
IN THE CIRCUIT COURT OF MERCER
COUNTY, WEST VIRGINIA

CIVIL ACTION NO. 15-C-278-DS

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JAMES E. WIMMER, Executor of the
Estate of JAMES H. WIMMER,

Plaintiff,

-against-

BLUEFIELD REGIONAL MEDICAL CENTER
and ROBERT PETRARCA, D.O.,

Defendants.

- - - - -x

DEPOSITION of BRUCE D. CHARASH, M.D., taken
By Defendants, pursuant to Notice, at the offices of
Fink & Carney Reporting and Video Services, 39 West
37th Street, New York, New York 10018, on Monday,
July 17, 2017 at 10:11 a.m., before
William L. Kutsch, a Shorthand Reporter and Notary
Public within and for the State of New York.

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(1)
(2)
(3) IT IS HEREBY STIPULATED AND
(4) AGREED that the filing and sealing of the
(5) within deposition be, and the same are
(6) hereby waived;
(7)
(8) IT IS FURTHER STIPULATED AND
(9) AGREED that all objections, except as to
(10) the form of the question, be and the same
(11) are hereby reserved to the time of the
(12) trial;
(13)
(14) IT IS FURTHER STIPULATED AND
(15) AGREED that the within deposition may be
(16) sworn to before any Notary Public with the
(17) same force and effect as if sworn to
(18) before a judge of this Court;
(19)
(20) IT IS FURTHER STIPULATED that
(21) the transcript is to be certified by the
(22) reporter.
(23)
(24)
(25)

(1) Charash
(2) BRUCE D. CHARASH, M. D., called as a witness,
(3) having been first duly sworn by William L. Kutsch, a
(4) Notary Public within and for the State of New York,
(5) was examined and testified as follows:
(6) EXAMINATION
(7) BY MR. JESSIE:
(8) Q Doctor, would you state your name
(9) for the record please, sir.
(10) A Yes. Bruce Charash.
(11) Q Dr. Charash, my colleague, who is on
(12) the phone, Sam Fox, sent you or sent through
(13) counsel requests for certain information, and I
(14) just wanted to go ahead and get that, if I
(15) possibly could.
(16) One was a current CV, if you have
(17) that, sir?
(18) A This is an updated CV (handing).
(19) Q Perfect. I'll just take it. I
(20) don't think we need to make it as an exhibit. But
(21) I appreciated this, the updated.
(22) List of all publications authored by
(23) you, would those appear on the CV itself, sir?
(24) A Yes.
(25) Q Key documents or publications

(1) Charash
(2) referred to or relied upon in formulating your
(3) opinion. Were there any of those, sir?
(4) A No, but I did print generically, and
(5) I don't even remember the source, just a generic
(6) version of the different types of thrombolytic
(7) treatments available.
(8) Q Oh, excellent. Okay. Thank you
(9) very much.
(10) MR. JESSIE: And I will go
(11) ahead and make this an exhibit, and make
(12) it Exhibit B, just so we have that, and
(13) we'll make the EKGs Exhibit A first.
(14) (At this time the document
(15) referred to above as series of EKGs was
(16) received and marked Charash Deposition
(17) Exhibit A for Identification.)
(18) (At this time the document
(19) referred to above as a printed list of
(20) thrombolytic treatments was received and
(21) marked Charash Deposition Exhibit B for
(22) Identification.)
(23) A And I'm sorry. I wanted something
(24) on, it's something you -- I don't know if you're
(25) requesting it or not, but these records were

(1) Charash
(2) primarily sent to me electronically.
(3) Q Okay.
(4) A I have printed out -- I've been sent
(5) printed versions of the discovery depositions, and
(6) I have printed out many of the records, but this
(7) is a copy of all the records I received on the
(8) disk, and I thought it might help because I did
(9) not print out every page.
(10) Q I certainly wouldn't ask you to do
(11) so.
(12) MR. JESSIE: But let's go ahead
(13) then and make this Exhibit C to the
(14) deposition.
(15) A And I brought the disk just in case
(16) you needed it.
(17) Q No.
(18) (At this time the document
(19) referred to above as a list of medical
(20) records on disk was received and marked
(21) Exhibit C for Identification.)
(22) MR. JESSIE: Okay.
(23) Q Doctor, you were asked if you have a
(24) list of the cases in which you have offered
(25) testimony, either by interrogatories, deposition

(1) Charash
(2) charge \$500 an hour for every hour of work I miss
(3) due to a trial on a 9:00-to-5:00 schedule. So, if
(4) I fly down to West Virginia after work hours, then
(5) I would only miss one eight-hour workday and
(6) charge \$4,000. If I was asked to fly down the
(7) night before and had to leave work at 2:00 to get
(8) to the airport for a meeting, I would charge for
(9) the final three hours of that day. So, it's only
(10) based on how many hours of 9:00-to-5:00 work I
(11) miss due to a trial.
(12) Q Okay. Very good. Thank you.
(13) Copies of any signed affidavits or
(14) drafts of proposed affidavits that relate to
(15) subject matter related to issues in connection
(16) with this case.
(17) A I have I think a copy of
(18) Certificates of Merit that I signed, but it may
(19) not be -- I think I signed more than two, but
(20) these are the Certificates of Merit that I seem to
(21) have copies of.
(22) MR. JESSIE: We'll make that
(23) then Exhibit E.
(24) MR. LINDSAY: With the
(25) objection that those Certificates of Merit

(1) Charash
(2) or sworn statements in trial for the last five
(3) years.
(4) A And I brought -- and it's not
(5) completely updated, I think it's up to March of
(6) this year because I do it quarterly I think, but I
(7) have here a list of trial testimony and a separate
(8) list of deposition testimony for the last five
(9) years. And there are two separate lists, so you
(10) can either mark them together or separately.
(11) Q Perfect. We'll just do it
(12) collectively then as Exhibit D.
(13) (At this time the document
(14) referred to above as a list of cases in
(15) which the witness testified was received
(16) and marked Exhibit D for Identification.)
(17) Q Doctor, there was also a request for
(18) your current fee schedule.
(19) A Oh. I didn't print that out because
(20) it's pretty simple.
(21) Q Just tell us then. That's fine.
(22) A I charge \$450 an hour for activities
(23) I could do in my home and \$500 an hour for
(24) everything else, which is deposition time or trial
(25) testimony time. And from that point of view I

(1) Charash
(2) or any other Certificates of Merit are
(3) deemed to be inadmissible according to the
(4) MPLA at trial.
(5) MR. JESSIE: Understood.
(6) (At this time the documents
(7) referred to above as Certificates of Merit
(8) were received and marked Charash
(9) Deposition Exhibit E for Identification.)
(10) Q The next is a generic request for a
(11) copy of all materials or data that you relied upon
(12) in formulating your opinions.
(13) A The records here are with the
(14) discovery depositions.
(15) Q A copy of all notes, memoranda,
(16) e-mail, faxes, computer notes, bills, invoices,
(17) correspondence prepared by you in connection with
(18) your involvement in this case.
(19) A I thought I had the invoices
(20) printed. I don't have the invoices printed unless
(21) it's stuck with some of the other records. I
(22) thought I brought them. I will get them to you.
(23) Q Thank you. That's just fine.
(24) A copy of any test results, notes,
(25) memoranda, e-mails, faxes, correspondence, and

(1) Charash
 (2) computer documents received by you in connection
 (3) with your involvement. Would that be what we have
 (4) already talked about?
 (5) A Yes. I do have a copy of defense
 (6) expert disclosures, as well.
 (7) Q Okay. I don't need that.
 (8) Any exhibits or reports you have
 (9) prepared to use at trial.
 (10) A No.
 (11) Q And then the materials provided to
 (12) you by plaintiff's counsel. That would involve
 (13) the documentation that we have previously
 (14) discussed; is that fair?
 (15) A Yes.
 (16) Q Doctor, thank you.
 (17) I want to give you, Doctor, what's
 (18) been marked as Charash Exhibit A, and that, as I
 (19) understand it, are the three EKGs that were
 (20) performed in the Emergency Department at Bluefield
 (21) Regional Medical Center when Mr. Wimmer was a
 (22) patient there before he was admitted to the floor.
 (23) I would like to ask you, could you
 (24) take just a moment and go through each of those
 (25) three and essentially give me your interpretation

(1) Charash
 (2) as a cardiologist as to what these EKGs
 (3) demonstrate?
 (4) A Of course.
 (5) The first EKG, which is timed 20:05,
 (6) shows wide-complex tachycardia at a heart rate of
 (7) 190 and more likely than not reflects ventricular
 (8) tachycardia at a rate of 190.
 (9) Q Can you make any determination of
 (10) potential ST elevations based upon that EKG, or
 (11) does the ventricular tachycardia make it difficult
 (12) to make that kind of interpretation?
 (13) A It makes it impossible to make an
 (14) interpretation.
 (15) Ventricular tachycardia means that
 (16) the electronic stimulation of the left ventricle
 (17) is occurring from the ventricle itself, which
 (18) means electricity is generally traveling in a
 (19) chaotic and opposite direction, so you cannot make
 (20) any determination based on this EKG.
 (21) Q What causes ventricular tachycardia
 (22) like that?
 (23) A Well, in this case, the fact the
 (24) patient was having an acute myocardial infarction,
 (25) which is a very common environment to have V-tach.

(1) Charash
 (2) You can have V-tach from chronic heart disease and
 (3) develop it at any point. You can have V-tach from
 (4) substantial electrolyte abnormalities or from
 (5) certain other congenital cardiac conditions.
 (6) Q Doctor, in this case, a certain
 (7) medication, Cardizem, was given to convert the
 (8) ventricular tachycardia. Is that an appropriate
 (9) medication to use to address an issue like this?
 (10) A Cardizem not a drug that is
 (11) typically effective in ventricular tachycardia.
 (12) It can help break it. It's used often in
 (13) supraventricular tachycardia, and it's sometimes
 (14) used when you don't know what's going on.
 (15) But, quite frankly, a calcium
 (16) channel blocker could potentially break somebody
 (17) out of V-tach.
 (18) Q Do you perceive that that was what
 (19) broke this patient out of V-tach?
 (20) A We'll never know. I mean, it did
 (21) break. It was after Cardizem was given. The
 (22) causality will never be known with certainty. But
 (23) given that Cardizem can break it, you have to
 (24) believe that it had probably impacted the shift.
 (25) It may be that it was sensitive enough to change

(1) Charash
 (2) with -- I mean, clearly it was not refractory, so
 (3) I can't say with absolute certainty, but I guess
 (4) with reasonable certainty it contributed.
 (5) Q Doctor, let's talk about ventricular
 (6) tachycardia versus supraventricular tachycardia.
 (7) What is the difference between those
 (8) two?
 (9) A Well, with ventricular tachycardia,
 (10) the runaway electrical cycle is coming from
 (11) electrical impulses generated from the lower
 (12) chambers, which is more life-threatening and
 (13) usually caused by acute injury to the left
 (14) ventricle or long-term chronic injury.
 (15) Supraventricular tachycardia means
 (16) the electrical impulses are being generated in the
 (17) upper chambers. It's a more common condition,
 (18) it's much less life-threatening, and it does not
 (19) generally come along in the backdrop of heart
 (20) attack. It's uncommon in that environment.
 (21) Q Okay. Can you tell me why the first
 (22) EKG indicates to you it's more likely ventricular
 (23) tachycardia versus supraventricular tachycardia?
 (24) A Well, it's the width of the
 (25) complexes. It's a very wide complex. Clearly

(1) Charash

(2) there's no way to discern P waves, but it's

(3) primarily the wide-complex tachycardia.

