micro metastatic disease, that's been your opinion in other cases, correct?

MS. SANDACZ: Objection.

THE WITNESS: That's been my opinion in other cases and it's not been my opinion in other cases. Because the majority of cases I do are plaintiff, as a matter of fact.

EXAMINATION

BY-MS.PANTAGES:

Q. We're going to talk about that in a minute?

A. Okay.

Q. But I want to talk about Mr. Fry's case for a moment.

A. I don't know the case, I don't remember it.

Q. But you're not, you're not

taking issue with me. You have in prior cases served as an expert witness where there was a significant delay -- do you consider 17 months to be a significant delay in diagnosing cancer?

A. That's a delay.

Q. That certainly could impact on a patient's outcome?

A. That's correct.

Q. Just like had Mrs. Richnafsky gotten--Mrs. Richnafsky gotten treatment 19 months prior, irrespective of whether or not you think she was going to die as result of her disease, certainly her chances for a longer survival were affected by that, correct?

MS. SANDACZ: Objection.

THE WITNESS: Can you repeat the question?

EXAMINATION

BY-MS.PANTAGES:

Q. I absolutely can. I understand that it's your opinion in this case that Susan Richnafsky was going to die from lung cancer?

A. That's correct.

Q. Is it your opinion in this case that had treatment been initiated in December or January of 2001 or 2000 -- let me ask the question differently.

Is it your opinion in this case had treatment been initiated as early as December of 2001 that more likely than not Mrs. Richnafsky would have died on October 10, 2003?

A. No more likely than not she might not have.

Q. She would have lived longer than October 10, 2003?

A. Yes.

Q. If she had gotten treatment as early as December 2001, do you have an opinion as to how much longer after October 10, 2003 she would have lived?

A. No. But the statistics would say the median survival for metastatic disease is 8 to 10 months. The one year survival is 35 percent. The two year survival is about 15 to 20 percent. That's the data.

Q. But it's your opinion in this case more likely than not had she been treated as early as December 2001 that she would have lived longer than October 10, 2003?

A. That's correct.

Q. You can't tell me how much longer, whether it would have been a month, six months, a year, you just can tell me that she would have lived beyond the date of her death, October 10, 2003?

A. In my opinion the answer it to that is yes.

Q. Now getting back to Mr. Fry's case, you were a defense expert in this case. And in this case you still came to the opinion that there was nodal involvement and micro metastatic involvement even in the circumstance where there was a clean CT of the chest as far as the nodes were concerned?

MS. SANDACZ: I'm going to object.

Doctor, if you need to look at the deposition --

THE WITNESS: I would like to read the deposition because I would like to know what the CAT scan was 17 months later and what disease she said, he, she, you said Mr. Fry.

MS. PANTAGES: It's Ira.

THE WITNESS: Ira Fry, what he had 17 months later.

EXAMINATION

BY-MS.PANTAGES:

Q. My point is that you have testified in other cases where you did have the information that we're missing in this case with respect to whether or not a chest X-ray or a CT of the chest was a full view and you have still testified in certain cases even with that information, even with a primary lesion smaller than Mrs. Richnafsky's, that that patient was going to die from the disease one way or another?

MS. SANDACZ: Same objection--

THE WITNESS: I have for the simple reason, even with a T1 lesion like this, that is T1, on the CAT scan, and

M0, N0, in 2000 when this case was, the patient, there is still a 7 to 8 -- depending on how fast tumor divides and everything else, that's the grade of the tumor, well differentiated sector, still has a 70 percent chance -- only a 70 percent chance being free at five years. So that means there is a 30 percent chance. And in this case you're asking know make a decision on one point on the curve, what is 17 months later what did the scan look like.

EXAMINATION

BY-MS.PANTAGES:

Q. I'm not finding it.

A. I would assume I would have had a good reason for saying that.

Q. I'm sure you did.

I-- I have gotten probably 30 transcripts from various sources of your testimony from the early '90s to as recent as last year. Out of 30 they're all defense depositions. Can you tell me when the last time you testified in a deposition on behalf of a plaintiff?

A. I'd have to ask my-- you know what I could do. I could give you my, since I've testified in Federal Court I can give you a list.

Q. And how recent is the Federal Court list?

A. Maybe three years ago, last one.

Q. Is that something that's accessible that we could get before I leave?

MS. SANDACZ: No. I'll get to them.

THE WITNESS: We'll get it--

MS. PANTAGES: Well, we're three days before trial.

MS. SANDACZ: I still don't have Dr. Deborah's documentation that you were supposed to provide me two weeks ago. I'll provide it when the doctor gives to me and then I'll provide it.

MS. PANTAGES: Is that something that you can get today, Doctor?

MS. SANDACZ: No. He cannot.

MS. PANTAGES: Beverly, I'm

asking him.

MS. SANDACZ: No. I'm instructing the witness, no, I will get it, I will review it, and then I will provide it. So that's --

EXAMINATION

BY-MS.PANTAGES:

Q. That's something that's easily accessible, notwithstanding Ms. Sandacz's --

A. Well, my attorney --

Q. She's not your attorney.

A. She's the attorney.

Q. She is a attorney?

A. A attorney.

Q. An attorney?

A. An attorney.

Q. Can you tell me when the last time you testified for a plaintiffs lawyer?

A. Yeah, it's recent, but I don't recall.

Q. Can you tell me the lawyer's name?

A. You know, I block these all

out to be honest with you.

