

#609

1 THE STATE of OHIO .  
2 COUNTY of CUYAHOGA. . : SS:

3 -----

4 IN THE COURT OF COMMON PLEAS

5 -----

6 AFAZINE SMITH, executrix of the :  
7 ESTATE of CAROLYN YARBOROUGH, "  
8 plaintiff, .

8 vs.

: Case No. 326850

9 SAINT LUKE'S HOSPITAL, et al., "  
10 defendants. "

11 -----

13 Deposition of ROBERT S. HOLZMAN, M.D., a  
14 witness herein, called by the Defendant Steven  
15 Bass, M.D., for the purpose of cross-examination  
16 pursuant to the Ohio Rules of Civil Procedure,  
17 taken via teleconference before Constance Campbell,  
18 a Notary Public within and for the State of Ohio,  
19 at Forum Conference Center, 1375 East Ninth Street,  
20 Cleveland, Ohio, on TUESDAY, JULY 7TH, 1998,  
21 commencing at 10:00 a.m. pursuant to agreement of  
22 counsel.

**COPY**

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I N D E X

WITNESS: ROBERT S. HOLZMAN, M.D.

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(NO EXHIBITS MARKED)

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(IF ASCII DISK ORDERED, SEE BACK COVER)

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1 experts for the defendants.

2 Q. So you've reviewed, sir, Dr. Lerner's  
3 deposition?

4 A. I have.

5 Q. And the reports of Drs. Lerner and Frey?

6 A. Yes.

7 Q. Have you had occasion to review the  
8 deposition of Dr. Chung?

9 A. No.

10 Q. Have you reviewed Dr. Chung's report?

11 A. No.

12 Q. You reviewed, sir, the deposition of  
13 Drs. Bass and Sonpal?

14 A. Yes, I have.

15 Q. Have you reviewed any medical literature in  
16 connection with the opinions that you are rendering  
17 in this case?

18 A. Yes, I have.

19 Q. Do you have that literature with you today?

20 A. Yes.

21 Q. Could you identify that literature for me,  
22 Dr. Holzman, including its title and the author?

23 A. I need to get the document.

24 Q. Thank you.

25 A. The document is Chapter 62 from a book

1       entitled, Surgical Infections, the chapter title is  
2       "Candida Infection and Candidemia," authors Joseph  
3       S. Solomkin and Elias Anaissi.

4       Q.       Have you reviewed any other literature,  
5       textbooks, other than Chapter 62 of the textbook  
6       Surgical Infections?

7       A.       This morning I looked at on-line radiologic  
8       Atlas to refresh my memory about CT scans.

9                       This chapter I looked at, but it  
10       was not something that I had reviewed prior to my  
11       writing my report or in forming my opinions.

12       Q.       Now that you've had an opportunity to review  
13       that chapter, have your opinions changed from those  
14       expressed in your report?

15       A.       No, they have not.

16       Q.       I'll ask you about your opinions in a moment,  
17       but as it relates to your reading of Chapter 62 of  
18       Surgical Infections, has it added to your opinions  
19       as expressed in your report?

20       A.       I would say it's confirmed them, it has not  
21       added to them.

22       Q.       Dr. Holzman, how many reports including  
23       drafts have you prepared in this case?

24       A.       I think I submitted two reports. I may have  
25       submitted a draft in which I had one of the

1 doctor's names wrong and resubmitted it with the  
2 name changed. That is recollection, I don't have  
3 in my files two copies of the report.

4 Q. Would you have maintained the draft of your  
5 report on a computer or in any other file?

6 A. I do have it on a computer and I looked at  
7 those files before coming here, so there is no  
8 draft in the computer. If I did do that, I  
9 overwrote the same draft in the computer.

10 Q. So if I understand you correctly then, there  
11 is no copy of the draft report in your file, of the  
12 draft report that you provided to Miss Kolis?

13 A. That's correct. I'm not sure that I did. I  
14 may have. I'm not positive that I did.

15 Q. Dr. Holzman, do you have any opinions  
16 regarding the cause of Carolyn Yarborough's  
17 neurological deficits?

18 A. Not that I could state to what you would  
19 consider a reasonable degree of medical certainty.

20 Q. What opinions do you have that you are  
21 willing to express to a lesser probability?

22 A. I believe that she was suffering from the  
23 consequences of either a viral infection of her  
24 central nervous system or an allergic reaction to a  
25 viral infection in her central nervous system.

1                   I think it's also possible she was  
2 suffering from a family of diseases of the nervous  
3 system known as demyelinating disease, which  
4 include multiple sclerosis; as to which of the  
5 possibilities is the most likely possibility, I'm  
6 not sure I can venture an opinion on that.

7           Q.       Is it your opinion to a reasonable degree of  
8 medical certainty one of those entities you just  
9 enumerated was the cause of her neurologic  
10 deficits?

11          A.       Yes, but with the proviso that the third  
12 cause is a very large group of diseases.

13          Q.       When you state that she may have been  
14 suffering from the consequences of a viral  
15 infection of her central nervous system, can **you**  
16 attribute any organism as to the etiologic source  
17 for the virus?

18          A.       Given the time of year of the event, the most  
19 likely cause would be a virus in the family of  
20 viruses known as Enteroviruses, comprised of three  
21 broad groups of viruses known as Echovirus,  
22 Coxsackievirus and Poliovirus. Poliovirus causes  
23 poliomyelitis, the others are related organisms,  
24 related viruses.

25          Q.       Do any of those viruses you just outlined for

21 correct, there might or might not have been a need  
22 for continuing immunosuppressive therapy, that  
23 would be primarily related to the last  
24 possibility.

25 If things get worse you need to use

1 more anti-inflammatory suppressives, things get  
2 better, you bring it down, reduce it.

3 Q. Do you have an opinion as to  
4 Miss Yarborough's life expectancy had she survived?

5 A. No, I don't,

6 Q. Would you agree with me, Doctor,  
7 Miss Yarborough would not have survived a  
8 statistical life expectancy for a black female?

9 A. If we consider black females at age 51, the  
10 life expectancy of a black female at age 51, which  
11 was her age at the time, I would agree with the  
12 statement. I'm not sure I can go back and look at  
13 the life expectancy from birth.

14 Q. However, given her presenting symptoms and  
15 conditions at the time this occurred, you would  
16 agree that her -- that she would not have survived  
17 a statistical life expectancy of a black female?

18 A. Yes, I do agree with that.

19 Q. Do you have an opinion as to  
20 Miss Yarborough's mental status upon her admission  
21 in January to Saint Luke's?

22 A. Upon her admission on January 5th?

23 Q. Yes.

24 A. The January 5th admission?

25 Q. Correct.

1 A. Can I refresh my memory with a document?

2 Q. Certainly, Doctor, any time you want to refer  
3 to the document, please do so.

4 A. At the time that she presented on the 5th I  
5 think the records describe different levels of  
6 impaired consciousness. She was severely ill, I  
7 think some of the records describe her as being  
8 poorly responsive or responsive to pain. Others  
9 describe her as being somewhat more responsive.

10 Her mental status was affected by  
11 her illness at the time she presented, that is she  
12 had a severe infection, she was intoxicated by that  
13 infection. One way of describing that would be it  
14 was very active, delirious. She was not delirious  
15 in being overactive, she was underresponsive at the  
16 time she came in.

17 Q. You would agree with me, Doctor,  
18 Miss Yarborough's mental status was compromised, if  
19 I understand you correctly, due to her infection?

20 A. Well, some of the notes -- let me use the  
21 chief surgical resident as an example -- I'm sorry,  
22 I'm looking at the 1-9 admission.

23 MISS KOLIS: That's the one  
24 she is talking about.

25 A. That is the one you are talking about?

1 Q. Correct.

2 A. I said previously 1-5.

3 On the 1-9 admission the chief  
4 resident describes she is not responding to verbal  
5 stimuli; responding to pressure on the sternum  
6 which is a way of evoking a response to pain, so  
7 her mental state was depressed at the time she came  
8 in. I would not make a psychiatric diagnosis, this  
9 is a diagnosis of organic dysfunction of the  
10 brain.

11 Q. Do you have an opinion as to what was causing  
12 her compromised mental status as documented by what  
13 you just read to me from the surgical resident's  
14 progress note?

15 A. Yes.

16 Q. What is that opinion?

17 A. The opinion is that she was compromised by a  
18 severe episode of intra-abdominal bacterial  
19 infection.

20 Q. Dr. Holzman, do you have an opinion regarding  
21 Dr. Sonpal's standard of care as pertains to his  
22 care and treatment of Carolyn Yarborough?

23 A. I have an opinion.

24 Q. Do you have an opinion regarding Dr. Bass'  
25 standard of care as relates to his care and

1 treatment of Carolyn Yarborough?

2 A, Yes, I do.

3 Q. Do you have an opinion as to the mechanism  
4 that triggered or was the proximate cause of  
5 Miss Yarborough's death?

6 A. I would need to understand I think a little  
7 more about what is meant by the legal definition of  
8 proximate cause.

9 I think I have a good understanding  
10 what the medical causes were in her death, the  
11 underlying causes and the immediate causes. I'm  
12 not sure I can comment on whether that meets your  
13 definition of proximate cause or not.

14 Q. I'm going to revisit this subject.

15 Is it fair for me to summarize your  
16 testimony, you do have opinions **as** to what the  
17 cause --

18 A. I have opinions on the cause of her death,  
19 **yes.**

20 Q. Let me ask you first, Doctor, whether you  
21 have an opinion as to whether or not the employees  
22 of Candlewood Nursing Home acted within the  
23 accepted standard of care in their treatment of  
24 Miss Yarborough?

25 A. I did review their records. As far as I can

1 see they were acting within accepted standard of  
2 care for nursing homes.

3 Q. You indicated to me that you weren't certain  
4 about the legal definition of proximate cause.

5 A. I think that is correct.

6 Q. So is it fair to say then you've not had any  
7 training in law or attended law school?

8 A. That is correct.

9 Q. Do you have an impression as to what the term  
10 medical malpractice means?

11 A. Yes.

12 Q. What is your understanding of the term  
13 medical malpractice?

14 A. Broadly it is the causing of damage through  
15 negligence in the sense of neglecting to do  
16 something that a careful, prudent physician would  
17 do.

18 Q. Do you agree with me, Doctor, that different  
19 physicians, well trained, conscientious physicians  
20 can see a given patient, have different opinions  
21 how that patient is treated, none of them are  
22 necessarily committing malpractice?

23 A. Yes, I would agree with that.

24 Q. Do you agree then in the care and treatment  
25 of patients, in patients such as Miss Yarborough,

1 that physicians must make judgment decisions as to  
2 how a patient is treated?

3 A. Yes.

4 Q. You have indicated to me you do have opinions  
5 as to Dr. Bass, his standard of care in his  
6 treatment of Miss Yarborough.

7 Doctor, would you please tell me  
8 your opinion as to whether or not Dr. Bass  
9 committed medical malpractice in his care and  
10 treatment of Miss Yarborough.

11 A. Using the definition that I gave, I believe  
12 that he did.

13 Q. What do you believe constituted Dr. Bass'  
14 medical malpractice?

15 A. I believe that the essential part of it was  
16 the failure to evaluate the entire prior course of  
17 the patient in deciding on the presence or absence,  
18 or the possibility of the presence of  
19 intra-abdominal infection persisting after the  
20 surgery.

21 Q. Is there any other conduct on the part of  
22 Dr. Bass which you feel constituted medical  
23 malpractice?

24 A. I need to review my original report to make  
25 sure I haven't left anything out.

1 Q. Please do.

2 Am In the first report that I made, which is  
3 dated September 1st of 1997, I stated that  
4 Dr. Bass, to paraphrase, failed to call attention  
5 to the results of prior intraoperative cultures and  
6 the need for additional antibiotic coverage.

7 On my report of January 31st I  
8 stated that he deviated from generally accepted  
9 standard of medical care in accepting the surgeon's  
10 opinion the patient did not have ongoing  
11 intra-abdominal sepsis, based on his deposition.  
12 Consequently the limit of the consultation, the  
13 failure to look at the wound, the failure to  
14 evaluate in a comprehensive manner all the data I  
15 think is a restatement basically of what I said  
16 before.

17 Q. Am I correct your criticisms of Dr. Bass'  
18 conduct are three-fold: Failure to call attention  
19 to the prior intraoperative culture, failure to  
20 call attention to the need of the additional  
21 antibiotic coverage, failure to evaluate the entire  
22 prior case of the patient in deciding on the  
23 presence or absence of intra-abdominal infection?

24 Am I believe those are interlocked; but yes,  
25 that is the essence of it.

1 Q. If I can make it more succinct then: Is the  
2 essence of your opinion that Dr. Bass committed  
3 medical malpractice because he failed to look at  
4 the entire picture in rendering his consultation on  
5 this patient?

6 A. Yes, I think that is the essence of it.

7 Q. So then would I be correct to say, Doctor,  
8 that if Dr. Bass had considered Miss Yarborough's  
9 entire prior course of treatment and care, then he  
10 would have complied with the appropriate standard  
11 of care in rendering his infectious disease  
12 consultation?

13 A. That I have no way of knowing.

14 Q. I want you to assume for me that Dr. Bass had  
15 reviewed Miss Yarborough's prior course of care and  
16 treatment from the time of her admission until the  
17 time of his consultation.

18 Assuming that conduct by Dr. Bass,  
19 would you agree with me then that he complied with  
20 the accepted standard of care in rendering his  
21 infectious disease consultation?

22 A. No, I would not.

23 Q. Why not?

24 A. Because in addition to the act of reviewing  
25 the documentation in the course, there is also a

1 judgmental issue as to how to evaluate it.

2 I understand that there is a  
3 difference between differing opinions, differing  
4 judgment about a circumstance, I think that there  
5 is a point where judgment -- it goes to the  
6 question of what kind of judgment as I said, a  
7 prudent, careful physician would make.

8 I think in the circumstances that a  
9 review by a prudent, careful physician would have  
10 led to the judgment that additional antibiotics  
11 were warranted or at least investigation for  
12 further infection was warranted. My judgment is  
13 that a careful physician would have given  
14 additional antibiotics.

15 Q. Would you agree with me, Doctor, that the  
16 decision of whether or not to administer  
17 antibiotics following an evaluation of a patient's  
18 prior course is a judgment that does not  
19 necessarily constitute medical malpractice or  
20 medical negligence?

21 A. No, I wouldn't agree with that statement as  
22 you phrased it,

23 Q. Your opinion then, Dr. Bass' failure to  
24 administer antibiotics is not a judgment but rather  
25 an act that constitutes medical malpractice or

1 medical negligence?

2 A. His failure to recommend additional  
3 antibiotics and his failure to recommend additional  
4 evaluation of the abdomen is beyond a question of  
5 simple judgment about medical issues.

6 Q. What additional antibiotics in your opinion  
7 should Dr. Bass have recommended?

8 A. There isn't a single regimen which would be  
9 recommended to the exclusion of all others.

10 The general idea would have been to  
11 add or substitute antibiotics which were effective  
12 against the organisms which had been found both in  
13 the wound and in the abdomen at surgery.

14 Q. So in your opinion, Dr. Bass should have  
15 recommended a regimen of antibiotic treatment that  
16 would have included coverage for Enterococcus and  
17 Candida?

18 A. Yes.

19 Q. What additional evaluation of the abdomen in  
20 your opinion should Dr. Bass have undertaken?

21 A. There are a couple of things that could have  
22 been recommended,

23 I think the major one would be to  
24 suggest repeating the CT scan at some time. Since  
25 she just had one approximately three days earlier

1 if my memory serves, to repeat it at a suitable  
2 time in the future to assess the development of  
3 infection in the abdomen or progress of any  
4 infection in the abdomen.

5                   Depending on the wound examination,  
6 one might have recommended additional exploration  
7 of the wound. Since I didn't see the wound and  
8 Dr. Bass did see the wound, I don't consider his  
9 failure to make that recommendation a deviation  
10 from good standards of practice.