(4) Q Doctor, could we go to the second

(5) page, which will be -- and I think you will have

(6) some difficulties reading some of the information.

(7) As I understand it, this is a photograph of an

(8) EKG.

(9) What can you tell me based upon this

(10) photograph that's being demonstrated here?

(11) A Well, this EKG demonstrates a

(12) hyperacute myocardial infarction with ST segment

(13) elevation in the inferior leads, which are leads

(14) 2, 3 and F, and significant ST segment depression

(15) in the anterior lateral leads, which are leads 1,

(16) L, V2 through V6. And there is a VPC demonstrated

(17) on the EKG.

(18) Q Can you just explain to me each one

(19) of these and what they mean medically?

(20) The ST segment elevation, what is

(21) the significance of that?

(22) A That's considered an acute injury

(23) pattern. And when it's associated with what we

(24) call reciprocal ST depressions - you can't

(25) separate them - is pretty much the EKG diagnosis

(1) Charash

(2) of an acute myocardial infarction.

(3) Q Is this a STEMI indication or simply

(4) an indication of an MI?

(5) A STEMI means ST segment elevation

(6) myocardial infarction, and this is diagnostic and

(7) classic for an ST elevation myocardial infarction.

(8) Q Explain to me the VPC.

(9) A There's not much to explain. It's

(10) just present on two different occasions.

(11) The very first beat -- when you read

(12) an EKG, it's three leads simultaneously and

(13) follows across. So lead V4, V5 and V6, the first

(14) beat is a VPC. And then on a rhythm strip

(15) underneath it, you have another VPC shown.

(16) Q What is the significance of a VPC?

(17) A In general, very little because

(18) there are 101 reasons why people can have extra

(19) beats. But, in a person who just cardioverted

(20) from a wide-complex tachycardia, and where these

(21) VPC's, which again we have in lead 2 as the

(22) monitor lead -- pardon me one second.

(23) I'm not -- just -- it's just further

(24) evidence there's ventricular irritability.

(25) Q Doctor, there have been references

(1) Charash

(2) in the case by various people to something called

(3) demand ischemia. Can you, first of all, define

(4) what is demand ischemia?

(5) A Of course.

(6) Ischemia means that heart muscle

(7) tissue is not getting enough oxygen for the amount

(8) of work it needs to do. So, heart muscle cells,

(9) generally by working at whatever level they're

(10) working, through either a reduction in the blood

(11) supply or a matching increase in the demand for

(12) blood, if there is a mismatch, then the heart

(13) muscle starts to metabolize without oxygen because

(14) there's not enough oxygen to create energy. In

(15) doing so, that process of metabolism with oxygen

(16) deprivation is called ischemia. It builds up

(17) lactic acid, it has a bad impact on the heart

(18) muscle contraction, and that's what ischemia is.

(19) Now, classic demand ischemia would

(20) be a person who has a stable 80 percent blockage

(21) of one coronary artery.

(22) And by the way, let's just establish

(23) the parameters.

(24) A normal coronary artery delivers

(25) five to ten times more oxygen than you could need

(1) Charash

(2) running a marathon. So, our normal coronary

(3) arteries deliver far more oxygen than you could

(4) ever need under any moment of life.

(5) If you have a 50 percent blockage in

(6) a coronary artery, you still can have enough

(7) oxygen delivery to run a marathon or a hundred

(8) yard dash. So, even if the artery is 50 percent

(9) reduced, and flow is reduced to the third power of

(10) the diameter reduction, you still have enough

(11) oxygen delivery to do anything. So, many people

(12) can carry on a completely normal life with a

(13) 50 percent blockage because the heart doesn't care

(14) what your artery size is. It only cares if it's

(15) getting enough oxygen.

(16) Now take the paradigm of a person

(17) with an 85 percent blockage in one of their major

(18) arteries. The amount of oxygen we consume sitting

(19) in a chair, walking around the house, doing

(20) day-to-day activities, and even a little bit above

(21) day-to-day, is generally still so insignificant

(22) that an 80 percent blockage, you are still living

(23) a life where you're never needing as much fuel

(24) beyond that.

(25) Let's say you suddenly, one day you

- (1) Charash
- (2) decided to run full speed up a hill, and for the
- (3) first time in ten years, your heart rate gets up
- (4) to 180, and you're running up a hill. Now, if you
- (5) have a normal artery, you would never notice.
- (6) But, if you have a blocked artery, that surge of
- (7) demand, even though there is a supply problem,
- (8) this surging demand above the supply is what
- (9) provokes the ischemia. It's clearly a combination
- (10) of supply and demand.
- (11) But -- so, demand ischemia would be
- (12) that some surge of myocardial oxygen demand hits a
- (13) point where the diminished supply cannot keep up
- (14) with it, and under those circumstances, you can
- (15) get ischemia.
- (16) So classic exertional angina we call
- (17) demand ischemia because the actual provoking
- (18) moment is the activity.
- (19) Supply ischemia is when a person
- (20) shows hyperacute abnormalities and evidence of
- (21) oxygen insufficiency to the muscle without an
- (22) acute demand event.
- (23) Q Can ventricular tachycardia create a
- (24) situation where there would be demand ischemia?
- (25) A Possible, but for the most part,

- (1) Charash
- (2) I could say that clinically from my
- (3) experience, well under one percent of people who
- (4) have SVT ever have ischemia because it's more
- (5) common in young people. So, I mean, it's very
- (6) unusual with SVT - supraventricular tachycardia -
- (7) to have ischemia with it.
- (8) But, if somebody had critical
- (9) coronary disease, anything that gets the heart
- (10) rate up could cause ischemia.
- (11) Q Let me switch now back to
- (12) ventricular tachycardia.
- (13) Your same level of experience,
- (14) people who have suffered ventricular tachycardia
- (15) not caused by myocardial infarction, what
- (16) percentage of those have demand ischemia as a
- (17) sequelae?
- (18) A Again, clinically, it's very low
- (19) because most people who have ventricular
- (20) tachycardia, it's either self-terminating so you
- (21) don't really get ischemia, because in the majority
- (22) of people who had sustained, it would be caused by
- (23) an infarction.
- (24) It's theoretically possible that you
- (25) could develop sustained ventricular tachycardia

- (1) Charash
- (2) since easily 15 to 20 percent of people with
- (3) myocardial infarction will have ventricular
- (4) tachycardia. Overwhelmingly, ventricular
- (5) tachycardia is a response to a heart attack and
- (6) not a creator of ischemia. But, it's
- (7) theoretically possible but very uncommon.
- (8) Q So, it occurs but it does not occur
- (9) with regularity with supraventricular tachycardia
- (10) as an example?
- (11) A I'm sorry. You moved from
- (12) ventricular to supraventricular.
- (13) Q I know. I know. But I was going to
- (14) say, as I understand from our earlier discussions,
- (15) is that supraventricular tachycardia is not
- (16) normally associated with a myocardial infarction;
- (17) is that correct?
- (18) A That is correct.
- (19) Q So, if someone has supraventricular
- (20) tachycardia, what is the chance that that person
- (21) will also have or will have demand ischemia? Is
- (22) it in the 5 or 10 percent, or is it in the 50 to
- (23) 60 percent?
- (24) A Now, that, you can't estimate
- (25) because you have to look at the population.

- (1) Charash
- (2) that could cause ischemia. It's possible. But,
- (3) sustained V-tach is more commonly overwhelmingly
- (4) the product of a heart attack than it is a
- (5) provoking agent for ischemia, but, again, anything
- (6) is possible.
- (7) Q Let me ask you to look at that
- (8) second page of Exhibit A, the videotape or the
- (9) photographed copy of the EKG.
- (10) Is there anything about that EKG
- (11) that would tell you that this would not be a
- (12) typical demonstration of demand ischemia?
- (13) A Of course.
- (14) Q Explain to me that, please, sir.
- (15) A Because it's an acute infarction,
- (16) it's not ischemia. There is ST segment elevation
- (17) in leads and depression in reciprocal leads.
- (18) If you were having ischemia, A, it
- (19) would be not with injury pattern ST elevation.
- (20) And, B, with the heart rate reduced
- (21) with demand ischemia, it would usually rapidly
- (22) resolve.
- (23) Now, no one has presented the
- (24) timeframe from when the heart rate broke compared
- (25) to when this EKG was taken. You know, from my

- (1) Charash
 (2) understanding, the time of this EKG is not
 (3) permanently recorded in this photograph, but we
 (4) know approximately from the records when it was
 (5) done.
 (6) But, you know, if this was done five
 (7) seconds after the heart rate slowed down, it's
 (8) possible you would have some residual ischemic
 (9) changes. But, ischemia very rapidly resolves when
 (10) the heart rate drops.
 (11) So, if this was done five minutes
 (12) after the heart rate broke, it would virtually
 (13) have no likelihood of having residual changes.
 (14) But, this EKG is a classic acute ST
 (15) elevation heart attack EKG. So, the theory that
 (16) there is some kind of demand ischemia from V-tach
 (17) is completely twisted thinking.
 (18) I mean, this is as classic a
 (19) presentation for a heart attack as possible. The
 (20) man presents with chest pain that acutely
 (21) intensified abruptly around 7:30 p.m., 911 is
 (22) called for chest pain. They're found to be in
 (23) sustained ventricular tachycardia, and when it
 (24) breaks, they have hyperacute ST elevation with
 (25) reciprocal depressions.

- (1) Charash
 (2) So, there is nothing atypical about
 (3) this. This is classic evolving myocardial
 (4) infarction.
 (5) To make some kind of suggestion that
 (6) this could be some kind of strange demand ischemia
 (7) is not medically credible enough to even be a
 (8) reasonable possibility.
 (9) And if you want to say anything is
 (10) possible, then we could conceive that anything is
 (11) possible. But, I think we can break down
 (12) likelihoods into probabilities, possibilities, and
 (13) then reasonable possibility versus unreasonable.
 (14) If I drop this paper, it's possible
 (15) it will float up because a tornado may smash into
 (16) this building, but it's not a reasonable
 (17) possibility.
 (18) There's no reasonable possibility
 (19) that this is demand ischemia.
 (20) Q Does demand ischemia not demonstrate
 (21) ST elevations?
 (22) A Usually not.
 (23) Q Can it?
 (24) A Anything is possible.
 (25) Q What percentage of the time would

- (1) Charash
 (2) demand ischemia indicate or show ST elevations?
 (3) A Under five percent, maybe under one
 (4) percent. Depends on the context.
 (5) But, for -- I mean, in a patient,
 (6) like I said, in this clinical context, everything
 (7) about this is an acute myocardial infarction.
 (8) There's nothing to suggest otherwise.
 (9) Q Let me ask you to go to page three,
 (10) if you could, and could you give me your
 (11) interpretation of the third EKG? I think the
 (12) finding information appears on that.
 (13) Well, I'm sorry. Before I do that,
 (14) can you tell what the actual heart rate is of
 (15) beats per minute on the second one, the one you
 (16) just looked at, the one that's been photographed?
 (17) A Yes.
 (18) Q How many beats per minute there?
 (19) A Well, the machine says 83, so it
 (20) certainly looks likely.
 (21) Q Now, if you go on to the third one I
 (22) asked you to. Thank you for backtracking for a
 (23) second there.
 (24) A What's the question?
 (25) Q Interpretation.