Q. Can you tell me what the issue in the case is?

A. Lung or breast, it may have been a breast case. You know, I do more sarcoma, but --

Q. Can you tell me when the last time when you testified for a plaintiff in a lung cancer case is?

A. I don't recall it to be honest with you.

Q. Have you done that in 2006?

A. It's 2006 already. No, the answer is no.

Q. Did you do it in 2005?

A. Yeah, but I just don't remember.

Q. Can you tell me anything --

A. I can't tell you anything.

Q. Can you tell me about the issue in the case?

A. Delay in diagnosis. Understand a couple things. I review cases for both plaintiff and defense, and not many of them go to trial. And not many of

them even get depositions. So just to let you know that. I guess --

Q. Can you and I agree that the majority of cases that you testify in, you testify for the defense?

A. No, recently it's been more for the defense. But over time, I've been doing it since 1985, it's about 55 percent plaintiff and about 45 percent defense.

Q. And that's what I'm trying to understand. I'm trying to understand two things. Have you ever heard of ATLA, The American Trial Lawyers Association?

A. No.

Q. I'm a member of that, it's a national academy or national association, there is thousands of members. And we're computer connected so I can go to the ATLA computer site, I can go to the message board and I can post a question. And I posted a question that said, I'm going to take Dr. David Ettinger's deposition. Prior depositions say that he testifies for plaintiffs 60 percent of

the time. Out of the thousands of members here, if you've retained him as a plaintiff's expert could you please contact me. Thousands of members. Do you know how many contacts I got?

A. How many?

Q. One. And I called the guy and said, tell me about the case, and he said I can't. It was 15, 20 years ago. Have you testified for a plaintiff in a lung cancer case within the last 15 years?

MS. SANDACZ: Objection, he just said he did last year.

THE WITNESS: Absolutely, but I just don't recall to be honest with you. I don't keep records of that. Unless my secretary for the Federal Court, I will give you the list or she will give you the list.

EXAMINATION

BY-MS.PANTAGES:

Q. And that's the other thing that I'm trying to wrap myself around. If in Mr. Fry's case there was a 17

month delay in diagnosis and the sentinel lesion was barely detectible, one centimeter, what -- and you think you were comfortable testifying for the defense in that case? Because you don't talk about proximate cause -- I'm sorry, you don't talk about standard of care, you're talking about proximate cause, it was your opinion in that case that that 17 month delay in diagnosing a one centimeter lesion where there was absolutely no evidence of nodal involvement or metastatic involvement anywhere, your opinion on that case was that man was not a stage one cancer in that situation. Based on those facts.

A. No, I-- excuse me. You're giving me half the facts.

Q. Okay.

A. You're giving me what happened in, to start where the delay was, but I didn't get nor did you give me the information on what happened 17 months later. What is the size of the -- because obviously the patient must have

had metastatic disease or advanced disease, otherwise there wouldn't be a case. So what I'm asking you is what was 17 months later? What did that CAT scan look like? All did I here was the same thing. As far as I'm concerned you could have had a normal CAT scan. You could have had a complete chest x-ray. And been normal. In 2001 on your client. And based on what I know about the disease in 2003 I would have said the same thing.

Q. So the fact that we only have an abdominal CT in 2001 makes no difference in your opinions at all, right?

MS. SANDACZ: Objection, that's not what he said.

THE WITNESS: I didn't say that. I said if you had a CAT scan and hypothetically speaking it was normal, except for the mass, chest CT, hypothetically speaking if it was normal, although I don't think it would be normal, but say it was normal, and based

on what I know in 2003, I would have said to a reasonable degree of medical probability the patient had stage 3 disease.

EXAMINATION

BY-MS.PANTAGES:

Q. I thought that's what I just said. It doesn't matter in your opinions in this case, your opinions in this case are your opinions in this case, irrespective of whether that CT in 2001 was an abdominal CT or a chest CT, correct?

MS. SANDACZ: Objection.

THE WITNESS: Well, obviously if the chest CT saw it, a hilar lymph node, I mean a hilar mass, it would be different.

EXAMINATION

BY-MS.PANTAGES:

Q. Right.

A. I'm saying, no -- I'm giving you hypothetical -- you gave me a hypothetical, I'm giving you a hypothetical. Had the CAT scan been

done, chest CT been done, and it was done and it was read as normal except for the mass, and nothing further was done and then 2003 came around and the hilar mass was 6 centimeters, the subcarinal was 4.2 centimeters, despite the normal chest CT scan, I would have said she had stage 3 disease--it was microscopic in 2001, based on what I know about the anaplastic carcinoma, based on what I know about a poorly differentiated carcinoma and based on what I know about the 4.2 centimeters subcarinal lymph node, and the 6 centimeters hilar lymph node.

Q. So your opinions in this case are based upon the information that you got from the CAT scan in June of 2003, correct?

A. Sure, because that's the only information we have.

Q. And it doesn't make any difference to your opinion one way or another assuming that the rest of the chest was clear, whether or not there was an abdominal CT scan or a chest CT,

correct?

MS. SANDACZ: Objection.

THE WITNESS: Yes, unless it was positive.

Then we wouldn't be here.

EXAMINATION

BY-MS.PANTAGES:

Q. Right. And that's -- that's essentially, I don't remember all the details from Mr. Fry's case, but that's essentially what happened in that case. There was a one centimeter lesion and 17 months later there was some finding that allowed you to conclude that the advancement of the disease was such that this patient was going to die from this?

A. Absolutely.

Q. All right. So what I'm trying to envision, Dr. Ettinger, and I guess this is what I'm hoping you can help me with, under what circumstances could you possibly be a plaintiff's expert, there wouldn't be a circumstance instance that a plaintiff would bring a medical malpractice case or a wrongful death case

where the delay in diagnosis did not result in an incredibly advanced disease at the time of diagnosis?

A. Well, I'll give you the example.

Q. Great. I'm all ears.

A. Stage 3 B non small cell lung cancer, pleural effusion, 17 months delay, the only thing that the patient has is a lung mass, two centimeters lung mass, and a pleural effusion. And the patient -- and they do a needle biopsy-- needle aspiration of those cells and it was -- and it was cells were positive for adenocarcinoma, TTF1 which is thyroid transcript factor 1, positive, meaning it's lung cancer, 17 months before the only thing the patient had was a chest X-ray, there was no evidence of pleural effusion.

