State of Ohio,)
County of Lorain.) SS:

IN THE COURT OF COMMON PLEAS

HUBERT PORTER, ADMINISTRATOR)
OF THE ESTATE OF BRAD PORTER,)
DECEASED,)
)
Plaintiffs,)
)
vs.) Case No. 96CV115689

MANHAL A. GHANMA, M.D.,)
et. al.,)
)
Defendants.)

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THE DEPOSITION OF DR. CLYDE McAULEY
FRIDAY, MAY 28, 1999

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The deposition of Dr. Clyde McAuley, a witness herein, called by the Plaintiff for examination pursuant to the Ohio Rules of Civil Procedure, taken before me, the undersigned, Darlene Lowe, a Registered Professional Reporter and Notary Public within and for the State of Ohio, taken at the offices of Spangenberg, Shibley & Liber, 2400 National City Center, Cleveland, Ohio, commencing at 9:22 a.m., the day and date above set forth.

APPEARANCES:

On behalf of the Plaintiffs:

Dennis R. Lansdowne, Esq.
Spangenberg, Shibley & Liber
2400 National City Center
1900 East Ninth Street
Cleveland, Ohio 44114

On behalf of Defendant Dr. Manhal A. Ghanma:

John D. Travis, Esq.
Gallagher, Sharp, Fulton & Norman
7th Floor - Bulkley Building
Cleveland, Ohio 44115

On behalf of Defendants Lorain Community Hospital and St. Joseph Regional Health Center:

Kris H. Treu, Esq.
Moscarino & Treu
812 Huron Road, Suite 490
Cleveland, Ohio 44114

On behalf of Defendant Dr. Quansah:

Dierdre Henry, Esq.
Weston, Hurd, Fallon, Paisley & Howley
2500 Terminal Tower
Cleveland, Ohio 44113

DEPOSITION INDEX OF DR. CLYDE McAULEY

CLYDE E. McAULEY, M.D.

of lawful age, called by the Plaintiff for examination, pursuant to the **Ohio** Rules of Civil Procedure, having been first duly sworn, was examined and testified as follows:

EXAMINATION **OF** CLYDE E. McAULEY, M.D.

BY MR. LANSDOWNE:

Q Doctor, would you state your full name and spell the last for the court reporter, please?

A Clyde Edward McAuley, M-c-A-u-1-e-y.

Q Dr. McAuley. I've been calling you McCauley. And your professional address?

A That would be East Texas Medical Center, Tyler Texas, 75701.

Q What is your position there?

A I'm the associate director of trauma services.

Q Doctor, you've been identified as an expert in a case that has a lot of experts, and I'm going to be asking you about your opinions relating to this case. And if at any time you don't understand my question, please tell me that and I'll rephrase it, okay?

A Yes, fine.

Q If you don't hear my question, please tell me that as well. All right?

A Yes.
Q You understand I'm here to get the opinions that you're prepared to offer at the trial of this case, which is in September of this year, correct?
A Correct.
Q All right. You've been through this process before?
A Yes, I have.
Q All right. You've been an expert witness in medical malpractice cases before?
A Yes, I have.
Q On how many occasions?
A Perhaps eight or nine.
Q Eight or nine total in your career?
A Correct.
Q How many cases do you review a year as an expert witness?
A Two, three at the maximum.
Q Have you testified in Ohio courts as an expert witness?
A Yes, I have.
Q In medical negligence cases?
A Yes, I have.
Q When is the most recent one?

A Perhaps three years ago.
Q Do you happen to remember what county that was in?
A I believe it was Medina.
Q Have you ever testified on behalf of a patient in a medical negligence case?
A Yes, I have.
Q On how many occasions?
A I believe it was three of those nine or ten cases.
Q Okay. Were any of those in Ohio?
A Yes.
Q Have you testified in states other than Ohio?
A I believe I was involved in one case in Pennsylvania.

MR. TRAVIS: Medical negligence or any kind of case?

MR. LANSDOWNE: Medical negligence case.

A I provided a deposition in one case in Pennsylvania.
Q Other than that one case, all the other cases that you've been involved in as an expert witness in medical negligence cases have been in Ohio?

A Yes.
Q You have your file with you?
A Yes, I do.
Q What part of this is your file or all three?
A All three are.
Q Okay. What is contained in those files?
A They contain the records of the patient's hospitalization at Lorain Community, they contain the Division of Water Craft report, depositions of the various experts as well as the patient's parents and number of the expert opinions.

MR. TRAVIS: He has an index in front of him. It's pretty much there.

Q I imagine that this has been provided to you over time? I mean, different things came in at different times?
A Actually, the original file I had was rather small. I believe it contained the original depositions of Dr. Ghanma, Dr. Quansah, perhaps the opinion of Dr. Shapiro and one other opinion. The majority of this chart I received approximately two weeks ago.
Q Okay.
A I disposed of the original depositions that I

had because I thought I was no longer involved with this case.

Q I'm sure you're not the only one. Other than these three binders, have you reviewed anything else relating to this case?

A No, I haven't.

Q Have you reviewed any medical literature in connection with your opinion in this case?

A No, I haven't.

Q You've authored a report in this case. I have a copy dated July 1st, '97.

MR LANSDOWNE: I'll mark this Plaintiff's Exhibit 1 with your name on it.

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(Plaintiff's Exhibit 1 was marked.)

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Q Is that Plaintiff's Exhibit 1 your report in this case?

A Yes, it is.

Q And is that the only report that you authored in the case?

A Yes, it is.

Q Were there any drafts of the report?

A No.

Q Since you just got back in -- sort of got back

into this case and reviewed a bunch of new material or material that you had not reviewed previously, just before we get started on this, is there anything that should be added to this report about your opinions or changed in any way?

A No, I believe the additional information has not changed my ultimate conclusion.

Q Have you seen any photographs in this case?

A Yes, I have.

Q Those are included in the binder?

A What I have seen appear to be Xeroxed copies or copies of photos. I haven't seen the actual photographs. But, yes, they are in one of these three binders.

Q What are the photos of?

A Photos appear to be autopsy photos of Mr. Porter performed by the coroner's office apparently.

Q You also have photographs of anesthesia equipment?

A Yes, I do.

Q Okay. You've reviewed both sets of photographs, that's the coroner's photographs and the anesthesia equipment photographs?

A I've reviewed the photographs and I've reviewed

as best I could the anesthesia equipment, although I depended upon the printed summary of those pressures that appear at the end of Dr. Kline's deposition.

Q Okay. Did you see any photos of Mr. Porter's wound taken before his death?

A I have some very almost illegible photographs that appear in my copy of the hospital chart. They're, I think, four Polaroid pictures that were apparently taped within the hospital chart by -- by I presume Dr. Ghanma, but those are almost illegible when they come out of a photocopy.

Q It's been a long time, do you know how it is that you were contacted in this case?

A Yes, I -- Mr. Switzer contacted me.

Q Do you know any of the physicians involved in caring for Mr. Porter?

A No, I don't.

Q Do you know any of the physicians that have been identified as expert witnesses?

A I don't know any of them personally.

Q It causes me to ask do you know of any of them before this case, before you saw their names in this case?

A I know who Dr. Mark Shapiro is.
Q How is it that you know him?
A I've seen his name in the literature. We're both trauma surgeons. It's a fairly small group of people, so we tend to know who is where around the country.
Q You've seen his name in trauma literature?
A Yes.
Q Have you ever practiced out of Lorain Community, St. Joe's Hospital?
A No, I have not.
Q Have you ever been there?
A No, I have not.
Q We have a CV, which we know is not accurate -- or not up-to-date, I should say. We'll mark this as Exhibit 2 anyway.

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(Plaintiff's Exhibit 2 was marked.)

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MR. TRAVIS: The record should reflect I received a call from your office, this is what I had yesterday to give you.

MR. LANSDOWNE: Oh, I know.

Q Plaintiff's Exhibit 2 is a copy of a Curriculum

Vitae of yours, Doctor?

A That is correct.

Q Okay. At that time -- or the time that CV was done, you were at St. Elizabeth Hospital; is that correct?

A That's correct.

Q When did you leave there?

A I left on January 31st, 1999.

Q Okay. Why did you leave there?

A I received an excellent offer to join a larger trauma group down in Tyler, Texas.

Q Do I understand you still live in Pennsylvania?

A Correct.

Q You're commuting to Texas?

A Correct.

Q Okay. How many days a week do you spend in Texas?

A I spend -- usually I get back one week in six and my wife gets down every third week for a week.

Q Okay. Your CV lists some publications. Let me ask you: Have you written anything that relates specifically to the matters at issue in this case?

A No.

Q Have you presented anything that relates to matters at issue in this case?

A No.

Q I saw a presentation in 1993, I just want to ask you about, presented at the Annual Scientific Assembly, Eastern Association for the Surgery of Trauma. It's entitled "The Missed Injury. A Prospective Evaluation of Delayed Diagnosis in Blunt Multisystem Trauma."

Is that a presentation you made?

A Yes, it is.

Q Okay. What did that involve? What were the issues you were presenting?

A That was a presentation that documented a significant number of patients who are admitted at a Level 1 trauma center who have injuries that are nat recognized at the time of admission and will become apparent subsequent to their admission.

Q What kinds of injuries -- were there any specific kinds of injuries that were being missed or is this a broad spectrum?

A There were many different types, the vast majority involved fractures of bones and ribs.

Q And was recommendations about how these might be

caught instead of missed?

A Yes. We discussed importance of serial examinations by physicians as well as just an awareness that injuries can and often do present in a delayed fashion.

Q What do you mean by serial examinations?

A Examinations by skilled, medical personnel, be that nurses or physicians or in the case of many teaching centers, Level 1 trauma centers, the house officers.

Q This specifically related to Level 1 trauma centers?

A I think it related to trauma care as a generality, although the point was that even if the highest tier of trauma centers, there were a significant number of patients that would have injuries recognized at a later time.

Q Where did the cases come from?

A They came from Mercy Hospital of Pittsburgh.

Q They were all from Mercy?

A Yes.

Q How is it that -- at that time you were at St. E's in 1993, right?

A That was -- I was at St. E's but the study had been done just prior to my departure from Mercy

Hospital of Pittsburgh.

Q I was wondering how you got access to those. Do you still have a copy of that presentation?

A Yes, I do.

Q Could you provide it to Mr. Travis?

A Of course.

Q What type of facility is the East Texas Medical Center? Is that what it is?

A It's a large community hospital that serves the flagship for any additional eleven smaller hospitals in the east Texas area.

Q And that's in Tyler, Texas?

A Correct.

Q What level of trauma center is it?

A It's a Level 1 trauma center.

Q Are there trauma protocols there?

A Yes, there are.

Q St. Elizabeth Health Center, what type of -- how would you describe that facility?

A That's an ACS, which is the American College of Surgeons, verified Level 1 trauma center.

Q It's also a Level 1 trauma center?

A Correct.

Q And St. Elizabeth, is that a community hospital

as well?

A It's a community teaching hospital. The distinction being that there are a large number of residents at St. Elizabeth, which is not the case at East Texas Medical Center.

Q Mobile Medical Center?

A They're from the -- the -- residents are post medical school graduates, so they are from a variety of medical schools throughout the country.

Q Were you involved in the residency training at St. Elizabeth?

A Yes, I was.

Q In your current position, do you have a teaching appointment?

A I will shortly.

Q What will that be?

A That will be with the University of Texas Medical Center at Tyler.

Q Will you be involved in teaching residents again?

A Formal medicine residents rotate through the trauma center at East Texas.

Q So it won't be trauma residents?

A Not at this time, although we expect to start a

trauma fellowship in the near future.

Q What certifications do you have?

A I have my boards by the American Board of Surgery and I essentially have a second board equivalency, which is the added qualifications in surgical critical care, although granted by the American Board of Surgeons.

Q What is that? I'm not sure I follow you on that one equivalency.

A Well, I think it's analogous to your expert Dr. Klein who does not have a board in critical care, yet he says he has added qualifications from the Board of Anesthesia in critical care. The various boards have tried to limit the proliferation of other boards and one solution to that was placing these subspecialty boards under the aegis of the major boards sections.