- (1) Charash
 (2) A Interpretation is that there's no
 (3) more ST elevation MI. There's resolution.
 (4) There's still a VPC, oddly enough. But, this
 (5) would be considered sinus rhythm VPCs and some
 (6) nonspecific repolarization abnormalities.
 (7) Q Would you anticipate seeing
 (8) something on that third EKG given its approximate
 (9) timing if someone had suffered an ST elevation
 (10) myocardial infarction?
 (11) A I cannot answer your question the
 (12) way you phrased it limited to a simple yes/no,
 (13) largely because in cardiology, with the vast
 (14) heterogeneity of patient populations, there's not
 (15) an expectation of what an EKG will show. It's a
 (16) matter of what the evidence that presents itself
 (17) tells you about that patient's clinical
 (18) experience. So, there's no expectation.
 (19) There are people who have ST
 (20) elevation MIs where you can continue to see
 (21) evolution of changes. There're going to be some
 (22) patients who eventually auto-reperfuse. And this
 (23) EKG is consistent with some level of auto-
 (24) reperfusion.
 (25) Q Would there be anything on that EKG,

(1) Charash

(2) the last one, taken in the Emergency Department,

(3) that would indicate to you that the patient had

(4) suffered a STEMI?

(5) A No.

(6) Q How common is that with someone who

(7) has had a STEMI?

(8) A Well, that, again, is a charged

(9) question because it's very common because in the

(10) contemporary era, people get either thrombolytic

(11) therapy or emergency angioplasty. So, it's very

(12) common, not the majority, but very common to see

(13) resolution of changes due to the types of medical

(14) approaches that open up completely closed

(15) arteries. It would be highly uncommon in an

(16) artery that did not reopen.

(17) And, again, there are three ways an

(18) artery basically reopens. One of them is

(19) angioplasty, one of them is thrombolytic therapy,

(20) and the other is, a certain percentage of people

(21) will eventually reperfuse on their own, and it

(22) could be as high as 30 to 50 percent of people.

(23) The problem is, the people who

(24) spontaneously reperfuse usually do it after the

(25) window of benefit, but it is certainly known to

(1) Charash

(2) happen.

(3) Q Is this an EKG, the third EKG, is

(4) this one that you would hope to see on a patient

(5) who has been given either thrombolytics or given

(6) angioplasty?

(7) A It would be evidence of successful

(8) reperfusion.

(9) But, again, there's no hope for -- I

(10) mean, you get people who you open up the artery,

(11) they still have residual abnormalities, and they

(12) have a reperfusion benefit.

(13) There are other people who show a

(14) better EKG and they have less benefit.

(15) One thing we know is that the EKG is

(16) not predictive of extent of myocardial injury, and

(17) even recovery of EKG is not predictive of

(18) extensive injury. It can predict the timing to

(19) some degree of reperfusion.

(20) Q If you look at the third EKG, is it

(21) fair to say that by appearances it appears that

(22) the patient has had reperfusion at that point?

(23) A In the clinical context of this

(24) case, yes. It's likely the patient did.

(25) Q Is there any way you can say when

(1) Charash

(2) that reperfusion occurred?

(3) A No.

(4) Q Doctor, thank you. I think that's

(5) all.

(6) Let me ask you, are there other

(7) things that are visible or important on the three

(8) EKGs that I didn't ask you about that you saw as

(9) you looked through them there?

(10) A No. Is this an exhibit?

(11) Q Yes. It's Exhibit A.

(12) A I just don't want to lose it.

(13) Q I'll put it over here with the

(14) retaining exhibits.

(15) How much damage had occurred to Mr.

(16) Wimmer's heart by the time he arrived at Bluefield

(17) Regional Medical Center?

(18) A Negligible.

(19) Q Why do you say that?

(20) A Well, if you look at the history,

(21) the admitting note says he was having pain for

(22) four hours. Generally, if you are having a heart

(23) attack for four hours, you have had a large amount

(24) of the damage done. But, if you look at the EMS

(25) report which first mentions four hours, they

(1) Charash

(2) specifically say in the EMS report, in the text of

(3) the same EMS report that said four hours of pain,

(4) on page 2, which is where they write their

(5) narrative: "Patient advised pain began

(6) approximately four hours. Pain is 5 out of 10.

(7) Described as pressure that comes and goes. Wife

(8) administered nitroglycerin at 19:36. Patient had

(9) Nitro patch to right chest."

(10) If you read the family's narrative,

(11) both his wife and his daughter, they say that at

(12) around 7:30 p.m. is when he abruptly

(13) decompensated, got nitroglycerin, and they

(14) immediately called 911.

(15) And if you read the subsequent notes

(16) in the hospital, including that of the

(17) cardiologist as well as the primary care doctor,

(18) they all say his pain began at 7:30.

(19) So, it's true that he had pain that

(20) may have preceded his 911 call. But, it's very

(21) clear from the notes and especially in Dr. Rana's

(22) note that at 7:30 is when his heart attack began

(23) because we usually time it by the sustained acute

(24) worst episode. So, he may have been having an

(25) acute coronary syndrome for the hours, if he did

(1) Charash

(2) have it, by clearly 7:30.

(3) Now, he arrived at the hospital in

(4) less than an hour after his chest pain began. If

(5) you give thrombolytic therapy in the first hour,

(6) you could walk away with virtually undetectable

(7) damage. Within the first two hours is when you

(8) can have the window for protecting an overwhelming

(9) amount of myocardial damage. Every subsequent

(10) hour, there's a virtue to reperfusion, but the

(11) amount of heart muscle that's going to be saved is

(12) going to become reduced and reduced.

(13) We know that when he presented, he

(14) was extremely early into the heart attack, so very

(15) little permanent damage occurred.

(16) Q Let me ask you this: I have read

(17) different things about the use of thrombolytics;

(18) some say use even up to 12 hours after development

(19) of pain. But, then I read other places that

(20) indicate that, what you just said, the sooner, the

(21) better.

(22) What is, how do you describe, let's

(23) assume four hours have passed. What are we

(24) looking at in terms of expected damage in a

(25) patient like this?

(1) Charash

(2) A Again, it's hard to predict, but

(3) there's no evidence to say he was four hours into

(4) the heart attack.

(5) Q I'm talking hypothetically.

(6) A The approach to giving thrombolytic

(7) therapy is a combination of the time they arrive

(8) into the heart attack, their specific risk/benefit

(9) ratio receiving it, whether or not they have

(10) preexisting heart disease, because if you have had

(11) previous heart attacks, that means --

(12) The point is that a normal ejection

(13) fraction is 60 percent. If you have a first heart

(14) attack and you drop to 50, the impact on you is

(15) not going to be catastrophic, although we want to

(16) protect everything. So that ten-point drop would

(17) not even be something that you could potentially

(18) notice.

(19) If your ejection fraction is

(20) 35 percent, a ten-point drop is going to be the

(21) difference between life and death. So, fighting

(22) for every inch matters more if you have

(23) preexisting damage. So, that means any patient

(24) who already has suffered myocardial damage,

(25) fighting for every inch matters; whereas other

(1) Charash

(2) people, a yard may not make that much of a

(3) clinical difference.

(4) Two, you factor in everything else,

(5) patient's age.

(6) What's critical to understand is

(7) that there's an intuitive feeling that older

(8) patients are going to be more likely to bleed in

(9) their brain if they get thrombolytic therapy, and

(10) there's an intuitive desire to not want to expose

(11) them to thrombolytic therapy. But, that intuition

(12) is countermanded by data that consistently showed

(13) that the people who had the most number of lives

(14) saved are older patients in their 80's who get

(15) thrombolytic therapy; that the survival for them,

(16) even though intracranial bleeding is a little bit

(17) higher, that the clear and present danger to their

(18) life is the heart muscle damage.

(19) So, we know from studies of tens and

(20) tens of thousands of people, if not even more,

(21) that you don't go by your gut, you go by medical

(22) science, and that is that in elderly patients in

(23) their late 80's, they are the ones more likely to

(24) die from the heart attack and have greater benefit

(25) from thrombolytics. So, even though the risk of

(1) Charash

(2) bleeding goes up, we wish we had a zero risk road,

(3) there isn't, but the road of thrombolytics is

(4) unquestionably the safest one for them to take.

(5) So, an elderly patient, you would be

(6) more inclined to give it, all things being equal,

(7) previous myocardial damage, all things being

(8) equal.

(9) And then you have to look at the

(10) patient's clinical course. When you start talking

(11) about four, six, eight, ten hours out, you know,

(12) if they auto-reperfuse, then there's no more

(13) reason to give it at that point.

(14) Q And that's clear, if they've

(15) auto-reperused, then there is no basis to give

(16) thrombolytics then; correct?

(17) A I agree.

(18) Q Let's talk a little about Mr.

(19) Wimmer's ejection fraction.

(20) As I understand it, he has had two

(21) previous heart attacks; is that correct?

(22) A Yes.

(23) Q Can you tell me what his ejection

(24) fraction was the last time it had been evaluated

(25) prior to this?

(1) Charash

(2) A Yes. Actually there's one note I

(3) made, if you want to know, I normally don't write.

(4) When I write on charts, I usually only write down

(5) what's on that page.

(6) Q Yes.

(7) A But I have a little red Post-It here

(8) which shows you various measurements of his

(9) ejection fraction from 2003 to 2011, or 2010 I

(10) think. I'm not sure. And what you notice is that

(11) his ejection fraction back in 2003 on a cath was

(12) 30 to 35 percent.

(13) Then November 2010, seven years

(14) later, it was 45 to 50 percent by echo.

(15) Then only three days later, it was

(16) 37 percent by nuclear study.

(17) Then by echo six months later, June

(18) I think it's 2010 -- maybe I'm getting the months

(19) wrong if this doesn't make sense. There was one

(20) that was 50 to 55 percent, and then another one

(21) that was 35 to 40 percent. It was bouncing all

(22) over the place.

(23) He averaged 40 percent over the

(24) years. If you really had to break it down with

(25) all these different ranges, with the ups and

(1) Charash

(2) downs, it was probably around 40.

(3) Q Is this something that you would

(4) normally expect to see going from a high of 50 to

(5) a low of 30?

(6) A There's no expectation. Most people

(7) are relatively -- are more consistent unless

(8) they're getting ischemic attacks, in which case it

(9) could bounce around.

(10) If he had had a major heart attack,

(11) you'd expect a clear permanent reduction. He

(12) never showed that. So, he bounces around a little

(13) bit more so than random, and it makes it very

(14) possible that he was having transient reduction of

(15) his EF during some of those measurements.