I'd take that case for the plaintiff and win it on the basis of that the patient didn't have a-- I don't know if I'd win it but I would testify on behalf and say that the patient did

not have fluid 17 months before, that stage 1 disease.

Q. All right. And what's the difference between -- because pleural effusion is evidence of a very advanced disease, correct?

A. Single cells, you see you have to have -- in other words, there is no way, it's probably -- unless the patient had masses in the pleura, it's fluid and cells so it's a smaller amount of tumor. And doesn't take that many cells because the hydrostatic mechanism of a pleural effusion is very, the body is a very unique thing, and so it doesn't take that many cells for fluid to leak out. 17 months later it would be significant. And I would believe, and again we're talking about to a reasonable degree of medical probability that that patient would have had stage 1 disease.

Q. Can you remember the last time you testified in a case like that?

MS. SANDACZ: Objection. He just said it three times. 2005.

THE WITNESS: I don't know.

EXAMINATION

BY-MS.PANTAGES:

Q. The truth of the matter is, Doctor, that there is a very narrow selection of cases that you actually could testify as a plaintiff's witness in, correct?

MS. SANDACZ: Objection.

THE WITNESS: Well, I don't know if that's narrow thing. I get asked, to be honest with you, to review cases for the plaintiff and for the defense, and a lot of times the good lawyers ask me to look at case to see if they have a case that's reasonable.

So a lot of the plaintiffs' cases that I get to review and I say that is six months delay or a ten months delay or 15 months delay, but let me tell you, when the patient died the patient had wide spread disease, I don't think, unless you're dealing with an idiot on the defense side, and I don't know of any idiots on this side in

Maryland that are on the defense to be honest with you, I'd say you're going to lose this. Most good lawyers don't want to take frivolous cases.

And a lot of those are on the plaintiff's side, to be honest with you. So--so the defense has to defend three months delay, six month delay. So -- but I do get involved in good plaintiff's cases. But I don't want to -- that's why-- I do both plaintiff and defense and that's I didn't say to you about the doubling time is fraught with danger because I want to be consistent and not -- and I try to be.

EXAMINATION

BY-MS.PANTAGES:

Q. Is it your testimony that 60 percent of the cases that you review are plaintiffs cases? Or 60 percent of the cases that you testify in are plaintiffs cases?

A. No, 60 percent of what I review are plaintiff's cases. And those are harder cases in the sense from the

standpoint of the delay. I mean, the individual is upset and thinks there's delay and calls the-- and calls the lawyer, says, I think I want to -- you know --

Q. We're talking about the assumptions that you made, one of the assumptions that you made in formulating your opinion in this case is that there is a constant doubling time, correct?

A. That's correct.

Q. No variation in the doubling time cycle, correct?

A. That's correct.

Q. And that you and I can agree that that is not based -- that's not based, in fact, in terms of how you know that cancer actually does progress?

A. I've said that, yes.

Q. You also have to assume that the cancer is a perfect sphere in order to do the calculation, correct?

A. That's correct.

Q. And you and I can agree that you didn't know the shape of the tumor

in 2001, correct?

A. Well, I could put a -- try to get a radiologist to really draw it out for me and put a number, but that's correct.

Q. You didn't do that?

A. No, I would have taken -- since I would have had to take, since I'm dividing up a sphere, I have to assume a sphere, I took the largest diameter.

Q. And you don't know actually what shape this tumor was?

A. That's correct.

Q. By virtue of the fact that this may not be spherical, your calculations could be off by 5, 10, 20 percent, correct?

MS. SANDACZ: Objection.

THE WITNESS: They could be off, that's correct.

EXAMINATION

BY-MS.PANTAGES:

Q. What's the margin for error in your calculation?

A. A lot. But again I used a calculation -- let me reiterate. Since I've already testified it's based on the TNM classification, all I did was to use it to confirm what I believe, I just wanted to be consistent. So-- could it be wrong? Yes. Would it change what I'm going to say? No, since I already based it on the TNM. Would I be disappointed? Absolutely. I might have gone back to the -- I might have gone back to the lawyer and said, I had a problem here in my own mind, but at the moment since I've used a doubling time understanding the vagueries, understanding the problems with it, at least it was in the right direction?

Q. You also assumed that the tumor was a hundred percent cancer?

A. That's correct. And we know that's not.

Q. What else are they made of?

A. Fibrous tissue, other things, and vessels, and a few other things.

Q. And you can't say to a

reasonable degree of medical probability what percentage of cancer these tumors are, correct?

A. Yes. But the bulk would be, the bulk would be tumor cells.

Q. You're also assuming that cancer grows predictably?

A. As I said, as a constant, a constant growth, yes.

Q. And it doesn't, does it?

A. That's correct.

Q. And you've had patients that have been cancer free for years and years and years and the cancer comes up later?

A. That's correct including stage 1 disease.

Q. Can you tell me how many active cases you have right now?

A. Oh, I have about 10, 15 -- remember, the case can go back four years and still be active. I may have more than that. 10 cases-- 20 cases, over a couple year period that are still active.

Q. Are any of your active cases plaintiffs cases?

A. Yeah, I think they are but I don't recall the names. I don't recall.

Q. Is that information that is accessible to you?

A. No, because I would have to spend a lot of time looking and I don't plan on doing that.

Q. So you're not willing to look up for me of the ten cases, 10 to 15 cases which are plaintiff's cases and which are defense cases?

MS. SANDACZ: Objection. Go ahead, Doctor. You have no obligation to do anything.

THE WITNESS: No, I have no intention of doing that. I have other obligations.