11 Q. Do you have any reason to disagree,  
12 Dr. Holzman, with the documentation of the  
13 physicians who saw this patient in describing the  
14 wound as healing?

15 A. It depends on where it's described in the  
16 chart over time. I have no real disagreement with  
17 the descriptions, I think the descriptions are  
18 consistent with an infection within the wound which  
19 was apparently responding to therapy.

20 Q. Before I go --

21 A. There are a number of descriptions that say  
22 that most of the wound is healing, there is a part  
23 of the wound in which the healing is poor, It's  
24 clear on the CT scan where the wound can be  
25 visualized that the wound is open, isn't a closed

1 wound , so there easily could be superficial  
2 infection on the wound or in the tissue around the  
3 wound ,

4 Q. Do you have an opinion to a reasonable degree  
5 of medical certainty as to whether or not there was  
6 a superficial infection in the wound?

7 A, I think to a very -- I think we can be very  
8 certain there was an infection in the wound at a  
9 point after the surgery, that that infection  
10 appeared to be coming under control. I think that  
11 is well described in the chart.

12 a. Before I move on, Doctor, I want to make sure  
13 I understand your opinions as it relates to  
14 Dr. Bass' management of Miss Yarborough.

15 Am I correct to say your opinions  
16 are that Dr. Bass acted below the standard of care  
17 in number one, failing to evaluate  
18 Miss Yarborough's entire course of treatment prior  
19 to his seeing her for consultation; number two, in  
20 failing to recommend a CT scan; number three, in  
21 failing to institute antibiotic therapy specific  
22 for Enterococcus and Candida?

23 A, I definitely agree with the first two. On  
24 the third, the question is who is responsible for  
25 instituting it.

1                   I think the failure is the failure  
2 to make a recommendation or discuss the  
3 possibility. I'm not sure he was writing orders in  
4 the chart and prescribing the antibiotics himself.

5 Q.       Understanding then that you have modified my  
6 third point to failure to recommend antibiotics  
7 specific for Enterococcus and Candida, have I  
8 accurately set forth your opinions relating to  
9 Dr. Bass' care and treatment of Miss Yarborough?

10 A.       Yes, you have.

11 Q.       Am I also correct that you do not hold an  
12 opinion as to whether or not Dr. Bass should have  
13 recommended additional exploration of the wound  
14 given that you did not see the wound?

15 A.       That is correct.

16 Q.       Dr. Holzman, have you physically reviewed the  
17 CT film we've been talking about?

18 A.       Yes, I have,

19 Q.       Do you agree or disagree with the  
20 radiologist's interpretation of that CT scan?

21 A.       Let me turn to the radiologist's  
22 interpretation **so** I can be sure, that was one area  
23 I wanted to call attention to.

24                   The CT talks about ascites  
25 throughout the abdomen with stranding of mesentery

1 fat. My understanding of the statement about  
2 stranding of the fat is that what you are seeing is  
3 fluid in the fatty tissue and spreading the fatty  
4 tissue, creating the strands.

5 If you look at the CT views, it  
6 appears to me that most of that is just below the  
7 wound in the area where the surgeons talk about the  
8 wound having an infection.

9 What bothered me about looking at  
10 the CT was given this lady's dosage of steroids, I  
11 felt the picture was not inconsistent with the  
12 possibility that there was more extensive infection  
13 under the skin. I would not make a stronger  
14 statement than that.

15 This is the kind of film, for  
16 example, that I would take and go back to the  
17 radiologist and say is there any possibility that  
18 this represents infection, as opposed to a simple  
19 fluid accumulation given she is on a high dose of  
20 steroids.

21 Q. Doctor, am I correct to say then that you  
22 would disagree that the CT scan is reassuring for  
23 this patient as it relates to her progress  
24 postoperatively?

25 A. Well, it's reassuring to the extent that it

1 doesn't show a large accumulation of pus; it's not  
2 reassuring in the sense that you can't give it  
3 great weight in excluding infection in the  
4 abdomen.

5 Q. Dr. Xolzman, I'm correct you are not a  
6 radiologist?

7 A. You are correct.

8 Q. I mean am I also correct you prefer reading of  
9 CM scans for diagnosis to a radiologist?

10 A. I think I just expressed that I would go and  
11 ask the radiologist.

12 Q. Forgive me for my redundancy, Doctor,  
13 sometimes things aren't as clear to me.

14 We have spoken about the three areas  
15 in which you are critical of Dr. Bass' conduct.

16 I'm going to return to the original question I  
17 asked you which prompted us to explore further your  
18 opinion.

19 My question is as related to the  
20 first area in which you are critical, that being  
21 Dr. Bass' evaluation of her prior course, would you  
22 agree with me that if Dr. Bass had reviewed her  
23 entire course of treatment, then to the extent that  
24 you are critical of his failure to do so, your  
25 opinion would change?

1       A.       The opinion as to whether he didn't review  
2       it, if there was evidence he did review, yes, my  
3       opinion would change.

4       Q.       Would I be correct in saying if he did review  
5       her entire prior course of treatment, then you  
6       would not have an opinion that he acted below the  
7       standard of care?

8       A,       With respect to that act, yes,

9       Q.       Again, because things aren't always as clear  
10       to me, if he had reviewed her prior course of  
11       treatment then his conduct would have been  
12       appropriate as relates to that criticism that you  
13       have?

14       A,       To the extent that my criticism is he failed  
15       to review. If it can be documented or proven he  
16       did review, I was provided with that documentation,  
17       I would change my opinion that that was failure to  
18       meet good standards,

19                       I would still be holding the  
20       opinion that having reviewed it, coming to the  
21       conclusion that no action was necessary falls below  
22       what I would consider borderline between a judgment  
23       call and a prudent medical practice,

24       Q.       What conduct in your opinion should Dr. Bass  
25       have undertaken to evaluate Miss Yarborough's prior

1 course of treatment?

2 A. I think he should have reviewed temperature,  
3 white count, culture results, CT scan measurements  
4 of renal and liver function that are present in the  
5 chart, the history of prior steroid usage, the  
6 current medications. There may be others, those  
7 are the things that come immediately to mind.

8 Q. As relates to your second point of criticism,  
9 that being that antibiotics specific for  
10 Enterococcus and Candida should have been  
11 administered, would your opinion change if  
12 Miss Yarborough had not been immunosuppressed  
13 because of corticosteroid medications?

14 A. My opinion as to the time the medication  
15 should have been administered might change based  
16 upon her presence or absence of steroid therapy. I  
17 think at the point Dr. Bass reviewed the chart it  
18 would not change.

19 The time that Dr. Bass was called  
20 in, regardless of whether she was or wasn't on  
21 steroid therapy, it would have been appropriate to  
22 make the recommendation.

23 Q. Why?

24 A. I can use a visual aid to show you why.

25 Q. Certainly.

1       A.       This represents a chart.

2       Q.       Hold on a second, I can't see your chart.  
3       Hold on one second.

4       A.       The chart really represents two features of  
5       her care. This is the time of admission and these  
6       are the days of hospitalization. Days of  
7       admission, this is her admission to the hospital  
8       and her surgery. Then this is the time of  
9       discharge.

10                   During this period of time the line  
11       that starts here represents her white blood cell  
12       count. The line that starts here represented her  
13       temperature. The line, this big arrow represents  
14       the duration of antibiotic usage.

15       Q.       Okay.

16       A.       Her temperature initially fell down to this  
17       level that represented, if I can, a temperature  
18       of -- oral temperature of about 97 and a half,  
19       which represents a rectal temperature of 98 and a  
20       half, which would be normal temperature.

21                   Shortly after it fell, a day or two  
22       later, the temperature went up again. The white  
23       count went up again, picked up here at **26,000**, if I  
24       remember right, then it fell; that occurred on the  
25       16th of January.

1 I think there are probably three  
2 critical decision points in the course of this  
3 patient that we're talking about.

4 The first critical decision point  
5 occurs on the 14th where the results of the  
6 cultures become available.

7 I think the second critical  
8 decision point occurs on the 16th, when her  
9 temperature rises again. The chart does not really  
10 document any new source of fever other than her  
11 original condition.

12 The third potential decision point  
13 is around the 22nd, which was when Dr. Bass did his  
14 consultation, at which time the white count was  
15 just starting to fall. You can see the temperature  
16 had just peaked again, that was right here.

17 My contention would be, and the  
18 reason, to go back and answer your question, given  
19 that she was on a high dosage of steroids, given  
20 that she did grow the Candida out of the initial  
21 culture mixture, my own belief is that it would  
22 have been appropriate to change the antibiotics on  
23 the receipt of the cultures; however, I do  
24 recognize there would be differences of opinion  
25 about this.

1                   On the 16th, when the temperature  
2 rises again, the white count rises again, I think  
3 that any prudent physician would have instituted  
4 treatment at that point, failing to find some other  
5 explanation for fever.

6                   When Dr. Bass came in, what I am  
7 essentially criticizing him for is reviewing this  
8 chart or reviewing the data from which the chart is  
9 obtained, failing to observe those, the persisting  
10 fever and the prior elevation in white count.

11 Q.       Doctor, would you please make available a  
12 copy of that chart to Miss Kolis?

13 A.       She has -- you have a copy.

14                   MISS KOLIS:                   Yes.

15 Q.       Doctor, could you tell me who created or  
16 developed that chart?

17 A.       I did.

18 Q.       I want to return to my original question,  
19 Doctor, which was whether or not you would be  
20 critical of Dr. Bass for failing to recommend  
21 antibiotic coverage specific for Enterococcus and  
22 Candida on the day he saw the patient if the  
23 patient was not immunosuppressed?

24 A.       I think the answer to that is that I would be  
25 critical of him whether or not the patient was

1 immunosuppressed at that point. I do have to say  
2 though that I have to condition that. This patient  
3 was immunosuppressed. It's very difficult for me  
4 to say if she were not immunosuppressed what she  
5 would have looked like on that day.

6 Q. Doctor --

7 A. Let me finish.

8 For example, part of her white  
9 count elevation is due to the steroid  
10 administration as well as to the presence of  
11 infection, so that someone with these white counts  
12 without steroids to boost them would be much more  
13 obviously thought of as having infection, would  
14 have been -- what I'm trying to say is that if you  
15 take out the steroids, don't change any of the  
16 clinical data, the patient looks much sicker than  
17 she would look if you know for a fact the clinical  
18 data, the laboratory tests are the same, she is  
19 receiving steroids.

20 Q. Let's talk about labeling that then.

21 How does immunosuppression affect a  
22 white blood cell count?

23 A. Immunosuppression may or may not affect the  
24 white blood cell count. Reduction in white blood  
25 cell below a certain level may be

1 immunosuppressive.

2 Steroids have an effect on the  
3 white blood cell count because they affect the  
4 ability of white blood cells to attach to blood  
5 vessels.

6 Normally in the blood stream about  
7 half the circulating white blood cells are not  
8 circulating, they are actually stuck on to the wall  
9 of blood vessels. What steroids do is release  
10 those white blood cells, resulting in approximate  
11 doubling of the normal white count.

12 Q. So if the patient is on steroids we would  
13 expect to see an elevation in white blood cell  
14 count?

15 A. Right. If you considered an average white  
16 blood cell count to be in the range of 7,500 to  
17 8,000, usually the range is 5 to 10, you might  
18 expect an average elevation of about 15,000.

19 Q. Is it not also true when a patient who is on  
20 steroids receives antibiotics, then that patient is  
21 also going to reflect perhaps a higher white blood  
22 cell count because of administration of  
23 antibiotics?

24 A. I think you may have misphrased that.

25 Q. I may.

1       A.       I do not agree with --

2       Q.       Correct my understanding of the relationship  
3       between the administration of antibiotics in a  
4       patient who is receiving corticosteroids.

5       A.       Antibiotics have no effect on the white cell  
6       count of an uninfected patient.  If you have a  
7       volunteer, you give them Penicillin or  
8       Tetracycline, it doesn't change the white count.

9                        If you have a patient who has an  
10       elevated white count because they have an  
11       infection, by treating the infection the  
12       antibiotics lower the white count.

13       Q.       Would you agree that the administration of  
14       antibiotics changes the microbial flora, has an  
15       impact on organisms?

16       A.       Yes, I would.

17       Q.       What impact does it have on organisms?

18                       THE WITNESS:               Do you want to  
19       make an objection?

20                       MISS KOLIS:               I want to make  
21       an objection.  I can tell by the look on his face  
22       he was puzzled by the question.  Do you want him to  
23       give, Marilena, a general medical explanation how  
24       the flora changes, or do you want it specifically  
25       in this case as to antibiotics she received?

1                   MISS DISILVIO:           I would like to  
2 know generally, then I'll talk about this case.

3                   MISS KOLIS:            That's fine.

4    A.       In general the administration of antibiotics  
5 in high dosage -- there is an impact of dosage as  
6 well as the spectrum of activity. The antibiotic  
7 inhibits the growth of those organisms that are  
8 normally found in the body, or at least many of the  
9 organisms normally found in the body along the  
10 gastrointestinal tract.

11                   Those organisms, including both  
12 bacteria and yeasts that are not affected by the  
13 antibiotics then are favorably affected by the  
14 absence of those other organisms, they have greater  
15 access to nutrients. They are not under the  
16 influence of inhibitory chemicals that are being  
17 produced by the other organisms, they can begin to  
18 grow and take up a greater proportion of the total  
19 number of organisms that are alive in the  
20 intestinal tract.

21    Q.       In this case, given the antibiotics that  
22 Miss Yarborough was given for 10 days, how did  
23 those antibiotics affect or change the microbial  
24 flora?

25    A.       I can only answer that in a generality since

1 there were no actual cultures that were done from  
2 the intestine that describe the measured changes.

3 One would anticipate that you would  
4 have an overgrowth of organisms that would be  
5 resistant to those antibiotics that she was given.

6 The two organisms that were found  
7 at her autopsy, and at her readmission to the  
8 hospital at the end of January are two examples  
9 that you would expect to find.

10 There are other organisms that  
11 would similarly be resistant to those, You could  
12 have a long list of organisms. The general  
13 principle is that organisms with -- against which  
14 those antibiotics lack activity, would be favorably  
15 influenced, would grow.

16 Q. Let's change the focus for a moment, Doctor,  
17 talk about Miss Yarborough's unfortunate death.

18 In your opinion, what was the  
19 direct precipitating cause of her death?

20 A. The cause of her death was complication of  
21 septic shock.

22 Q. What caused the septic shock?

23 A, Intra-abdominal infection due to Candida and  
24 Enterococcus.

25 Q. What is the significance of the positive

1 urine culture at Meridia Huron Road Hospital when  
2 Miss Yarborough was brought in on January 30th?

3 A. I believe that it's a concurrent infection  
4 that is of no relevance, a different organism I  
5 think.

6 Q. Why is it a different organism?

7 A. It has a different sensitivity pattern.

8 Q. Again, forgive my ignorance, Doctor, what  
9 changes the Enterococcus that is found at the time  
10 of death from the Enterococcus found in the urine  
11 culture?

12 A. I have another table. I don't know if you  
13 can focus in on that.

14 MISS KOLIS: You can read it  
15 to them. I'll send them a copy.

16 A. Basically in the medical record there were  
17 three Enterococcal organisms isolated on the 10th  
18 of January from the abdominal fluid.

19 There was the Enterococcus, that  
20 was identified as Enterococcus faecium, which is  
21 one of the three or four species of Enterococcus  
22 that are medically important; that organism was  
23 resistant to Penicillin. It was resistant to  
24 something called Streptococcal synergy testing,  
25 which I can describe if you want me to.