Q So that -- does that -- is there a trauma certification -- there is no trauma certification, is that what you're saying?

A There is no trauma certification, but there is a certification for surgical critical care which entails a large -- it entails approving a large body of knowledge in critical care matters as well as a large practice in surgical critical

care. I believe your expert Dr. Shapiro has the same board certification.

Q That's what I was asking about. That is the certification that trauma surgeons generally have, correct?

A Yes. Many of us do have critical care boards but there is no board specifically dedicated to trauma. Those are two separate fields, often in tandem to one another, but they are two separate fields.

Q Are you certified in emergency medicine?

A No, I'm not.

Q I have to ask this, are you certified in pathology?

A No.

Q Are you a pathologist?

A No, I'm not.

Q Are you an expert in pathology?

A No, I'm not.

Q Are you an expert in emergency medicine?

MR. TREU: You just asked that.

MR. LANSDOWNE: No, I didn't.

MR. TRAVIS: You can answer.

Q I asked if you were certified in emergency

medicine.

A Correct.

Q You said no. I'm asking if you're an expert --

A I have a good deal of knowledge about emergency medicine as it relates to trauma, but specifically only as it relates to trauma.

Q When we or you use the term "trauma," what are you talking about?

A Trauma relates basically to the field dealing with injury.

Q So any type of injury --

A Yes.

Q -- is a trauma injury?

A Correct. Any type of injury that's related to an external force is within the realm of trauma.

Q What are trauma protocols?

A Trauma protocols are agreed upon general outlines in the management of a patient that's been injured.

Q Have you participated in developing trauma protocols at various institutions?

A Some.

Q Are trauma protocols important?

A Depending on the nature of the injury as well as the nature of the receiving institution, they

can or can't be.

Q Well, is it -- not knowing what injuries you might get at the institution, is it generally important to have trauma protocols at an institution that receives trauma patients?

A I think what's important is that the institution recognizes whether or not a case surpasses its abilities to take care of it. The protocols themselves can be extremely extensive and obviously all 5200 hospitals in this country cannot have explicit trauma protocols.

Q Did St. E's?

A As a Level 1 center, yes, it did.

Q Have you worked in hospitals that did not have trauma protocols?

A I've always worked at Level 1 trauma centers, so I've always worked at hospitals that had trauma protocols.

Q I guess I want to make sure of the converse. Have you ever worked at a hospital that did not have a trauma protocol?

A I think there's overlap when we talked about trauma protocols and emergency room protocols and as such, I -- if I ever worked at a hospital that didn't have an overt trauma protocol, I'm

sure that many of the emergency room protocols involved trauma issues and were in fact trauma protocols.

Q I don't know what that -- I don't know what that answer is. But my question really is whether -- can you tell me of any hospital that you worked at that did not have a trauma protocol as you sit here today?

A That's difficult to answer because trauma is a relatively -- the trauma protocol have been relatively recently developed, but I think there was some protocol of some sort at each of those hospitals, whether they were specifically entitled trauma protocol, they were functional trauma protocols.

Q What trauma texts do you consider reliable?

A Many.

Q Can you name some?

MR. TRAVIS: Could you explain what you mean by reliable?

MR. LANSDOWNE: I don't know the answer to the question. He didn't seem to have a problem.

A Well, I think there's Maddocks, Feliciano & Moore is a very well-known and respected trauma

text. Older texts include Shier's textbook, the American College of Surgeon has a -- College of Surgeons has a number of publications related to the evaluation and management of trauma patients.

Q Are you familiar with Donald Trunkey?

A Yes, I am.

Q How are you familiar with him?

A He's a very well-known figure in the field of surgery and I assume nearing retirement.

Q Are you familiar with any trauma texts that he has authored or been editor of?

A As a specific text, he had a series in the mid-'80s that he was the senior editor in, but those are clearly out of date. However, he's kept very active in terms of his editorship responsibilities as well as American College of Surgeons, protocols.

Q Do you think a hospital that accepts patients with trauma injuries should have trauma protocols?

MR. TREU: Objection.

A Hard to answer. And the reason I say that is it depends upon the level of the injury and, once again, it depends upon what the protocols are in

terms of emergency room, whether those cover the areas of injury and major trauma.

Q What do you mean about the injury? How does that affect whether the hospital should have trauma protocol?

A Well, I could be a small clinic and technically probably half the patients I would see or quarter of the patients are injured, meaning they sprained their ankles, they've fractured a bone in their hand, they've fallen from a swing and certainly I wouldn't expect the clinic to have a trauma protocol, yet they would be treating patients that have been injured.

I think as the level of intensity of the injury increases, it's incumbent upon the hospital to recognize that they -- they desire to provide the best care possible, so I would expect the next level to be the emergency room through their formal or informal means to have methods of triage in trauma to determine what lies within the capabilities of that facility.

Q How long at -- St. Elizabeth's had trauma protocols before you got there?

A Yes, they had been developed by the director of the emergency room.

Q What do you understand about the Lincoln Community Hospital's designation relating to trauma?

A I know that it's not designated for trauma because no hospital in the state of Ohio is designated as a trauma center.

Q Does it have any designation, any level trauma center that you're aware of?

A I'm not aware that it has any self-designation. But as I mentioned, no hospital in Ohio is designated as a level of any type of trauma center.

Q I thought St. Elizabeth's was a Level 1?

A St. Elizabeth is an ACS verified Level 1, but it's not a designated trauma center.

Q What's the difference?

A The difference is that there has to be a mandating body, meaning a governmental body, of some sort that will actually designate it. All the college does is verifies whether or not the capabilities of the institution are such that they can conform to the ACS guidelines, but the college is very specific that designation itself occurs on a state or governmental level.

Q So the state of Ohio just hasn't gotten around

to setting up that kind of designation?

A Correct.

Q What about where you're at in Tyler now, is that designated or verified or both?

A Both.

Q Okay. And in terms of Lorain Community, we know it's not designated. Is it verified?

A 1 don't know. I don't believe it is.

Q Is that of any significance in your opinions in this case?

A Not in this case.

Q Why not?

A Because I don't believe the intensity of this injury warranted transfer to a trauma center.

Q How do you make that determination?

A The college has some broad outlines that assists physicians in recognizing what patients should be transferred to a trauma center. Additionally, you rely upon the expertise and the judgment of the emergency room physicians and the attending staff at a given hospital.

Q What outline are you talking about?

A I'm talking about various publications by the American College of Surgeons that relate to trauma.

Q And in this particular case, what would be the -- how would those relate?
A They don't relate.
Q Meaning what?
A Meaning that the generally accepted transfer criteria were not fulfilled in this case at the time that this patient presented to the Lincoln emergency room.
Q The general accepted transfer criteria, is that what you're saying?
A Correct.
Q His injury did not meet those criteria, is that what you're saying?
A On a basis -- on the basis of what is in the medical records, correct.
Q Assume for me that a patient does meet the criteria for transfer presenting to a hospital, what is the hospital's obligation under those circumstances?

MR. TREU: Objection.

MR. TRAVIS: Objection. It's a hypothetical, not much fact to it. You can answer if you can.

A There is actually no obligation because the state of Ohio has not set up a trauma system and

this has been discussed at length by legislators as well as physicians, but there is no obligation because there are no standards.

Q Besides a legal obligation, is there an obligation in terms of good medical practice?

MR. TREU: Objection.

MR. TRAVIS: Same objection as to lack of any specificity of the question. You can answer if you can.

A I think all -- I would hope that all hospitals try to provide ultimately the best of care for their patients and recognize should they have any limitations in terms of their facilities or medical staff, as such if their capabilities are surpassed, I would assume that they would recognize that and transfer a patient to a higher level of care in whatever field of medicine we're talking about.

Q And have you testified in the past that a patient should have been transferred to a certified trauma center?

A The term is verified, but --

Q Sorry.

A No. I'm sorry, the college is very sticky about the terminology in all of this.

Q I appreciate you being the same and please correct me if I use those terms wrong. I assure you it's not intentionally.

A No, I have not because none of the cases involved an issue of level of care.

Q Do you think that standards from the protocols that govern sequence of the interventions in the care of the patient ensures consistency and ease of an evaluation and helps prevent delay in diagnosis and care?

MR. TREU: Objection.

MR. TRAVIS: Objection, compound question. You can answer if you can.

A As a general matter, I think protocols are -- benefit when people see injuries that have a standardized presentation and a standardized requisite response. Actually, at times I find some protocols to be overworked and almost to be intrusive.

Q Do you think that Brad Porter's injuries were standardized presentation and a standardized response?

A Yes, but I think those were probably standardized in the sense of the emergency room evaluation.

Q Who did the initial evaluation at the hospital of Brad Porter?

A From my review of the medical record, it appears that there were at least three people: being the emergency room nurse, a Dr. Evans' name appears on the chart as the emergency room physician in attendance, and a Dr. Murphy performed the actual history and physical examination. And finally, Dr. Ghanma also performed a history and physical evaluation.

Q Is there any indication in the record that Dr. Evans evaluated this patient?

A There are references that he was aware of certain aspects of the patient's status and the deposition of a second emergency room physician refers to Dr. Evans as having familiarity with the case at the time of presentation.

Q You've read Dr. Murphy's deposition?

A No, I have not.

Q Which deposition are you referring to?

A I'm referring to Dr. O'Day's deposition.

Q Do you know what kind of credentials Dr. Murphy has?

A No, I do not. Other than the depositions at one point mention that they believed among his

various activity --

Q I'm sorry, I believe it's a she.

A -- that she among her various activities was working in the emergency room on occasion.

Q At your hospital now, East Texas Medical Center, if this patient, Brad Porter, presented to your hospital, who would have been put in charge of the initial evaluation?

MR. TREU: Objection.

A Well, since I work at a Level 1 trauma center that has four dedicated trauma surgeons, I assume that I would have at some point been contacted, but the initial evaluation might very well have been conducted by the emergency room physician.

Q What point in time would a trauma surgeon get involved?

A I think I would have been involved, depending on the evaluation, if there were significant ongoing hemorrhage, I probably would be involved early. If there were not ongoing hemorrhage, I would be involved anywhere from 15 minutes to perhaps an hour after the presentation, if at the discretion of the emergency room physician felt that I should be involved.

Q Well, we know based upon -- we have the evaluations and the assessment from the emergency room physician, so would you have been involved, you or another trauma surgeon, I guess, have been involved 15 minutes or an hour later?

A At my institution, which is a much larger hospital, it is a designated Level 1 trauma center, I probably would have been involved within the first half hour of the case, assuming there was no major ongoing hemorrhage that could not be staunched by the emergency medicine people.

MR. TREU: Go ahead.

A At times it's the discretion of the individual emergency room physician. They might have called me within minutes of arrival or they might have called me within, as I stated before, half hour or so.

MR. TREU: I'll say relevancy.

Q What about at St. Elizabeth's what would have been the situation there?

A Once again, being a Level 1 trauma center, it would have been very comparable.

Q And when we say trauma center, what are we referring to?

A Generally, we're talking about a general surgeon who has an interest in the care and management of injured patients.

Q What's the purpose of either at East Texas Medical Center in Tyler or St. Elizabeth's in Youngstown of having a trauma surgeon see a patient like Brad Porter?

MR. TREU: Objection.

A The purpose is to sustain and maintain good quality care in an institution that's made a commitment toward the management of major trauma.

Q Well, what would the trauma surgeon have done if he was called in this case?

MR. TREU: Objection.

MR. TRAVIS: Objection. You can answer.

A If he were called, he would have looked at the patient, assessed the overall condition of the patient, their vital signs, the mechanism of injury, and actually in this case probably looked to see whether or not there was any need for this patient to be admitted to the trauma

center as opposed to subspecialty service.

Q Well, didn't the emergency room physician do all that in this case?

A I don't know. I wasn't there. But the chart indicates that the patient had a complete physical examination by capable physicians, who I assume were doing complete physical examination to ensure that there were no other major injuries present.

Q The history and physical -- the history and physical by Dr. Murphy, that's the history and physical you're referring to?

A That is the documented history and physical examination.