EXAMINATION

BY-MS.PANTAGES:

Q. Are they all lung cancer cases?

A. No, probably not. No.

Q. What other types of cases would they be?

A. Sarcomas, breast, colon.

Q. Have you ever had to prepare a list of your, the cases that you testified for in courts other than Federal courts?

A. No.

Q. Have you ever testified in Colorado, for example?

A. No.

Q. Do you plan to come testify at trial in this case?

A. Depending on when it is, I do.

Q. Are you scheduled to appear at trial?

A. No, not yet.

Q. You haven't made any arrangements to come to Cleveland next week?

A. No.

Q. Did you know the trial was next week?

A. I heard.

Q. You have, I believe, one, on one of these documents, I don't want to take those -- your calculations. Can you describe for me, we've got this marked as

Plaintiff's Exhibit-2.

A. The calculations based on a 19 month delay from 11/01 to 6/03, I took a subcarinal lymph node of 4.2 by 3.2 centimeters.

Q. Can I stop you one second, Doctor, please?

Do you have, do you have a copy of that in front of you?

A. Yes.

Q. Because I'm not going remember it.

A. And I took the -- and I calculated it, I assume that this is a sphere-- knowing full well that it's not, and I took the diameter as 4.2 and since we solve for R which is radius, radius 3, the radius is cubed rather, R is 2.1. And I calculated the volume for 6/03 and then I assumed the 30 day doubling time and worked backwards to get down to 11/01.

And what the size of the tumor was. And the tumor diameter was .000074. And of course with that volume there is

still tumor cells in it, therefore the node is positive. I didn't calculate how many tumor cells were in it though.

Q. All right. So I'd like to you break down your calculation a little bit more just so I understand. You take the volume of the tumor that's 38.8, correct?

A. Yeah, I calculated the volume of the tumor and it's that of a sphere. So it's 4/3rds pie, which is which is 3.14 R cubed. And I calculated for what the volume would be, it would be cc. So it's 38.8 ccs. And then all I did is divide by 2 and go down each month.

Q. Because you're--you're using as a measurement that the tumor volume doubles once a month?

A. That's correct.

Q. So you're doing doubling time in reverse order and you're halving it?

A. That's correct.

Q. And as of November of 2001 what is that number?

A. .000074, ccs.

Q. 74 or 94?

A. 74. It's 1.5 so it's 74, I think.

Q. Oh, okay. I'm sorry. 74. The tumor, then the node is always going to be positive using this formula, it's never not going to be positive, when are you going to get to 0?

A. Oh, you will get to 0 eventually.

Q. When will you get to 0?

A. All I've got to do is work it all the way back. The cancer is in the body 8 to 10 years.

Understand that. That's why the bulk of, what you hope to do is when you give adjunct therapy, you get rid of micro metastatic disease. So here, this is fact, how a tumor grows, it's not it just doesn't pop up. And another thing, I am sure of, the closer it is to the diagnosis the surer, the more sure I am of what the stage is. The further away it is, it's all to a reasonable degree of medical probability.

So you start with a normal --

you start with a normal cell and it gets hit with, whether you smoke or not it, gets affected, or secondhand smoke, then it becomes hyperplastic, and then you get an intermediate stage, then it becomes carcinoma, and then develops metastasis. That process takes about 8 to 10 years, depending on the growth.

Q. You're reviewing to a chart that you have in the materials you gave me. What's the source of this chart?

A. I don't remember what the source is. This applies to most, most people believe this. And it applies to lung cancer. That is applies to most solid tumors. If you don't want this one I can give you one that I wrote in the New England Journal of Medicine in 2004, it's the management of lung cancer, and there is a very similar graph on this.

What the graph is, it shows you -- what this does, the graph that one shows you is this part of it. It doesn't show you this part of it.

Q. Did you do this graph? Did you design this graph?

A. No, I don't remember where I got it.

Q. How old is this graph?

A. About ten years old. And it's based on what they call the Vogle, Ferson-Voglestein developed this model for colorectal carcinoma. And now, most people now apply this to all solid tumors. But the idea of a cancer being 1 to 30 doubles in Tennent, it's in the Tennent's books I've given you. By the time it goes 40 doublings it's-- the patient dies.

Q. So if I'm understanding your calculations here, you're saying that this tumor in November --in the node or the cancer in the node was .000074 ccs?

A. That's correct.

Q. So what are we talking about, 74 hundredths?

A. No. You can--You can calculate--

Q. Hundred thousandths?

A. It's one cubic centimeter is to one billion as X is to -- as .000074 is to X.

Q. All right.

A. And what you will solve there is how many cells are in that lymph node.

Q. What's the parameter for determining that a node is positive on CT?

A. Look at the microscope.

Q. On CT?

A. One centimeter or less.

Q. One centimeter or less?

A. Is considered normal. That doesn't mean it has any cells.

Q. Okay. It's considered negative?

A. Yeah.

Q. Right.

A. It's considered negative on a technical piece of equipment.

Q. Right. Is this then a change the size of the node in 2001?

A. It's probably normal.

Q. So the node is going to look normal?

A. That's correct.

Q. If the node is biopsied what is the likelihood of getting a positive biopsy with .000074 ccs?

A. There is hundreds of thousands of cells, yes, it would be positive.

Q. It could be positive?

A. It would be positive.

Q. More likely than not?

A. In my opinion.

Q. Is it possible that it would be tested as negative?

A. Depends on where they biopsied. You can do, we do routinely bronchoscopies with SNAs of the, of lymph nodes. However, if they did a mediastinoscopy and took it out, they would sample the lymph node. You see? They would have done the mediastinoscopy in this patient, sample the lymph node, gets the whole lymph node.

Q. With .000074, it's just as likely that node is going to be tested

negative?