(16) Q If you were to be asked to a

(17) reasonable degree of medical probability what was

(18) his ejection fraction at the time that he

(19) presented or immediately before he developed chest

(20) pain, what would you say the reasonable rate would

(21) be?

(22) A Between 35 and 40. That seems to be

(23) his average, and that's his last measurement, that

(24) I'm aware of.

(25) Q As I understand what you have

(1) Charash

(2) explained to me, is that when you have someone

(3) with an ejection fraction as low as 35 to 40, then

(4) any impact on that is more significant than it

(5) would be on someone who is at 55 to 60; is that

(6) fair?

(7) A Yes.

(8) Q Would you ever say that the EKG is

(9) the least valuable tool available to evaluate

(10) whether a patient is having a heart attack?

(11) A No. But, I think a sentence like

(12) that needs some context because in a certain

(13) context, there could be some truth to it. But, I

(14) mean, it's not the least valuable tool. I think

(15) that it's one of the tools; history, enzymes,

(16) EKGs, but EKG is probably the most important early

(17) stratification tools we have available.

(18) Q Are you able, by looking, when we

(19) refer to Exhibit A and look at the second EKG, the

(20) one that's the photograph EKG, were you able to

(21) determine when the STEMI began by looking at it

(22) alone?

(23) A No. You would have to combine that,

(24) correlate the finding with clinical history, which

(25) puts it to 7:30 p.m.

(1) Charash

(2) Q Doctor, in your professional career

(3) have you performed either angioplasty or have you

(4) ever done catheterization procedures personally?

(5) A Not outside of my fellowship

(6) training period.

(7) Q How about ordering thrombolytics?

(8) Have you ordered thrombolytics in your career?

(9) A Yes.

(10) Q When was the last time?

(11) A Over ten years ago.

(12) Q Are thrombolytics used less now with

(13) the advent of angioplasty catheterization than

(14) they were in the past?

(15) A I'm sorry. I should change my

(16) story.

(17) The last time I used thrombolytics

(18) for a heart attack is ten years ago. I have

(19) employed thrombolytics more commonly for pulmonary

(20) embolism and even stroke as a multidiscipline

(21) decision. But -- for pulmonary embolism, within

(22) three months ago. But, for heart attack, it's

(23) been a decade for me personally.

(24) Q And that was the question I meant to

(25) ask, was heart attack. So, you answered it

(1) Charash
 (2) correctly in that context.
 (3) A If you live in an interventional
 (4) environment, thrombolytic therapy is a less
 (5) commonly used modality. But, if there was a power
 (6) failure and the lab didn't work, we would have to
 (7) be able to give thrombolytics, so we're always
 (8) aware of it.
 (9) Q Doctor, is fair to say that in
 (10) general, you would avoid using clot-busting drugs
 (11) on patients older than 75 for heart attack?
 (12) A No. It would be the other way
 (13) around; that the benefit, the added benefit is so
 (14) much greater than the added risk that the elderly
 (15) population are the ones that actually need it the
 (16) most.
 (17) Q How about, would you ever testify
 (18) that the risk of using thrombolytics can outweigh
 (19) the potential benefit?
 (20) A Sorry. I don't understand the
 (21) question.
 (22) Q Okay. I'm sorry.
 (23) Would you ever say that there are
 (24) times when the risk of using thrombolytics would
 (25) be -- would outweigh the potential benefit to the

(1) Charash
 (2) indicate that the patient is undergoing additional
 (3) damage to the heart?
 (4) A Generally, yes. Depends on what
 (5) pain they're having, but generally yes.
 (6) Q Well, let me ask you this: In terms
 (7) of the ventricular tachycardia that was evident on
 (8) the first EKG, can that cause pain for a patient,
 (9) chest pain?
 (10) A It's possible.
 (11) Q Does it normally cause pain?
 (12) A No. Usually it comes about in
 (13) people who are having pain. People who get
 (14) ventricular tachycardia usually get lightheaded
 (15) and pass out, not chest pain. Or they have a
 (16) cardiac arrest.
 (17) Q Would you say that the EKG is
 (18) loosely correlative but is not the best tool for
 (19) making decisions on tPA?
 (20) A I can't answer that question as
 (21) yes/no because the use of thrombolytics is based
 (22) on the entirety of the clinical presentation,
 (23) primarily involving the specific risks/benefit to
 (24) a patient, the timing of the heart attack, the EKG
 (25) included. You would never just use an EKG. In

(1) Charash
 (2) patient using thrombolytics?
 (3) A Of course there'd be environments
 (4) where that's true.
 (5) Q Patients die even when clot-busting
 (6) drugs are used if they're suffering a STEMI; is
 (7) that true?
 (8) A Yes.
 (9) Q What percentage of the time does the
 (10) clot-busting drug actually assist or help a
 (11) patient who has a STEMI?
 (12) A Depends on the timeframe by which
 (13) they get it. So, the reduction of, you know --
 (14) the benefit, in terms of significant benefit, is
 (15) 70, 80 percent in the first hour, well over
 (16) 50 percent in the second hour, you know. But,
 (17) again, it's also changes. In the third hour, you
 (18) might have a 30 percent reduction of muscle death,
 (19) but that 30 percent can be the difference between
 (20) life and death based on the substrate. So, it's
 (21) about -- there's no simple one answer because it
 (22) depends on the underlying condition of the patient
 (23) and the timing of the drug.
 (24) Q Does an indication if the patient is
 (25) suffering continuing pain, does that usually

(1) Charash
 (2) isolation, that's not enough information.
 (3) Q Is it true that you can have a large
 (4) or a small amount of damage to the heart but the
 (5) EKG may not demonstrate the amount of damage?
 (6) A It's true.
 (7) Q Do all heart attacks have some
 (8) impact on life expectancy?
 (9) A I can't answer that question as a
 (10) yes/no.
 (11) In a person who has never been known
 (12) to have heart disease, the recognition that they
 (13) have a heart attack, even if the damage is
 (14) minimal, has some factoring into life expectancy.
 (15) In a person who has preexisting heart disease, it
 (16) would be dependent on how muscle is hurt.
 (17) Q For someone like Mr. Wimmer who was
 (18) 88 years old and had a 35 to 40 percent ejection
 (19) fraction, with COPD, oxygen dependent, and, of
 (20) course, having the two past heart attacks, what
 (21) projection would you make of his life expectancy?
 (22) A Had he received thrombolytic therapy
 (23) in a timely manner, he would not have gone into
 (24) progressive cardiac dysfunction and died of left
 (25) ventricular failure. So had he received

(1) Charash
(2) thrombolytic therapy in a timely manner, I would
(3) expect him to have had in the range of a two-year
(4) life expectancy. I think that's pretty undressed
(5) remaining his life expectancy from the viewpoint
(6) he didn't have a malignancy, he didn't have a
(7) final end-organ disease, he'd been living for well
(8) over -- you know, for a decade with known coronary
(9) disease, nothing was again causing a short-term
(10) accelerated death. So, I would say a two-year
(11) life expectancy would be the average.
(12) Q What was Mr. Wimmer's hemodynamic
(13) condition when he was actually admitted to the
(14) hospital after he was in the ED?
(15) A He had troubles right off the bat.
(16) He required high doses of supplemental oxygen.
(17) His heart rate when it was at a very fast rate,
(18) that was due to the ventricular tachycardia. But
(19) then over the course of his ER stay, his blood
(20) pressure first went up and then by 1:00 in the
(21) morning, he started to drop, showing signs of
(22) impending heart failure. So, he was both in --
(23) showed evidence of congestion in his lungs
(24) followed by pump dysfunction.
(25) Q I have just a list, I'm not going to

(1) Charash
(2) Q You made the comment earlier that
(3) thrombolytics are used less in a facility that
(4) would have the ability to do angioplasty. Why is
(5) that?
(6) A Because angiogram/angioplasty in the
(7) average person can be done -- when you look at the
(8) time to open up an artery, thrombolytic therapy
(9) doesn't open up the artery the moment you give it.
(10) If you do the average time, thrombolytic therapy
(11) is quicker, but the yield is higher for
(12) angioplasty.
(13) So, head-to-head comparisons say
(14) that acute angioplasty is better for risk/benefit
(15) ratio. But that said, the benefits are well-known
(16) to thrombolytics. They're just better in people
(17) with angioplasty, if feasible.
(18) Q In the last five years at the
(19) facilities where you have practiced, would the
(20) significant majority of patients who would appear
(21) with a STEMI receive angioplasty as opposed to
(22) thrombolytics?
(23) A Yes.
(24) Q Would you say that angioplasty has a
(25) much better outcome than thrombolytics?

(1) Charash
(2) make this an exhibit, but just isolating the blood
(3) pressures and the time of it.
(4) You were talking about some of the
(5) times that they were higher and some of the times
(6) that they were lower. Can you just explain to me,
(7) what is the significance of the fact that they are
(8) changes in BP levels?
(9) MR. LINDSAY: Do you have
(10) another copy of this?
(11) MR. JESSIE: I don't, and I
(12) don't want to make it an exhibit. It's
(13) just the blood pressures.
(14) A Well, some of this depends on what
(15) medicines he was getting to support his blood
(16) pressure. But, his hypertensive response after he
(17) came out of ventricular tachycardia, with a
(18) systolic up to 162, when it dropped down to 103,
(19) then down to the 90's, suggests clinically that he
(20) has left ventricular failure and unable to
(21) generate the blood pressure.
(22) Now, there are other factors, so you
(23) can't just be simplistic. But, his overall
(24) clinical course was one of clear and progressive
(25) left ventricular deterioration.