1                   The second isolet in the chart was  
2     **obtained from the blood on the 30th of the month,**  
3     it was also identified as Enterococcus but it was  
4     not identified to the level of a species, just to  
5     the level of genus. One can't say it was or wasn't  
6     Enterococcus faecium. That organism was tested to  
7     **Ampicillin,** a drug with the same activity as  
8     Penicillin, even more potency, it was resistant to  
9     the Ampicillin. Also resistant to Streptococcal  
10    synergy testing. It matched the one identified in  
11    the abdominal fluid earlier.

12                   The isolet in the urine was  
13    identified as Enterococcus, not speciated. That  
14    organism tested sensitive to Penicillin. It tested  
15    as sensitive in the Strep synergy test.

16                   Because of those two test  
17    differences I concluded it was more likely than not  
18    that that organism was a different organism than  
19    the organism in the blood stream. More likely than  
20    not it was a different organism than the organism  
21    in the abdominal fluid. That is why there was a  
22    urinary infection, I don't believe it played any  
23    role in this patient's demise.

24    Q.     Do you have an opinion as to whether or not  
25    the Enterococcus species found in the blood was the

1 same strand or species of Enterococcus found in the  
2 abdominal area?

3 A. I think more likely than not it was.

4 Q. You've indicated to me that it is your  
5 opinion Miss Yarborough's direct precipitating  
6 cause of death was a result of complication of  
7 septic shock due to intra-abdominal infection from  
8 Candida and Enterococcus; is that correct?

9 A. That's correct.

10 Q. Are you able to tell me, Doctor, which of  
11 those organisms, Candida or Enterococcus, was the  
12 trigger for Miss Yarborough's death, if at all?

13 A. I'm not sure I can separate them out, say one  
14 was more important than the other. I think they  
15 both were important organisms. I'm not sure I can  
16 say one was more important than the other.

17 Q. How is Candida a mechanism for death?

18 A. The answer to that is fairly complicated and  
19 not fully known.

20 Candida can produce a clinical  
21 state very similar to that produced by bacteria  
22 that are called gram negative bacteria on the basis  
23 of their ability to stain with a certain color with  
24 a stain that is used in a microbiology lab and  
25 visualized. They produce an activation -- they

1 produce as a result of the sugar molecules that  
2 coat the capsule of the yeast an activation in the  
3 blood clotting system of the body, an inflammatory  
4 response that results in the body producing  
5 substances known as cytokines, which actually  
6 produce tissue damage.

7                   Death is the consequence of  
8 activation of these systems without control in the  
9 body. The result of that is the inability of the  
10 body to maintain its circulation, the blood  
11 pressure drops, the vital organs that depend on  
12 blood for their oxygen supply, such as the brain,  
13 kidney, liver, virtually all the tissues of the  
14 body die because they can't get enough oxygen.

15 Q.       What is the mechanism by which Enterococcus  
16 causes death?

17 A.       Broadly a similar mechanism again. The  
18 chain, it's not a completely known chain of events,  
19 every biochemical reaction in this has not been  
20 worked out. Broadly speaking, by growing and  
21 producing chemicals that arouse the body's  
22 inflammatory responses, to an extent that the body  
23 cannot regulate those responses, the body kills  
24 itself.

25 Q.       Am I correct to understand that when bacteria

1 causes death, we classify that as **septicemia**?

2 A. Septicemia is a term which generally means  
3 two things: The presence of usually **bacteria** in  
4 the blood, if it was a yeast in the blood then we  
5 call it fungemia.

6 There is a distinction made between  
7 bacteremia, which means the presence of bacteria in  
8 the blood, and septicemia which is the presence of  
9 bacteria in the blood combined with the systemic  
10 reaction illness that results as a consequence from  
11 it. When the illness progresses to the point the  
12 body can't maintain its blood pressure it is septic  
13 shock.

14 Q. Can we agree Miss Yarborough had septicemia?

15 A. Yes.

16 Q. We can agree she had the presence of bacteria  
17 in her blood, not the presence of fungus in her  
18 blood?

19 A. We can agree on that.

20 Q. What is Candidiasis?

21 A, It's not one thing. Candidiasis is a term  
22 which means disease produced by Candida,

23 At one extreme Candidiasis could be  
24 overgrowth of Candida in the mouth resulting in a  
25 disease called thrush. At the other extreme

1 disseminated Candidiasis is a disease in which  
2 Candida gains access to the blood stream, causes  
3 abscesses throughout the body.

4 There is a whole spectrum of  
5 diseases between those two extremes, all of which  
6 fit under the term Candidiasis.

7 Q. In your opinion did Miss Yarborough have  
8 Candidiasis?

9 A. She had disease due to Candida. I would not  
10 have termed it Candidiasis. I think she had an  
11 intra-abdominal abscess due to Candida. I would  
12 not have said she did not have a disseminated  
13 Candidiasis if that is the import of the question,  
14 I don't believe she had that disease.

15 Q. Doctor, if we know that Miss Yarborough had  
16 septicemia as manifested by Enterococcus in her  
17 blood culture, isn't it fair to say it's more  
18 likely than not Enterococcus was the triggering  
19 organism that led to her death?

20 A. No. No, in my experience it is not unusual  
21 to have a mixture of organisms in an abdominal  
22 infection, only have one or two of those organisms  
23 actually gain access to the blood stream. I think  
24 in fact that was the case on her admission if you  
25 compare her initial blood cultures on the 9th and

1 the 10th to the results of the cultures in the  
2 abdomen at that time, I think that is a fairly  
3 typical situation.

4 Q. So that it's your opinion that her cause of  
5 death was a result of two organisms contributing to  
6 an abdominal infection?

7 A. At least two organisms, may have been other  
8 organisms present that weren't cultured at the time  
9 of her second admission, I'm not sure, if I can go  
10 back to my report.

11 Q. Let me refocus my question, Doctor.

12 I'm trying to determine and  
13 understand is it your opinion that as it relates to  
14 the cause of death the findings noted on blood  
15 culture are essentially insignificant because they  
16 did not cause or contribute to her death?

17 A. No, the organism that was present in the  
18 blood culture contributed to her death. It was not  
19 the only organism that contributed to her death.

20 Q. What is septic splenitis?

21 A. The condition -- it's usually an autopsy or  
22 radiologic term for a large congested spleen that  
23 is found during the course of an infection, Part  
24 of the systemic response to the body's response to  
25 infection.

1 Q. Is that more likely due to the bacterial  
2 infection or more likely due to fungal infection,  
3 or can you give me an opinion as to that?

4 A. I don't think you can make that distinction.

5 Q. Do you agree with me, Doctor, all infections  
6 are associated with residual persistent organisms?

7 A. That all infection are?

8 Q. Residual persistent organisms?

9 A. No, I don't agree with that.

10 Q. Why not?

11 A. Because I don't think there is evidence that  
12 it's true.

13 Q. Do you agree with me the existence or  
14 nonexistence of Candida in the wound does not  
15 indicate what is going on in the abdomen itself?

16 A. I would agree with that.

17 Q. Do you agree with me where cellular immunity  
18 is compromised there is increased severity of  
19 infection?

20 A. You have to define severity for me in that.

21 Q. In the manner that I have just stated it  
22 though, you can't agree or disagree with that  
23 statement?

24 A. I can't agree or disagree with it the way you  
25 stated.

1 Q. Do you agree with a patient with Candida with  
2 an indwelling catheter will have a spontaneous  
3 resolution simultaneous with the removal of the  
4 catheter?

5 A. Many will, a few won't. I've actually  
6 published on that.

7 Q. Do you agree this patient, Carolyn  
8 Yarborough, was at risk for developing a super  
9 infection if antibiotics had been administered to  
10 cover for Enterococcus?

11 A. Absolutely. She was at risk for it had they  
12 not been administered to cover the Enterococcus.

13 If you are asking -- let me ask a  
14 question because I'm not sure I understand the  
15 question you are asking.

16 She was at risk for super infection  
17 whether or not she was treated with the additional  
18 antibiotics. The question is are you asking a  
19 general question or are you asking me whether or  
20 not she was at increased risk compared to the  
21 situation had they not been administered?

22 Q. Let's go back a step.

23 You agree with me she was at risk  
24 for super infection?

25 A. I do.

1 Q. Am I to understand that it's your testimony  
2 that her risk was greater than the risk of super  
3 infection had additional antibiotics not been  
4 administered?

5 A, Given that the antibiotics would be continued  
6 for the same period of time, I don't believe she  
7 would have been at a higher risk had her antibiotic  
8 regimen been changed.

9 She got 10 days of antibiotic  
10 therapy; had that therapy been continued for a  
11 longer period, her risk of super infection would  
12 have risen; had they been switched on the 14th,  
13 16th or 22nd, continued for the same period of  
14 time, whatever it might be, I don't believe there  
15 would be a substantial alteration in the increase  
16 in risk.

17 Q. Do you have an opinion as to whether or not  
18 Carolyn Yarborough would have succumbed to sepsis  
19 if even she was treated with antibiotics sensitive  
20 to Enterococcus and an antifungal?

21 A, At what point?

22 Q. Let's go back to the third point you  
23 identified.

24 A. Okay.

25 Q. I believe you identified three critical

1 decision points. On January 14th?

2 A. Correct, 16th and 22nd.

3 Q. If antibiotics specific to Enterococcus and  
4 Candida had been started on that day, do you have  
5 an opinion as to whether or not she would have  
6 succumbed to sepsis anyway?

7 A, I think had they been switched it's more  
8 likely than not she would have survived had she  
9 been treated on the 14th.

10 Q. Let's look to the 16th now.

11 I'm asking you the same question,  
12 if antibiotics had been changed to include  
13 antibiotics that cover for Enterococcus and Candida  
14 on the 16th, would Carolyn Yarborough have  
15 succumbed to sepsis?

16 A. I think again at that point more likely than  
17 not she would not.

18 Q. Asking you the same question about  
19 January 23rd, do you have an opinion whether or not  
20 Carolyn Yarborough would have succumbed to sepsis  
21 even if she had been treated with antibiotics  
22 sensitive to Enterococcus and Candida on  
23 January 23rd?

24 A. I think more likely than not she would have  
25 but I have to say there it is close, I think I

1 have to say if you ask me at that point is her  
2 survival likelihood better than 50/50, I think it  
3 probably was.

4 Q. At what point does her survivability become  
5 less than 50/50?

6 A. I think on her readmission, probably in the  
7 day before her readmission, which would be the 29th  
8 and 30th, if I have the dates right.

9 Q. Correct.

10 Doctor, would you agree with me on  
11 January 23rd when Dr. Bass saw this patient, her  
12 white blood cell count was on a downward trend?

13 A. Yes, I would agree with that.

14 Q. Would you agree with me that her surgical  
15 wound was indeed healing on the day that Dr. Bass  
16 saw the patient, January 23rd?

17 A. Most of it was healing. It did appear to be  
18 a superficial infection in the wound at the time he  
19 saw it, or at least he called it surface  
20 contamination.

21 Basically his impression of the  
22 wound was if there was infection there, infection  
23 here being growth of bacteria, it was out on the  
24 surface. I would agree that the wound was  
25 healing. It wasn't a healed wound, it was in the

1 process.

2 Q. Do you agree with me on the day that Dr. Bass  
3 saw the patient, January 23rd, that she was  
4 generally looking well, despite the fact she had  
5 undergone a serious surgery and was at risk for  
6 death simply from her bowel perforation?

7 a. I would agree with that. I would also  
8 comment that's a well known effect of steroids.

9 Q. Would you agree with me on the day that  
10 Dr. Bass saw this patient on January 23rd, a CT  
11 scan had been obtained three days earlier which was  
12 reassuring regarding this patient's progress?

13 A. Only to the limited extent I think I  
14 commented previously. It was only reassuring to a  
15 very limited extent. I would qualify my agreement  
16 with you on that.

17 Q. Would you agree with me that on the day that  
18 Dr. Bass saw this patient, that her clinical  
19 picture did not indicate signs or symptoms  
20 consistent with an infection?

21 A. I can consult --

22 MISS KOLIS: Something you  
23 don't understand?

24 A. I want to consult the record. I want to take  
25 a look at that chart, if I could.

1                    Could you repeat the **question**  
2                    again, I want to be precise.

3                    **Q.**        Given those factors that we just talked  
4                    about, the white blood cell count, the wound  
5                    healing, generally appearing well, the CT scan,  
6                    et cetera, would you agree with me that on  
7                    **January 23rd**, the only day Dr. Bass saw this  
8                    patient, her clinical picture did not indicate  
9                    signs of infection?

10                   **A.**        I would agree with you on that day there were  
11                   no signs of infection.

12                   **Q.**        Would you agree with me that in removing  
13                   Miss Yarborough's Foley catheter, ordering repeat  
14                   urine culture, Dr. Bass' conduct was appropriate?

15                   **A.**        I would agree.

16                   **Q.**        Dr. Holzman, do you consider  
17                   Miss Yarborough's white blood cell counts to be  
18                   reliable in evaluating her for signs and symptoms  
19                   of infection?

20                   **A.**        Can I ask what you mean by reliable?

21                   **a.**        Would you look to her white blood cell count  
22                   if you were evaluating this patient to determine  
23                   whether or not she had signs and symptoms of  
24                   infection?

25                   **A.**        Yes, if they were interpreted with knowledge

1 of her steroid usage at the time.

2 Q. Help me to understand, would I then expect to  
3 see a higher white blood cell count in a patient  
4 like Miss Yarborough if she was brewing an  
5 infection?

6 A. You might.

7 Q. What do you mean by might?

8 A. Might not.

9 Q. Why is that?

10 A. Some patients will -- I already said that  
11 steroids raise the white count. You can have an  
12 elevation beyond the steroid effect in the presence  
13 of severe infection, you can have no apparent  
14 elevation in the presence of infection.

15 There are two things that one has  
16 to look at when one is looking at the blood count.  
17 One has to look at the balance in the blood stream  
18 between production rates and removal rates. If  
19 removal rate exceeds production rate the white  
20 count goes down.

21 That's the -- let me show you again  
22 the diagram I did originally. Just again this is  
23 her admission record. Steroids were begun back  
24 here, continued through the time she was in the  
25 hospital. The time she came in her white blood

1 cell count was down below 5,000. The white blood  
2 cell count rose, continued to rise so you didn't  
3 see the steroid effect you would expect in somebody  
4 without infection from steroids until about the  
5 14th of the month.

6 She was clearly infected here. We  
7 know she had a big infection in her abdomen at that  
8 time because they opened it, found it, cultured  
9 it.

10 The reason the white count is low  
11 is that the demand to move white blood cells into  
12 that area of infection exceeded her marrow's  
13 ability to put white blood cells into the stream.  
14 Like emptying a sink, having a faucet running. If  
15 you are emptying faster than the water is pouring  
16 in, the sink will empty; if you are pouring water  
17 in the sink faster than you are emptying the sink,  
18 the sink will overflow, that is what happened with  
19 the white blood cell count.

20 If you look at the differential  
21 white blood cell count during this interval, you  
22 see they show a tremendous increase of immature  
23 white blood cells, that is the marker of the bone  
24 marrow pushing its reserves into the blood stream.  
25 That's what happened in this case.

1                   So the woman had severe infection,  
2 her white cell count was down. What I'm trying to  
3 say to you is it isn't the simple interpretation of  
4 the white cell count up, infection; white cell  
5 count normal, no infection. You also have to look  
6 at what is happening in the marrow, what is  
7 happening to demand, whether there is what is  
8 called in the differential a shift to the left,  
9 which is an increase in the number of immature  
10 forms in the blood stream.

11 Q.       Of course, Doctor -- I'm sorry, I'm going to  
12 let you finish.

13 A.       Okay. I'm finished.

14 Q.       You also want to look at the patient,  
15 correct?

16 A.       Yes.

17 Q.       When Miss Yarborough was admitted to Meridia  
18 Huron Hospital, she was infected, correct?

19 A.       When she was admitted to the nursing home on  
20 the 30th.

21 Q.       That's correct?

22 A.       Yes, she was infected.

23 Q.       Do you agree her white blood cell count of 44  
24 on that day was consistent with infection?

25 A.       Yes, I do.

1 Q . Had you seen this patient on January 23rd  
2 instead of Dr. Bass, other than what he did, what  
3 additional steps would you have taken?