Q What other history and physical are you referring to?

A I'm referring to the fact that I believe Dr. Evans saw this patient, and history and physical examinations are often performed but not necessarily completely documented. And through the deposition of Dr. Ghanma, he also indicated that he performed a complete history and physical examination of the patient.

Q Dr. Murphy's is a two-page form, is that what that is?

A Correct. This appears to be a standardized history and physical examination at a community hospital.

Q Have you ever seen a form like this before?

A I've seen comparable forms many times.

Q How does this two-page chart differ from what a trauma surgeon history and physical exam report would look like?

MR. TREU: Objection.

A The only difference in my experience is when you're at a teaching institution, you have house officers who part of their training entails a dictated history and physical examination. And at my own practice, I do a summary, physical examination, very similar to this form and I will often -- or typically dictate that, a complete history and physical examination, which may augment what is encompassed in -- in an assessment that can be characterized as normal.

Q Based upon the emergency room records -- and I think you may have answered this in a different form earlier, but let me ask it this way: based upon the emergency room, do you think this patient should have been transferred to a trauma center?

A No, I do not. Not on the basis of what's in the medical chart.

Q Why not?

A Because it fails to fulfill any of the criteria necessary for transfer.

Q As we discussed before?

A Correct.

Q What about should the patient have been seen by a general surgeon?

A I think the patient should have been seen by people who were familiar with seeing major injury and in this hospital's case, I believe the emergency room physician fulfilled that, assuming that a careful detail was done by at least one physician -- a careful detailed, history and physical examination. And once it became apparent that only a unisystem rather than a multisystem injury was apparent, I think that it was acceptable to have the patient's care managed by the surgical subspecialist.

Q What do you mean an unisystem injury?

A I mean an injury that involves only one system of the human body.

Q Mr. Porter you're talking about?

A I'm talking about an extremity injury.

Q Describe that injury for me, extremity injury.
A In this particular case?
Q Yes.
A My understanding is that the patient had a long, posterior, deep laceration of the -- I believe the left calf -- I'm sorry, left thigh that had no obvious major hemorrhage at the time of presentation and that had the question of neurologic involvement upon the initial assessment --
Q Did the patient -- was the patient a blunt trauma patient?
A I believe the major mechanism of injury was sharp penetrating injury to the posterior thigh.
Q Given the history that was given on this patient, would a blunt trauma evaluation have been appropriate?
A I don't think so. Unless you had some information that I'm not privy to in terms of the mechanism of injury.
Q Well, you understand that Mr. Porter was knocked out of his boat, correct?
A I understand that he fell out of the boat.
Q And that he was -- his leg was lacerated in attempting to get on another boat, correct?

A Correct. Which would have been the penetrating portion and obviously any further impact with that propeller other than in his thigh would have been very evident.

Q And he was on some rocks by the shore of the lake for a period of time, are you aware of that?

A I understand that he then swam to a wharf or a wall in which he located himself on apparently a rock wall.

Q And then he was pulled in by a jet ski, is that your understanding?

A Correct. He was towed in by a jet ski at that point to a landing.

Q Do you know what the lake was like during this time?

A I understand it was storming.

Q Are you aware that he had multiple contusions and lacerations?

A I'm aware that he had multiple abrasions on him.

Q Abrasions, lacerations?

A Well, I believe there was -- by lacerations, I would assume the laceration involves suturing and the only other -- or actually the only sutures ever placed in this gentleman was that

of a single digit.

Q Okay. Well, if Dr. Ghanma in his operative report said multiple abrasions and lacerations, you would accept that, wouldn't you?

A Obviously I'd accept it, but I think when he talks about the lacerations, he's indicating his operative site, which is the thigh.

Q Do you know where the multiple abrasions were?

A I know from what the coroner's report has that they mention abrasions, a large number, on the patient's extremities and perhaps the shoulder.

Q How do you think he got those abrasions?

A I think he probably got them by crawling onto the rocks.

Q If the patient had complained of abdominal discomfort in the emergency room, should that complaint have been documented?

MR. TREU: Objection.

A It's standard practice to document the complaints that the patient said and I would have expected this to have been documented by the various observers present.

Q I mean, it's not a standard practice, it's required to document the complaints of a patient?

A Standard or required are essentially one and the same.

Q If a patient had complained of abdominal discomfort in the emergency room, what difference would that have made in the assessment?

A If he had complained of that, I at that time think that that complaint should have been further evaluated by a variety of potential diagnostics.

Q Such as?

A Such as further examinations of the abdomen. Sonographic examination perhaps of the abdomen. Dr. Shapiro suggested, and I agree, in a patient complaining of abdominal pain, to a physician or nurse, and I would probably examine and consider whether or not I would follow with serial examinations of the abdomen or perform a computed tomography.

Q What's the most common injured organ with blunt abdominal trauma?

A In those patients experiencing blunt abdominal trauma, it's -- I've seen it variously described as the spleen or number two the liver. I think with the advent of more CT scanning, we find the

liver may be number one and now the spleen number two.

Q What's the incident of liver injury with blunt abdominal trauma?

A No one knows.

Q Has it been reported as high as 30 to 40 percent?

A Oh, I think that's a number -- that would be generated from extreme patient population of severe blunt abdominal trauma. The reason I say it's unknown is because every patient that comes in with minor abdominal complaints in the physical examination fails to warrant further investigation and they subsequently do well, no one will ever know whether or not they indeed had a minor intra-abdominal contusion or laceration. But certainly 30 to 40 percent is far, far beyond my personal experience in the average trauma population.

Q Knowing what we know now after autopsy, if a CT had been done of the abdomen either in the emergency room or at the time he was in the emergency room or shortly after his admission to the hospital, what would it show?

A I don't know, although I suspect it might not

have shown anything.

Q Okay. Do you have an opinion with a reasonable medical probability as to what it would show?

A Based on my review of the chart and the events of the chart, I think it would have been normal.

Q What do you base that on, the chart?

A Correct, and the autopsy results.

Q What about the autopsy results tells you that a couple days earlier the CT would have been normal?

A My review of the autopsy report, particularly in light of subsequent expert's discussion of the aging of the liver injury, seems to imply that there was no injury there 38, 42 hours prior to the autopsy or the death of the patient.

Q Well, you've based your opinion in part on opinions of other experts?

A Correct, as I always do.

Q So the autopsy itself, I want to find out what -- exactly what parts are based on what.

With respect to the autopsy itself, what about that leads you to conclude that the CT scan would have been normal a couple days prior to death?

A Well, the laceration itself is not particularly

large, even on the autopsy report. It's described as I believe five centimeters in length. It's right at the area of the falciform ligament, and that is often a great deal of difficulty in that area of the liver telling between the falciform and a juxtaposed laceration. So that would be one issue.

The other issue is I believe there's a good possibility that this injury was sustained during the resuscitation.

Q I take it you don't date injury by looking at slides, that's not in your area of expertise, correct?

A Correct.

Q If one pathologist was to say it was an older injury based on slides and another one was to say it was a more recent injury based upon the slides, you'd have no basis to agree or disagree with either of them?

MR. TREU: Objection.

A No, that's not true. I think on the basis of my medical education and on the basis of evaluating injuries in general, and the recognition that there are studies and techniques that I'm not aware of, I would be very much interested in

terms of what pathologist A was basing his judgment on versus pathologist B. In fact, when I first reviewed this case, I recall asking Dr. -- I'm sorry, Attorney Switzer whether or not there were techniques for dating this liver injury and that they might be of major contribution in terms of determining when the injury occurred.

Q Is it generally believed that liver injuries over a period of time tend to clot off, stop bleeding and start bleeding and stop bleeding and start bleeding?

A No.

Q No?

A No.

Q You never read that in any of the trauma texts, trauma literature?

A Your question was at this time typical for liver injury to do that. I would say a typical scenario is that there's an injury that the liver stops bleeding and that's basically why we're able to manage the vast majority of liver injuries nowadays nonoperably because the bleeding stops, the patient is followed carefully as several of your experts have

mentioned, and I would say I probably operate on no more than probably five to ten percent of the major liver injuries now. In the past, if you're referring to older textbook, these were all operated upon and in hindsight we recognized the vast majority of those procedures were unnecessary.

Q So you would say it's typical for a liver injury to stop bleeding?

A In a hemodynamic patient that has a minor injury that's very much so the natural history of the liver injuries.

Q And it just clots up at the site of the laceration?

A Exactly. That and the spleen. The two organs that we recognize have a remarkable ability to repair themselves. That has been the single most important advance in managing of blunt trauma in the last 15 years has been the recognition that these cases will spontaneously heal.

MR. TRAVIS: Just answer the question.

- - - - -

(Recess taken.)

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Q Dr. Ghanma got involved actually in the emergency room; is that right?

A He saw the patient in the emergency room, correct.

Q And is it your understanding that he assumed the role of the attending physician?

A Yes.

Q Was Brad Porter ever seen by a general surgeon?

A Not to my knowledge.

Q What is secondary assessment?

A That involves the -- let me start -- ask you what do you mean by secondary assessment? I'm not quite sure where you're coming from.

Q I've heard the term used in -- by trauma surgeons, talking about the secondary assessment -- the secondary assessment, and that's what I'm asking about.

A I think -- not to quibble but people talk about secondary survey. And the primary survey is the review of the what we call the very basic aspects of resuscitation which are the ABC's, airway, breathing, circulation and disability and exposure, and then the secondary is what is classically described as from a top of the head

down to the tip of the toes examination of the patient.

Q And I guess I started seeing this in connection with, again, the term of art used the secondary assessment where the -- it's one or more days after the initial presentation the patient is stabilized generally and then a secondary assessment, is that what you're referring to by the secondary survey?

A No, the secondary survey would be conducted at the time of initial evaluation and people have added into literature a term tertiary survey meaning recurrent assessments of the patient later on out of the emergency room or later in their emergency room evaluation. Once again, going back and detecting any complaint that the patient may have and pursuing that.

I think a term that you may be referring to is serial examinations, which is classically reviewing patient's status and performing focused examinations on the patient to detect late occurring symptoms.

Q You reviewed the operative report for the first procedure?

A Yes, I did.

Q What's the surgical procedure that you're familiar with?

A Not that specifically, but I'm certainly familiar with debriding and irrigating wounds and have done so many times

Q And then he was put on antibiotics I guess he was put on antibiotics when before that, is that right, I can't recall?

A I believe -- I believe he was given antibiotics, erythromycin and gentamicin.

Q Why those antibiotics?

A Those are what we termed broad spectrum antibiotics and I believe there was concern that this might be a heavily contaminated wound would those be appropriate for the kind of contaminants that you'd find in Lake Erie?

A I don't really know what contaminants are in Lake Erie, but I think those are certainly accepted broad spectrum antibiotics and certainly would be in the class of antibiotics that I would prescribe Given the fact that the patient has an enzyme was allergic -- or there was concern of allergy to penicillin drugs

Q After first debridement, there was a repeat blood study done which included an hemoglobin

and hematocrit. Do you recall that?

A There was a second hemoglobin and hematocrit ordered the following morning, approximately eleven hours after the injury.

MR. TRAVIS: Just answer the question.

Q What was the purpose of that, as you understand it, that second test?

A I'd have to conjecture that the surgeon wanted to make sure that the blood loss from the leg wound had not been so significant that the patient would be in a dangerous circumstance.

Q What did the second test show?

A It showed that the hemoglobin had fallen by what I considered to be a relatively minor amount into a range that is still very acceptable in terms of hemodynamic stability.

Q What do you attribute the fall to?

A I think I would attribute it to the blood loss at the scene of the injury, the blood loss at the operative procedure, and finally any subsequent bleeding that may have occurred on the dressings in the post operative period.

Q Well, the H and H -- the first H and H would have been done at the hospital after the scene,

after the loss of blood at the scene, correct?

A It was done, to the best of my calculations, approximately one hour after the injury.

Q So are you saying that **H** and **H** wouldn't necessarily capture, for lack of a better word, the blood loss that occurred at the scene?

A That's correct.

Q Why is that?

A Because it's well-known that it takes **a** three to four hour period of time for the body to equilibrate any acute blood loss.