(1) Charash
(2) A No. It has a better outcome.
(3) MR. FOX: Can you repeat that,
(4) Doctor?
(5) THE WITNESS: I said no, it has
(6) a better outcome. I would not say a much
(7) better.
(8) MR. FOX: Okay. Thank you.
(9) Q Are there classes of heart attacks
(10) like Class I, Class II?
(11) A No. There are classes of heart
(12) failure but not -- well, I mean, heart attacks can
(13) be judged based on the hemodynamics of
(14) presentation. We used to use it as a
(15) classification, but it's not used very much
(16) anymore. So, you know, an uncomplicated heart
(17) attack is no pulmonary edema or left ventricular
(18) failure. Then you would have one with pulmonary
(19) edema but with good left ventricular function.
(20) Then worse than that would be evidence of forward
(21) flow problems but without pulmonary edema. And
(22) then if you have both, it's considered cardiogenic
(23) shock. That kind of schema hasn't been -- is not
(24) discussed a lot clinically but, yeah, you could --
(25) there are ways you can classify the presentation

(1) Charash
 (2) of an acute MI.
 (3) Q If you were to classify Mr. Wimmer's
 (4) presentation, what would that classification be?
 (5) A It's a little bit harder. Looks
 (6) like he was having pulmonary edema, and it looks
 (7) like he was on the cusp of cardiogenic shock but
 (8) not quite there, so I think he was pre-shock.
 (9) Q Let me ask you about the
 (10) contraindications to using thrombolytics. There
 (11) are certain simple ones; that the patient had had
 (12) a previous stroke in near time.
 (13) What are other relative
 (14) complications to using thrombolytics for a patient
 (15) who appears with what would appear to be an ST
 (16) elevated MI?
 (17) A Contraindication?
 (18) Q Yes, sir.
 (19) A Well, being on sustained oral
 (20) anticoagulation; receiving thrombolytic therapy
 (21) within the last 30 days; within a short period,
 (22) depending on the nature of a surgical procedure,
 (23) having any preexisting neurological condition,
 (24) mass or surgery would preclude it; unmanageable
 (25) hypertension would be a contraindication; recent

(1) Charash
 (2) advance age, so even though the risks go up, the
 (3) benefits grow up greater.
 (4) Q Let's assume that the patient,
 (5) instead of being 88 is 90, would that than a
 (6) contraindication?
 (7) A No. But, the older you are get, the
 (8) more likely you are to accumulate disease states
 (9) that are contraindications.
 (10) Q Did Mr. Wimmer have any
 (11) contraindications to the use of thrombolytic
 (12) therapy, as far as you could see?
 (13) A Again, he had increased risk because
 (14) of his age and being on aspirin and Plavix, to a
 (15) degree. But, the risk/benefit ratio favored
 (16) giving the drug. So, when you say
 (17) contraindication, he had no contraindication that
 (18) surpassed the benefit.
 (19) Q And what I really ask was relative
 (20) contraindication, but I understand you clarified
 (21) what I asked.
 (22) What, assuming that when the second
 (23) EKG was done, and there was a determination that
 (24) the patient was suffering an ST elevated heart
 (25) attack, how long does it take for thrombolytics to

(1) Charash
 (2) stroke, as you pointed out, would be a
 (3) contraindication; any reason to suspect a threat
 (4) of a massive hemorrhage, so an underlying aneurysm
 (5) or, you know, major trauma within the last two
 (6) weeks. So, there are a number.
 (7) Q In this case we know he was taking
 (8) Plavix and aspirin. Would that be a relative
 (9) contraindication?
 (10) A No.
 (11) Q Why not?
 (12) A It's Coumadin. It's oral
 (13) anticoagulants that you can't control.
 (14) Q Let me ask you about age and just
 (15) ask you hypothetically. I have seen
 (16) hypothetically in some instances saying 65 and
 (17) some instances saying 75 as cutoff in use. Is
 (18) there an age cutoff for using thrombolytics?
 (19) A No.
 (20) Q Is there any recommendation about
 (21) not using thrombolytics for patients older than 75
 (22) that you are aware of?
 (23) A It would depend on clinical context,
 (24) but no.
 (25) Again, the benefit grows with

(1) Charash
 (2) actually be given? How does that process work at
 (3) a community hospital?
 (4) A Well, you have to mix it up and
 (5) administer it, but it should be given within 15
 (6) minutes of the decision.
 (7) Q How is it given?
 (8) A Intravenously.
 (9) Q How quickly does it work?
 (10) A Generally, reperfusion occurs
 (11) between 20 and 30 minutes after it's started. If
 (12) it's a bolus, front-loaded bolus, it could be
 (13) quicker.
 (14) Q Is there any recommendation for or
 (15) against using the front-loaded bolus?
 (16) A I think either approach is equally
 (17) acceptable.
 (18) Q When last time you ordered it ten or
 (19) more years ago, did you use the front-loaded bolus
 (20) or did you use it in a more -- a less not having a
 (21) bolus?
 (22) A It would have been front-loaded.
 (23) Q Recognizing that even patients who
 (24) receive thrombolytics within the first hour don't
 (25) always have benefits from it, are you able to say

(1) Charash
 (2) to a reasonable degree of medical probability what
 (3) percentage chance it would have been to assist Mr.
 (4) Wimmer if it had been given within 15 minutes of
 (5) this second EKG demonstrating ST elevation?
 (6) A No. I think he would have had a
 (7) 90 percent chance of major benefit given his
 (8) outcome and given the timing.
 (9) Q Let me ask you the risk of suffering
 (10) bleeding or other significant complications.
 (11) MR. LINDSAY: I'm sorry.
 (12) Was that a question?
 (13) MR. JESSIE: Yes.
 (14) Q "Let me ask you" meant a question.
 (15) Sorry.
 (16) A Well, the intracranial bleed rate
 (17) would be about one-and-a-half percent or less.
 (18) Q For someone that age?
 (19) A Yes. Somebody younger, it would be
 (20) under half of one percent or even lower.
 (21) Q If he had developed a bleed, what
 (22) facilities were available at the Bluefield
 (23) hospital to assist with trying to address that
 (24) problem?
 (25) A I don't know.

(1) Charash
 (2) Q Is that of any significance in a
 (3) situation where a patient might be in a facility
 (4) that had no neurosurgery, interventional
 (5) radiology, or any other specialty service that
 (6) might assist with a bleed?
 (7) A No.
 (8) Q Have you ever testified that it was
 (9) negligent for an emergency room physician to offer
 (10) thrombolytics and give thrombolytics to a patient?
 (11) A I don't recall. I mean, there may
 (12) have been. Just as I believe that it was
 (13) inappropriate to withhold thrombolytics in this
 (14) case, there may be circumstances where, I don't
 (15) recall specifically, but if someone comes in with
 (16) runaway hypertension, I would consider it
 (17) inappropriate to give it. You have to look at the
 (18) facts of a case. So there may have been.
 (19) Q In this case Mr. Wimmer had
 (20) controlled hypertension; is that fair to say?
 (21) A Yes.
 (22) Q And that controlled hypertension is
 (23) not a reason to deny thrombolytics; is that
 (24) correct?
 (25) A Correct. Not for this case.

(1) Charash
 (2) Q Is it even a relative
 (3) contraindication having controlled hypertension?
 (4) A Yes.
 (5) Q Doctor, I want to take you through
 (6) the events of that evening, if I could, and I
 (7) would like to do this in the context of asking you
 (8) in which areas you feel that there was a deviation
 (9) from the standard of care.
 (10) MR. LINDSAY: Before you ask
 (11) that question, let's take a break. It's
 (12) been an hour.
 (13) MR. JESSIE: Sure. Of course.
 (14) (At this time a recess was
 (15) taken from 11:11 to 11:17 a.m.)
 (16) Q Doctor, let me ask you before we get
 (17) into that specific areas of malpractice just a
 (18) couple other questions.
 (19) Do thrombolytics open chronically
 (20) closed vessels?
 (21) A Generally not.
 (22) Q Why not?
 (23) A Well, thrombolytics are meant to
 (24) open up acute clots, and if something is
 (25) chronically closed, then there isn't a clot to

(1) Charash
 (2) open.
 (3) Q Does the fact that the patient had
 (4) suffered the two previous heart attacks make him
 (5) more susceptible to either supraventricular
 (6) tachycardia or ventricular tachycardia?
 (7) A Potentially.
 (8) Q If someone were to say that that
 (9) second, the photographed EKG, showed ischemia but
 (10) did not differentiate between a heart attack and
 (11) demand ischemia, would you disagree with that
 (12) statement?
 (13) A Yes. It's just crazy. It shows an
 (14) acute inferior wall evolving heart attack.
 (15) Q Doctor, what happens to the tissue
 (16) that has already been damaged or has died when the
 (17) reperfusion occurs?
 (18) A Well, dead cells don't get better,
 (19) but cells that are ischemic or hibernating will.
 (20) Q What did the patient's last cardiac
 (21) catheterization in 2012 demonstrate?
 (22) A Sorry. I'm just pausing for a
 (23) minute.
 (24) Maybe I'm getting the years wrong in
 (25) this case.

(1) Charash
 (2) Sorry. 2012. You're right. I have
 (3) a cath result from January 24, 2011.
 (4) Q Okay. What does it demonstrate?
 (5) A A 50 percent left main blockage, a
 (6) 70 to 75 percent proximal blockage of the LAD, a
 (7) long 75 percent blockage in the middle of the LAD,
 (8) a 75 percent blockage of what we call the ostial
 (9) circ, which is the origin of the circumflex, and a
 (10) complete occlusion of the right coronary artery with
 (11) collateral flow from the left circulation to the
 (12) right.
 (13) Q In his discussion with Dr. Rana, Dr.
 (14) Rana reports that there have been attempts to
 (15) place stents and they were unsuccessful, or I
 (16) think he phrased it as it was an unsuccessful
 (17) catheterization; is that correct?
 (18) A I'm not sure what you mean. I have
 (19) no reason to doubt the reporting of his coronary
 (20) arteries or the reporting that they did not
 (21) consider him a candidate any longer for mechanical
 (22) revascularization.
 (23) Q Why did they not consider him a
 (24) candidate?
 (25) A Well, at his age, bypass surgery

(1) Charash
 (2) beginning four hours earlier come from?
 (3) A Well, the first recognition of that
 (4) pain is by the paramedics, who then qualify it as
 (5) being on-again/off-again.
 (6) Q Does that indicate to you that he
 (7) was not having a heart attack until 7:30?
 (8) A Yes. That's the best way we can
 (9) time it.
 (10) Q What would you say was the cause of
 (11) the on-again/off-again chest pain?
 (12) A Pre-heart attack pain. Clearly a
 (13) clot had developed in one of his left coronaries --
 (14) one of his left coronary arteries. I don't know
 (15) which one because I haven't seen his CAT films,
 (16) which jeopardize primarily the collateral flow to
 (17) his right. The clot often appears as a singular
 (18) event where, the moment you have your first
 (19) symptom, it's the ongoing heart attack. Many
 (20) other people have a period of time of recurrent
 (21) symptoms until it -- because the clot can wax and
 (22) wane until it closes the artery. So, the timing
 (23) of a heart attack is a clinical one.
 (24) Based on the family's testimony that
 (25) at 7:30 he turned for the worst, they gave him a

(1) Charash
 (2) could be done but it would be more traumatic, and
 (3) I think they felt that the specific anatomy wasn't
 (4) amenable to angioplasty without higher
 (5) complications.
 (6) Q A patient, it is fair to say, has a
 (7) right to decline therapy such as cardiac bypass
 (8) surgery?
 (9) A Of course they do.
 (10) Q And a patient has a right to decline
 (11) catheterization?
 (12) A Of course they do.
 (13) Q And they have a right to decline
 (14) thrombolytics?
 (15) A Of course they do.
 (16) Q When did the patient actually arrive
 (17) at the Emergency Department at Bluefield Regional
 (18) Medical Center?
 (19) A The arrival time is at -- shall I do
 (20) military time or regular time?
 (21) Q Let's do regular time. It's easier
 (22) for me.
 (23) A 8:04 p.m. -- 8:08 -- I'm sorry.
 (24) Arrived at 8:04 p.m. He was triaged at 8:08.
 (25) Q Where did the history of the pain

(1) Charash
 (2) nitro, called 911; given the ambulance saying for
 (3) four hours it was on-again/off-again; given that
 (4) the cardiologist said it began at 7:30 and all
 (5) other subsequent physicians said it began at 7:30,
 (6) clinically it began at 7:30.
 (7) Q If it had begun four hours earlier,
 (8) would that have any impact on your thought about
 (9) the efficacy of thrombolytics for this patient?
 (10) A No. But, clearly there would be --
 (11) well, it would have less efficacy. But, clearly
 (12) if you look at his cardiac enzymes, when he came
 (13) in they were low, so that means he probably didn't
 (14) have four hours of complete occlusion. It would
 (15) have been much higher because we know he went up
 (16) to a very high number. So, with that size heart
 (17) attack, he would have had higher enzymes on
 (18) presentation.
 (19) Q As a practical matter, does demand
 (20) ischemia cause elevation in enzymes?
 (21) A It can, but it would be demand
 (22) infarction. And that can happen. Usually it
 (23) happens during periods of low blood pressure, not
 (24) just fast heart rate, but usually low blood
 (25) pressure means low perfusion or in surgical

- (1) Charash
- (2) environments.
- (3) But, this is in no way, shape or
- (4) form demand infarction. This patient was having a
- (5) classic ST elevation myocardial infarction.
- (6) Q Let me ask you in terms of the
- (7) ventricular tachycardia.
- (8) Does ventricular tachycardia
- (9) prolonged cause an elevation of troponin?
- (10) A Usually not, but it's possible.
- (11) Q Have you ever seen it go to the
- (12) level it went in this case with a ventricular
- (13) tachycardia?
- (14) A Not without a heart attack, no.
- (15) Q Patient arrives at 8:08, and shortly
- (16) thereafter the EKG number one that appears in
- (17) Exhibit A was taken; correct?
- (18) A Yes.
- (19) Q What would a reasonably prudent
- (20) emergency room physician do based upon the EKG
- (21) that appears on the first page of Exhibit A?
- (22) A Try and break the rhythm.
- (23) Q Which was attempted and was
- (24) successful; correct?
- (25) A Yes.