4 A. It's a hypothetical question, I guess. It's  
5 very difficult to put myself in that position  
6 without knowing what went on subsequently since I  
7 do know what went on subsequently.

8 In trying to put myself in that  
9 position as best I can, which is I think part of  
10 what I was asked to do as a consultant in  
11 evaluating Dr. Bass' conduct, I think that I would  
12 have recommended additional treatment, additional  
13 investigation.

14 Q. What specific additional treatment would you  
15 have recommended?

16 A. I think that I would have recommended the  
17 reinstatement of -- it would depend, it's a complex  
18 answer what I would have recommended depending  
19 somewhat on what I know about at the institution  
20 and at the particular hospital, Different  
21 hospitals have a different pattern of sensitivity  
22 among organisms, different germs have different  
23 importance in a hospital's infection.

24 One regimen that I would  
25 potentially have recommended would have been the

1     addition of or the reinstatement of **Gentamycin**  
2     The institution of a drug known as Ampicillin,  
3     Sulbactam, commercially known as Unasyn.   **A drug**  
4     known as Fluconazole or Diflucan.   I probably would  
5     have recommended treating with those drugs for  
6     seven days or so and repeat the CT scan.

7     Q.     What is your opinion as to when the abdominal  
8     infection which you attribute to the cause of  
9     Miss Yarborough's death began to develop?

10    A.     Began to develop at the time the perforation  
11    occurred.

12    Q.     Was she treated at any time during the  
13    hospital admission for either of those two  
14    organisms?

15    A.     No.

16    Q.     Why then is it, Doctor, that Miss Yarborough  
17    did not present as an ill patient before  
18    January 30th if she was never treated for the two  
19    organisms which ultimately led to her demise in  
20    your opinion?

21    A.     Why didn't she present as an ill patient.   I  
22    think she did present as an ill patient.   I don't  
23    find any problem in the timing of these  
24    infections.   I think there was evidence that as  
25    soon as they stopped the antibiotics that the

1 infection began to grow.

2 Q. If I understand correctly, while those  
3 antibiotics were being administered it allowed for  
4 the proliferation of organisms that were not --  
5 that those antibiotics did not target, correct?

6 A. That's correct.

7 Q. Those antibiotics did not target **Enterococcus**  
8 and *Candida*, correct?

9 A. That's correct.

10 Q. So then those organisms would have continued  
11 to proliferate even more so in the presence of  
12 antibiotics, correct?

13 A. But they may not have started as a primary or  
14 major component of the infection. Indeed they  
15 almost certainly weren't a major component of the  
16 infection on the 9th or 10th of January.

17 Q. Certainly as the antibiotics were being  
18 administered those organisms proliferated?

19 A. Right. And typically they would become a  
20 problem five to eight days after or even a little  
21 longer after the initial event, that is I think  
22 exactly what happened here.

23 Q. Why then is it we don't see the white count  
24 of 44 that we see at the time Miss Yarborough  
25 admitted to Meridia Huron five to eight days after

1 the event?

2 A. Because you can have an intra-abdominal  
3 infection present, active and causing problems  
4 without having septicemia. There is not an  
5 inconsistency there.

6 Lots of people who develop the  
7 kinds of infections that this lady showed at her  
8 autopsy have quite prolonged courses without  
9 septicemia. It's entirely possible that what  
10 happened was that somewhere around the 28th or  
11 29th, at the time she was in the nursing home, that  
12 an infection was relatively contained in her  
13 abdomen, that is in the area around the liver, as  
14 it was shown at autopsy; broke through the wall of  
15 tissue that was containing it as part of the  
16 natural history of the infection, spread to the  
17 rest of her peritoneum, where a new additional  
18 inflammatory response occurred, which caused fluid  
19 to come into the belly out of her blood stream,  
20 lower her volume of blood, lower her blood  
21 pressure, permitted organisms to grow and resulted  
22 in the septicemic symptoms that caused her  
23 admission to the hospital.

24 Q. As we speak in the realm of possibilities,  
25 Doctor, isn't it also possible that subsequent to

1 transfer to the nursing home these organisms  
2 **escaped** from Miss Yarborough's jejunum in the  
3 presence of the transmural ischemia that **developed?**

4 A. My reading of the autopsy results makes that  
5 less likely. I think that it is more **likely than**  
6 not that the findings in the jejunum were secondary  
7 **to the loss of blood** pressure that resulted in her  
8 brain death, resulted in death of other tissues in  
9 her body.

10 Q. Is it also not true -- it is more likely than  
11 not that we would expect to see what occurred at  
12 Meridia Huron on January 30th to have occurred five  
13 to eight days following the initial soilage of the  
14 peritoneum?

15 A. No. No, that is not what I said. What I  
16 said was that these organisms would manifest  
17 themselves as a secondary or super infection, which  
18 is what the term super infection means; second  
19 episode of infection with new germs about five to  
20 eight days later, I believe that that is what is  
21 happening.

22 I believe that there was a  
23 persisting low grade fever that occurred following  
24 an initial response, I think that is an absolutely  
25 classical finding for persisting intra-abdominal

1 infection.

2 Q. Other than the persisting low grade fever,  
3 what other proof do you have that there was the  
4 super infection going on five to eight days after  
5 initial soilage?

6 Q. After the antibiotics were discontinued there  
7 was a progressive change in differential cell  
8 counts, I can illustrate that as well. I have a  
9 second chart which I can show you.

10 This chart shows a bar for each day  
11 and the bar represents 100 percent of the  
12 circulating cells. The three different patterns  
13 represent the really three broad classes of blood  
14 cells.

15 The first two represent the two  
16 types of polymorphonucleated leukocytes, the  
17 infection fighters. The darker pattern represents  
18 immature forms. The lighter pattern the mature  
19 forms. The cells, other cells in the blood that  
20 are not actively ingesting cells that help to fight  
21 infection in less direct ways are this top group  
22 here. Each bar adds to 100 percent.

23 Across that I've put a graph of the  
24 white blood cell counts, total white blood cell  
25 count. You can see when she came in there was a

1 very low white blood cell count and of those the  
2 bulk of them are infection fighters. The bulk of  
3 them are young ones. This shows what a tremendous  
4 demand on the bone marrow this infection is  
5 making.

6 As time continued the white cell  
7 count rose, the proportion of cells that are mature  
8 cells dropped down. You can see that the balance  
9 reflects two things.

10 First off the marrow has some  
11 ability to turn itself up to improve its work,  
12 second, the infection was coming under control. It  
13 was severe, it became milder with the advent of  
14 antibiotics and surgery, There is evidence of  
15 improvement here.

16 There were a couple of episodes  
17 where there was fever, the white count rose, there  
18 was an increase in juvenile cells in between,  
19 that's what I'm talking about in terms of the  
20 manifesting of intra-abdominal infection  
21 secondarily.

22 The antibiotics were stopped around  
23 the 20th. Gentamycin I think continued through the  
24 21st a little bit. At this point at which  
25 antibiotics are stopped you can see it's also the

1 point where the white count begins to fall. Also  
2 the point immature cells begin to increase. I  
3 think this chart reflects the ongoing presence of  
4 intra-abdominal infection, documents that the  
5 infection began to get worse when the antibiotics  
6 were discontinued.

3 MISS DISILVIO: Doctor, could  
8 we take a break for a few moments, please.

9 THE WITNESS: Sure could.

10 MISS ROLIS: Thanks, I need  
11 one,

12 -----

13 (Recess had.)

14 -----

15 BY MISS DISILVIO:

16 Q. Doctor, have we seen all of the charts you  
17 have prepared or developed?

18 A, I actually have made a couple of others, they  
19 reduplicate the data. There is nothing -- for  
20 example, I made a line chart of the bar chart that  
21 I just showed you, There is no additional  
22 information of substance that I have to present,

23 The answer is you've seen all the  
24 information which has been graphed. I graphed the  
25 same information in different ways.

1 MR. GOLDWASSER: Donna?

2 MISS KOLIS: Yes ,

3 MR. GOLDWASSER: Can we pick up  
4 a copy of those charts first thing tomorrow  
5 morning?

6 MISS KOLIS: Yes, you can.

7 MR. GOLDWASSER: What time is  
8 the earliest they will be available?

9 MISS KOLIS: I should be in  
10 the office tomorrow morning by about quarter after  
11 9:00.

12 MR. GOLDWASSER: We will have  
13 somebody there shortly thereafter if you don't  
14 mind.

15 MISS KOLIS: I don't mind.

16 MR. GOLDWASSER: Thank you so  
17 much.

18 MISS KOLIS: You're  
19 welcome.

20 BY MISS DISILVIO:

21 Q. Dr. Holzman, you reviewed Dr. Lerner's  
22 deposition, correct?

23 A. Yes, I have.

24 Q. I'm not going to quote you the entirety of  
25 the deposition, I'll represent to you that

1 Dr. Lerner testified that the usual circumstance an  
2 infectious disease person gets called in on a case  
3 such as that of Miss Yarborough, where the count  
4 remains elevated or persistently climbing, in a  
5 patient who looks as though he or she is doing well  
6 otherwise, that this is the single most important  
7 part of this case, which is that several days after  
8 antibiotics were discontinued at a time when  
9 Dr. Bass was asked to evaluate the patient her  
10 white blood cell count was coming down; do you  
11 agree with Dr. Lerner's statements?

12 A. I would agree that the scenario he describes  
13 as someone who was looking well, has a rising white  
14 count is a common reason for a consultation. It is  
15 certainly not the most common reason in my  
16 experience. It is a common reason.

17 I have to get to the second part of  
18 that, there was a second part of your question that  
19 dealt with Dr. Bass, I'm not sure I understood it.  
20 Maybe you could rephrase that part.

21 Q. Essentially Dr. Lerner's statement refers to  
22 the fact that Dr. Bass' conduct was entirely  
23 appropriate given that when he evaluated this woman  
24 she was looking well and her white blood cell count  
25 was coming down, which is contrary to the typical

1 picture as we just discussed of an immunosuppressed  
2 patient where the white count is elevated and the  
3 patient is looking well?

4 A. I would disagree with the usual situation of  
5 an immunosuppressed patient.

6 Inasmuch as I don't think I  
7 criticized Dr. Bass' conduct for his evaluation of  
8 the patient on that day, I would -- I didn't find  
9 any fault with that. I don't know how to respond  
10 to the question. It wasn't the ground on which I  
11 faulted Dr. Bass. It may be true he looked at the  
12 patient, said the patient looked good, the wound  
13 looks good, that wasn't the substance of my  
14 criticism.

15 Q. He looked at the patient, said the patient  
16 looks good, the white blood cell count is coming  
17 down, my recommendation is pull the Foley catheter,  
18 recheck the urine culture, may start Fluconazole,  
19 Dr. Lerner says that is appropriate, I take it you  
20 disagree?

21 A. Well, I think I already testified I disagree  
22 with the antibiotic management. I agreed with  
23 everything else.

24 Q. Dr. Holzman, what do you do as an associate  
25 professor of environmental medicine at NYU?

1 A. That is an associate professor of medicine  
2 and environmental medicine. I have two  
3 appointments in two departments.

4 I do several things. First off I  
5 administer the training program in infectious  
6 diseases. I'm senior infectious disease physician  
7 at Bellevue Hospital. I hold the title of hospital  
8 epidemiologist there, which means that I'm in  
9 charge of their infection control program. I'm  
10 responsible for surveillance for the hospital  
11 infection, infection control policies. I see  
12 patients with complicated infectious diseases, I  
13 train Fellows, conduct research.

14 Q. What do your appointments entail at Bellevue  
15 Hospital?

16 A. I work largely full time at Bellevue. As I  
17 say I manage for the director of the department the  
18 training program. We have a training program that  
19 trains six Fellows in infectious disease as  
20 subspecialists each year, three in each year. I  
21 would make rounds with the Fellows, see the  
22 patients, they will present cases to me, we go see  
23 the patients, we decide on management.

24 I also have responsibilities for  
25 setting policies in the institution for everything

1 as diverse as waste disposal to hand washing to the  
2 air conditioning system.

3 I have a number of committee  
4 appointments at the hospital. I chair the  
5 formulary committee, co-chair the infection control  
6 committee. I sit on a number of other hospital  
7 committees.

8 Q. What we've talked about now, that is all at  
9 Bellevue, correct?

10 A. That's all Bellevue.

11 Q. What about Tisch, if I'm pronouncing that  
12 correctly?

13 A. My only responsibility at Tisch is I'm a  
14 member of their infection control committee. I  
15 don't practice at Tisch. When they have an unusual  
16 infection I might go over, teaching conference of  
17 some sort, My clinical work is entirely at  
18 Bellevue.

19 Q. You do not do any clinical work at NYU; is  
20 that correct?

21 A. Bellevue is the major teaching hospital of  
22 New York University.

23 Q. I'm sorry, I didn't understand that,

24 So you're faculty --

25 A. Tisch Hospital is the University Hospital at

1 the **medical** center. There are three **hospitals** in  
2 the campus. Bellevue, Tisch and the Manhattan VA  
3 Hospital.

4 Q. You see patients at Bellevue?

5 A. I do.

6 **a.** Is it fair to say your focus in infectious  
7 disease is on epidemiology and environmental  
8 medicine?

9 A. No, actually my focus -- well, my real focus  
10 is on opportunistic infections in compromised  
11 hosts, what tools I bring to the strong interest in  
12 epidemiology.

13 The appointment in environmental  
14 medicine was two years ago, based on work I did in  
15 the environmental control of tuberculosis. What my  
16 real -- my training is in immunology and  
17 immunodefense **as** well as in environmental issues.

18 Q. Your focus in opportunistic infections in  
19 compromised hosts deals mainly with HIV based on  
20 your publications?

21 **A.** Since **1980** it did. The last four or five  
22 years I've been dealing with environmental  
23 tuberculosis and tuberculosis in hospital in New  
24 York has been very important. My major focus  
25 throughout is in hospital acquired infection.

1                   I started when I left my  
2 Fellowship, I started working as Bellevue's  
3 assistant epidemiologist, which again the  
4 epidemiology here is a monitoring of patterns of  
5 hospital acquired infections and management of  
6 hospital acquired infections.

7       Q.       Dr. Holzman, have you published any articles  
8 which are directly related to the subject matter  
9 which forms the basis of this lawsuit?

10       A.       One article I think which is indirectly  
11 related that is in the early 1970's, review of  
12 fungal endocarditis, comprised about a third of the  
13 world's literature on endocarditis at the time it  
14 occurred. In the context of doing that I did a lot  
15 of library research on Candida, of various sorts of  
16 management of Candida. It's relevant. It's quite  
17 old, but it's relevant.

18       Q.       That's listed in your curriculum vitae, that  
19 article?

20       A.       I believe it is. Do you have a copy of my  
21 CV? It would be -- actually there are a couple of  
22 other articles that relate to it as well. Number  
23 12, "Candida Endocarditis and Acute Candidiasis  
24 after Gastrointestinal Surgery." I don't recall at  
25 this point if that is a full article or abstract.

1                   Then item 10, "Fungal Endocarditis:  
2 Medical and Surgical Therapy in 29 Cases."

3                   Number 17, "Fungal Endocarditis, an  
4 Analysis, 24 Cases."

5 Q.       Any others?

6 A,       I guess you could argue that some of the  
7 initial description of AIDS that I was involved  
8 with had aspects of Candidiasis in it. AIDS  
9 patients were subject to Candidiasis. I suppose  
10 are not related to this, I suspect the other  
11 articles are. Looking back over the titles I don't  
12 think most of these other articles relate.