Q Well, given the two readings, would it have been reasonable to consider whether there may have been another source of blood loss in this patient, other than the leg?

A If **I** had been reviewing these hemoglobins, I would assume that that blood loss was totally compatible with the injury as it's been described in the chart.

Q Do you think it would have been prudent before another surgical procedure to do another **H** and **H?**

A Not necessarily.

Q **So** you would disagree with Dr. Shapiro with respect to that?

A Based on what you've told me and the circumstances that -- noted in the chart, I would not have felt compelled to do another hemoglobin.

Q I mean, you did read that in Dr. Shapiro's testimony, correct?

A Dr. Shapiro's testimony was based on the premise that a known liver injury was present.

Q That's your understanding of it?

A That was my interpretation of a rather lengthy deposition in which hemoglobin was discussed on several occasions.

Q Were the intakes and outputs charted throughout the hospital course?

A As a general answer, yes, they're certainly accurate intakes and outputs for the 14th and the morning of the 15th.

Q Well, what parts were missing?

A Well, the only part that may be a little bit difficult to chart completely was the resuscitative fluids in the actual arrest scenario. There were multiple referencing to "wide open" and "bolus given," but no quantitative value. But in terms of the patient's IV fluids, following his first

operation and under outputs following the first operation, they appear to be quite explicit to me in the chart.

Q Would you agree that the patients who are at high risk for blunt hepatic injury are those who sustain an impact to the right or central lower chest?

A No.

Q Would you agree that -- well, let me ask.

Those patients with impact to the right or central lower chest, you do not consider them to be at risk for blunt hepatic injury?

A The way you stated your question, I think those patients have the greatest risk would be those patients that have right anterior wall impact and to a far lesser degree those patients that sustain a posterior lower thorax, upper posterior abdominal wall injury. But a chest injury per se, I would expect injury to intrathoracic organs.

Q I'm sorry, I missed something you said there.

You'd expect the patients for the greatest risk of hepatic injury would be from an abdominal wall injury, is that what you're saying?

A Correct.

MR. TRAVIS: Anterior.

A I did state anterior and I think a secondary -- if I had to place an order -- would then be the posterior torso for lack *of* a better term. There's a little bit **of** ambiguity sometimes in our phraseology.

Q As far as a chest injury, you would not consider that a risk for hepatic injury at all?

A I didn't say that. I said that that would not lead me to a high degree of suspicion. I think any impact anywhere on the torso would alert me that there's always a possibility that there could be an additional injury, but you asked what would lead *to* a high degree of concern or suspicion regarding a liver injury.

Q I just asked that because that's what **Dr.** Trunkey has written, that patients who are at high risk for blunt hepatic injury are those that sustain injury to their right or central, lower chest and abdomen. Do you agree with that?

MR. TRAVIS: I object to the reference of the journal. If you want **to** show him that, it obviously may be taking something

out of context.

Q You can answer.

A To be quite candid, that would be my thought too. I'd like to see the entire reference. I'd like to know the year it was written in.

Q I won't fool around. I've got it. I just got this. Current treatment of --

A Yes.

Q Are you familiar with this book, Current Therapy of Trauma?

A Yes,

Q You have this book?

A Yes.

Q 1999?

A It's a recent publication.

Q He's one of the editors and also a contributor. Here's what I'm referring to, this page 235. "Patients at high risk for blunt hepatic injury are those that sustain impact to the right or central thoracic chest, upper abdomen," and he gives front seat passenger in a motor vehicle accident, passenger struck on a passenger side, driver striking the lower chest of the steering wheel in an accident. That's what I'm referring to.

MR. TRAVIS: Show that to him, please.

Q I'm asking --

A I think I won't disagree, but I also point out that he's talking about an anterior injury in his example, which is what I stated is that essentially one would be skewed about an anterior upper abdominal or anterior perhaps lower chondrocostal area of impact because, after all, the ribs do protect the liver to some degree.

Q Well, as you said before with respect to the abdomen, anterior injury could cause it, posterior injury could cause it, right?

A I said I certainly graded those two. By far the most common is an anterior impact.

Q Why is that?

A Because the liver is an anterior structure, it's immediately underneath the anterior abdominal wall here in the lower chondral margin.

Q And then anterior would be first and then posterior abdominal trauma would be second?

A That's all there is, anterior or posterior. I guess one could have lateral.

Q Right. Right. So you could have anterior,

lower right, lower chest injury and that would be a suspicion for liver injury, correct?

A I would term it -- it would be one of the very, many potential differentials of an injury that might occur with the impact in that area, yes.

Q Same would be true with posterior chest because the chest goes around the whole body, right?

A Correct.

Q And at least in Dr. Trunkey's statement, he lists chest and abdomen in the same sentence with respect to high risk of hepatic injury, correct?

A Correct.

Q So I suppose to start with the fact it certainly is possible to have a posterior -- right-sided posterior chest injury and have liver damage, correct?

A I agree, but actually I would expect a posterior liver damage in that case.

Q Where along the liver, just anywhere posterior?

A Yes. There's an anterior aspect to the liver, there's the dome of the liver and as it curves posteriorly, there's a posterior superior aspect of the liver. But I would expect if someone told me they had anterior impact, typically I

would expect it to be anterior although not exclusively. If they had posterior impact, I would typically expect it to be posterior injury.

Q Where would the falciform ligament be?

A That's very anterior and superior.

Q So up by the -- almost to the dome?

A No, it's -- the dome is directly under the diaphragm. The falciform ligament is an anterior ligamentous attachment between the curving anterior surface of the liver and the anterior abdominal wall.

Q Now, did Mr. Porter have any complaints of tenderness in the area of the lower chest -- right lower chest?

A I believe he mentioned to Dr. Ghanma that -- or Dr. Ghanma mentioned in his deposition that he had complained of posterior right lower chest discomfort.

Q And Dr. Ghanma concluded that there was tenderness in that area?

A I believe Dr. Ghanma testified that he examined that area and asked the patient several questions related -- related to that complaint.

Q Do you recall that Dr. Ghanma said that he

attributed the complaints in that area to the boating accident?

A I believe he did so.

Q Is it possible that those complaints in that area -- I don't think he had any abrasions in that area, did he?

A I don't believe that was in the coroner's report, but I can check that if you like.

Q Sure.

A In the final anatomic diagnosis, the pathologist notes abrasions to the left leg, left thigh, left ankle, two abrasions to the left shoulder, and laceration to the thumb, but I see no mention of abrasions to the thorax.

Q So what does that tell you?

A It tells me there were no abrasions on the patient.

Q Well, would it be -- if he did in fact, as Dr. Ghanma determined, had tenderness in that area, would it be more likely that it was some kind of a blunt trauma?

A I would have to assume that Dr. Ghanma had the same conclusion that I had, which was that the patient had sustained some sort of force to that area that was causing discomfort, although if it

wasn't manifested by severe tenderness nor by contusion nor by laceration or abrasion, my index of concern would be history, and then I would proceed with asking specific questions of the patient regarding any symptoms.

Q Of course Dr. Ghanma has testified and he did talk to the patient about this?

A Correct.

Q Well, is it possible that the complaints that this patient was having at this time in this area related to a laceration in his liver?

MR. TREU: Objection.

A I would have expected this patient's complaints to have corresponded to the location of the purported liver injury which is anterior, so I would personally be surprised that he had posterior chest wall complaints for an injury that would normally result in anterior abdominal wall and/or perineal symptomatology.

Q Was the patient laying -- when the patient was in bed in the hospital, what was the position?

A I don't know.

Q What do you believe?

A I would assume he was lying as most patients do, which is laying in a semi-recumbent position

because that's the only comfortable way to lie for a prolonged period of time.

Q Would that, if you have a bleed somewhere in your abdominal cavity, lead the blood to flow towards your -- posterior of the perineal cavity?

A It would ultimately result in -- depending on the position, but more in the pelvis rather than in the posterior abdominal cavity.

Q And is it blood that actually irritates and causes the discomfort in the patient?

A Generally, yes.

Q At that point that Dr. Ghanma was aware of, as you say some force to this area, right lower chest, what is described in his deposition and complaints from the patient, would it have been appropriate to consider the possibility of liver injury?

A I think it would have been appropriate to ask some specific questions to determine whether or not there might be something going on within either the chest and/or the abdomen.

Q And what, depending on what the answers were, go from there?

A Yes, as we always do. We always ask patients

questions and their responses dictate our next step.

Q Did you notice anywhere where the nurses had noted anything about this pain that Dr. Ghanma talked about in his deposition?

MR. TREU: Objection. As to tenderness as opposed to pain?

Q I understand.

A I saw a reference only to pain and in the context I saw it, it seemed to be related to the laceration pain.

Q Did you notice any reference to this tenderness that Dr. Ghanma testified to?

A I can't recall specifically what Dr. Ghanma testified, but I did not see any reference in the nursing charts to posterior chest wall discomfort, but I do note that there were multiple references to the abdomen being nontender.

Q How would you explain that? I mean, Dr. Ghanma -- the patient did complain to him of this, Dr. Ghanma examined it, and the nurses have no notation about it?

A Well, I don't think the nurses were present during that interaction. I think the average

patient floor has perhaps 20, 25 beds and the nurses are not sitting at each bedside during each examination. So that was just Dr. Ghanma doing his routine postoperative rounding and finding out whether or not there might be something new that the patient could inform him about.

Q Let's talk a little bit about this second surgery. I really don't have that much -- all that much more.

Let me just ask you generally during a surgical procedure, who was responsible for maintaining the patient's blood pressure?

A I think it's always a joint operation, but in general if I had to say who would have the greater degree of input and moment to moment decision making would be the anesthesiologist.

Q And when you say a joint operation, what do you mean by that? Do you mean joint between the surgeon and the anesthesiologist, I assume?

A Correct.

Q Or do you include also the other people in the operating room as well?

A No, it would be the surgical team itself and that would be the anesthesiologist and the

surgeon. It's not a nursing decision --

Q Okay.

A -- to administer fluids or other drugs.

Q So again, then, what do you mean it's a joint operation, or what did you say joint responsibility?

A I think I prefaced that with saying in general the anesthesiologist whose attention is focused on hemodynamic status and vital signs takes the lead role in this, but certainly he or she would keep the surgeon's opinion in mind and he would inquire as to what was going on on the other side of the op screen. And vice versa, the surgeon if there was some obvious problem on his or her side of the anesthetic screen would mention that to the anesthesiologist, and in that sense I consider it a joint responsibility and a joint undertaking.

Q Is it the obligation of the surgeon to assess the blood pressures before commencing the surgery?

A I think he should be aware of them.

Q Okay. By affirmatively asking or just relying upon the anesthesiologist to tell him?

A Typically, it's the latter in the sense that

we -- we work in a situation where each person in that team is attending their major portion of responsibility and they depend on one another to inform one another if there are problems within the subsectors.

Q Certainly during the procedure it's the anesthesiologist's primary responsibility to monitor the blood pressure, correct?

A That's correct.

Q And communicating any problems with that blood pressure to the surgeon, correct?

A I would agree with the exception that it would be any unusual problems.

Q Yes. Thank you.

Now, there had been a -- are you aware that Mr. Porter had a drop in his blood pressure in the early morning hours before the second debridement?

A Correct. The chart documents what I consider to be a relatively minor drop in his pressure.

Q What do you attribute that drop to?

A I actually think he was in the early stages of sepsis.

Q What makes you think that?

A The nature of the wound. The nature of the

contaminant. The operative cultures that were procured in the first operation. The findings of the second operation. And the elevated temp, or fever, that the patient manifested the night prior to operation.

Q With the exception of -- in your list of things there with the exception of the findings from the second operation, all those other factors would have been known to Dr. Ghanma prior to his starting the second operation, correct?

A Correct. And he also was undertaking a second operation with the expectation that there would be a wound infection if he did not intervene.

Q Let me ask you: Are there different methods of debriding Mr. Porter's leg?

A Debridement is a general term for the general process of removing devitalized tissue and covering any areas of obvious infection. So I'm sure there may be various ways of debriding, but there tends to be several standard techniques that are employed.