A. No, I don't buy that. That's your opinion.

Q. Well, how much of the node space is this .000074 tumor taking?

A. I didn't calculate it.

Q. How big would that be?

A. I didn't calculate it.

Q. Can you estimate for me how big it would be?

A. I wouldn't even estimate as a matter of fact. Because I don't know, I'd have to calculate it.

Q. Well, if a node -- how would we calculate it? If a normal node is one centimeter in size --

A. You can solve for R.

Q. Okay. How do we do that?

A. So this is the volume, .000074 equals 4/3rds pi or 3.14 times R cubed. So four times 3.14 equals 12.6, divided by 3 equals 4. --

Q. Because this is the exhibit, we're keeping that.

A. Okay. 000 -- 50764 equals

4/3rds pi, 3.14 R cubed, equals .000074 equals 4.187 R cubed. So you have R cubed equals 4.187 divided by 0 -- I think this is correct -- that's why I went into medicine.

Q. That's why I went to law school. You're closer to it than I am, I think.

A. I think I'm wrong -- probably -- so this is 1. Is that correct? So I think this is correct. So R cubed equals .000017 so R -- now here's my problem, I've got to solve for R and I don't know how to do that. So it's trial and error. Let's do it this way.

Are you a mathematician?

MS. SANDACZ: Huh-huh.

THE WITNESS: Let's see what that looks like. Nope, it's not that. Let's try that. No it's not this because that's too many zeros.

(WHEREUPON, There was a discussion off the record.)

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EXAMINATION

BY-MS.PANTAGES:

Q. What -- on the record, what you're calculating is the radius?

A. Yes, then you have to do you believe that.

Q. Of the tumor?

A. Yes.

Q. Inside the lymph node?

A. Yes.

Q. That's what we're talking about. Okay.

A. Getting closer.

Q. And what you're--what you're trying to do is, you've got the value for R cubed?

A. N0 now I've got to solve for R.

Q. So once you find R you do you believe that and that's the diameter?

A. That's correct.

Q. And that's going to be how big the tumor in the node is in November of 2001?

A. Well, this is as close as I'm

going to get. But I put point -- it's probably .025. Let's take look. .025 -- no -- plus times .025 equals, times 0.025 equals -- that's close. So it's R equals 0.025 and so the diameter would be 0 -- the diameter would be .050.

Q. .050 --

A. The radius I think is centimeters.

Q. Okay. .050. So .050 centimeters or .050 millimeters?

A. I think it's centimeters, cubic centimeters. Cubic centimeters. That's not small. That would be picked up, that's my opinion. You could check my calculations you can solve it.

Q. Have you ever, doctor, in formulating these opinions, taken your calculations out until you get 0?

A. Oh, yeah, it's easy to do. Just go down and keep on going.

Q. You've done that before in other cases?

A. I was asked to do it before and I just went, keep on going. Again,

cancer is in the body 8 to 10 years by the time it gets diagnosed so it has to be one cell.

Q. And I want to understand how-- how this figure that's your opinion. This is the tumor volume as in the node, as of June 2003 which is 38.8 cubic centimeters, correct?

A. Yes.

Q. And you have that, using a month as the period of doubling time, you have that until you got to the month that the diagnosis was missed, correct?

A. That's correct.

Q. And because we have .000074 ccs of cancer in a lymph node, you conclude that that lymph node is positive?

A. No. I-- Well--Yeah. What I concluded from my doubling time, it confirmed what I believed based on the TNM classification, based on the TNM. Irrespective of this, if I threw this away, and you said you cannot use doubling values, based on the size of the

lymph nodes in 2003, and from what I know about cancer, I would have come to the same conclusion.

Q. That she was node positive in November of 2001?

A. That's correct.

Q. And I just want to make sure, is that the ultimate conclusion that we're talking about, that whether you use the doubling time or whether you rely upon your own education, training and experience with cancer, it's your opinion in this case that notwithstanding the 19 month delay in diagnosis, because of what is described on the CAT scan in June of 2003, you are making the assumption, or you are of the opinion in November of 2001 that she was node positive?

A. That's correct.

Q. And taking that one step further, since she was node positive and she had a tumor that was less than 3 centimeters in size, you're presuming that she's T1N2; is that correct?

A. That's correct.

Q. Where are you getting the N2, if we're talking about the -- disease the --

A. Subcarinal lymph node is N2.

Q. Why is it N2?

A. Because the mediastinal lymph nodes, which is subcarinal, is N2?

Q. So the location of the one positive node makes it N2?

A. That's correct.

Q. All right. It's not that there are metastasis or micro metastasis or pretracheal nodes, it's the size of the subcarinal node in June of 2003, and the location of the positive node that makes it a T2?

A. That there is cancer cells in that lymph node. You can have-- Understand the CAT scan, that's why the gold standard in evaluating the mediastinum is not CT, it's not the PET, it's the mediastinoscopy, the tissue. Tissue is the issue. And you always err on the side of what's curable.

Q. All right so--And I want to

make sure that I'm understanding the practical result of your opinion.

A. You understood it.

Q. It's your opinion in this case that in November 2001 more likely than not Susan had a 2 centimeter lesion at the base of her lung, and a positive mediastinal lymph node that had .000074 ccs of cancer in it?

A. Oh, I don't know if it had that much or, it could have had more, it could have had a little less. But I'm just saying -- again, I'm not basing my upon on this. So you're focusing on this and I'm focusing on the TNM classification, that's all. It's that simple.

Because we're all talking about -- irrespective of me using the doubling time, for Dr. Goldfarb to get to his opinion he has to think about growth of tumor. I try to put a tad bit of science, numbers to the calculation. But a tumor is not stagnant, it grows fast, slow, fast.

So he's basing his opinion on what he thinks is -- based on his thinking of the TNM classification, and I'm basing it on my thinking of the TNM classification. And all I attempted to do is add a tad more to this. And that's what I use this for. Irrespective of .000074 I don't care if it's .008, even a higher number or even a lower number, all it did was confirm. That's how I use it. That's all.

Q. Around that's what I'm trying to understand from a practical standpoint. What is your opinion more likely than not?

A. More likely than not --

Q. I'm rethinking my question.

It's Dr. Goldfarb's opinion in this case that in November of 2001 Mrs. Richnafsky had a two centimeters lung cancer in her right lung?