- (1) Charash
- (2) Q Do we have the approximate time that
- (3) the photographed EKG was taken, or are you able to
- (4) piece that together from your records?
- (5) A I think I recall it was like 8:41,
- (6) maybe. That seems to be the ballpark.
- (7) Q So, if you were -- if a reasonably
- (8) prudent emergency room physician were presented
- (9) with that document, which is Exhibit A, the second
- (10) page, the photographic representation, what would
- (11) the standard of care require?
- (12) A The patient, knowing that mechanical
- (13) intervention is not in the arsenal of available
- (14) tools, would get thrombolytic therapy.
- (15) Q Would the standard of care then
- (16) require that at that point or shortly after when
- (17) this EKG was made available?
- (18) A Yes, but of course you explain to
- (19) the patient the risk/benefits and then you
- (20) strongly recommend that if the patient wants to
- (21) have a chance to go back to their life, they need
- (22) thrombolytic therapy; although there are risks
- (23) that, given his history, he faces an unreasonable
- (24) chance of death if he doesn't have it.
- (25) Q If an emergency room physician did

- (1) Charash
- (2) not give thrombolytics unless the patient was
- (3) willing to be transferred to a tertiary care
- (4) center that would both have neurosurgical as well
- (5) as cardiac catheterization abilities, would that
- (6) be a deviation from standard of care?
- (7) A Yes.
- (8) Q Why is that?
- (9) A Because you have to present it to
- (10) the patient.
- (11) If this patient says that, "If I
- (12) bleed in the brain, game over for me," then that's
- (13) just the way it is.
- (14) The patient's clear threat of life
- (15) is going to be the heart attack which is going to
- (16) kill him. So, there is a risk, and you have to
- (17) include the patient in the decision, and you have
- (18) to give the patient all the facts, and then say:
- (19) "If you have an intracranial bleed, that may be a
- (20) fatal side effect, and unless we can transfer
- (21) you," and he says, "I don't want to be
- (22) transferred," he's still allowed to make the
- (23) decision to get the thrombolytics to save his
- (24) life.
- (25) Q If the second page, the photographic

- (1) Charash
- (2) representations, were gone, and you just had the
- (3) first EKG and the last EKG, would you be able to
- (4) say that there had been an ST elevation MI?
- (5) A No.
- (6) Q Dr. Harris testified in his
- (7) deposition that he discussed the use of
- (8) thrombolytics with the patient, and the patient
- (9) declined. Are you familiar with that testimony?
- (10) A Yes, that testimony.
- (11) Q Do you accept that?
- (12) MR. LINDSAY: Let me just place
- (13) an objection on the record.
- (14) I think Dr. Harris's testimony was
- (15) that thrombolytics wasn't offered but that
- (16) it was mentioned. I think that's more
- (17) accurate.
- (18) A Well, there are certain things about
- (19) Dr. Harris's testimony that are concerning to me.
- (20) Number one, there is no mention in
- (21) the record of thrombolytic therapy being discussed
- (22) with the patient.
- (23) Number two, Dr. Harris testified, if
- (24) I'm recalling correctly, that he never saw that
- (25) second EKG.

(1) Charash

(2) Q No, that's Dr. Petrarca.

(3) A Oh, Petrarca.

(4) Q Yeah. I'm sorry. We switched

(5) people now.

(6) A Yes. Dr. Petrarca, the ER doctor,

(7) said he didn't see that EKG, which is bizarre if

(8) Dr. Harris did, and it would be equally bizarre if

(9) Dr. Petrarca did not demand to see some EKG when

(10) the heart rate broke from 190. So, I mean, there

(11) is a lot of odd things here.

(12) I mean, if you're an ER doctor,

(13) whether you're the resident or the attending, if a

(14) patient presents with a wide-complex super-fast

(15) rhythm, the standard of care requires that you

(16) affirm that you see an EKG in a timely manner the

(17) moment the patient's heart rate is no longer 191,

(18) to see what the diggit [sic] is going on.

(19) But, saying that -- saying in

(20) after-the-fact testimony that thrombolytic therapy

(21) was mentioned provides no information whatsoever,

(22) and it's not documented.

(23) Q Let's talk about the areas where you

(24) feel there was a deviation from the standard of

(25) care.

(1) Charash

(2) Is it fair to say that until the

(3) second EKG, the one that's been photographed,

(4) appeared, that, generally speaking, the patient

(5) had been treated appropriately?

(6) A Yes.

(7) Q From that point forward,

(8) thrombolytics should have been offered the

(9) patient?

(10) A Yes. Strongly, as the --

(11) Q Recommended.

(12) A Strongly recommended.

(13) Q And if the patient declined, then

(14) the doctors have met the standard of care?

(15) A Yes.

(16) Q Let's play through, how quickly did

(17) the standard of care require the discussion and

(18) the administration of the thrombolytics to take

(19) place?

(20) A The discussion takes about five to

(21) ten minutes. Thrombolytics can be provided within

(22) five or ten minutes after that.

(23) Q And then within 20 to 30 minutes

(24) they should be taking effect?

(25) A Yes.

(1) Charash

(2) Q So, within an hour of when this

(3) second EKG was done?

(4) A Yes, but you have to understand the

(5) data showing the enormous success of thrombolytic

(6) therapy accounts when a patient presents within an

(7) hour of chest pain, those intrinsic time

(8) requirements to advise the patient and mix it.

(9) So, the data of massive benefit

(10) early on is accounting for those same 20 to 30

(11) minutes of explanation and administration.

(12) Q Doctor, let's talk about other areas

(13) where you feel the physicians deviated from the

(14) standard of care.

(15) Were there others or is this the

(16) deviation from the standard of care?

(17) A Well, that's the deviation from the

(18) standard of care: Failure to strongly advise to

(19) and administer thrombolytics.

(20) There are other weird elements of

(21) the case; again, the ER attending in his

(22) deposition saying he was unaware of the second

(23) EKG, is intrinsically a deviation because that

(24) doctor had a requirement in accordance with the

(25) standard of care to demand to see what the EKG

(1) Charash

(2) showed after the wide-complex tachycardia went

(3) away.

(4) We have this strange story of Dr.

(5) Harris photographing this EKG for no clear reason.

(6) He said "for education", but that makes no sense.

(7) There's nothing on this EKG that is atypical of an

(8) ST elevation MI. He acknowledged himself that it

(9) violated HIPAA protocols, the patient's name

(10) appeared on it, and he didn't get permission, and

(11) it happened to be the EKG that was missing.

(12) So, there's a lot of weird things

(13) involved in this case.

(14) But, the actual care deviation was

(15) the failure to give thrombolytics.

(16) Now, if elements occurred; if the

(17) attending says that Dr. Harris withheld the EKG

(18) from him, then Dr. Harris would be negligent in

(19) not sharing that EKG, but it wouldn't take away

(20) the attending's requirement to demand to find one.

(21) And if he couldn't find one, to get one

(22) immediately.

(23) I mean, when somebody comes in with

(24) a heart rate of 191 and you give 'em drugs and you

(25) break that rhythm, there's no possibility that you

- (1) Charash
 (2) can be responsible without affirming to yourself
 (3) as quickly as possible what that EKG shows.
 (4) Q Let's talk about continuous
 (5) monitoring at a patient's bedside.
 (6) This was in a monitored room; is
 (7) that correct?
 (8) A Yes.
 (9) Q Can the information that you need be
 (10) gleaned from the monitor that appears at the
 (11) patient's bedside?
 (12) A No.
 (13) Q How many leads are required before
 (14) you can determine if there is an ST elevation as
 (15) an example?
 (16) A Well, you need a 12-lead EKG to know
 (17) what's going on. Doesn't mean a monitor may not
 (18) suggest ST elevation, but you need a 12-lead.
 (19) Q How about 5-lead? Would a 5-lead
 (20) give you that information?
 (21) A Depends whether they're legitimate
 (22) leads. But, no, you need a 12-lead EKG to see the
 (23) picture.
 (24) Q You're aware from the testimony that
 (25) there was a patient who had been brought in

- (1) Charash
 (2) emergently with a stroke and had significant
 (3) injuries from a motor vehicle accident that
 (4) occurred at the same time; correct?
 (5) A Yes.
 (6) Q If Dr. Petrarca were involved with
 (7) trying to care for those patients, would it be
 (8) fair for him to leave this patient's side in order
 (9) to be able to care for them?
 (10) A I can't answer the question the way
 (11) you phrased it as a simple yes/no. He didn't have
 (12) justification to let this patient receive
 (13) substandard care. I don't know what the staffing
 (14) is. And certainly there is always the option of
 (15) calling for an emergency cardiology consult to
 (16) come in and ordering thrombolytics, and the
 (17) discussion doesn't take very much time, and the
 (18) nurses do the work.
 (19) So, it would not justify the failure
 (20) for this patient to receive the standard of care.
 (21) Q How much can and should an emergency
 (22) room physician rely upon, as an example, Dr.
 (23) Harris, who was assisting him with this patient
 (24) and I assume other patients, as well?
 (25) A You're allowed to rely on Dr. Harris

- (1) Charash
 (2) for the truthfulness of what he says, and they
 (3) both have an independent responsibility to be
 (4) aware of information, so they both share a lot of
 (5) responsibility.
 (6) In medicine, it's frequent for more
 (7) than one party to share the same responsibility
 (8) for information.
 (9) Q Are you going to offer any testimony
 (10) as to what happened to that second EKG that now
 (11) appears in the photograph?
 (12) A I have no knowledge of what happened
 (13) to the second EKG, so I'm not a fact witness.
 (14) Q So, as far as Dr. Petrarca is
 (15) concerned, that he never saw the second EKG, he
 (16) would still have had a responsibility to either
 (17) order one or seek out the determination of the
 (18) patient's condition after he had been converted
 (19) from the ventricular tachycardia; is that fair?
 (20) A Yes, and as soon as possible.
 (21) Q Doctor, let me ask you a few
 (22) background questions before we go on.
 (23) I take it you have no criticism of
 (24) Dr. Rana when he saw the patient the next day?
 (25) A Yes. I think by the time that Dr.