Q When you say in the early stages of sepsis, what does that mean? You know, some things have definite stages and some -- you know, I don't know if you're using that to refer to definite

stages or are you just using it generically to say it was early on in the process? What do you mean?

A Well, I think that sepsis is a manifestation of infection in an organ or a tissue and that ultimately, if uncorrected, either by the body or by interventions, any septic focus can become generalized and become potentially lethal. And in a wound that was heavily contaminated by water that was of known potential contamination, this was a particular prone area and I think the patient manifested several classic signs of, as a minimum, local wound sepsis and I believe early generalized sepsis.

Q Why do you believe generalized?

A I am attributing his diminution in his pressure as one of those signs of systemic sepsis. He had just prior to that drop in blood pressure spiked a fever. He had known contamination of deep tissues and I -- I find his clinical course during that late night and early morning as compatible with the early onset of the generalized sepsis.

Q How do you treat that generalized sepsis?

A It's treated by, in this type of case, by a

tandem of antibiotics, operative debridement and general support of the patient in terms hemodynamic fluids.

Q You reviewed the blood pressure readings for the induction and -- of the patient on to the beginning of the actual surgical procedure? I'm breaking it into pieces.

A Yes, I have. Although the times are not precise in terms of when the induction was and when the actual procedure began. But in general, I think I have a general knowledge of when all of those occurred.

Q Well, based on that general knowledge, and obviously if you have to look at all those either photographs or listings out, but based upon review of those post induction pre-procedure readings, would you agree with Dr. Ghanma that Dr. Quansah, the anesthesiologist, should have made him aware of those blood pressure readings prior to the commencement of the surgery procedure?

MS. HENRY: Objection.

A I think I would have liked to have known that the patient's blood pressures were lower than what would have been expected, particularly

beyond the immediate period after the induction. But the induction phase typically has some pretty scary hypertensive episodes that the surgeon generally isn't aware of and the anesthesiologist corrects and it's only a quick note in the anesthetic record when we go back later on and look at it. But if the hypertension had been sustained, I would have preferred were I Dr. Ghanma to have been informed of that.

Q Did you read in Dr. Ghanma's testimony was that he wouldn't have started the procedure had he known about those pressure readings?

A I read that.

Q And did you agree with -- he was the surgical decision, so I suppose you would agree with his surgical decision in that respect?

MS. HENRY: Objection..

A I agree that he -- that that would have been a decision one could make. To be quite frank, I might have attributed that to the sepsis and then had been actually thinking this is even more argument that I need to get this debridement done.

Q Well, when you say you would have liked to have

known and things like that, we're talking about a patient -- a young patient with blood pressure readings that are scary, that was your term I think, that's a good description here --

MS. HENRY: Objection.

Q -- isn't it incumbent upon the anesthesiologist --

A I don't think I said scary in terms of this case.

Q I didn't say that's how you described it. You used that to describe blood pressure readings in other settings.

A Of the induction of cases that otherwise go smoothly.

Q Right. And I'm -- I'm describing them as scary.

MR. TRAVIS: Objection.

MS. HENRY: Objection.

A I would give you the right to describe them as scary.

Q I mean, isn't it really incumbent upon the anesthesiologist under these circumstances to let the surgeon know before the surgery starts the procedure about the blood pressure readings that we have in front of us?

MS. HENRY: Objection.

MR. TRAVIS: Objection to the extent you're asking him an anesthesiology standard of care question.

You can answer if you can.

A I think were I the anesthesiologist and were I the surgeon, and we were both operating on a case that -- with the explicit presumption that the reason you're being there, we're trying to prevent impending sepsis with generalized symptoms resulting from that sepsis, I could understand the anesthesiologist believing that the surgeon would know that this patient would be hypertensive during the undertaking of that procedure.

Nonetheless, I would have preferred were I Dr. Ghanma to have been notified and just double checked that even though you're bringing this patient down here for sepsis, even though this is a heavily contaminated wound, one might reasonably termed hypertensive under those circumstances, nonetheless confirm that in some sort of communication after the induction and after the hypertension persisted.

Q I don't know what you just said, but --

A Can we read it back?

Q I don't need it read back. Are you talking about standard of care in this case?
A Yes.
Q About whose standard of care?
A About those areas that I believe I have an expertise in.
Q Okay. And what would those be, so I'm clear?
A The broad areas would be I think very comparable to what Dr. Shapiro claims an expertise in, which would be trauma, management of the trauma patient, the assessment. Trauma patient, the intra-operative care of the trauma patient and those aspects of critical care that make me unique above and beyond the general surgeon to discuss complex issues of critical care.
Q I mean, are you going to give any standard of care questions -- I assume about Dr. Ghanma, the surgeon, are you going to say that he was within the standard of care?
A I would say for those areas that have a conjoint area of knowledge and experience, meaning soft tissue injuries from trauma, yes, I feel comfortable with that. If we deal with more complex orthopedic issues, I'm not Board certified in orthopedics.

Q Okay. Well, I don't think we're going to be getting into orthopedics. What about -- I'm assuming you're not -- based upon the objection of not your counsel, of counsel here, you're not going to be offering standard of care opinions relating to the anesthesiologist; is that correct?

A Other than as those that deal with my interface with the anesthesiologist, sharing the conduct of a typical operative case.

Q Well, I don't know if that applies here or not. Are you going to --

A Your question?

Q -- talk about standard of care?

A You prefaced your question asking me about her interactions with Dr. Ghanma and obviously felt I had some background that I could extrapolate, either my past knowledge or what I assume to be an appropriate behavior. So I think that it will be simply on the basis of my experience in thousands of trauma cases what would I expect. But beyond the actual technical aspects of her anesthetic conduct, I'm not qualified to discuss that.

Q Okay. Well, I just -- we just want to make sure

before you leave. And I -- you're being very precise and I appreciate that because I've asked questions about what you would expect and about the conduct of the anesthesiologist.

What I really wanted to know is are you going to state an opinion with reasonable medical probability in this case regarding whether or not Dr. Quansah met the standard of care for an anesthesiologist under these circumstances? Because that's not in your report and you're not an anesthesiologist, but if you're going to state that, we better explore it.

A No, I'm not going to state that.

Q Okay. That saves us a lot of time.

What is sudden bacterial sepsis?

A I use that phrase to talk about the progression of a local, regional septic process to the point that either the bacterial toxins or whatever mediators are responsible for the ultimate systemic syndrome become manifested.

Q What is the sudden part of it, sudden bacterial sepsis?

A Well, I think sepsis can be a very scary process in which people appear quite well and within a

very short period of time they become very unstable in terms of hemodynamic parameters. They have dysfunction of a variety of their critical organs and they become -- literally their lives become at jeopardy for continued survival anywhere from, theoretically, minutes to hours or days thereafter.

Q Is sepsis a progressive disease?

A I think unless somebody is injected intravascular with bacteria, it always starts at some focal area, be that the lung in pneumonia, be that abdomen peritonitis or be that in a soft tissue focus it gets -- it overwhelms the body's local and systemic attempts to confine the area of injury and then it becomes a systemic process.

Q Have you ever seen a cause of death listed for somebody as sudden bacterial sepsis?

A I don't think people use the adjective sudden, but they certainly say sepsis or overwhelming sepsis or sepsis syndrome or multi or secondary to generalized sepsis organ failure. When I say sudden sepsis, I think that was rather descriptive rather than a nominative term.

Q I don't think that you're the one that said it,

but --

MS. HENRY: My expert said it.

Q Sudden bacterial sepsis. I don't want to try and put that word in your mouth.

Now, you say in your report that you have disagreed with Dr. Matus as to the cause of death?

A Correct.

Q And what do you understand Dr. Matus' conclusion to be as to the cause of death?

A My understanding is that the coroner attributed death to hemorrhagic shock from a liver laceration.

Q And you don't think that's true?

A I don't think the facts in the record substantiate that.

Q And are you going to be offering another cause of death?

A I'm going to be offering other possibilities, yes.

Q You're going to be offering possibilities, but you can tell me about them. What caused Mr. Porter's death?

A Well, I believe he was in the early stages of

systemic sepsis in the operating -- when he arrived in the operating theater, that he was uniquely susceptible to any other assault on any of the other vital structures at that moment. And I believe the circumstances of his precipitous favors the possible -- the possibility and the probability of a major pulmonary thromboembolism.

Q The possibility of a -- maybe I didn't get that.

A I think I stated that I think it's very probable he had a massive pulmonary thromboembolism.

Q Okay. And what do you base that very probability on?

A I think this patient is a unique risk for developing what we call deep V thrombosis based on the possibility of a major injury to an extremity. The fact that his injury would force him to be bed ridden, the fact that he had a sudden precipitous change in his hemodynamic status that may have correlated to movement on the table or movement of the extremity. The fact that he had a sudden precipitous drop on two occasions in his CO2, and the fact that he was noted to have a very dilated right ventricle echocardiogram. There's perhaps other

circumstances I can't recall at this moment.

Q What caused his pressure to drop throughout the procedure prior to his arrest?

A I believe that was probably due to the sepsis that was developing at that time.

Q So the sepsis is causing his blood pressure to drop during the procedure, correct?

A It's causing it to stay low during the procedure and occasionally dip, but admittedly at a very low baseline level relative to what I expect in a healthy 28 year old male.

Q While being supported with doses of phenylephrine and epinephrine?

A Correct. And those are not unusual drugs to have to employ with someone who is septic.

Q So that sepsis, A, is keeping it low and occasionally causing it to dip, correct?

A Correct.

Q And then all of a sudden pulmonary embolism?

A All of a sudden major event, attempt to recover on the part of the patient's cardiac system and ultimately failure to compensate an arrest.

Q The event is the pulmonary embolism, though, right?

A The -- the -- yes, the ultimate lethal event I

believe is the pulmonary embolism. I think he probably would have been able to survive the sepsis.

Q Okay. He probably would have survived the sepsis but he gets -- it has to be a pretty big embolism to cause him to suddenly arrest, doesn't it?

A I agree, yes. And he did not suddenly arrest, initially. He suddenly became unstable at 10:00 and he arrested 28 minutes later or whatever.

Q So you think the -- the embolus occluded his -- where did the embolus get lodged?

A I can only speculate, but it would -- if you care to, I will.

Q Sure.

A I think that it -- it was a major pulmonary outflow tract embolus lodged in one of the major if not both major pulmonary arteries and that -- that as the classic response of basically giving a hemodynamic blockage to the right heart. So the patient goes into acute right heart failure.

Q You think that happened at 10:00?

A I think the initial embolization probably occurred at 10:00 and I think I'm -- I'm speculating that either that ultimately

overwhelmed the right heart or that a second embolization occurred right as the procedure was terminated.

Q Okay. Now, I know you're speculating and you told me that you were, so I guess you can't say with reasonable medical probability where the embolus went in the heart, correct?

A Correct. Although I don't believe the embolism was within the heart. Typically it's within the outflow tracts of the right heart.

Q Okay. But you can't say with reasonable probability that that's where it was either, correct?

A Correct, but that is typically the type of embolism that causes a fatal acute destabilization in a patient.

Q So, where is it? Where is the embolus?

A During the operation?

Q No. Where is it after he dies?

A I'm not sure. People unfortunately -- I don't think people examined the patient carefully, meaning the pathologist.

Q He missed it?

A I think there were several unique aspects to this case, one which -- one of which was an

uniquely prolonged effort at resuscitation, resuscitating this patient over an hour and 30 minutes. I think the fact that the patient was given an exogenous thrombolytic agent was unique to this case and may have contributed to the dissolution to the clot after the arrest had taken place. And finally, I think the clot probably was mechanically and chemically dissolved and migrated into the periphery as a multitude of smaller clots, and I don't know whether or not those in fact may have been acted upon by the TPA.

Q Don't you think that a pathologist would be much better suited to address those issues than you?

A I certainly think that would be an area of their expertise, yes.

Q None of the pathologists in this case is going to say that the embolus could be totally dissolved mechanically, by drugs or whatever?

A I don't believe --

MS. HENRY: Objection.