A. I agree.

Q. And that was it. That's his opinion.

A. I don't agree with that.

Q. That's my next question. What is your opinion as to what kind of -- or what was the extent of Mrs. Richnafsky's cancer more likely than not in November of 2001?

A. More likely than not Mrs. Richnafsky had stage 3, not a small cell cancer, based on mediastinal involvement with cells of cancer.

Q. All right. So she had a 2 centimeters lesion in her right lower lung?

A. That's correct.

Q. More likely than not?

A. Correct.

Q. And she had lymph node involvement in her subcarinal nodes?

A. Right, as well as the hilar lymph node.

Q. That's what I'm trying to find out. You also believe more likely than not that the hilar node was involved?

A. Absolutely.

Q. And you didn't calculate --

A. I didn't do that because

that's end 1. Since I'm worried about the higher stage I calculated the other node, the lymph node that would make it a higher stage. Stage 3 rather than stage 2.

Q. All right. So it's your opinion in this case that she had cancer in her lower lung, cancer in her hilar lymph node, and cancer in her subcarinal lymph node, correct?

A. Correct.

Q. More likely than not?

A. More likely than not.

Q. Cancer anywhere else?

A. No, I said more likely than not my feeling was she had, didn't have the disease in the pancreas.

Q. Right, so it's your opinion more likely than not as of November of 2001 it hadn't metastasized to any organ outside the lung?

A. That's correct my opinion.

Q. Are subcarinal and hilar positive nodes treatable?

MS. SANDACZ: Objection, vague.

THE WITNESS: Oh, yeah.

EXAMINATION

BY-MS.PANTAGES:

Q. How would that be treated?

A. With chemo, radiation.

Q. All right. So Mrs. Richnafsky's cancer treatment in December 2001 would have been resection of the primary tumor?

A. Well, if they knew, if they did -- the appropriate therapy would have been to do a mediastinoscopy, and once they would have diagnosed her as having positive lymph nodes then they would have either given her chemotherapy in attempt to make this resectable and sterilize the lymph nodes, or chemotherapy plus radiation therapy concurrently and giving her definitive radiation therapy that is 66 grade of radiation in an attempt to sterilize everything.

And they wouldn't have done surgery. But that's where we discussed these cases in a multi modality approach to get everybody's opinion, the

radiotherapist, the chemo therapist and the surgeon.

Q. Have we talked about all of your calculations?

A. You talked about all my calculations.

Q. And I can -- it's your testimony in this case that as long as this number is not 0, the .000074 value, I'm going to keep halving that and halving that and halving that, and as long as it's not 0, that's a node positive?

A. That's correct.

Q. So I can calculate into October of '01?

A. You can go audit way down.

Q. I could go all the way back. But as long as I'm still getting some number, no matter how many 0s come in front of it, it's still a positive node?

A. Yes, with all the vagueries of the doubling time.

Q. And since, no matter how many 0s are in front of it, because this is

a mediastinal node, it's still an N2 no matter how many .0s are in front of it?

A. Oh, yes, that's correct.

Q. Okay. I want to talk to you a little bit about your report.

You read Dr. Goldfarb's deposition, correct?

A. Yes.

Q. He said something that made sense to me as a lay person and I'd like your perspective on it.

He said that if you assume that this was a patient with an aggressive cancer, which I think is what you've referred to Mrs. Richnafsky's cancer as; that it didn't make sense that she would be a stage 3 having an aggressive cancer and live the quality of life that she lived for 19 months before becoming symptomatic, that that was not consistent with a stage 3 aggressive cancer?

A. Well, first of all --

Q. You understand why to me as a lay person that would be logical?

A. Yes, yes. First of all, he does not look at -- as a surgeon he does not follow these type of patients longitudinally, that's left to the medical oncologist.

Second of all, the woman was asymptomatic until three weeks before her diagnosis with pulmonary symptoms and then she had a rapid course downhill. 15 percent of patients that have advanced stage IV disease are asymptomatic. We're talking about, remember, before you have visible disease you have microscopic disease. And so we have patients that are untreated the same way. Is that an anomoly, does happen? Yes. It happens.

We already said she had pancreatic metastasis. You asked me is that common. I said no. And you asked me again, does it happen? Yes. Does this happen? The answer is yes. Is it surprising? It's not surprising because she didn't have the same amount of tumor burden in 2001 as she had in 2003. So there are people that come to the

doctor-- walk in asymptomatic and the diagnosis is stage 4 disease. Why?

There are people that have a chest x-ray -- you already talked about the chest X-ray is not a good screen. You have the 12 centimeters lesion on the chest X-ray, you do the metastatic work up and its wide spread disease, why, the patient is asymptomatic. That's the nature of the beast. Depends on where the tumor is, what's it obstructing.

Here's a woman that had disease in the bronchoscopy, no-- or anything else, causing a few weeks of symptoms before then-- with the amount of tumor that she subsequently had, with a hilar lymph node, you would have expected, I would have expected her to be sicker than you know what, but she wasn't. Then whatever happened, it took a turn.

Q. You said in earlier in your testimony that an advanced stage 4 patient can be asymptomatic. What's the life expectancy of a personal with stage

4 cancer?

A. As I said to you, median survival is 8 to 10 months. The one year survival is 35 percent. And at two year survival is 15 to 20 percent. And with now with a targeted therapy its now 22 percent and there are a percentage of those patients that are at three years, four years.

I had put a patient on hospice, a young woman on hospice and usually you put someone on hospice you have six months or less to live. And after a year and a half I had to take her off hospice and she went another three years except for some pain, treated and did well. Can I explain that? I look to the heavens.

You know, that's medicine. That's why you treat, you treat advanced disease to make it a chronic disease like diabetes and heart disease. Are we doing that? The answer is yes. But remember, the focus is quality of life. That's the focus. So this doesn't surprise me.