13 Q.       Dr. Holzman, on how many occasions have you  
14 been called upon to consult on medical/legal cases?

15 A,       You mean by lawyers outside of the hospital?  
16 I sit on the risk management committee in the  
17 hospital, I have for probably 10 to 12 years, In  
18 that context I see lots of potential litigated  
19 cases and litigated cases.

20 Q.       Circumstances like the one right now, you are  
21 asked by an attorney to look at the chart?

22 A.       That is different. In that circumstance for  
23 the last two years it's probably been five to eight  
24 times each year. In the eight or nine years prior  
25 to that, probably been one or two times.

1 Q. One or two times per year?

2 A. Yes.

3 Q. Are you listed with any professional registry  
4 or clearinghouse of experts?

5 A. No.

6 Q. How is it you came to be contacted by  
7 Miss Kolis to review this lawsuit?

8 A. She actually contacted the director of our  
9 department who referred her to me.

10 Q. Of the five to eight cases that you review  
11 per year, how many of those are on behalf of the  
12 plaintiff and how many of those are on behalf of  
13 the defendant?

14 A. It's close to 50/50. I actually do not have  
15 at this point a track of that.

16 Q. When was the last time you reviewed a case on  
17 behalf of the defendant physician or defendant  
18 hospital?

19 A. I'm doing that now. There is a case which is  
20 actually in trial now.

21 Q. Doctor, how much will you be charging us for  
22 your time in testifying today?

23 A. \$300 an hour.

24 Q. That's the same rate that you charge  
25 Miss Kolis to review the records in this case?

1 A. No, I charge less for reviewing records, \$250  
2 an hour.

3 Q. This year, Doctor, since the beginning of  
4 1998, how many patients have you seen or provided  
5 consultation for with circumstances such as those  
6 Miss Yarborough presented with on January 23rd?

7 A. Now you are asking as a clinician, not a  
8 legal reviewer?

9 Q. That's correct.

10 A. As a clinician?

11 Q. Correct.

12 A. Since January 1st?

13 Q. Correct.

14 A. Probably four or five with significant  
15 intra-abdominal infections. I don't recall that  
16 steroid usage was a factor in any of them.

17 Q. Did you order antibiotic treatment for  
18 polymicrobial infections in each of those four to  
19 five infections?

20 A. The way the system works I'm not usually the  
21 one who actually does the ordering. I generally  
22 would make recommendations, other people will do  
23 the ordering.

24 The answer, to expand the question  
25 a little, in most of those cases I reviewed what

1 was being done, either made suggestions for change,  
2 or validated what was being done.

3 MISS DISILVIO: Mr. Goldwasser  
4 represents Dr. Sonpal in this lawsuit, I'm going  
5 to give him the opportunity now to ask you  
6 questions. I thank you for your time.

7 MR. GOLDWASSER: Can you see me,  
8 Doctor?

9 THE WITNESS: I can see you.

10 -----

11 CROSS-EXAMINATION

12 BY MR. GOLDWASSER:

13 Q. Doctor, it's my understanding you are of the  
14 opinion Dr. Steven Bass in part is responsible for  
15 Miss Yarborough's death in February of 19 -- what  
16 was it, '96; is that correct?

17 A. Yes, I think that is correct.

18 Q. Is it also your opinion that Dr. Sonpal, my  
19 client, is in part responsible for  
20 Miss Yarborough's death?

21 A. I think that is correct too.

22 Q. Why?

23 A. Because as I previously testified, it's my  
24 belief that had both of those individuals taken  
25 different actions than were taken, the outcome

1 would more likely than not have been different.

2 It's my further belief from the  
3 chart that a careful, prudent physician would have  
4 taken different actions.

5 Q. What did Dr. Sonpal who was the attending  
6 physician do or not do which constitutes  
7 medical malpractice?

8 A. I believe that he failed to institute  
9 antibiotic therapy to cover the bacteria that were  
10 identified in the infection at the time when the  
11 evidence that the infection was being treated  
12 satisfactorily was not present.

13 Q. When was that time?

14 A. My original report, I think that I identified  
15 that time as the 14th and 16th of the month of  
16 January.

17 I also in my report made some  
18 additional statements as to how I felt he deviated  
19 from accepted standard of medical care in the sense  
20 that the deposition testimony demonstrated that he  
21 had not fully evaluated her at the time of  
22 discharge.

23 The testimony also demonstrated  
24 that he was not aware of the impact of the use of  
25 steroids in the patient, didn't apply that

1 knowledge which he should have had in the  
2 evaluation of the patient's condition.

3 Q. What is the distinguishing feature about  
4 corticosteroids which should have alerted  
5 Dr. Sonpal to a course of treatment?

6 A. Not to put too fine a point on it, to say it  
7 as simply as possible, steroids mask the signs of  
8 intra-abdominal infection.

9 Q. Dr. Sonpal knew what the intra-abdominal  
10 infection was; did he not?

11 A. He knew what the infection was.

12 Q. Doctor, can we state in fairness that the  
13 organisms of Enterococcus and Candida which were  
14 cultured out of the abdomen in fact are organisms a  
15 surgeon would expect to see in the presence of a  
16 perforated bowel; isn't that true?

17 A. You would expect to see Enterococcus very  
18 regularly. Candida might not be so common.

19 Q. Common enough?

20 A. Given the location of the perforation.

21 Q. Was it common enough to be a surprise in the  
22 presence of a perforated bowel not to see Candida?

23 A8 Yes, it's common enough not to be a surprise.

24 Q. Candida is frequently found within the bowel;  
25 is it not?

1       A       It is.

2       Q.       So whether she was on corticosteroids or not,  
3       Dr. Sonpal certainly knew what organisms were  
4       present when he operated on January 10th, did he  
5       not; isn't that a reasonable assumption?

6       A.       He knew what organisms are likely to be  
7       present, He didn't know what organisms actually  
8       were present and growing until he had the culture  
9       results,

10      Q.       He knew what was likely to be present, he got  
11      the culture results, it reconfirmed that which is  
12      likely to be present, right?

13      A.       It did more more than reconfirm, it  
14      demonstrated that certain organisms were present,

15      Q.       Doctor, I don't mean to be dancing around a  
16      bush here, it demonstrated certain organisms to be  
17      present, certain organisms which Dr. Sonpal would  
18      not have been surprised to have been present in  
19      view of the fact that he operated on a perforated  
20      bowel, correct?

21      A.       I would agree with that.

22      Q.       Would you agree that Dr. Sonpal rightly or  
23      wrongly in your opinion, made the judgment decision  
24      not to treat those cultured out organisms; would  
25      you agree?

1       A.       I would agree he made that decision.

2       Q.       It is your opinion that decision was  
3       unacceptable; am I correct?

4       A.       My opinion that judgment was based on  
5       inadequate knowledge.

6       Q.       Why do you say that?

7       a.       Because of Dr. Sonpal's deposition testimony,  
8       page 55, page 51, page 56 that was cited in my  
9       report.

10      Q.       Hypothetically, Doctor, let's assume this  
11      patient was not receiving corticosteroid therapy,  
12      if hypothetically that had been true would that  
13      have been acceptable judgment not to have treated  
14      the organism of Enterococcus and Candida?

15      A.       Given all other facts the same as they are  
16      here or given a hypothetical patient that might  
17      have looked somewhat different?

18                               I'm not sure I can answer that  
19      question because this patient was on steroids, that  
20      conditions certain aspects of her chart, her  
21      laboratory data.

22                               As I told the other lawyer in my  
23      deposition to her, if in fact I had a patient who  
24      wasn't on steroids who postoperatively the white  
25      count rose to 20,000, I would be very concerned

1 about the presence of intra-abdominal infection.

2 If the patient looked good, had a  
3 white count of 15,000, I knew the patient was on  
4 steroids, I think I would be very careful. I  
5 wouldn't regard that white count with the same  
6 gravity that I would if I knew the patient wasn't  
7 on steroids. I have a hard time with the  
8 hypothetical. You want to revise the hypothetical  
9 to some other patient, I can get to it.

10 Q. As an infectious disease person or physician,  
11 is it your opinion that this patient, whether she  
12 was on corticosteroids or not, should have been  
13 treated with antibiotics sensitive to Enterococcus  
14 and Candida on January 14th?

15 A. It would have been my preference to do so, I  
16 agree with the statement that many surgeons would  
17 not do so.

18 Q. Why do you agree with that statement that  
19 many surgeons would not do so?

20 A. Because I agree. I do agree that it isn't  
21 always necessary to treat every organisms one  
22 identifies. One should evaluate the patient in  
23 coming to a conclusion as to whether or not one  
24 should treat particular isolets or to maintain  
25 empiric therapy in a situation such as on

1 the 14th.

2 Q. Why is this patient unique? Why is this  
3 patient one in which the surgeon in your opinion  
4 did not have the right in accordance with  
5 acceptable standards of care to have elected not to  
6 treat the organisms?

7 A. On the 14th?

8 Q. Yes,

9 A. I thought I just said.

10 Q. It was okay?

11 A. I didn't agree that he didn't have the right  
12 not to do it.

13 Q. I misunderstood.

14 On the 14th it was acceptable  
15 judgment not to treat these organisms?

16 A. Yes. Not a judgment I agree with. Not a  
17 deviation from accepted standard to make that  
18 judgment.

19 Q. Why do you disagree that is acceptable  
20 judgment on the 16th?

21 A. Because on the 16th there was a recurrence of  
22 fever, the temperature did not stay normal; because  
23 the white count rose beyond what I would consider  
24 to be within the bounds of steroid effect,

25 Q. Between the 16th and 23rd of January was the

1 patient demonstrating clinical improvement?

2 A. I'm not sure I would say she demonstrated  
3 improvement as opposed to stability. I don't think  
4 there was a big change in her clinical status over  
5 that interval. She had persisting low grade  
6 fevers, she had intermittent -- she had a  
7 persistently elevated white count. I'm not sure I  
8 can make a distinction of white count between  
9 steroid effect and presence of infection. I think  
10 the evidence in the differential count was that  
11 there might be an element of infection during that  
12 period.

13 Can I refer, make sure I've got the  
14 dates right? I would like to look at the chart.

15 Yes, the 19th looks like about  
16 8 percent bands present. During the interval I  
17 would say there was suggestive evidence that there  
18 was infection.

19 Q. You are basing that on the fact there is an  
20 increase in bands?

21 A. And presence of fever and description of  
22 infection in the wound, even though the infection  
23 in the wound doesn't look too serious.

24 Q. Did that differential continue to be elevated  
25 beyond an acceptable reference range between the

1 date you just gave -- what was that date you just  
2 gave me?

3 A. I'm sorry, you don't have it there. The  
4 reference range for the hospital is given as zero  
5 to 5 if I remember correctly. Clearly at the time  
6 of admission it was elevated above that level. On  
7 the 19th elevated above that level. At the time of  
8 discharge, the last two days prior to discharge it  
9 was elevated above that level. So that would be  
10 the 19th, 24th and 25th.

11 Q. Well, Doctor, on the 17th the bands are 1,  
12 right?

13 A. That's correct. Give me **back** the chart so I  
14 can follow it.

15 Yes, that's correct.

16 Q. That's a reassuring sign, isn't it, lab  
17 study?

18 A. Not **as** reassuring **as** the 19th. These change  
19 rapidly. The changes in the blood stream evolve,  
20 they evolve rapidly, not over days but over  
21 hours --

22 Q. Sure on the 20th --

23 A. -- so that you may not --

24 Q. Doctor, on the 20th the bands are 1; the 21st  
25 the bands are 1; 22nd the bands are 2; on the 23rd

1 the bands are 3; all within the acceptable  
2 reference range, are they not?

3 A. Yes, but they form a pattern. If you look at  
4 the one outside of the separate range, it is a  
5 fairly consistent rise. You can connect those  
6 points with a very nice line. I have another graph  
7 where they are connected with a very nice line.

8 Q. Doctor, in fairness, when you evaluate the  
9 standard of care of a physician perspective  
10 rather than with the benefit you have of hindsight,  
11 you've got a patient here in which the bands are  
12 within the normal range, maybe going up one, going  
13 up another one over a course of three days, white  
14 blood count is now dropping, returning to close to  
15 normal range in a patient who is on  
16 corticosteroids; you've got a temperature chart  
17 which is demonstrating a low grade temperature,  
18 you've got a patient who feels well, looks well,  
19 who was close to death just a few days earlier;  
20 doesn't that within reason give a physician  
21 encouragement to suggest hey, I don't think this  
22 patient needs antibiotics at this point?

23 A. I think that ignores the fact the patient was  
24 receiving a sizeable dose of corticosteroids. I  
25 don't think that -- the answer to that is no, it

1 doesn't entitle him to do that because the effect  
2 of corticosteroids is to make all those things look  
3 that way. They are well known to do that.

4 Q. Corticosteroids don't typically influence a  
5 decrease in white blood cell count, do they?

6 A. Typically the white blood cell count  
7 decreases in peculiarity. The steroid dose wasn't  
8 changed, the white blood cell count was dropping  
9 during the period of time,. it's dropping for a  
10 reason other than steroids.

11 Typically if you put someone on  
12 steroids, their count goes up and it stays, So  
13 that the explanation for the drop has to be  
14 accounted for it. It's not the steroids that are  
15 dropping them.

16 Q. Forgive me, it's me,. not you.

17 A. Okay.

18 Q. You just said, if I understood you correctly,  
19 that the attending physicians must take into  
20 account the patient's clinical presentation based  
21 upon the fact she is on corticosteroids; did you  
22 not?

23 A. That's correct.

24 Q. I thought we had agreed that generally  
25 speaking the patient receiving corticosteroids will

1 demonstrate an elevation in the white blood count;  
2 is that true or not true?

3 A. I think I testified previously that the  
4 expectation is that I will take a normal blood  
5 count and double it.

6 Q. Now, my brain says to me here I've got a  
7 patient on corticosteroids, as a general  
8 proposition when a patient is on corticosteroids  
9 the white blood count will be elevated. Here I've  
10 got a patient on corticosteroids, her white count  
11 is coming down. Why should that not be reassuring  
12 to a surgeon?

13 A. Because it should be stable.

14 Q. What is stable?

15 A. It shouldn't be coming down.

16 Q. It should remain what, at what level?

17 A. 10 to 20,000.

18 Q. But it was coming down from 26,000?

19 A. Can I have the chart back?

20 One of the problems I think we're  
21 having is that I'm not sure I'm making any  
22 accusations of failure to act properly at this  
23 point. I'm not sure where we're going.

24 What you've got here is on the last  
25 two days abnormal differential counts. There is a

1 drop here, here is a fairly level white count  
2 during this period of time that we're discussing,  
3 then the white count began to drop.

4 At the time the white count began  
5 to drop the number of juveniles began to rise.  
6 What I'm saying is that this is not consistent with  
7 the effect of steroids. The effects of steroids if  
8 the white count here is elevated because of  
9 steroids, they should have stayed there.

10 When the count drops like this it  
11 should not be taken as a sign of improvement  
12 because the steroids ought to be keeping them up  
13 here. There is a problem with interpreting this as  
14 steroid effect or improvement in the patient.

15 If you are saying it's improvement  
16 in the patient, you are saying this elevation that  
17 went on from the 18th to the 23rd reflected ongoing  
18 infection in the patient, this represents  
19 improvement because the infection was getting  
20 better.

21 The fact is the patient went off  
22 antibiotics on the 20th, back here. So if you are  
23 arguing that, you have to argue the patient was  
24 infected the 20th, 21st and 22nd, was not being  
25 treated for the infection.

1 Q. The white blood count did remain at a  
 2 reasonably stable level, did it not, until  
 3 the 23rd?

4 A. Yes, it did.

5 Q. Then on the 23rd Dr. Bass comes in as an ID  
 6 physician to offer a consultation to the surgeon,  
 7 correct?

8 A. That's correct.

9 Q. Doesn't the surgeon have a right to rely upon  
 10 the advice that he is receiving from the ID expert?

11 A. Does he have a right to rely on it? He has a  
 12 right to rely on it. That right, as I understand  
 13 it, doesn't obviate his responsibility to act as an  
 14 independent agent. He has his own responsibilities.

