

# CROSS EXAMINATION DR. JOAO LIMA

## I. RESPONSIBILITY AND HARM

In your practice, you act at times as a covering physician?

As a covering physician, you are responsible for patient's care?

You have the ability to order tests?

Change medications or order fluids?

And do what is necessary to care for the patient?

Defendant, Dr. Zacharoudis was responsible for Elie's care beginning on Friday afternoon, September 8, 2000 ? (99)

Elie had CABG that morning of Sept. 8 ?

And Dr. Zacharoudis remained responsible for Elie's care until September 11 in the morning in your opinion? (99, 100)

As a covering physician, Dr. Zacharoudis was responsible for Elie's care on those days in which he saw him?

He was responsible to see that Elie received the appropriate care and treatment on those days?

We know that the defendant, Dr. Zacharoudis was caring for Elie on September 8?

September 9?

September 10?

And on September 11<sup>th</sup>, the fateful day ?!

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September 11, 2000 was the day that Elie suffered a cardiac arrest as a result of the blood that accumulated around his heart?

Same day, Sept. 11, 2000, because of the cardiac arrest, his brain was deprived of oxygen?

Same day, that because his brain was deprived of oxygen, he suffered brain damage?

Brain damage that was irreversible?

Same day as a result of the irreversible brain damage, he went into a coma (unresponsive) ?

And on that tragic day, Sept. 11, 2000, after he suffered cardiac arrest as a result of the blood that accumulated around his heart and irreversible brain damage, he would no longer be able to see Monique, his wife of 47 years?

And on that day, after he suffered cardiac arrest as a result of the blood that accumulated around his heart and irreversible brain damage, he would no longer be able to communicate with his Monique?

He would no longer be able to rub her back or feel her touch?

He would no longer be able to enjoy, speak with, or see his three children and his grandchild, Ilan?

He would no longer be able to enjoy walks on the beach holding Monique's hand?

He would no longer be able to enjoy his turkish coffee in the morning?

He would no longer be able to enjoy his garden, growing

flowers for his wife?

After Sept. 11, 2000, he would never wake up?

Never leave the hospital?

On Sept 11, 2000, the day , Dr. Bartzokis' was responsible for Elie's care, Elie was lost to the people he loved, his wife, Monique of 47 years, and his three children, Patricia, Kary, and Daniel, and his grandchild, Ilan?

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II. CAUSATION

**SEE TIME SEQUENCE DEMO AID**

On September 11, 2000, we know Elie was bleeding ? (148).

We know that he was receiving medication called Heparin, started by Dr. Zacharoudis ?

We know that the Heparin caused him to bleed more? (67,148-149)

We know that the Heparin caused him to bleed faster? (67,148-149)

And that bleeding filled the area around Elie's heart ? (148-*"into the pericardial sac"*)

Called Pericardial Effusion ?

That bleeding filled the area around Elie's heart caused pressure on his heart and caused cardiac tamponade? (149)

And that pressure, the cardiac tamponade caused Elie to suffer cardiac arrest? (64)

Cardiac arrest is an event in which the heart suddenly stops beating?

The cardiac tamponade and then cardiac arrest led to Elie's death?

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We know there was several hundred cc's of clotted blood behind Elie's heart when his chest was opened ? (146)

This is a large amount? (146)

You would agree the fact that it had been there over some time? (146-147)

It did not get there over a short period of time ? (147-148)

There is always a concern for bleeding after major surgery? (83)

If the bleeding into the area around Elie's heart would have been diagnosed early enough, it would have prevented the cardiac tamponade and cardiac arrest? (83-84)

If the bleeding was stopped, it would have prevented the cardiac tamponade and cardiac arrest? (84)

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For a person of Elie's age, you would agree that his heart had pretty good function? (74)

After the bypass surgery, the blood flow would improve to Elie's heart ? (74-75)

The outlook as far as heart function was concerned was good ? (75)

!!!! **USE NOTEPAD FOR NEXT QUESTION & ANSWER**

Had Elie not suffered the bleeding into his heart and the resulting cardiac tamponade that ultimately led to his heart stopping and his death, his life expectancy would have been good? (75)

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After Sept 11, 2000, Elie never responded?

He never came out of the coma?

Never left his hospital bed or the hospital?

Ten days later, on September 21, 2000, Elie finally passed away?

### III. BIAS AND YOUR ROLE IN THIS CASE

Your employer is Johns Hopkins University in Baltimore, MD?

Full time salaried employee of the University?

You are not here to testify or provide opinions on behalf of the University?

You have been paid money to provide opinions on behalf of the defendant, Dr. Zacharoudis?

The money that you have been paid goes into your pocket?(22)

Personal Income ? (22)

No money to the University?

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You never were provided records for purposes of making a diagnosis?

You were never contacted by any of the Defendants to assist in the diagnosis of Elie Bental?

You never treated Elie?

You were hired and paid by the law firm for the Defendant to provide opinions?