Q. If I'm understanding your testimony more likely than not stage 4 cancer patients have a life expectancy of less than a year?

A. That's correct.

Q. So more likely than not Mrs. Richnafsky could not have been a stage 4 in November and gone on to be asymptomatic for 17 months?

A. Statistically that would be true. But more likely than not, again, I've already started the beginning statement that taking all stages of lung cancer, the five year survival is 15 percent. So if you take statistics more likely than not any patient with lung cancer, whatever the stage, will not survive more than 15 percent. But that's not true because that's all stages. So the statistics are against the patient with lung cancer. But then you have the individual patient.

Q. What's the life expectancy for an untreated stage B -- I'm sorry, untreated stage 3 cancer?

A. It would be less. Untreated would be lower than advanced disease, but it's hard to say. I would have to believe if you're at five years I'm not sure you'd be around five years.

A. Might as well go ahead--

Q. Might as well, yes. I'm messing up the -- one second. Here we go.

Do you agree, Dr. Ettinger, that the histology of cancer can change over the life of the cancer?

A. Not lung cancer, no.

Q. Okay. Why is that?

A. Because it just, in this case it doesn't -- tumors are heterogeneous. You can have components of a cell, but when it's poorly differentiated when it starts it's poorly differentiated. There are certain tumors people believe like liposarcoma, can dedifferentiate into a pleomorpha. Lung cancer doesn't do that.

Q. Right. How about in metastatic disease, can the histology of a metastasis differ from the histology of

the primary?

A. It-- biochemically probably can. But what does -- we talk about metastatic disease we talk about the faster cells metastasize.

Q. Right. And that was my next point. Is that often times metastatic disease will grow at a much more rapid rate than the primary?

A. Sure. That's why I gave -- that's why, and the paper by Shackney talks about metastatic disease. That's why it came up to 30 day doubling time.

Q. Why is that?

A. Because that's fast rate. And the mean, the mean of his chart as I said to you was 15 to 500 days with a mean of 134 days, that's all tumors he took into consideration, fast growing, slow growing, moderate growing. So it's consistent.

Q. So you can't compare the growth rate or the histology of Susan's pancreatic cancer to the primary in her right lung?

A. Oh, well it's actually -- and again, I can revoke, which I said -- can you have two primaries, the answer is yes. Could you have another primary the answer is yes. Do you want me to revoke that? No. I don't.

But she had a poorly differentiated lung cancer. And the anaplastic is still poorly differentiated. Is it different? Yes.

But is it the same. If you look consistency in the aggressiveness the answer is yes. Does look different, yeah, because this was an FNA, the other was, they may have gotten more tissue. Things are different. Depending on the amount of tissue you get and everything else.

Q. The fact that there was a description, when you're talking about the term anaplastic, you're referring to the histology from the pancreatic metastasis?

A. Yes. And anaplastic means bad actor. Aggressive. Poorly differentiated. Bad actor, aggressive.

Q. And that would be consistent,

the fact that the cells histologically were determined to be anaplastic in the pancreas is consistent with metastatic disease?

A. Yeah. Again, even though it's rare since I'm not trying to invoke two different tumors, I think it is, yes.

Q. You--Your opinion--One of the factual assumptions that you made in this case, or one of the things that you assumed in this case is that the cancer in the pancreas was metastatic?

A. That's correct.

Q. And the fact that it was described as anaplastic would be consistent with metastasis to the pancreas?

A. That's correct.

Q. You can't necessarily assume that the cancer in the primary tumor in the right lung was also anaplastic, correct?

A. Oh, you say it's poorly differentiated, yes.

Q. Which is different than

anaplasty?

A. No, you can't have it both ways now.

Q. All right.

A. She had a lymph node biopsy.

Q. Yes.

A. It was poorly differentiated. She had this disease--it was anaplastic, meaning it's poorly differentiated.

Q. In the pancreas?

A. In the pancreas. What came from the lung is poorly differentiated. Whether we say it's anaplastic or poorly differentiated, I'm looking at them as interchangeable.

Q. But why were the two different words used?

A. Maybe a different pathologist read it.

Q. Okay. If I'm understanding your testimony you do not have an opinion in this case as to when Susan's cancer metastasized to her pancreas?

A. Well, it's between, as I said between 2001 and 2003. And obviously the

closer to the diagnosis the more sure I am that it was a metastasis.

Q. But you can't be more specific than that?

A. No.

Q. You and I can agree that once Mrs. Richnafsky began cancer treatment, she underwent every available therapy there was for her disease at her stage?

A. Yes.

Q. And did you see from your review of those records that she was absolutely compliant with all of those treatments?

MS. SANDACZ: Objection.

THE WITNESS: It's my opinion she was.

EXAMINATION

BY-MS.PANTAGES:

Q. This was not a patient that rejected treatment or opted not to have treatment, correct?

MS. SANDACZ: Objection.

THE WITNESS: No, not that I know of.

EXAMINATION

BY-MS.PANTAGES:

Q. And just so I'm clear on your staging in this case, you're staging her at a stage 3 because of the location of the positive node; is that correct?

A. That's correct.

Q. I think that I'm done, Doctor. Let me just look at my notes.

Have you worked with this law firm in the past, Roetzel & Andress?

A. I think I have.

Q. Have you worked with Ms. Sandacz in the past?

A. No.

Q. Do you know who you've worked with?

A. No.

Q. But you think --

A. I think, I don't recall.

Q. Do you know how she got your name in this case?

A. No.

Q. You worked with other defense firms in Cleveland?

A. Reminger & Reminger. Berger, which is a, I think Berger is a plaintiff's lawyer, Josh Berger.

Q. Okay. Don't know him. Who else?

A. I don't recall.

Q. You've testified in Ohio about?

A. Oh, yeah.

Q. How are you charging for your time?

A. $500 an hour.

Q. Have you submitted any bills in this case?

A. No.

Q. Do you know how much time you have into the case?

A. You have a list there. Plus the deposition plus time before. And if I go to Cleveland it's portal to portal.

Q. $500 an hour?

A. Yeah.

Q. Do you know any of the other physicians involved in this case?

A. None whatsoever.

Q. Had any conversations with Dr.

El-Khairi?