A I don't believe I said it would be totally dissolved.

Q Do you really think you're qualified to talk about the postmortem findings with respect to

this -- to this supposed emboli?

A I think I've dealt with a number of people that have had pulmonary emboli. I've looked at a number of radiologic studies and I've looked at a number of postmortem studies on patients that had lethal pulmonary emboli. Where I certainly don't have the expertise of a pathologist, I won't claim that I do, I certainly would expect a careful and detailed examination of the pulmonary vasculature to be undertaken in a precipitous intra-operative death of an unexpected nature. And more importantly, I think someone should have looked to see what might be potential sources for these emboli, and I will leave that up to the experts. But typically my postmortem reports discuss those areas.

Q Well, I mean, what do you think Dr. Daniels was doing in this case? I mean, do you have any information that he was careless in his examination of this patient?

A I have only the pertinent negative that he failed to look at the deep venous system of this patient's lower extremities, in a patient who is a classic patient at risk for pulmonary emboli.

And I remember that there was a very cursory one-line report about the nature of the pulmonary vasculature and I just presumed that he had additional information, but it doesn't appear that he did, at least in the reports that I have.

Q Well, I take it then you're critical of Dr. Daniel's procedure in this?

A As a surgeon, I'm surprised that he did not try to nor investigate the possibility of a pulmonary thromboembolism in a patient that had unexpected, sudden cardiovascular arrest in the operating room and he would have been in general good health prior to that.

Q Well, surprised, I don't know where that gets us. Are you critical of him or not?

A As a surgeon, yes, I'm critical of him.

Q Have you disputed -- in these situations that you talk about when you find out about what the coroner comes up with, do you sometimes say, Hey, coroner, you ought to look further for the cause of this death? You didn't really do what you should have done. I mean, I'm paraphrasing, of course. I'm sure that that comes up, right?

A Well, not really. It's relatively rare to have

the autopsy report in front of you any sooner than four to six weeks after death. That's -- the final report is rarely present and typically what you receive is -- after perhaps four to five days, you may receive what is a preliminary report and has huge red stamps or verbal stamps plastered all over it saying this is a preliminary report. I would have heard that report and probably just presumed my question would have been is there any evidence of deep venous thrombosis, but by then as I told you receiving a report at four to six weeks after fact, it's too late.

Q And have you ever talked to the coroner in a case that you're really baffled about and --

A Yes.

Q -- say hey, you know, as soon as you get something, give me a call or whatever?

A Yes, I've done that.

Q And talked with them about, hey, that doesn't seem to match, why don't you try something, why don't you look here, look there?

A I'm not sure I've ever done that. But in these circumstances I might have, but I don't know what I would have done.

Q Well, Dr. Ghanma certainly could have done that in this case, could have talked to the coroner and asked him to have other issues explored?

A I think Dr. Ghanma would have made the same conclusions that I did, which is he was dealing with someone who is competent in their field, given their position, and perhaps only after the fact would he have questions about it.

Q Is it still your assumption that Dr. Daniels is competent in his field?

A I don't have -- I can't render an opinion because I'm not Board certified in pathology. I can only state that I'm deeply surprised that he did not look for deep venous thrombosis in a patient that suffered a pulmonary thromboembolism.

Q I mean if he were to tell you that, you know, clearly in a case like this, where the embolus could be so large you don't find any evidence of it after carefully looking for it that, you know, you don't go -- it's not the standard for him to go stripping the veins in the leg, if he were to say that to you --

MR. TRAVIS: Objection.

Q -- do you have any basis to disagree with him as

a pathologist?

MR. TREU: Objection.

MR. TRAVIS: Objection. I don't think that's a correct characterization of what Dr. Daniels testified to, but you can answer if you can, Doctor.

MS. HENRY: Objection.

A I would be surprised if he would say that. If he did say that, I would probably contest him and say are you saying it's impossible that this patient could have had a thromboembolism and don't you think that some supporting evidence f that would have been the detection of deep venous thrombosis in this patient's lower extremities and how can you draw that conclusion, Dr. Daniels? That would have been my response as an attending surgeon in this case.

Q *So* what if they would have found some evidence of emboli in the legs?

A That would have been I think a very substantial support to my thesis that this patient had a major pulmonary thromboembolic event.

Q Have you read the deposition of Dr. Barnell in this case?

A Yes, I have.

Q Did he testify that despite **TPA,** despite ventilation, despite the effort of the resuscitation, the embolus would have been present and would have been able to have been found in this patient postmortem? **Is** that your understanding of his testimony?

A No. My interpretation of what he said was that if one does not look for it, one cannot find it. And that he felt that the number of microslides taken of the lungs was totally inadequate to reasonably exclude the possibility that the major pulmonary thromboembolism had been effectively either mechanically or chemically lysed. **I** think he repeatedly stated that one cannot prove the absence of events when one does not look for that event adequately.

Q If you don't find it, you can't prove it wasn't there, so experts could come in and testify that it was there?

A No. I think if you don't look for it, you can't find it. **So** experts can say you didn't **look** for it and therefore you didn't find it on the basis of that.

Q Cite me to some literature that says you ought

to be able to find this emboli, or we ought to not be able to find this emboli because of **TPA?**

A If you care to, I'll try to review the literature. I certainly have read in my various readings over the years that TPA has been used to -- acutely as a lytic agent in a thromboembolism, that angiograms on surviving patients has noted significant if not near total dissolution of the thromboemboli and that unfortunately that rarely changes the outcome but it clearly does result in notably improved hemodynamic status as well as tangible dissolution of those clots, analogous what we know occurs in many other vascular beds of the hemoglobin.

Q What if they started using TPA at 10:00?

A That would have been contraindicated at that point.

Q Why didn't anybody recognize at 10:00 that he was having this major clot, major pulmonary embolus?

A I think he entered -- I think it may have entered into Dr. Ghanma's differential, I don't know. I know one of the classic differentials in a sudden drop in the entitled C02 is a

pulmonary embolism, but there are other differentials that I think all of those were entering into the ongoing on-line decision making of the anesthesiologist.

Q Well, if the anesthesiologist or the surgeon thought at 10:00 that this was a pulmonary embolus, what steps could they have taken?

MS. HENRY: Objection.

A I think they should do the classic therapy which is general supportive therapy, volume loading of the patient. That -- and, by the way, I'm prefacing all this assuming that was the exclusive diagnosis and that they had no other working diagnosis. And then trying to move along with the operation and get the patient into a more monitored situation.

Q Well, did they do that? Did they fluid load him at 10:00?

A I believe Dr. Quansah's notes mention that boluses were given, but you'd have to ask her.

Q Well, you read her deposition.

A Yes, I have and I don't know precisely what happened at 10:00 versus at 10:15. But my general impression was that she was giving this patient -- she started a second IV for the

explicit purpose of giving additional fluids, both on the basis of what I presume was her suspicion that the patient might be septic and additionally noting that he was hypertensive. I don't think anyone would have presumed to make a diagnosis of pulmonary embolism on the basis of the initial dip in the blood pressure at 10:00.

Q Have you ever concluded that a patient had a pulmonary embolism where none was found in autopsy?

A Yes. In a sense no autopsy was done in the patient and the clinical scenario was such that we and the coroner concluded that the pulmonary embolism had occurred. But, no, I have not dealt with a case -- but I've never had a case with the unique aspects of this case in that the patient had an hour and a half of CPR and 45 minutes of TPA working this embolism.

Q So the answer is you never in your entire career ever concluded that a patient had a pulmonary embolus in a situation where there had been an autopsy, showed no pulmonary embolism?

A That has yet to occur in my practice.

Q And you never read about such a situation, either?

A I don't read -- that, I assume would occur in a medical-legal type of scenario rather than in the general medical text, and I certainly have never read anything about that.

Q All right. So what caused all this blood in his peritoneal, in Mr. Porter's peritoneal?

A I think that was on the basis of the resuscitative efforts because I'm not impressed there was all that much blood.

Q How much blood was it?

A The coroner came up with a precise figure of 1500 cc's.

Q And you're not impressed with that?

A I'm not impressed that that's enough to cause the death of a pre-existing healthy 28 year old male, And I have treated multitude of patients who had comparable amounts of blood who received no transfusion and survived with a comparable amount of known blood in their abdomen.

Q But he wasn't really previously healthy, was he; he was in the early stages of sepsis?

A No. I stated prior to the injury. But if he indeed were in the early stages of sepsis, I think he would have been -- that would have been a contribution to his relative ability to be

prone to any event. But as I said, many of our patients in trauma are both septic and have blood loss. But I don't think 1500 cc's is just not that much blood in a peritoneal cavity. And I'll voice my opinion I'm not convinced that all that was present at the time of the arrest.

Q So the sepsis is really not that significant?

MS. HENRY: Objection.

MR. TREU: Objection.

A No, I did not state that.

Q It's not significant enough that the patient who would lose 1500 cc's of blood, this in combination with being in the early stages of sepsis, you don't think that could cause this patient to arrest?

MS. HENRY: Objection.

A I don't really know. I -- I just know he would have been more prone to the consequences of a blood loss were he septic. But I still don't believe that that was a -- I think it was a moderate amount of blood loss, but it was -- in and of itself it's not my experience that that should cause a patient to arrest.

Q I'm not asking you in and of itself. I'm asking that blood loss coupled with the early stages of

sepsis that you identified, do you know whether or not that would be sufficient to cause this patient to arrest?

A No, I don't know.

Q Okay. So it's possible?

A I guess it is possible, but anything is possible.

Q Yes, it is. So I know you want that other opinion about this happened -- this blood is post arrest blood, correct?

A I believe some of it may be, if not all of it.

Q Why do you think that? I mean, I know you've got some opinions from some other experts that you rely upon. But you know you yourself. Why do you think that?

MR. TRAVIS: Objection. He didn't state he relied on any other expert for that. You can answer, Doctor.

A Well, I think the patient if -- whenever this laceration occurred, that if there was continued circulation, I would expect the laceration to continue to bleed. And during the arrest, the -- clearly the impressions would lead to some sort of circulatory response. How effective it was or the real results of it, I

don't know, you have to ask the people who were there. But typically during CPR you put your hands in the groin, you can feel a pulse wave with each compression. And that -- and clearly I have personal knowledge of a case in which I sustained a patient for over two hours using cardiopulmonary resuscitation alone and obviously they had adequate circulation because the patient awoke and left the hospital within a short time after that. So I clearly think that to say the end volume of 1500 occurred and if anyone postulates that this injury was present, then I would postulate that the 1500 represented the ongoing bleeding through the entire period of the resuscitation and that it was, you know, that almost a de facto. There would be no reason to think the 1500 bled at some point prior to the patient's death, and then at T plus one second no further bleeding would occur.

Q Well, what are you going to say with reasonable medical probability? Are you going to say that all the blood, some of the blood, none of the blood, what are you going to say --

A I'm going to say I believe that the laceration was as a result of the one and a half hour

period of chest compressions, because I just can't believe this patient who up to that night had been alert, oriented, without any drugs, who had undergone multiple examinations by multiple observers and failed at any point to complain of any abdominal pain, who complained of right posterior chest pain, and then specifically denied symptoms that would be suggestive of abdominal process, who had an excellent urine output until the moment he was delivered down to the operating room, which would suggest a very adequate circulating volume, I'm not -- I believe that this was the result of the probably over 2,000 compressions that were done on this patient's sternum and lower anterior chest by multitude of different people performing CPR and given the fact that I've seen and witnessed a number of anterior chest wall injuries that have occurred by CPR.

Q Any other injuries that you've seen?

A Not that I've seen.

Q But --

A But typically those patients don't undergo an autopsy, so I don't know what their liver injuries might have been present.

Q What about the location of this liver injury, is it consistent with compressions in resuscitation?

A I believe so, because it occurred on the anterior aspect of the liver and it occurred at the base of a ligament that attaches the liver to the anterior abdominal wall And if compressions had been off by a relatively small amount of distance, that -- that would have been the area of the liver that would have been impacted by the resuscitative efforts

Q Give me one minute, Doctor

Would you expect there to be indication that -- evidence on the patient's body of his say 200 -- I know you're just guessing, but 200 compressions --

MS HENRY: 2,000,

MR LANSDOWNE: 2,000? Is that what he said?