15 Q. Doctor, if he's going to have all those  
 16 responsibilities, why even bother getting somebody  
 17 like you with your expertise to look at the patient  
 18 if he's not going to respond to the ID expert  
 19 saying keep off all antibiotics, why in the course  
 20 of practice --

21 A. I don't recall that I rendered any criticism  
 22 of him doing that. I don't think that was the  
 23 issue here, that I did not criticize Dr. Sonpal for  
 24 not listening or ignoring Dr. Bass' advice.

25 Q. You are criticizing him for not ordering

1       antibiotics sensitive to Enterococcus and Candida;  
2       are you not?

3       A.       Yes, I am at specific points in time other  
4       than the ones we're discussing.

5       Q.       So the one date that we can agree on, if I  
6       hear you correctly, in which Dr. Sonpal deviated  
7       from the standard of care was January 16th?

8       A.       Again, if you look at the chart you say what  
9       could be done differently at what point, those were  
10      the critical points.

11                    If something happened on the 16th,  
12      wasn't corrected on the 17th, the problem still  
13      exists, it hasn't gone away; but what you are  
14      asking me now is was Dr. Sonpal's response to the  
15      consultation note appropriate. As far as I can see  
16      his response to the consultation was appropriate.  
17      I didn't say it wasn't.

18      Q.       That his substandard care stopped?

19      A.       No.

20      Q.       Why not? If it's acceptable to -- perfectly  
21      appropriate for a surgeon to follow the advice of  
22      his ID consultant, why would you state that as of  
23      January 23rd Dr. Sonpal's malpractice continued?

24      A.       First off, because Dr. Bass' remarks were  
25      directed to the wound infection, not to the

1 potential treatment of additional intra-abdominal  
2 infection.

3           Second off, because Mr. Sonpal's  
4 deviations from good medical practice, as I call  
5 it, malpractice as you or the lawyers for the  
6 plaintiff would call it, were those or his  
7 unawareness or the nature and effect of the steroid  
8 therapy that persisted through the  
9 hospitalization.

10 Q. I want to turn your attention to the jejunum  
11 and ischemia described by the postmortem examiner.  
12           If I understand correctly it's your  
13 opinion that that ischemia was secondary to the  
14 lack of perfusion, which was in turn caused by the  
15 infarction process; is that true?

16 A. I think my deposition testimony earlier was  
17 that it is more likely than not that is the case.  
18 Q. Doctor, if that be so, why is not there a  
19 more global ischemia involving the bowel rather  
20 than being limited to a certain small portion of  
21 the jejunum?

22 A. My experience with pathology in this is  
23 limited in people with ischemic colitis who don't  
24 die, but who have vascular insufficiency in the  
25 colon. It's not unusual to have skip areas or

1       limited areas.  Those areas with the most  
2       compromised circulation are affected, other areas  
3       where the circulation is less compromised are not  
4       affected.

5                                Again, it doesn't necessarily  
6       surprise me if there is no major obstruction to the  
7       entire mesenteric artery that is feeding the  
8       intestine that the ischemia, bowel death would be  
9       local rather than diffuse.

10      Q.       I hear your answer, I don't understand it, so  
11      we're going to discuss it a little more.

12      A.       Okay .

13      Q.       I assume you consider yourself an expert on  
14      the subject we're now discussing?

15      A.       I have the expertise I think of a general  
16      internist.  I'm not a gastroenterologist, I'm not a  
17      vascular surgeon, I am an internist.

18      Q.       The reason that there is evidence of jejunal  
19      ischemia is because that portion of the bowel  
20      tissue is dying because of lack of adequate  
21      perfusion of oxygenated blood; isn't that true?

22      A.       Ischemia is a term that means lack of  
23      adequate blood supply.  Infarction is the term when  
24      that blood supply becomes so inadequate that the  
25      tissue dies.

1                   So if you say that jejunal  
2 ischemia -- what you are saying is that the tissue  
3 is compromised, that there are areas which are in  
4 the process of dying or being damaged by lack of  
5 oxygen or lack of a blood supply.

6       Q.       Does the superior mesenteric artery supply  
7 all the arterial blood to the bowel, to the  
8 intestine?

9       A.       I don't know the answer to that.

10      Q.       If I understand your opinion, you are saying  
11 that in the presence of inadequate perfusion  
12 secondary to infectious process, it's not unusual  
13 to have but a 5 centimeter portion of the bowel  
14 affected?

15      A,       That wasn't what I said. What I said was  
16 that in my experience in conditions where there is  
17 low flow to the intestine, there is ischemia of the  
18 intestine due to low flow, the patient is alive;  
19 it's not usual or it's common to find skipped  
20 areas, common to find areas of ischemia.

21                   MISS KOLIS:                I need to  
22 interrupt both of you for a second.

23                   MR. GOLDWASSER:            Yes.

24                   MISS KOLIS:                We have a  
25 slight problem. The gentleman who runs the office

1 handed me a note, evidently you scheduled this  
2 video conference for 10:00, to at the latest  
3 12:30. They have another group who needs to be in  
4 here. Do you want me to step out in the hall to  
5 see what I can do to correct the situation?

6 MR. GOLDWASSER: See if they can  
7 give us another 15 minutes.

8 MISS KOLIS: I'll be right  
9 back.

10

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11

(Recess had.)

12

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13 BY MR. GOLDWASSER:

14 Q. Doctor, we're going to change the subject  
15 from the jejunum,

16 Tell me, sir, did you need your  
17 charts that you prepared to figure this case out?

18 A. Did I need them to figure the case out? Not  
19 for the most part, no, The charts that I prepared  
20 were primarily to document the extent of the  
21 abnormalities, The data in the chart is in the  
22 laboratory records and the progress notes. I did  
23 need the chart of temperatures to really know what  
24 is going on in the sense that I'm not used to  
25 converting in my head from Celsius to Fahrenheit.

1     **Ve use Fahrenheit here.**

2                   **That aside,** and I don't think that  
3     the chart and the fact that -- no, the answer is  
4     **that** is it. I think that is the only thing I  
5     really relied on in making judgments about the  
6     case.

7     Q.     Did the chart help you figure this case out?

8     A.     I think they illustrated it. If you are  
9     asking me whether they assisted me in forming the  
10    conclusions that I formed in my report, the answer  
11    to that is no, because the only chart that I think  
12    I made up to that time had to do with the  
13    temperature. So the answer would be that they  
14    didn't other than convert the temperature from  
15    Celsius to Fahrenheit.

16    Q.     Dr. Holzman, why did Carolyn Yarborough not  
17    die while at Saint Luke's Hospital?

18    A.     Why did she not die at Saint Luke's  
19    Hospital?

20    Q.     In view of the fact that Enterococcus and  
21    Candida were present from at least January 10th up  
22    to the time of her death, why did she not die while  
23    at Saint Luke's Hospital?

24    A.     Because her body was fighting the infection  
25    with partial success.

1 Q. How does a body fight infection with partial  
2 success in view of the extent of her  
3 immunosuppression or compromise from steroids?

4 A. People on steroids have less inflammatory  
5 responses than people who aren't on steroids. They  
6 have simple inflammatory response.

7 This patient looking at the autopsy  
8 results developed abscesses which are the body's  
9 way of trying to wall off infection in the area  
10 where bacteria or yeasts or a mixture of the two  
11 are growing.

12 White blood cells are brought to  
13 that area, they die, the materials within them  
14 attract other white blood cells. They **also** attract  
15 cells that begin to create new tissue. A capsule  
16 of connective tissue begins to form around this  
17 area of infection and that is what creates what we  
18 call an abscess, as opposed to a cellulitis or  
19 peritonitis; that wall constitutes a certain  
20 barrier to prevent access of the germs to the  
21 circulation of the body into the other tissues in  
22 the body. Abscess formation would be the major way  
23 that the peritoneal cavity fights to limit  
24 infection.

25 Q. Doctor, if that be true, I have no reason

1 obviously to disagree with your comments, you are  
2 the expert, in view of the fact that it is probable  
3 this patient did not have an abscess formation at  
4 least as of January 20th, my question again is:  
5 Wow is it that an immunocompromised patient is able  
6 to have her body fight off virulent bacteria like  
7 Enterococcus and fungal Candida without antibiotics  
8 or antimicrobial medication?

9 A. The only answer I can give you is that it  
10 does. This woman is not an isolated event. These  
11 things happen, there is good documentation of them,  
12 it certainly has happened in my experience. There  
13 is not a good reason to say that she would have had  
14 to have developed sepsis and died because she  
15 wasn't on antibiotics and these organisms were  
16 present.

17 Q. What happened on January 30th which caused  
18 the sudden change in her condition?

19 A. I'm not sure if it happened on the 30th or  
20 not. The chart at the nursing home reports an  
21 event a day or two earlier where she complained of  
22 some pain, which they describe as chest pain, a  
23 very short period of low blood pressure that  
24 responded to her being put to bed.

25 It is entirely possible that at

1 that point in time a rupture of the abscess around  
2 her liver occurred, that the worsening that  
3 occurred in her development of septic shock on the<sup>e</sup>  
4 30th was a consequence of that. I offered that as  
5 an opinion about what happened. I haven't said  
6 that it is a certain opinion. It is to me a  
7 plausible explanation for what happened.

8 Q. Do I understand that just by way of  
9 explanation, that if the abscess had never  
10 developed, this patient would not have died from  
11 sepsis secondary to the Enterococcus and Candida?

12 A. No, I would say that a little differently. I  
13 think had the abscess not developed the patient  
14 might well have died sooner. That the question  
15 that you originally asked, why did she not die  
16 sooner, was answered by because she was fighting  
17 the infection. The manifestation of her fighting  
18 the infection was the localizing of the two  
19 abscesses.

20 Q. Absent the presence of an abscess,  
21 hypothetically absent other signs and symptoms of  
22 an underlying brewing infection, the clinician  
23 would have a reasonable basis to feel confident  
24 that his patient was satisfactorily progressing; is  
25 that not true?

1 A. I don't know absent -- let me hear -- absent  
2 the presence of -- absent a clinical finding of --  
3 no, the answer to that question is no.

4 The problem is that the use of  
5 steroids in the doses that this patient received  
6 makes it difficult or impossible to be sure that an  
7 infection is not present in the abdomen regardless  
8 of the patient's symptoms. Also, regardless at the  
9 time of that CAT scan on the 19th or 20th or of the  
10 presence or absence of definable abscess at that  
11 point in time.

12 Q. We discussed before we broke this morning the  
13 subject of white blood counts being elevated  
14 secondary to corticosteroids?

15 A. Yes, sir.

16 Q. You, I believe, correct me if I'm wrong,  
17 obviously you will, have agreed that generally  
18 speaking steroids will cause the white blood count  
19 to increase; correct or incorrect?

20 A. That's correct.

21 Q. What in this case I think you were alluding  
22 to when we broke, I wasn't following you, what in  
23 this case caused the white blood count to come  
24 down?

25 A. Well, I believe that what caused it to come

1 down was a demand for white blood cells in excess  
2 of the marrow's ability to produce them.

3 I believe that the source of that  
4 demand was the process of forming the  
5 intra-abdominal abscesses that were found at her  
6 autopsy. I think the increasing numbers of  
7 juvenile leukocytes in the blood is the clinical  
8 evidence that the changes are due to increased  
9 demand and secondarily to increased production,  
10 that is production increases as a function of  
11 demand.

12 Q. Isn't that analysis which you just  
13 articulated stated with the benefit of hindsight in  
14 this case, Doctor?

15 A. Isn't the analysis -- well, it depends when  
16 you make the analysis.

17 What I'm saying is that if you ask  
18 me to stand at the bedside or a nurse's station on  
19 January 25th, look at the laboratory data, say the  
20 white count had been dropping, there is a shift to  
21 the left which is increasing, then I think that is  
22 a reasonable conclusion to come to, that is a  
23 situation I have found myself in many times  
24 clinically.

25 Q. Is that something that a general surgeon

1 would find himself confronted with many times  
2 clinically?

3 A. I would expect so, yes.

4 Q. How do you know that?

5 A. I said I would expect so. I don't know what  
6 any particular general surgeon would be familiar  
7 with or exposed to in a sense of white counts.  
8 This pattern of declining white count, increasing  
9 shift to the left as I've called it, is a common  
10 pattern to see in patients with infection,  
11 including intra-abdominal infections that are  
12 managed by surgeons and extra-pleural infection  
13 managed by surgeons, so that I would expect that  
14 the typical general surgeon would be familiar with  
15 that pattern as a manifestation of infection,

16 Q. Even in patients who are not on steroids?

17 A. Yes.

18 Q. Decreased white blood count, increase in  
19 bands?

20 A. Yes, sir.

21 Q. It is your opinion, is it not, that Candida  
22 contributed to causing Carolyn Yarborough's death?

23 A. It is,

24 Q. Is Candida cultured out of blood?

25 A. I'm sorry. Are you asking can Candida be

1       cultured off the blood or was it in this case?

2       Q.       No.  If Candida is present in sufficient  
3       quantity in the blood, would it be cultured out?

4       A.       It might be cultured out, there are  
5       subtleties in it in the sense that it would grow in  
6       the same culture tube as let's say Enterococcus or  
7       some other bacteria would.

8                        If the bacteria were a much faster  
9       growing organism that might be detected first,  
10      Candida might be missed.

11                      Also the Candida might be inhibited  
12      depending on what organisms was growing in addition  
13      to it.  In theory, yes.  In practice it might not  
14      be.

15      Q.       Was Candida present in this patient's blood  
16      on January 30th?

17      A.       Was not found in her blood on the 30th.

18      Q.       Was Candida ever present in her blood from  
19      the 30th to the time she died?

20      A.       Well, you can only tell -- answer that  
21      question based on the few times there were blood  
22      cultures taken.  If you ask me my professional  
23      opinion to a reasonable degree of medical  
24      certainty, I think that there were times when  
25      Candida was in her blood stream; since cultures

1 weren't taken, it can't really be proven.

2 Q. Since it can't be proven, on what basis do  
3 you conclude with reasonable medical certainty that  
4 Candida contributed to causing her death?

5 A. Findings at autopsy, my general knowledge of  
6 infectious disease.

7 Q. Would you agree with the proposition if  
8 Candida was not present in her blood it would not  
9 have caused her death?

10 A. No, I would not agree with that.

11 Q. Tell me, explain to me how physiologically  
12 Candida can cause somebody's death if it's not  
13 present in their blood?

14 A. I described to you the process by which  
15 bacterial and fungal infection causes death,  
16 uncontrolled activation of inflammatory processes  
17 and clotting in the body, that process can be  
18 engendered at sites outside the blood stream. It  
19 is not necessary to have organisms in the blood  
20 stream. There are many circumstances in which  
21 people do die of septic shock without organisms in  
22 their blood stream.

23 Q. In this case, what sites outside of the blood  
24 stream were infected by Candida?

25 A. I believe that there were two abscesses, Let

1 me refresh my memory with the autopsy. Hang on one  
2 second.

3 Talking about the final diagnosis  
4 in the autopsy is right anteroposterior  
5 subdiaphragmatic abscesses containing organisms  
6 consistent with Candida species.

7 Now, the spaces that are being  
8 talked about there are the spaces between the front  
9 of the liver and the diaphragm, which is the muscle  
10 that separates the chest and abdominal cavity and  
11 posterior of the liver and diaphragm. The liver  
12 is -- the top of the liver is roughly  
13 hemispherical, normally in close opposition to the  
14 diaphragm.

15 When fluid pushes the two apart,  
16 gets walled off by the process that I describe,  
17 it's called a subdiaphragmatic abscess, diaphragm  
18 meaning the diaphragm, those would be the two  
19 spots.