A. No.

Q. Dr. Walsh?

A. No.

Q. Is there any way to test the validity of the doubling time theory? Has anybody ever done that? Is it possible to test the validity of the theory?

A. Oh, yeah. Watch tumors grow. Actually you can. You take a tumor, you watch -- you watch it grow and doubling it and double and do you believe and see what happens over time. You need two points on the curve to do that.

Q. Has anybody done that?

A. Yes, there are some patients that have done this in lung cancer, Japanese have done it. But I don't recall the literature. I've seen it in passing in a meeting once. But for the most part, because they want to determine if they can predict which tumors would grow fast so you might give more therapy but I don't recall where the article is.

Q. And how did they test it?

A. Watch tumors grow.

Q. I'm not sure how--

A. You have to watch -- you can determine -- that's how they did it with metastatic disease as well. You watch, you need to two points on a curve-- so then you can determine how fast the tumor is growing. You know the two sizes you can determine what the doubling time is based on that.

Q. And in the Japanese study was it determined that the doubling time was 30 days?

A. No.

Q. So has --

A. I've given you the literature where you would get that information. The Shackney article, the Tagg article, and the other article by Giddings.

Q. And I understand that. My question is, has anybody tested the validity of the theory that a lung cancer grows at the rate of 30 -- that a lung cancer tumor doubles at the rate of 30 days?

A. No.

Q. I know from reviewing your notes, or your file, that you're aware that I've filed a motion to exclude testimony about the doubling time theory?

A. Yes.

Q. Is that something new or had you ever heard that about?

A. I've never exclude as an expert in any trial I've ever been in, including the doubling time.

Q. Has anybody tried to exclude your doubling time theory in the past, that you're aware of?

A. No. No.

Q. Are you aware that other courts in other states have excluded testimony about the doubling time theory?

MS. SANDACZ: I want to object to that. Go ahead and answer, Doctor.

THE WITNESS: Since I based my testimony on the TNM classification, if they want to exclude the doubling time then it's my opinion as an expert in lung cancer and my experience, and

probably an expert in one who is panel chair of the national conference of cancer network guidelines for non small cell lung cancer, I base it on the TNM classification and not talk about the doubling time. Because I've already said in my testimony here that I use the doubling time to confirm what I believe. But it has never been I couldn't talk about it have.

Because tumors grow, otherwise I don't understand -- all did I was put a number to it. With all the vagueries what I've admitted to, for doubling time.

EXAMINATION

BY-MS.PANTAGES:

Q. I'm just asking you if anybody told you you couldn't talk about it?

A. Nope.

Q. Johns Hopkins is ranked as a cancer center, right?

A. Yeah, number 3. Behind the two free standing ones, Memorial and -- Memorial Sloan-Kettering and MD Anderson.

Q. That means what? Why are you

ranked 3?

A. They're bigger. And they do good research as well.

Q. Is it patients --

A. It's patient related. We're the number one hospital in the country.

Q. And it's patient related because --

A. Put it this way. If you're going to be on a list and it's a good list, you'd rather be number one than the other list. So patients rate us, doctors rate us. We've been rated number one hospital for 16 years straight I think, or 15 years.

Q. And certainly the goal at Johns Hopkins is to cure as many patients cancer as possible?

A. That's correct.

Q. That's what you hope for?

A. That's what I do. That's exactly what I do.

Q. And you also want to give your patients the best possible chance of cure?

A. You're absolutely correct.

Q. And one of the ways that you do that is that you start treatment as early as possible?

A. I think we've gone over that, yes. But we don't always succeed.

Q. And you're familiar with the Ireland Cancer Center in Cleveland?

A. Yes.

Q. That's a top cancer center as well?

A. Top cancer center.

Q. Dr. Ettinger, have we talked about all of your opinions in this case? As far as you can tell? Have I left anything out? Any stone unturned?

A. No, you've turned over every stone I know.

Q. Okay. If you come across any document or testimony or anything like that that changes your opinion in think way, or modifies your testimony in any way, if you could let Ms. Sandacz know?

A. I will do that.

MS. PANTAGES: But as that

said I'm done. It was wonderful to see you again.

MS. SANDACZ: Doctor, you have a right to read the transcript. I suggest that you do read it to make sure that the deposition was -- your testimony was taken down accurately.

THE WITNESS: Yes. I will read and sign.

(WHEREUPON, The Deposition of DAVID S. ETTINGER, M.D. was concluded at 5:27 p.m.)

CERTIFICATE OF REPORTER

COMMONWEALTH OF VIRGINIA AT LARGE:

I do hereby certify that the witness in the foregoing transcript was taken on the date, and at the time and place set out on the Title page hereof by me after first being duly sworn to testify the truth, the whole truth, and nothing but the truth; and that the said matter was recorded stenographically and mechanically by me and then reduced to typewritten form under my direction, and constitutes a true record of the transcript as taken, all to the best of my skill and ability.

I further certify that the inspection, reading and signing of said transcript were not waived by counsel for the respective parties and by the witness.

I certify that I am not a relative or employee of either counsel, and that I am in no way interested financially, directly or indirectly, in this action.

Chad Joseph

COURT REPORTER / NOTARY

SUBMITTED ON April 19, 2006

AMENDED CERTIFICATE

I Hereby certify that in addition to the certification made on the Reporter's Certificate Pages, this Original Deposition has been sealed pending the witness' right to review said deposition within 30 days, which time has not elapsed.

SetDepo, Inc.