Q -- 2,000 compressions, would you expect him to have bruising?

A I think if it occurred in a -- repeatedly in one area, there might very well be bruising I don't know, it depends on the, you know, quality of the patient's skin, whatever I think you

might perhaps ask people who do a lot of postmortem whether or not they see compression marks. I have certainly seen bruising on patients even something as simple as a sternal rub, which is an examination of a neurologic status and that's much less compressive than what would be done during CPR.

Q You don't perform autopsies, do you?

A Correct.

Q Do you participate in them?

A Yes. On occasion, I will go down and watch them perform an autopsy on a patient of mine.

Q Just observe it?

A I observe and will interact with the pathologist during his performance.

Q I just want to make sure I've got all your opinions, Doctor, here that you're going to come in and testify about.

You testified that Dr. Ghanma met the standard of care in the areas that you overlap with, or in terms of his care of this patient, correct?

MR. TRAVIS: I'll object to the attempt to the extent you're attempting to summarize the testimony for the last several

hours, but do your best.

A That is correct.

Q And you're going to testify that probably Mr. Porter died from a pulmonary embolus that lodged somewhere, but you don't know where, at around 10:00 a.m., correct?

MR. TRAVIS: I don't think that was his precise testimony, but you can answer.

Q If that's not, correct me, please.

A I think he did have an embolic event at 10:00. He had a second embolic event, which is not atypical of patients who are emboli -- or in other words the thrombus typically, classically originated in the deep venous system of the lower extremities or occasionally the pelvis when they embolize and they often do it on several episodes, so I am -- I think it is accurate to say that I believe a pulmonary thromboembolism was a very likely cause of this patient's ultimate demise.

Q First embolus lodged somewhere and you're not -- you can't say where, but somewhere at around 10:00 and then there was a second embolism?

MS. HENRY: Objection,

Q The second embolic event, I'm not sure we covered that.

MR. TRAVIS: Objection to the compound question, but answer.

A I think on my review of the chart, that's a very possible explanation of what occurred. And I would have to say that my interpretation is that an initial embolic event occurred at 10:00, that due to the efforts of the anesthesiologist and the patient's own compensatory mechanisms was able to tolerate this extreme event, but was able to do so only on a marginal level. And then when the second embolism occurs, which is not at all unusual, which is often visualized by us, which is what the whole thrust of our subsequent therapy is on patients who had a thrombolic event is not to treat the initial event, but to prevent a recurrence, I would say that that recurrence unfortunately in this man occurred at the time of his arrest, which would have been the latter part of that first half hour.

Q Sometime around 10:25, 10:28, something like that?

A From what I see in the record, that would be a

good estimate.

Q He had a second embolus, where did it lodge?

A I think it probably lodged either immediately behind the first clot or in the other portion of the major pulmonary outflow tract, pulmonary artery since there are two lungs and two branches to the major pulmonary outflow tract. And the first embolus may have occluded one of the two major pulmonary outflow tracts and the second one essentially rendered the patient without any pulmonary blood flow from the heart.

Q Right.

A That's incompatible with life.

Q As far as that -- the location, I think we talked about before, you really -- that's just speculation?

A In this particular case, although that is the classic finding --

Q Um-hum.

A -- on patients who survive to the point of angiographies, we've done an angiogram to confirm where the location of the clot is for a devastating cardiac arrest producing thromboembolism. Typically it occurs in the major pulmonary outflow tract.

Q And these clots we talked about were lodged, how large would they have to be, like the tip of your finger?

A No, I think -- you know, I can't speculate. I'm sure there's a wide degree of variability. I'm sure if you ask the pathologist they can refer to their literature, but the pulmonary artery is probably in the ballpark of the size of your thumb, so anything -- a size in that range. But there are many textbooks which shows pictures of lethal pulmonary emboli. Some are extremely dramatic, some of them are substantial but not all that overwhelming. It's an absolutely key part of the cardiac system and if that is blocked off, the heart is essentially blocking against a total occlusion.

MR. LANSDOWNE: Okay. That's all the questions I have. These other people may have some.

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(Recess taken.)

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BY MR. TREU:

Q Doctor, I have a few questions for you. I represent the hospital.

And let me ask you this: You testified that you are qualified to testify about the types of things that Dr Shapiro testified in this case, the two of you are qualified in the same areas; is that correct?

A I think we have the same general qualifications I'm sure he has expertise and vice versa

Q Can you tell me, do you believe that Dr Murphy, Dr Evans and the people who took care of this patient in the emergency department met the accepted standard of care?

A From review of the records it appears to be so

Q Based on the history and examinations that were performed of this patient in the emergency department, do you believe that it was necessary to perform any types of scans of the abdomen during the time this patient was in the emergency department?

A No, I don't

Q What signs and symptoms would you expect to see in a patient with a liver laceration of the nature that was found at this autopsy? Is it were ongoing from the time of the boating accident, for example, to the time he was in the hospital.

A I would expect the patient to have some sort of complaints at that time, but that's not necessarily always the case. And I think that is the point of serial examinations and what we earlier termed tertiary survey, and I think that that was actually the point of the presentation that I gave in the past that repeated examination should be.

Q We know from the nursing notes there were serial nursing examinations of the abdomen?

A That's correct.

Q And at least Dr. Murphy documents an abdominal examination, correct?

A That's the documented exam and Dr. Ghanma's testimony states he performed the examination as well.

Q On more than one occasion?

A Correct.

Q Correct. Was there anything about this patient's history upon presentation to the emergency department, either by information from the patient, paramedics, the family or anyone else, or his presenting complaints, that required this patient to be transferred to a different institution in your mind?

A I don't believe so, from what I've been able to discern from the medical record

Q Do you have any criticisms of the hospital itself in this case?

A No, I don't

Q Based on your review of these records, has there been a trauma surgeon at St Joe's at the time this person presented to the emergency department and this patient had been seen by a trauma surgeon in the emergency department, do you believe that this patient would -- based on everything you've seen, more likely than not been referred to a specialist in the area of orthopedics like Dr. hanma or been followed by the trauma surgeon?

A I think either are possibilities, depending upon what the local custom is but is the hospital actually employed a trauma surgeon or has a trauma surgeon on staff, his expertise s in trauma, I would assume that he or she would have probably been utilized

Q I think you testified that only five to ten percent of the lower lacerations that are diagnosed in your practice are treated surgically?

A I think that's accurate.
Q Okay. Just assuming for a minute that there was a liver laceration of the nature described at autopsy in this patient at the time of presentation to the hospital from the boating accident and had been recognized at that time, do you believe that this would have required surgical repair or that the treatment would not --
A That would be determined by the subsequent course, but on the face --
Q Based on everything you saw.
A Based on what I saw in the coroner's report, more likely than not this would have been a liver injury that would have been amenable to nonoperative medicine.
Q Is a large clot on the right side of the heart, as found during the echocardiogram during the resuscitation in this case, a finding from a pulmonary embolism?
A It is certainly a finding in part with that.
Q Do you have any opinion as to what the -- what might have caused the two pulmonary emboli that occurred during this patient's operation in terms of mechanism?

A Well, classically that involved some sort of change in the pressure of the venous system which the embolism or the thrombus has developed, and I think the fact that the leg was being manipulated or had been manipulated, particularly the circumstances in which the leg is being dressed with packing of dressing as well as the application of clean bandage, would certainly lend itself to the classic scenario to a thrombus being dislodged and become a thromboemboli.

Q And earlier in your testimony, you were asked about some publications. I believe you were asked as to whether they were respected or --

MS. HENRY: Reliable.

Q -- reliable. Are any of those texts or publications that you referred to in your mind authoritative?

A I think that they're excellent sources of information. I think they're excellent tools for education. But I don't think any textbook can be labeled de facto authoritative word for word and sentence for sentence.

Q You don't have any criticism of the nursing care in this case, do you?

A No, I do not.

MR. TREU: Thank you.

That's all I have.

BY MR. LANSDOWNZ:

Q Doctor, just as I asked you about this and Chris asked you about the literature and referring again to Dr. Trunkey's book in his section of the book on liver injury, it says that the liver is the most commonly injured organ with blunt abdominal trauma with an incident rate at 30 percent to 40 percent, do you see that? I just want you to know, I asked you literature in my question.

A Well, thank you. And I can tell you that you can ask that question of many trauma surgeons and they would say of all the patients that are admitted in the blunt portion of their trauma registry, whether or not they believe that 30 to 40 percent of those people have a trauma have a liver injury entered in that code and I would be very certain of the answer.

Q You don't think that the figures are right or you just think they don't get recorded?

A I think this is a classic example of a very respected surgeon looking at a very select group

of patients, that Dr. Trunkey has always served at very large trauma centers where the most difficult of all cases are going to be referred. I think that skews your number because many of the patients are basically those of the most difficult are being referred from large hospitals. In fact, my hospital in Youngstown used to refer difficult cases down to the University of Pittsburgh or Cleveland Metro by the fact that you were a Level 1 trauma center because of their additional expertise. So Dr. Falle or Dr. Pittsman at the University of Pittsburgh would have a greater numerator. But that is as you say estimated.

Q All right.

A And far, far above that that I think anyone else is experienced would generally support.

Q And as far as it -- the liver being the most commonly injured in blunt abdominal trauma, your experience is it's either the liver or the spleen?

A I think the liver with additional imaging has been recognized as probably the first and the spleen is just behind that.

MR. LANSDOWNE: Okay. That's

all I have. Thank you very much.

(Deposition concluded at 12:22 p.m.)

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THE STATE OF OHIO,) SS: CERTIFICATE
COUNTY OF CUYAHOGA.)

I, Darlene Lowe, a Notary Public within and for the State of Ohio, duly commissioned and qualified, do hereby certify that the within-named witness, Dr. Clyde McAuley, was first duly sworn to testify the truth, the whole truth and nothing but the truth in the cause aforesaid; that the testimony then given by him was by me reduced to stenotypy in the presence of said witness, afterwards transcribed on a computer/printer, and that the foregoing is a true and correct transcript of the testimony ***so*** given by him, as aforesaid.

I do further certify that this deposition was taken at the time and place in the foregoing caption specified.

I do further certify that I am not a relative, counsel or attorney of either party, or otherwise interested in the event of this action;

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Cleveland, Ohio, on this 8th day of June, 1999.

Da'rlene Lowe, Notary Public
within and for the State of Ohio
My Commission expires March 25, 2002.

THE STATE OF _____)
) SS:
COUNTY OF _____)

Before me, a Notary Public in and for said state and county, personally appeared the above-named Dr. Clyde McAuley, who acknowledged that he did sign the foregoing transcript and that the same is a true and correct transcript of the testimony so given.

IN TESTIMONY WHEREOF, I have hereunto affixed my name and official seal at _____, this _____ day of _____, 1999.

_____
Dr. Clyde McAuley

_____
Notary Public

My Commission expires: _____

ERRATA SHEET

Page	Line	

HEALTH SERVICES
ST. ELIZABETH HEALTH CENTER

July 1, 1997

Donald H. Switzer
Jacobson, Maynard, Tuschman & Kalur
Attorneys at Law
1001 Lakeside Avenue, Suite 1600
Cleveland, Ohio 44114-1192

RE: Hubert Porter, Etc. v. Manhal A. Ghanma, M.D., et al.
brain County Common Pleas Court, Case No. 96 CV 115689
Your File No. 101844

Dear Mr. Switzer:

I have reviewed the medical records or Bradley Porter during his hospitalization at Lorain Community/St. Joseph Regional Health Center from July 13-15, *1995*, as well as the depositions of Drs. Qhansah, Ghanma, Onyekwere and Salka.

I believe that the medical care provided to Mr. Bradley Porter by Dr. Ghanma was appropriate in all respects and conformed to accepted standards of care. I find no evidence in the medical record to support the supposition that an intraabdominal injury had occurred during Mr. Porter's boating accident and I disagree with Dr. Matus' conclusion as to the cause of death.