20 Q. So how does the presence of Candida in those  
21 two spots cause a patient's death?

22 A. I said the answer to that already.

23 Q. The liver is clearly not involved. The  
24 pathologist describes that the liver may have  
25 Candida abscess around it, the liver itself is not

1       infected with Candida?

2       A.       But there is an adjacent large surface of  
3       mucous membrane, peritoneum which is a surface of  
4       moist skin very like your mouth, very like the rest  
5       of the intestinal tract, that area is an area in  
6       which infection can spread and gain access to the  
7       blood stream.

8       Q.       In this case there is no proof that it gained  
9       access to the blood stream; isn't that true?

10      A.       I'm sorry. What we're talking about the  
11      gaining access to is not the germs but the  
12      inflammatory mediators that the germs have caused  
13      the production of. Those are not necessarily held  
14      back by an abscess.

15      Q.       So if I understand what you are saying, even  
16      in the absence of the germ Candida in the blood  
17      stream, the inflammatory response can be carried  
18      from the blood stream to critical organs of the  
19      body; is that what are you saying?

20      A.       That's correct.

21      Q.       Now, which critical organs of the body in  
22      this case were affected by the inflammatory  
23      response?

24      A.       Circulatory system, Those are the blood  
25      vessels.

1 Q. What else?

2 A. Well, there is some evidence that the heart  
3 can be affected.

4 Q. Was it?

5 A. We didn't find such evidence in this case,  
6 no.

7 Q. Was there evidence that the blood vessels  
8 were affected in this case?

9 A. Yes,

10 Q. What evidence?

11 A, Blood pressure.

12 Q. Any other organs in this case?

13 A. The other organs are primarily affecting  
14 consequences of the effect on the circulatory  
15 system,

16 Q. What we are saying is the organ affected by  
17 the inflammatory response in this case was a blood  
18 vessel?

19 A, That is the one where the primary evidence  
20 is, yes. I can't tell whether or not other organs  
21 were affected primarily or secondarily, but that is  
22 what is apparent in the protocol,

23 Q. Doctor, you understand this is a very  
24 important lawsuit for those doctors being sued. I  
25 trust you'll be fair, not speculate on what might

1 ke. You are only going to testify to that which  
2 you are certain?

3 A. I do understand. I'm trying to give an  
4 accurate impression of the degree of confidence I  
5 have in my statement.

6 Q. So we have concluded then in fairness,  
7 intellectually the only organ in Carolyn Yarborough  
8 that was affected as a consequence of an  
9 inflammatory response to the germ Candida was her  
10 blood vessels; is that a fair statement?

11 A. No, it's not a fair statement. I have to  
12 amend that because it -- also the brain is also  
13 affected by the mechanism by which temperature is  
14 produced, involves the effect on the brain and I  
15 have to qualify the statement that you are making  
16 which is a very narrow one, which leaves off the  
17 idea that the circulatory system itself affects all  
18 of the other systems to which blood is delivered.

19 So while it might be that the  
20 circulatory system is the primary system that is  
21 affected, there are blood vessels in the lungs,  
22 there are blood vessels in the abdomen, blood  
23 vessels in the brain, blood vessels in the kidney,  
24 every organ in the body is affected by this  
25 change.

1 Q. So now we've got the brain and the blood  
2 vessels affected as the critical organs in this  
3 case?

4 A. What do you mean by critical organs, sir?

5 Q. Organs that are required to function to  
6 sustain life. You've got to have your brain  
7 function to sustain life, correct?

8 A. You have to have certain parts of the brain  
9 to sustain life.

10 Q. I understand.

11 You need your heart?

12 A. You need your heart, that's correct.

13 Q. You need your kidneys, absent dialysis?

14 A. Liver.

15 Q. Liver, right.

16 A. Right.

17 Q. I'm alluding to that kind of organ system  
18 deficits which are incompatible with life.

19 With that understood, is it your  
20 opinion that the blood vessels and the brain are  
21 those organ systems?

22 A. I believe that in her second hospitalization  
23 that those would be the two organ systems which  
24 were primarily responsible for her being dead. The  
25 failure in other organ systems as well.

1 Q. So now we've got the brain and the blood  
2 vessels affected as the critical organs in this  
3 case?

4 A. What do you mean by critical organs, sir?

5 Q. Organs that are required to function to  
6 sustain life, You've got to have your brain  
7 function to sustain life, correct?

8 A. You have to have certain parts of the brain  
9 to sustain life,

10 Q. I understand,

11 You need your heart?

12 A. You need your heart, that's correct,

13 Q. You need your kidneys, absent dialysis?

14 A. Liver,

15 Q. Liver, right.

16 A, Right,

17 Q. I'm alluding to that kind of organ system  
18 deficits which are incompatible with life.

19 With that understood, is it your  
20 opinion that the blood vessels and the brain are  
21 those organ systems?

22 A. I believe that in her second hospitalization  
23 that those would be the two organ systems which  
24 were primarily responsible for her being dead, The  
25 failure in other organ systems as well.

1                   If you are asking what is not  
2 compatible with life, then those are the two  
3 systems. If you can't pump blood and maintain the  
4 blood pressure, you are not going to live and if  
5 you don't have a live medulla you are not going to  
6 live.

7 Q.       Are you suggesting the heart stopped pumping  
8 here because of the inflammatory response?

9 A.       I need to look at the Huron Road records to  
10 answer the question.

11                   This woman was pronounced dead  
12 because all of those brain functions which are  
13 necessary to sustain a personality and intellect  
14 were missing. She was maintaining a blood  
15 pressure, she was perfusing her body but she died  
16 because her brain did not get enough oxygen and  
17 that is the definition of death used in assessing  
18 this patient as dead.

19 Q.       Do you agree with it?

20 A.       I agree that the -- do I agree that the  
21 patient died because of brain death?

22 Q.       Yes .

23 A.       Yes, I agree with that.

24 Q.       The brain death was in turn caused by in your  
25 opinion in part the inflammatory response secondary

1 to the germ Candida?

2 A. I would interpose the blood pressure. I  
3 believe the brain death was caused by absence of  
4 circulation of blood to the brain,, which was in  
5 turn caused by the presence of septic shock, which  
6 was in turn due to the presence of a mixed  
7 infection in the abdomen, which was caused by both  
8 Enterococcus and Candida.

9 Q. Changing the subject to urosepsis.

10 I think when Miss DiSilvio was  
11 asking you questions there was an allusion to the  
12 fact that she had a positive urinary culture upon  
13 admission to Huron Road Hospital; do you remember  
14 that question?

15 A. Yes.

16 Q. If I heard you correctly I believe you said  
17 that you have concluded that the Enterococcus grown  
18 in her urine was a different species than that  
19 Enterococcus grown in her abdomen; is that true?

20 A. Not a different species, a different strain  
21 of organism. Sam and Joe are both humans, but Sam  
22 isn't Joe.

23 Q. I hear you.

24 Is it your testimony that this  
25 different strain of organism of Enterococcus that

1 grew in the urinary system was just coincidental to  
2 the fact that she had Enterococcus in different  
3 strains growing elsewhere?

4 A. Yes.

5 Q. How was it, do you have an opinion how it was  
6 that Enterococcus grew in the urinary tract system?

7 A. It is one of the most common organisms to  
8 infect the urinary tracts of people who have  
9 urinary catheters. In women it is one of the  
10 common causes, although not the common cause of  
11 urinary tract infection, even in the absence of a  
12 catheter.

13 Q. How do you know that this strain of  
14 Enterococcus growing in the urinary system is not  
15 responsible for her death?

16 A. Wasn't the strain found in her blood stream  
17 and the pathology of the kidney does not indicate  
18 the kidney was a site of a significant infection.

19 Q. Doctor, you've in part alluded to the answer  
20 to the question I'm about to ask. I want to ask a  
21 different focus here.

22 Why did Mrs. Yarborough crash, so  
23 to speak, or succumb to her sepsis as of July 30th?

24 MISS KOLIS: January 30th.

25 Q. January 30th, I'm sorry.



1 A. I have testified that since January 1st there  
2 were none.

3 Q. Wow many the year before?

4 A. I'm trying to think back to the year before.  
5 I think there was at least one. There may well  
6 have been more, I'm not sure I can give you an  
7 accurate count at this point.

8 Q. So maybe I'm confused considering what you  
9 just said, how to the surgeon does this present as  
10 a relatively simple case?

11 A. The status of people who are receiving large  
12 doses of steroids is an item of general medical  
13 knowledge which is well known to abdominal  
14 surgeons, well known to general internists. It is  
15 predictable from the management of the patient that  
16 if complications are going to occur, these kinds of  
17 organisms, these species especially are the ones  
18 that are most likely to give you a problem if  
19 complications are going to occur.

20 It is not -- that is why I say it's  
21 not exotic. It may be that surgeons in the course  
22 of their practice will see a couple of cases a  
23 year, or they may see a couple of cases every two  
24 years, but the facts of the situation are generally  
25 well known to surgeons.

1                   **There are many other situations**  
2 where this kind of thing develops. It is common in  
3 inflammatory bowel diseases such as Crohn's  
4 disease. This kind of surgical complication is  
5 commonplace. It's not unusual. It is not  
6 something that I would consider to be an unusual  
7 exotic or arcane phenomenon.

8       Q.       In simplistic terms, in this setting in no  
9 uncertain terms in your opinion this patient  
10 required antibiotics and antimicrobial medications  
11 which were sensitive to these organisms?

12       A.       Yes.

13       Q.       The failure to give antimicrobial medication  
14 is plain and simple substandard practice in your  
15 opinion in this setting?

16       A.       I think that at the time that I identified,  
17 yes, that it was, when you had the evidence of  
18 these organisms in hand, you had evidence that this  
19 wasn't a perfect, not just a good, wasn't a perfect  
20 response to the surgery and existing antibiotic  
21 therapy, that it was appropriate to change the  
22 therapy, and that it was foreseeable that you would  
23 have problems with these organisms if you were  
24 going to have problems.

25       Q.       What you characterize as less than perfect is

1 the temperature and the white blood count  
2 differential?

3 . That's correct.

4 Q. Postoperatively, Doctor, from your review of  
5 the medical record, is it correct to state that  
6 there is no indication that the patient was  
7 experiencing a rebound phenomenon of the abdomen?

8 A. Talking about rebound tenderness?

9 Q. Yes.

10 A. Yes, no report I recall of rebound in the  
11 chart.

12 Q. Is it fair from your review of the chart that  
13 those blood cultures which were taken at Saint  
14 Luke's came back negative?

15 A. On which day are we talking about?

16 Q. You've got the record there. There were  
17 blood cultures taken, you want to find them in your  
18 report?

19 A. Opening the record now.

20 Q. Take your time. Page 51 of the lab sheet to  
21 help you out, lab reports.

22 A. The organism that grew in the blood culture  
23 was a bacteroid, that is what I want to check. I  
24 know there was a positive culture. You are saying  
25 the culture did not grow Enterococcus from the

1 blood.

2 Q. Is it fair to state from your review of the  
3 record, Doctor, that while you qualified your  
4 interpretation of the January 20th CT scan, at  
5 least it did not demonstrate an abscess?

6 A. I would agree that it did not demonstrate an  
7 abscess.

8 Q. Would you agree that the white blood count,  
9 except for one day, was essentially stable before  
10 it began dropping to close to the normal range?

11 A. What time period are we talking about?

12 Q. Throughout. I mean obviously during the  
13 immediate crisis period, at the time of surgery and  
14 the day or two thereafter, I'm not talking about  
15 that. I'm talking within a few days after surgery,  
16 would you agree that the white blood count was  
17 stable before it began dropping towards the normal  
18 range?

19 A. I would agree that the total white blood cell  
20 count between the 15th and the 23rd was within the  
21 range that might be expected for somebody on  
22 steroids in the absence of infection,

23 I would say that the exception to  
24 that is what I pointed out on the 17th, the white  
25 count of 26,000 is not consistent with that. I

1 would say that on the 19th, that a time at which  
2 the white count actually had dropped, there is  
3 evidence of abnormal number of juvenile cells on  
4 that day. There is an abnormal situation as well.  
5 That one is only really I think visible if you look  
6 at the juvenile count or if you look at the graph  
7 to see the depression.

8 With those two exceptions, I would  
9 say that the count alone in isolation through that  
10 period was within the range of what you would  
11 expect to find.

12 Q. You have already acknowledged earlier today  
13 that since you were not physically there to  
14 evaluate Carolyn Yarborough you would accept --

15 A. No, I'm sorry, I have to qualify that answer  
16 further. I would take issue with your  
17 characterization of the white count falling into  
18 the normal range.

19 Q. I didn't say that.

20 A. The white count during the 24th, 25th, 26th  
21 is falling from 20,000 toward 10,000. 5 to 10 is  
22 the normal range. It's in normal range for someone  
23 on 60 milligrams of Prednisone. That is not a  
24 normal change.

25 As I pointed out to you, if

1 somebody's white count is 20,000 on Prednisone for  
2 several days, I expect it to stay there, I don't  
3 expect it to fall.

4 Q. What you are saying is the falling of the  
5 white blood count should be a red flag of concern?

6 A. Yes.

7 Q. So when Dr. Lerner indicates that the white  
8 blood count is reassuring, you obviously disagree  
9 with his opinion?

10 A. Considering the number of juvenile cells in  
11 the differential, yes.

12 Q. Do you agree that the wound was looking good?

13 A. Yes. I didn't see it, it didn't matter.

14 Q. Do you agree that the patient generally was  
15 looking well considering the fact that she had gone  
16 through a life-threatening crisis, required major  
17 abdominal surgery?

18 A. I agree with that, but I think that is not  
19 something, given that she is on steroids, that can  
20 be relied on.

21 Q. Do you agree that the urine cultures were  
22 negative?

23 A. Do I agree that the urine cultures were  
24 negative? On the 10th they were negative. On the  
25 20th there was Candida albicans.

1 Q. What was it on the 24th?

2 A. The 24th there was no growth.

3 Q. I think you may have answered this question,  
4 I'm compelled to ask this as well as to Candida;  
5 does it require treatment when it is part of a  
6 mixed infection as in this setting?

7 A. If the setting includes receiving  
8 60 milligrams of Prednisone a day, yes.

9 Q. Doctor, this case is about treating  
10 infection, correct?

11 A. Or about failure to treat infection. It's  
12 about infection.

13 Q. In this setting, what are the significant  
14 things that the doctors should be evaluating?

15 A. Particularly in this setting the fever is an  
16 important issue because steroids can modify fever  
17 and the persistence of fever in the presence of  
18 steroids is an important diagnostic feature.

19 The changes in the white count and  
20 differential count are important. We've gone  
21 through the fact they can be misleading,  
22 particularly the height of the white count. The  
23 differential count is really not affected by the  
24 steroid use. The differential count should  
25 probably be weighted more heavily in the clinical

1 evaluation of a patient than it might be  
2 otherwise.

3 The return of intestinal function  
4 is an important consideration. There are a lot of  
5 important considerations. The bottom line is you  
6 can't rely on any of them. It is easy to be  
7 misled.

8 Q. So that is where you say the bottom line is,  
9 you have to give antibiotics and antimicrobials in  
10 this case?

11 A, The bottom line you knew this patient had two  
12 germs which weren't being treated and you knew that  
13 she wasn't doing perfectly well and that is  
14 sufficient.

15 Q. On January 16th, which is a date which you  
16 picked as being one of the decision points in  
17 time --

18 A, I actually think the way the graph comes  
19 should have been the 17th. The 17th, the day on  
20 which that white count was 26,000.

21 Q. So on the 17th what was present which was  
22 making up this as a decision point in time?

23 A. Oral temperature around 100, white blood cell  
24 count of 26,000, slightly over 26,000, knowledge  
25 that those organisms were present,

1 Q. The bands on the 17th are 1; isn't that  
2 reassuring?

3 A. Not enough.

4 Q. Not enough when the reference range is zero  
5 to 5?

6 A. Not enough.

7 Q. So the bands are irrelevant as of the 17th?

8 A. No, they are not irrelevant. They are one  
9 feature out of the constellation. You try to take  
10 each of these in isolation and make it out to be  
11 the be all and end all of the decision. The  
12 decision is made on the totality of evidence.