- (1) Charash
 (2) Rana and other physicians were involved, the
 (3) window of opportunity had been lost.
 (4) Q When did Dr. Rana's residents
 (5) actually come to the Emergency Department to see
 (6) the patient?
 (7) A I don't recall.
 (8) Q If that were within a five-hour
 (9) period of the beginning of the heart attack at
 (10) 7:30, would that make any difference in terms of
 (11) the patient's outcome, or would it be too late by
 (12) that point?
 (13) A It would be too late by that point.
 (14) Q Would it be too late to make a
 (15) difference of any kind in terms of using
 (16) thrombolytics by the time the third EKG was done?
 (17) A No. Clearly the patient reperfused
 (18) on his own, but we also know that he had a massive
 (19) heart attack, which means the reperfusion did not
 (20) come early, so it would have occurred much later
 (21) in the case.
 (22) If he had reperfused spontaneously
 (23) in the first two hours, he would not have had as
 (24) large a heart attack and suffered shock as he did.
 (25) So he reperfused, but the likelihood is he

(1) Charash
 (2) reperused well after two to three hours, but
 (3) probably closer to when the EKG was taken.
 (4) Q As we discussed before, by the time
 (5) the third EKG was taken, there would certainly be
 (6) no value in ordering thrombolytics?
 (7) A I agree.
 (8) Q Do you have any other criticisms of
 (9) Dr. Petrarca?
 (10) A No.
 (11) Q Doctor, I want to ask you just a few
 (12) questions about your testimonial background, then
 (13) I'm going to turn it over to my friend, Mr. Fox,
 (14) to talk more about the hospital and Dr. Harris.
 (15) Let me go with the first question.
 (16) At this stage in your career in
 (17) terms of plaintiff and defendant review, is it
 (18) 90/10? Is it 95/5? What percentage?
 (19) A Fifteen percent of the cases I
 (20) review come from defense lawyers. But for a
 (21) number of reasons that are explainable, less than
 (22) five percent of my testimony is for defense cases.
 (23) Q Let me ask you about, just in terms
 (24) of a given year, let's take the average over the
 (25) last five years, would you bill more than a

(1) Charash
 (2) saying they should have given and the side where
 (3) you said they should not have been given.
 (4) And it is fair to say that you have
 (5) testified in cases where patients have gone on to
 (6) develop bleeds, that they should not have been
 (7) given in those particular factual circumstances.
 (8) A What's the question?
 (9) Q The question is, is that true, that
 (10) you have given testimony that thrombolytics should
 (11) not have been used?
 (12) A Yeah. I don't remember the cases
 (13) specifically, but, as I told you before, I
 (14) suspected I have.
 (15) Q I take it, what I can tell you, but
 (16) I want to ask you the question, do you remember
 (17) ever giving another deposition or trial testimony
 (18) where you say thrombolytics should have been
 (19) given?
 (20) A Not offhand.
 (21) Q Doctor, is it true that you were
 (22) declined by a court in Florida to be allowed to
 (23) offer testimony about the care offered by an
 (24) emergency room physician?
 (25) A That's an issue that was brought up

(1) Charash
 (2) quarter million dollars for the medical/legal work
 (3) that you do?
 (4) A It's averaging \$70,000 a year.
 (5) Q What would be the highest year in
 (6) the last five years?
 (7) A \$80,000.
 (8) Q How many cases do you have pending
 (9) now, approximately?
 (10) A Hard to know. I probably have 35
 (11) cases, some of which are old enough that my
 (12) suspicion is they're resolved, but I don't know.
 (13) Q In terms of your trial testimony,
 (14) what would the breakdown there be, plaintiff
 (15) versus defendant?
 (16) A Again, for deposition and trial,
 (17) it's both under five percent defense.
 (18) Q Doctor, how many times have you
 (19) worked with Mr. Lindsey or other members of his
 (20) law firm in the past?
 (21) A Three times, four times maybe. I
 (22) don't know the exact number, frankly.
 (23) Q Doctor, I am going to reveal that I
 (24) reviewed a few of your depositions that involved
 (25) thrombolytics, both on the side where you're

(1) Charash
 (2) a number of times.
 (3) The law firm that hired me was a
 (4) firm called Morgan & Morgan, although they may
 (5) have had a different name then, and I was going to
 (6) provide an opinion against an ER doctor and a
 (7) cardiologist.
 (8) During the period from when I was
 (9) retained to when it came to trial, and I'm not a
 (10) lawyer, but apparently there were some changes in
 (11) the law in Florida about when a witness can
 (12) testify. And then after that, there was even a
 (13) greater restrictive law.
 (14) At the time of that law, the judge,
 (15) from what I'm told, I was not present, said that
 (16) he thought I was eminently qualified to discuss
 (17) the emergency room doctor, but the law was
 (18) ambiguous. And because the plaintiff who hired me
 (19) also had an ER doctor, there was just an agreement
 (20) that I would testify against the cardiologist, not
 (21) the ER doctor. And according to the lawyer who
 (22) hired me, the judge thought I was eminently
 (23) qualified, but because of at that point what I'm
 (24) told was a legal ambiguity, they thought it was
 (25) just better for me to keep my testimony to the

(1) Charash
 (2) cardiologist.
 (3) In other states I have testified
 (4) about ER management. I have a very strong
 (5) background in the ER approach to chest pain. I
 (6) ran the ER center at Lenox Hill. I have vast
 (7) experience in this area.
 (8) Some states have very restrictive
 (9) requirements about who can testify, others have
 (10) different, but I've never been told that I don't
 (11) have the qualifications. It's just a matter of
 (12) what the law is.
 (13) Q Was that the only time that you're
 (14) aware of where you were not allowed to testify
 (15) against an emergency room physician?
 (16) A Yes.
 (17) Q Let me ask you about your ED
 (18) experience within, let's say, two years of 2015.
 (19) So, 2013 to 2017.
 (20) Tell me about your experience doing
 (21) Emergency Department work there.
 (22) A At that point it would be just when
 (23) I'm called in to see patients who are either my
 (24) own or asked to consult.
 (25) Q So, you would be in the position of

(1) Charash
 (2) matters besides cardiac-related matters in the
 (3) emergency department?
 (4) A Well, when I ran the Cardiac Care
 (5) Unit at Lenox Hill, I was responsible for the
 (6) chest pain center. I gave lectures, I did peer-
 (7) review on nurses and doctors, I established
 (8) protocols, and I was allowed to see patients and
 (9) write the ER note for chest pain patients.
 (10) I served on the Emergency Room
 (11) Committee, which was an administrative committee,
 (12) but only because of my role of cardiology. I did
 (13) not engage in general ER care, only in potential
 (14) heart disease.
 (15) Q When was the last time that you were
 (16) the director or worked directly in that program?
 (17) A 2006.
 (18) Q Doctor, I think this goes without
 (19) saying, but you've had no individual discussions
 (20) with the family members or the physicians involved
 (21) or anyone in the Bluefield area; is that fair?
 (22) A That is fair.
 (23) Q Have you ever been to the Bluefield
 (24) Regional Medical Center?
 (25) A No.

(1) Charash
 (2) Dr. Rana in this particular case?
 (3) A I would be.
 (4) Q Okay. But, in terms of running an
 (5) emergency department within two years of when this
 (6) event occurred, or running a cardiology program in
 (7) an emergency department, you didn't have
 (8) experience during that point in time?
 (9) A Correct.
 (10) Q When you did run the Lenox Hill
 (11) matter, how many beds were in that hospital?
 (12) A Three hundred beds.
 (13) Q How many beds are in the Bluefield
 (14) Regional Medical Center; do you know?
 (15) A Not offhand.
 (16) Q How often have you worked in a
 (17) facility that had less than a hundred beds?
 (18) A I haven't for two decades.
 (19) Q The current facility where you have
 (20) practice privileges, where is that?
 (21) A Lenox Hill.
 (22) Q You're still on their medical staff?
 (23) A Yes.
 (24) Q Have you ever served as a pure
 (25) emergency room physician who would deal with other

(1) Charash
 (2) Q Have you ever practiced medicine in
 (3) West Virginia?
 (4) A No.
 (5) Q Have you ever been to West Virginia
 (6) except potentially as an expert witness?
 (7) A I've been there socially, but never
 (8) as -- I don't know if I've been there as an expert
 (9) witness. I don't recall.
 (10) Q Have you worked with other
 (11) plaintiffs firms from the Charleston area?
 (12) A Not that I can recall.
 (13) Q Do you know how Mr. Lindsay or other
 (14) members of his firm were able to have you serve as
 (15) an expert the very first time they contacted you?
 (16) A I do not recall.
 (17) Q I take it you don't advertise your
 (18) services or do anything like that?
 (19) A I do not.
 (20) Q And you never have; have you?
 (21) A I never have.
 (22) Q Doctor, let me ask you finally, we
 (23) have covered your opinion on causation that there
 (24) would have been a 90 percent chance that this
 (25) would have been successful, and you believe that

(1) Charash
(2) it would have, from the cardiac standpoint,
(3) offered the patient up to an additional two years
(4) of life; is that correct?
(5) A Yes.
(6) Q The basis for the two years, if you
(7) could just in terminology that I can understand on
(8) a simplistic basis, what is it about him that
(9) would say two years versus three, or two years
(10) versus one?
(11) A Well, as I said, I was being
(12) conservative. I don't know what the life tables
(13) say for an 88-year-old where the longer you live,
(14) you get further life expectancy. And he had been
(15) living with his heart disease and functioning
(16) pretty well. If he had not had the massive
(17) damage, he would have been in a steady state.
(18) But, I'm saying that I think it
(19) would have been two years, basically, because I
(20) think that's less than what would be the average
(21) for his age group but factoring in he had no
(22) progressive or fatal terminal disease.
(23) Q On the standard of care issues, just
(24) to make sure I've got those down completely, once
(25) EKG number two made its appearance at whatever

(1) Charash
(2) examination you just conducted.
(3) I just want to put an objection
(4) on the record with regard to disclosure of
(5) invoices.
(6) And then also I would like to go
(7) ahead and attach, just because you asked
(8) him about it, the blood pressure list, as
(9) whatever exhibit. If you need to make a
(10) copy of it to take it back home with you.
(11) I don't know where we are on the exhibit
(12) letter, but it would be the most recent
(13) one to be attached.
(14) MR. JESSIE: I think E was the
(15) last one. I'm almost certain.
(16) MR. LINDSAY: So then it's F?
(17) MR. JESSIE: Yes.
(18) (At this time the document
(19) referred to above as a printed list of
(20) blood pressures was received and marked
(21) Charash Deposition Exhibit F for
(22) Identification.)
(23) MR. LINDSAY: That's all.
(24) So, if you're ready to go?
(25) MR. FOX: Okay. So you guys