I look forward to assisting you on this case. Should further information become available, please forward it to my office. Please contact me should you have any questions.

Sincerely,

CLYDE E. McAULEY, M.D. F.A.C.S.
Director, Trauma/Critical Care Services

1044 Belmont Avenue / P.O. Box 1790 / Youngstown, OH 44501-1790 / (330) 746-721
MEMBER OF THE HUMILITY OF MARY HEALTH CARE SYSTEM

PENCAD-Bayonne, N. J.
PLAINTIFF'S EXHIBIT
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McCauley

Clyde E. McAuley
303-50-1506

CURRICULUM VITAE

NAME	Clyde E McAuley
HOME ADDRESS:	1063 Eldersville Road Burgettstown, PA 15021
HOME PHONE:	(412)947-9030
BUSINESS ADDRESS:	Trauma/Critical Care Services St. Elizabeth Health Center 1044 Belmont Avenue Youngstown, Ohio 44501-1790
BUSINESS PHONE:	(216) 480-3907 FAX: (216) 480-2070
DATE OF BIRTH:	February 12, 1953
BIRTH PLACE:	Fort Jackson, SC
CITIZENSHIP:	U.S.A.

EDUCATION AND TRAINING

UNDERGRADUATE:

1971 - 1975	Harvard College Cambridge, Massachusetts	B.A., 1975 (magna cum laude)

GRADUATE:

1975 - 1979	University of Pittsburgh School of Medicine Pittsburgh, Pennsylvania	M.D., 1979
1993 - 1995	Univstsity of Pittsburgh Katz School of Business Pittsburgh, Pennsylvania Masters in Business Administration	MBA, 1995

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303-50-1506

POSTGRADUATE:

1979 - 1980	University of Pittsburgh University Health Center of Pittsburgh General Surgery Internship	Henry T. Bahnson, M.D. Professor and Chairman Department of Surgery
1980 - 1985	University of Pittsburgh University Health Center of Pittsburgh General Surgery Residency	Henry T. Bahnson, M.D. Professor and Chairman Department of Surgery
1985 - 1986	University of Pittsburgh University Health Center of Pittsburgh Chief Administrative Resident and instructor in Surgery	Henry T. Bahnson, M.D. Professor and Chairman Department of Surgery

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

1995 - Present	Western Trauma Association
1992 - Present	American College of Surgeons, Ohio Chapter
1992 - Present	Northeastern Ohio Society of Critical Care Medicine
1991 - Present	Assocration for Emergency and Disaster Medicine
1050 - Present	Eastern Association far the Surgery of Trauma
1993 - Present	American Trauma Society
1990 - Present	Pittsburgh Surgical Society
1990 - Present	Society of Critical Care Medicine
1989 - Present	American College of Surgeons, Southwestern Pennsylvania Chapter
1989 - Present	Southwestern Surgical Congress
1986 - Present	Society of Air Force Clinical Surgeons
1987 - 1989	San Antonio Surgical Society

Clyde **E.** McAuley
303-50-1506

CERTIFICATION AND LICENSURE

Board Certification	Diplomate, American Board of **Surgery**	#33128, 1988
	Certification of **Added** Qualifications in Surgical Critical **Care**	#592, 1491
Ohio	Licensing Board:	35-06-2484, 1991
Pennsylvania	Licensing Board:	MD-024531-E, **1980**

PROFESSIONAL ACTIVITIES

1991 - Present	Director, Trauma/Critical Care *Services* St Elizabeth Health Center 1044 Belmont Avenue Youngstown, Ohio 44501-1790
1984 - 1991	Faculty Surgeon, Division of Trauma **and** General Surgery The Mercy Hospital of Pittsburgh **Pittsburgh, PA 15219**
1987 - 1989	StaffSurgeon, General & Oncological Surgical Service Wilford Hall **USAF** Medical Center
1987 - 1989	Deputy Director, Surgical Intensive Care Unit Wilford Hall USAF **Medical** Center
1986 - **1988**	Chief, Trauma & Emergency **Surgical Services** Wilford Hall **USAF** Medical Center
1985 - 11386	Chief Administrative Resident, Department of Surgery Presbyterian-University Hospital

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303-50-1506

APPOINTMENTS

HOSPITAL COMMITTEES:

ST. ELIZABETH HEALTH CENTER

1991 - **Present**	Chairman, **Trauma Systems** Committee
1991 - Presant	Chairman, Surgical **intensive Care** Committee
1992 - Present	Surgical **Education** Council
1992 - Present	Infection Control Committee
1992 - Present	Emergency **Department** Committee
1992 - Present	Chairman, Institutional Ethics Committee
1993 - **Present**	Chairman, **Medical** Records Committee
1993 - **Present**	Medical Intensive Care Committee

AMERICAN COLLEGE OF SURGEONS

1995 - Present	Vice Chairman, **ACS** Committee on Trauma (Ohio)
1991 - **Present**	Executive Committee, Ohio Committee on Trauma
1986 - Present	Instructor, **Advanced** Trauma Life Support

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303-50-1506

STATE OF OHIO REGIONAL EMS/TRAUMA SYSTEMS

1995 - **Present**	Trauma **Advisory** Subcommittee, Emergency Medcial **Services** Board
1995 - Present	Regional Physician Advisory Board **(Region X)**, Ohio **State Board** of Emergency **Medical** Services
1994 - Present	Chairman, **Trauma** Quality of Care Subcommittee to the Director of **the** Ohio **Department** of **Health**

NATIONAL .COMMITTEES

1996 - Present	Eastern Association for the Surgery of Trauma, Publications Committee

ACADEMIC APPOINTMENTS

994 - Present	Associate Professor of Surgery Northeastern Ohio Universities College of Medicine
1989 - Present	Clinical Assistant **Professor** of Surgery **Uniformed** Services University *of* the Health Sciences

PUBLICATIONS

Sherman HF, Hilger **JS,** Jones LM, **McAuley** CE, Barrette RR. "Delayed Diagnosis of Extrahepatic Biliary injury". Eur J Surg, 158:575-578, 1992.

Webster MW, McAuley **CE,** Steed DL, **Evans** CH. "Collagen **Stability** and Collagenolytic Activity in the Normal **and** Aneurysmal Human Abdominal **Aorta",** The American Journal of Surgery, 161:635-638, 1991.

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303-50-1506

Rodriguez DI, Drehner DM, Beck DE, McAuley CE. "Colonic Lipoma as a Source of Massive Hemorrhage", Diseases of the Colon & Rectum, 33:977-979, 1990.

Bowers GJ, Roettger R, McAuley CE, and Beck DE. "Breast Cancer: The Military's Experience", Southern Medical Journal, 83:1413-1417, 1990.

Felton JJ, Cheu HW, McAuley CE. "The Limits of Hemodilution after Resuscitation from Hemorrhage Shock". Surgical Forum, 40:54-57, 1989.

Moosa HH, McAuley CE, Ramasastry SS, "Surgical Management of Severe Mammary Hidradenitis Suppurativa", Ann Plast Surg, 20:82-82, 1988.

Steed DL, Teodori MR, Pietzman AB, McAuley CE, Kapoor WN, Webster MW. "Streptokinase in the Treatment of Subclavian Vein Thrombosis", J Vas Surg, 4:28-32, 1986.

McAuley CE, Pietzman AB, DeVries EJ, Silver MR, Steed DL, Webster MW. "The Syndrome of Spontaneous Iliac Arteriovenous Fistula; a Distinct Clinical and Pathophysiologic Entity", Surgery, 99:373-377, 1986.

McAuley CE, Steed DL, *Webster* MW. "Late Sequelae of Gastric Acid Injury", Am J Surg, 149:412-415, 1985.

McAuley CE. Steed DL, Webster MW. "Arterial Complications of Total Knee Replacement", Arch Surg, 119:960-962, 1984.

Ravitch MM, McAuley CE. "Airborne Contamination of the Operative Wound", Surg Gynecol Obstet, 159:177-188, 1984

Steed DL, McAuley CE, Rault R, Webster MW. "Upper Arm Graft Fistula for Hemodialysis", J Vasc Surg, 1:660-663. 1984.

McAuley CE. Watson CG. 'Elective Inguinal Herniorrhaphy After Myocardial Infarction", Surg Gynecol Obstet, 159:36-38, 1984.

McAuley CE, Webster MW, Jarrett F. Hirsch SA, Steed DL, "The Greenfield Intracaval Device as a Source of Recurrent Pulmonary Thromboembolism", Surgery, 96:574-576, 1984

McAuley CE, *Steed* DL, Webster MW. " Bacterial Presence in Aortic Thrombus at Elective Aneurysm Resection: Is it Clinically Significant?", AM J Surg, 147:322-324, 1384.

McAuley CE, Steed DL, Webster MW. "Seven-year follow-up of Expanded Polytetrafluoroethylene (PTFE) Femoropopliteal Bypass Grafts", Ann Surg, 199:57-60, 1984.

Hoefer RA, Rodriguez DI, McAuley CE, Brantley S, LeQuire M, Spies JB, Silver LF. "Preliminary Experience with the 'Hutson-Russell Loop" Cutaneous Choledochojejunostomy", Surg Gynecol Obstet, in press.

Jones LM, McAuley CE, D'Amico F, Sherman HF, Barrette RR. "Participation by the /&ending Trauma Surgeon During Resuscitation: Impact on Survival", J Trauma, in press.

Sherman HF, Hilger JS, Jones LM, McAuley CE, Barrette RR. "Extrahepatic Biliary Trauma", European Journal of Surgery, in press.

PUBLISHED ABSTRACTS

McAuley CE, Evans CH, Miller DD, Webster MW, Steed DL. "Collagenolytic Activity n the Normal and Aneurysmal Human Abdominal Aorta", Association for Academic Surgery, 1984.

McAuley CE 'Lord Lister and *the* Carbolic Aud Spray", American Association for the History of Medicine, 1963.

BOOKS. BOOK CHAPTERS. INVITED ARTICLES

Webster MW, McAuley CE, Steed DL, "Femoropopliteal Reconstruction Using Expanded Polytetraflouroethylene", IN: Vascular Surgery of the Lower Extremity. EDS: Jarret F., Hirsch, SA Mosby, St. Louis, MO, 1985.

Watson CG, McAuley CE, Dekker AD "Needle Aspiration in the Management of the Thyroid Nodule', Surgical Rounds, 8(6)"37-40, 1985.

Clyde E. McAuley
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PRESENTATIONS AT NATIONAL MEETINGS

1983 "Lord **Lister** and the Carbolic Acid Spray", Annual Meeting, American Association for the History of Medicine. **Minneapolis, MN.**

1984 "Collagenolytic **Activity** in the Normal and **Aneurysmal** Human **Abdominal** Aorta". Annual Meeting, **Association** for Academic Surgery. San Antonio, TX.

1989 "The Limits **af** Hemodilution After **Resuscitation** from **Hemorrhagic** Shock". Surgical Forum, **Annual Congress** of the American College of Surgeons Atlanta, GA.

1989 **"Breast** Cancer: The **Military's** Experience". **Annual** Meeting, Southern Medical Association. Washington, DC.

1991 "Participation **by** the Attending **Trauma** Surgeon During Resuscitation: Impact on Survival". **Annual Scientific** Assembly, Eastern Association *for* the Surgery *of* Trauma. **Longboat Key,** FL.

1991 "Unexpected **Deaths** in Geriatric *Patients:* Failure of the Discriminant Value of "TRISS" Methodology", Annual Meeting, Western Trauma Association. Jackson Hole, WY.

1992 "Hemodilutional Resuscitation Following Hemorrhagic Shock". Annual Meeting, **Association** for Emergency **and Disaster** Medicine, **Montreal,** Canada

1993 *"The* **"Missed** Injury": **A** Prospective Evaluation of Delayed Diagnosis in Blunt Multisystem Trauma" Annual Scientific **Assembly** Eastern **Association** for the Surgery of Trauma. Longboat Key, FL.

1996 "The Prognostic Significance of the Seat Belt **Sign",** Western Trauma Association, Twenty-Sixth Annual Meeting, **Grand** Targhee, Wyoming, February 25th - March **2,** 1996