13 Q. Doctor, I think that is what I'm trying to do  
14 here.

15 Here you have a patient who has got  
16 an elevated white blood count who is on steroids  
17 that you acknowledge can cause an increased white  
18 blood count?

19 A. Not to that level.

20 Q. Pardon me?

21 A. Not that level.

22 Q. What is the significance of the level in the  
23 picture of her infectious process?

24 A. It was evidence that there was a continuing  
25 infectious process.

1 Q. Why did the white blood count drop  
2 significantly the next day without treatment?

3 A. I'm not sure that I can give you an answer to  
4 that.

5 Q. But, Doctor, in fairness, you've got a  
6 clinician taking care of a sick lady, you can't  
7 give an answer, maybe they don't have an answer  
8 either, aren't they given at least the benefit of  
9 the doubt to think hey, things are under control?

10 A. No.

11 Q. Why not?

12 A. Because they should have knowledge that these  
13 organisms are problem organisms. This was a  
14 problem patient.

15 Q. We keep running in a circle. I think it  
16 comes down to the bottom line this problem patient  
17 had to have the antimicrobial medication in your  
18 opinion?

19 A. The bottom line is in my opinion this patient  
20 should have been treated for those two organisms.

21 Q. Because the clinician could not rely upon  
22 reassuring or negative findings?

23 A. I couldn't have said it better myself.

24 Q. I want to make sure we're understanding each  
25 other.

1       **A.**       **And more, the findings** aren't really  
2       negative, the findings are equivocal, If the  
3       **findings** were totally negative, if the white count  
4       was stable it would have been a different picture,  
5       that was not the case. That's not this case.

6       Q.       1 figure if 1 pause long enough, Doctor,  
7       you'll come up with another answer. I'm trying to  
8       go as fast as I can. I'm trying to look at my  
9       notes, so forgive me for a minute.

10                               On January 23rd, I'm alluding to  
11       that date in particular, putting aside that which  
12       happened afterwards, what evidence is there on  
13       January 23rd when Dr. Bass evaluated this patient  
14       to give the examiner reason to believe that there  
15       was a persistent abdominal infection present?

16       A.       Persisting low grade fever that had been  
17       present for an extended period before from  
18       the 16th.

19       Q.       Fair enough. Anything else?

20       A.       The knowledge of those organisms in the  
21       cultures.

22       Q.       Anything else?

23       A.       White count on the 16th.

24       Q.       Anything else?

25       A.       Bands on the 19th.

1 Q. The bands on the 19th did you **say**?

2 A. Yes.

3 Q. What were the bands on the 19th?

4 A. It looks like they were about 7 or 8. Can't  
5 be sure.

6 Q. What are you looking at to make that  
7 determination?

8 A. The figure. I can look up the exact number  
9 in the book. I was looking at the figure, find  
10 where the bands are in the lab data.

11 Q. I don't see the bands being measured on  
12 the 19th.

13 MISS KOLIS: Towards the  
14 back section.

15 A. Page 41. Bands were 8 on the 18th, it looks  
16 like what I did there is a reversal in the chart.  
17 The bands were on the 18th, not the 19th.

18 Q. How do you explain the bands are 8 on the  
19 18th and 1 on the 20th?

20 A. I don't know that I have to or can.

21 Q. I didn't ask you if you have to or can. I  
22 want to know if you have an explanation.

23 A. The explanation I would make is that  
24 typically when an infection doesn't involve the  
25 inside of the blood stream, a heart valve **and**

1 artery or vein, bacteria or yeast or whatever the  
2 thing is causing the infection to gain access to  
3 the blood stream irregularly, when they do so they  
4 cause a response.

5 The reason why I said earlier today  
6 that I thought to a reasonable degree of medical  
7 certainty that Candida had **been in the blood at**  
8 some time, it's entirely possible that these  
9 intermittent episodes of bands or elevated white  
10 counts or what have you do reflect when some  
11 organism did get access to the blood, did cause a  
12 worsening of the inflammatory response at that  
13 point.

14 Q. Doctor, as to your testimony, what day next  
15 week do you plan on testifying? Did you hear me?

16 MISS KOLIS: Did you ask  
17 another question?

18 MR. GOLDWASSER: I didn't hear  
19 the answer. What day next week week does the  
20 doctor plan on testifying in court?

21 MISS KOLIS: He's coming in  
22 Wednesday the 15th.

23 MR. GOLDWASSER: I didn't know  
24 that, I assume he's planning on testifying on  
25 Thursday.

1 THE WITNESS: I don't think  
2 that was right.

3 MISS KOLIS: He's testifying  
4 on Wednesday the 15th.

5 Q. Wednesday the 15th?

6 A. Yes, sir,

7 Q. Very good.

8 Doctor, if you have any reason  
9 whatsoever to change any of your opinions you've  
10 given in this case between now and the time you  
11 testify, that **is** a change in your opinions, modify  
12 or qualify them, would you so inform Donna Kolis so  
13 she can inform us?

14 A. Certainly will,

15 Q. How many times have you testified in trial  
16 prior to this coming next week?

17 A. I believe four, of which two were not  
18 malpractice cases. I'm sorry. Four, of which one  
19 was not a malpractice case.

20 Q. Have any of those cases in which you  
21 testified at trial dealt with the subject matter of  
22 this lawsuit?

23 A. Some of them dealt with abscesses but not  
24 with intra-abdominal abscesses,

25 I did give a deposition in another

1 case which was a case in Florida in which there  
2 were complications from an intra-abdominal  
3 infection, steroids were not involved. I did not  
4 testify in that case other than the deposition.

5 Q. Doctor, let me summarize your testimony then  
6 as relates to Dr. Sonpal, then I'll be finished.

7 It's my understanding that it is  
8 your opinion Dr. Sonpal deviated from acceptable  
9 standard of medical practice by failing to order  
10 antimicrobial medications as of January 17th; is  
11 that a fair statement?

12 A. Subject to my double checking the numbers for  
13 accuracy, yes.

14 Q. It is your opinion Dr. Sonpal was not  
15 entitled in this setting to have relied upon what  
16 he perceived to be a patient who was stable and  
17 progressing well; is that a fair statement?

18 A. Your question was he was not entitled to rely  
19 upon that?

20 Q. Yes. Did you give me an answer?

21 A. Yes, I agree with your statement that he was  
22 not entitled to rely upon the clinical setting.

23 Q. It is further your opinion that if Dr. Sonpal  
24 had ordered antimicrobial medication, Carolyn  
25 Yarborough would not have died; is that a fair

1 statement?

2 A. My testimony was that it is more likely than  
3 not she would not have died.

4 Q. Have we now, Doctor, discussed all of the  
5 opinions you hold as relates to Dr. Sonpal's  
6 standard of care?

7 A. We haven't discussed the issue of his  
8 discharging the patient at the time when the band  
9 count was elevated.

10 I don't believe we have -- yes, we  
11 have. I was going to say we haven't discussed the  
12 fact he in his deposition didn't seem aware of the  
13 effects of steroids. We did bring that up.

14 I guess with those two if you  
15 consider we discussed that then we have discussed  
16 them all.

17 Q. Are you talking about discharge because the  
18 bands were going up?

19 A. That's correct. Dr. Sonpal testified that he  
20 had not actually seen the patient or written notes  
21 on the patient the last three days, if I recollect  
22 his testimony correctly.

23 Q. We've now then with that statement covered  
24 your opinions as relate to the standard of care?

25 A. Yes, sir.

1 MR. GOLDWASSER Doctor, I have  
2 no further questions. Miss Disilvio may well have  
3 questions to inquire further.

4 MISS DISILVIO: Doctor, I have  
5 a few questions. Again forgive my ignorance, I  
6 want to clarify a couple points, make sure I  
7 understand as best as I can understand.

8 -----

9 RECROSS-EXAMINATION

10 BY MISS DISILVIO:

11 Q. You spoke with Mr. Goldwasser about the  
12 decrease in white blood cell count and discussed it  
13 in the context the demand for white blood cells was  
14 in excess of the marrow's ability to produce; is  
15 that correct?

16 A. That's correct.

17 Q. That demand for white blood cells is as a  
18 result of a brewing infection in your opinion?

19 A. That's correct.

20 Q. Is it not logical to conclude then that as  
21 the infection become more fulminant the demand is  
22 going to be greater and the white cells are going  
23 to drop further?

24 A. To a point. I testified earlier that the  
25 marrow can increase its capacity and the white cell

1 count can then begin to increase, can go up to  
2 elevated levels. In this particular lady when she  
3 came back from the nursing home it was 40,000, over  
4 40,000.

5 Q. At what point then in the presence of  
6 infection does the bone marrow begin to increase  
7 its capacity to allow for a rise in the white blood  
8 cell count?

9 A. It starts within a matter of days. It can  
10 continue for a longer period. I really don't know  
11 the upper limits.

12 Q. I guess my bottom line question is at what  
13 point in the course of life of an infection in an  
14 immunosuppressed patient do we expect to begin to  
15 see a rise in the white blood cell count in  
16 response to the marrow's increased capacity?

17 A. The problem I have answering that question is  
18 that not all immunocompromised patients start out  
19 with low counts. Patients are compromised in  
20 different ways. Alcoholic patients, for example,  
21 have permanently suppressed bone marrows.

22 Q. Let's talk about this particular --

23 A. This particular patient I have no reason to  
24 think she had a particularly suppressed bone  
25 marrow, she just had a big demand made on it.

1 Q. Which returns me to my **question**: At what  
2 point then does the marrow increase its capacity in  
3 response to that demand? At what point for Carolyn  
4 Yarborough in the life of her infection are we  
5 going to see a rise in her white blood cell count?

6 A. I have no way of predicting that. If you  
7 look at the first part of her course in the  
8 hospital, between the 11th and the 17th, the  
9 suggestion is that her marrow took some time to  
10 respond to that episode, I have no way of  
11 answering the question of when the marrow is going  
12 to respond, whether it goes three days, four days,  
13 or five days. It also has to do with whether the  
14 infection exerts **a** continuing demand or not. It's  
15 not a simple answer.

16 Q. How many species of Candida are there?

17 A. How many species?

18 Q. Sou help me, how many Joe's, Harry's, Sally's  
19 are there in the Candida family?

20 A. Wait. There are probably 20 or 30 species of  
21 organisms that fall into the genus Candida. Within  
22 a species there are as many different organisms as  
23 there are children.

24 When Candida divides or they form  
25 replicates of themselves, if a Candida in the

1 course of dividing or in the course of life changes  
2 its genes through a process of mutation, it becomes  
3 a different strain of organism.

4 I think originally we're talking  
5 about Enterococcus rather than Candida. The  
6 question is whether or not a certain organism can  
7 be considered to be the child of another organism  
8 when you say it's Joe or not. There are a million  
9 John's, Bill's, trillions of Joe's and Sam's and  
10 Harry's in that sense within Candida albicans and  
11 Enterococcus and within any bacterial group that  
12 you want to name.

13 Q. We've determined that the Enterococcus in  
14 urine in your opinion is of a different family than  
15 the Enterococcus in the blood stream, correct?

16 A. Of a different lineage, different genetic  
17 lineage, **yes**, that would be my determination.

18 Q. How do you know the Candida in the abscess is  
19 of the same lineage as the Candida in the blood  
20 culture?

21 A. I don't think we know that from scientific  
22 analysis. I don't think there is any laboratory  
23 data that exists in the chart that could be used to  
24 make that.

25 There are laboratory tests that

1 could be done which are usually research tests as  
2 opposed to clinical tests, that data doesn't  
3 exist, The judgment that they are the same rests  
4 on clinical judgment,

5 Q. In this patient, Doctor, in your opinion, is  
6 there a significance if the band count increase  
7 from 1 to 2?

8 A. Not if it increases from 1 to 2.

9 Q. What about from 2 to 3?

10 A. The question that has to be looked at is  
11 whether this is a random group of counts, or  
12 whether it's an order sequence of counts. Going  
13 from 1 to 2 to 3 to 7 to 10 is not a randomly  
14 ordered sequence.

15 As a clinician on say January 21st  
16 or 22nd, looking at a number of 1 or 2, I'm not  
17 sure I would say anything about it. As a clinician  
18 trying to explain a value of 10, looking back to  
19 say it was 7 yesterday and 3 the day before that,  
20 2 the day before that, I would count that very  
21 heavily,

22 MISS DISILVIO: Thank you very  
23 much, Doctor,

24 MR. GOLDWASSER: Doctor, I thank  
25 you very much for cooperating with us today. I'm

1       sorry we took so long. For nonphysicians this is a  
2       very complex subject. Thank you for being patient  
3       with us.

4                       Donna, I will send someone to your  
5       office to pick up the chart and that which  
6       Dr. Chung identified.

7                       THE WITNESS:               I'm going to  
8       check the numbers. I think I transposed two of the  
9       numbers. I will a send a corrected copy by fax.

10                      MR. GOLDWASSER:            I appreciate  
11       your comment.

12

13

14

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15                      (Deposition concluded; signature not waived.)

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ERRATA SHEET

NOTATION

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I have read the foregoing  
transcript and the same is true and accurate.

-----  
ROBERT S. HOLZMAN, M.D.

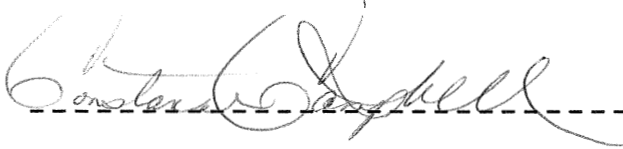
1 The State of Ohio,     ▪  
 2 County of Cuyahoga.    :

CERTIFICATE:

3           I, Constance Campbell, Notary Public within  
 4 and for the State of Ohio, do hereby certify that  
 5 the within named witness, ROBERT S. HOLZMAN, M.D.  
 6 was by me first duly sworn to testify the truth in  
 7 the cause aforesaid; that the testimony then **given**  
 8 was reduced by me to stenotypy in the presence of  
 9 said witness, subsequently transcribed onto a  
 10 computer under my direction, and that the foregoing  
 11 is a true and correct transcript of the testimony  
 12 so given as aforesaid.

13           I do further certify that this deposition was  
 14 taken at the time and place as specified in the  
 15 foregoing caption, and that I am not a relative,  
 16 counsel or attorney of either party, or otherwise  
 17 interested in the outcome of this action.

18           IN WITNESS WHEREOF, I have hereunto set my  
 19 hand and affixed my seal of office at Cleveland,  
 20 Ohio, this 8th day of July, 1998.

21   
 22 -----

23 Constance Campbell, Stenographic Reporter,  
 24 Notary Public/State of Ohio.  
 25 Commission expiration: January 14, 2003.

**Look-See Concordance Report**

---  
 UNIQUE WORDS: **1,988**  
 TOTAL OCCURRENCES: **7,937**  
 NOISE WORDS: **385**  
 TOTAL WORDS IN FILE: **22,417**  
 ---  
 SINGLE FILE CONCORDANCE  
 ---  
 CASE SENSITIVE  
 ---  
 PHRASE WORD LIST(S):  
 ---  
 NOISE WORD LIST(S): **NOISE.NOI**  
 ---  
 COVER PAGES = **4** \_ " \_

INCLUDES ONLY TEXT OF:

- QUESTIONS**
- ANSWERS**
- COLLOQUY**
- PARENTHETICALS**
- EXHIBITS**

DATES ON

INCLUDES PURE NUMBERS

POSSESSIVE FORMS ON

MAXIMUM TRACKED OCCURRENCE THRESHOLD: **50**

NUMBER OF WORDS SURPASSING OCCURRENCE THRESHOLD: **12**

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