(1) Charash
(2) time that was, that at that point the patient
(3) should have been offered thrombolytics and
(4) encouraged to take it?
(5) A Absolutely.
(6) Q And then beyond that, there are
(7) other questionable issues, but in terms of what
(8) made a difference to his survival, is that really
(9) the issue?
(10) A It is.
(11) Q Any other issue made a difference as
(12) to his survival?
(13) A No.
(14) Q Doctor, I'm going to pass you to
(15) Mr. Fox at this point in time to ask further
(16) questions.
(17) MR. JESSIE: I don't know if
(18) you want a break or not before that.
(19) MR. LINDSAY: No.
(20) There's just two administrative
(21) things before Mr. Fox starts his line of
(22) questioning because I don't know how long
(23) you're going to stay, and I don't know how
(24) long Mr. Fox is going to take, but I can't
(25) imagine it being too long given the

(1) Charash
(2) don't want to take break? You're ready to
(3) go?
(4) MR. LINDSAY: Yes.
(5) MR. JESSIE: Okay.
(6) MR. FOX: I don't -- Rich, to
(7) answer your question, I don't think I'll
(8) be very long at all. Let me just go ahead
(9) and get started.
(10) We're still on the record;
(11) correct?
(12) MR. LINDSAY: Yes, sir.
(13) MR. FOX: Okay.
(14) EXAMINATION
(15) BY MR. FOX:
(16) Q Dr. Charash, my name is Sam Fox.
(17) I've taken your deposition before, and I've just
(18) got a few questions for you.
(19) With regard to Dr. Harris, as I
(20) understand your testimony, you believe that Dr.
(21) Harris should have discussed the possibility of
(22) giving thrombolytics to this patient; correct?
(23) A Yes.
(24) Q You believe that Dr. Harris should
(25) have strongly recommended that the patient agree

- (1) Charash
- (2) to undergo treatment of thrombolytics; correct?
- (3) A Yes.
- (4) Q As I understand your opinion, if Dr.
- (5) Harris didn't do one or both of those tasks, you
- (6) believe he deviated from the standard of care?
- (7) A Yes.
- (8) Q Okay. Any other opinions with
- (9) regard to Dr. Harris and what, you know, and any
- (10) manner in which he allegedly deviated from
- (11) standard of care, or are those the areas that you
- (12) intend to testify in front of the jury about?
- (13) A I think that's it, except only to
- (14) the degree if he withheld that EKG from his
- (15) attending physician supervising him.
- (16) Q Okay. So, that's a third area, that
- (17) if he didn't share the EKG with Dr. Petrarca, you
- (18) believe that was a deviation from the standard of
- (19) care, as well?
- (20) A Correct.
- (21) Q Those are the three areas that you
- (22) intend to testify at trial with regard to Dr.
- (23) Harris's conduct in this case; is that correct?
- (24) A Yes, but only to the degree that Dr.
- (25) Petrarca in his deposition didn't acknowledge the

- (1) Charash
- (2) the EKG.
- (3) Q Okay. You tailed off there at the
- (4) end. It wouldn't have been a deviation unless he
- (5) failed to disclose the EKG?
- (6) A Well, it wouldn't impact care unless
- (7) he failed to disclose the EKG. It was
- (8) independently inappropriate to take a picture of
- (9) that EKG.
- (10) Q Okay. I've got you.
- (11) Doctor, that's all I've got for you.
- (12) Thank you.
- (13) FURTHER EXAMINATION
- (14) BY MR. JESSIE:
- (15) Q Can we take one minute, Doctor, and
- (16) just give me a one-minute summary of your practice
- (17) right now?
- (18) A I've an office-based practice,
- (19) basically 9:00 to 5:00 hours, and I admit to Lenox
- (20) Hill Hospital. Ninety percent of my time is in
- (21) the office and ten percent is in the hospital.
- (22) Q You still have active privileges at
- (23) Lenox Hill?
- (24) A Yes.
- (25) Q Do you admit patients under your

- (1) Charash
- (2) EKG, but if he testified that he actually did see
- (3) it and he had forgotten, then I wouldn't have a
- (4) criticism.
- (5) Q Okay. So, with regard to -- and
- (6) let's back up for a second.
- (7) You also talked about the
- (8) photographing of the EKG number two by Dr. Harris,
- (9) and I think you said that was odd, or weird, or
- (10) something, I forget the actual word you used, but
- (11) that's not in and of itself a deviation from the
- (12) standard of care; is it?
- (13) A It is not.
- (14) Q So, have you given me all the
- (15) opinions you intend to offer at the trial of this
- (16) matter with regard to Dr. Harris?
- (17) A Yes. I mean, I just don't want to
- (18) be caught up in a technicality.
- (19) It is a HIPAA violation and highly
- (20) inappropriate to take a photograph of an EKG. It
- (21) is weird that that's the EKG that vanished from
- (22) the chart, but I have no independent information.
- (23) But, in terms of actually the
- (24) treatment of this patient, the HIPAA violation
- (25) does not impact care unless he failed to disclose

- (1) Charash
- (2) personal service or are they admitted like through
- (3) hospitalist service and then you consult?
- (4) A Both.
- (5) Q Doctor, I have no further questions.
- (6) Thank you.
- (7) MR. LINDSAY: Just a few
- (8) follow-up questions, Doctor, and I will
- (9) try to be brief.
- (10) EXAMINATION
- (11) BY MR. LINDSAY:
- (12) Q Is there a separate standard of care
- (13) for hospitals that have 300 beds versus hospitals
- (14) that have less than a hundred beds?
- (15) A The only difference in the standard
- (16) would be technology differences.
- (17) Q But as far as treating a patient
- (18) with a heart attack and considering thrombolytics
- (19) and administering thrombolytics, there's no
- (20) separate standard of care; is there?
- (21) A No, there is not.
- (22) Q And as far as what you were asked a
- (23) couple questions about your experience in the ER,
- (24) there is no separate standard of care between
- (25) cardiologists and ER physicians when treating a

(1) Charash
 (2) patient like Mr. Wimmer; is there?
 (3) A No. Whoever makes the decision to
 (4) manage and treat takes the same standard of care.
 (5) Q Sure. And, in fact, it's the
 (6) symptoms that dictate what the standard of care is
 (7) regardless of the specialty of the physician
 (8) providing care; correct?
 (9) A Correct.
 (10) Q And just to wrap up the questions,
 (11) you believe that both Dr. Petrarca and Dr. Harris
 (12) deviated from the standard of care in failing to
 (13) recommend, actually strongly recommend
 (14) thrombolytics for this patient; correct?
 (15) A Yes.
 (16) Q And that failure was the actual and
 (17) proximate cause of Mr. Wimmer's death; correct?
 (18) A Yes.
 (19) Q Your life expectancy opinion is
 (20) based upon your education and experience in
 (21) providing care to patients of various age and
 (22) various degree of heart health; correct?
 (23) A Correct.
 (24) Q And those patients also, I would
 (25) imagine, those would include patients with other

(1) Charash
 (2) MR. FOX: Okay. That's all
 (3) I've got.
 (4) Thank you.
 (5) MR. LINDSAY: We're done.
 (6) (At this time the deposition of
 (7) the witness was concluded.)
 (8) (Time noted: 11:57 a.m.)
 (9)
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 (25)

(1) Charash
 (2) comorbidities; correct?
 (3) A Yes.
 (4) Q Do you believe you have the
 (5) information necessary to give your opinions here
 (6) today?
 (7) A Yes.
 (8) Q The opinions you have expressed
 (9) today, do you hold them to a reasonable degree of
 (10) medical certainty?
 (11) A All of them, yes.
 (12) Q Are you aware of your opinions ever
 (13) being excluded in the court of West Virginia?
 (14) A No.
 (15) MR. LINDSAY: I believe those
 (16) are all the questions I have.
 (17) MR. JESSIE: Nothing further.
 (18) MR. FOX: I do have one more
 (19) question.
 (20) FURTHER EXAMINATION
 (21) BY MR. FOX:
 (22) Q Dr. Charash, so you have given us
 (23) all the opinions that you have as of today; is
 (24) that correct?
 (25) A Yes.

(1)
 (2)
 (3) CAPTION
 (4)
 (5) The Deposition of Bruce D. Charash, M.D., taken
 (6) in the matter, on the date, and at the time and
 (7) place set out on the title page hereof.
 (8)
 (9)
 (10) It was requested that the deposition be
 (11) taken by the reporter and that same be
 (12) reduced to typewritten form.
 (13)
 (14)
 (15) The Deponent will read and sign the
 (16) transcript of said deposition.
 (17)
 (18)
 (19)
 (20)
 (21)
 (22)
 (23)
 (24)
 (25)

(1)
(2)
(3) CERTIFICATE
(4)
(5) STATE OF _____:
(6) COUNTY/CITY OF _____:
(7)
(8) Before me, this day, personally appeared
(9) Bruce D. Charash, M.D., who, being duly sworn, states
(10) that the foregoing transcript of his deposition,
(11) taken in the matter, on the date and at the time and
(12) place set out on the title page hereof, constitutes a
(13) true and accurate transcript of said deposition.
(14)
(15) _____
(16) BRUCE D. CHARASH, M.D.
(17)
(18) SUBSCRIBED and SWORN to before me this
(19) _____ day of _____, 2017, in the
(20) jurisdiction aforesaid.
(21)
(22) _____
(23) My Commission Expires _____ Notary Public
(24)
(25)

(1)
(2) DEPOSITION ERRATA SHEET
(3) FILE NO.
(4) CASE CAPTION: Wimmer vs. Bluefield Regional Medical
DEPONENT: Bruce D. Charash, M.D.
DEPOSITION DATE: July 17, 2017
(5)
(6) To the Reporter:
(7) I have read the entire transcript of my Deposition
taken in the captioned matter or the same has been
(8) read to me. I request for the following changes
be entered upon the record for the reasons
(9) indicated.
(10) I have signed my name to the Errata Sheet and the
Appropriate Certificate and authorize you to
attach both to the original transcript.
(11) _____
(12) _____
(13) _____
(14) _____
(15) _____
(16) _____
(17) _____
(18) _____
(19) _____
(20) _____
(21) _____
(22) _____
(23) _____
(24) SIGNATURE: _____ DATE: _____
BRUCE D. CHARASH, M.D.
(25)

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(25)

(1)
(2) CERTIFICATE
(3)
(4) STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)
(5)
(6) I, WILLIAM L. KUTSCH, a Shorthand Reporter and
(7) Notary Public of the State of New York, do hereby
(8) certify that the foregoing deposition of the
(9) witness, Bruce D. Charash, M.D., taken at the time
(10) and place aforesaid, is a true and accurate
(11) transcription of the stenographic notes taken by me.
(12)
(13) I further certify that I am neither counsel for
(14) nor related to any party to said action, nor in any
(15) wise interested in the result or outcome thereof.
(16)
(17) IN WITNESS WHEREOF, I have hereunto set my hand
(18) this 20th day of July, 2017.
(19)
(20) _____
(21) William L. Kutsch
(22)
(23)
(24)
(25)

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