You have been involved in providing opinions in matters such as this since the mid 1990s? (10)

Only on behalf of defendants? (10, 12)

You have been retained by the same firm that represents the defendant, Dr. Zacharoudis on another case that is currently active? (16-17)

#### IV. MORE BACKGROUND

You are aware that the defendants, Dr. Zacharoudis and Dr. Bartzokis see and treat patients in a private practice setting?

Seeing and treating patients is the primary focus of the practice?

And are you aware the expert for the plaintiffs, Dr. Joshua Furman sees and treats patients as a primary focus of his practice?

When defendant Drs. Zacharoudis and Bartzokis see patients, they are the physician responsible or the attending physician for the patient? (28-29)

And is true for Dr. Joshua Furman?

You have never been involved in a private practice such as that of the defendants or Plaintiff's expert, Dr. Joshua Furman? (30)

Now, the closest that you came to having a similar practice as the defendants and Dr. Furman was in 1992 at the university, you were involved in a three-day outpatient clinic? (30, 31)

That was in approximately 1992-1995? (31)

And this became less and less, going to two days a week for a couple years and then one day a week? (31)

And about two years ago you became so involved in research that you did not feel that you had the time to give to outpatient care?

(31)

Over the last ten years in which you have treated patients, it was only 30 percent of your professional time? (25)

Seventy percent of your professional time went to administrative and research? (25)

And your research enterprise activities have increased in the last two years, therefore leaving no time to see patients clinically? (25, 26-27)

And this 30 percent of your professional time that went to seeing patients, involved you responding to anybody that was admitted to the university and did not have a cardiologist during that time? (26)

And this 30 % included reviewing cardiac films, not always seeing the patient? (25-*“also functions as a cardiac imager”*)

And this 30 percent was done over one to two months during the course of a year? (27)

Generally concentrated in August and in May and possibly June? (27)

You also used to be the director of the echocardiography lab at the university? (28)

And you stopped doing that approximately two years ago because of increasing research responsibilities? (28)

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At the University, your position is an associate professor? (39)

There are three ranks of faculty; assistant and associate and then full professor? (39)

Full professor is the highest position? (40)

You are only an associate professor?

You have been an associate professor since 1997? (41)

You have not become a full professor?

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You have described your subspecialty as cardiac imaging?

You have not received any additional education or training in that area? (31-32)

There is a test or a proficiency exam for echocardiography that has emerged in the last two to three years or so? (33)

You never took that proficiency exam? (33)

And this proficiency exam is nationally recognized as sort of a certificate of proficiency? (34)

So you have received no additional education or training in the area of echocardiography than any other expert, who has spent many years reading and interpreting those films? (32-“*OTJ and experience in imaging*”)

V. ELIE -- SEPTEMBER 11, 2000

Elie Bental had CABG on September 8, 2000?

That is major surgery? (72)

With any major surgery, there is always a risk of bleeding?  
(72)

When you use Heparin after such a surgery, you should always consider it could cause internal bleeding? (72)

## DIFFERENTIAL DIAGNOSIS

By differential diagnosis, we mean the method doctors use to identify the condition causing the patient's problems?

Before a medical condition can be treated, it must be identified?

You observe the patient?

Get a history?

Examine the patient?

Form a list of the most likely causes ?

The idea from this list is to eliminate the possible causes? (87-88)

For example, a patient has symptoms A and B, the doctor creates a list of conditions that include symptoms A and B ?

Once a diagnosis is reached, you treat?

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And bleeding should always be part of any type of differential diagnosis or list in a post-CABG patient, like Elie? (72-73, 87)

And that is what reasonable and prudent doctors should consider in a post-bypass patient? (73)

Bleeding should always be suspected in a post-bypass patient who has very low BP = hypotensive? (87)

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**???** -NEED TO EVALUATE CROSS AT THIS POINT -

DO WE NEED DISCUSSION OF THE 9<sup>TH</sup> AND 10<sup>TH</sup> OR SHOULD WE GO DIRECTLY TO SEPT. 11 (MAY DEPEND ON WHAT OCCURRED ON DIRECT EXAM)

SEE PROGRESS NOTE -- DR. ZACHAROUDIS OF 9/9/00

??? - USE NOTEPAD FOR VALUES

September 9, 2000 is the day after Elie had CABG?

Aware his HR was around 79-82?

Very good?

SEE CRITICAL CARE FLOW SHEET IN NOTEBOOK IF NECESSARY

His H&H was 37.4/12.4? (104-105)

This is a blood test that evaluates Elie's blood levels?

The 12.4 value reflects the Hemoglobin?

An indication in bleeding generally depends on how much the Hemoglobin drops? (106)

And Elie's blood levels or H&H was pretty good on 9/9? (105)

The H&H is expected to drop after major surgery because you receive a lot of fluids? (105)

Next day, September 10, his blood level or H&H is 35.2/12.0? (See labs, 111-112, 106.)

His Hemoglobin is 12.0?

Still pretty good and similar to the day before?

And when we look to determine if a decrease in Elie's blood level for H&H, we look to the hemoglobin or the 12.0 reading? (106)

This was taken around 6-7 pm?

Aware HR was around 106 when Dr. Zach saw Elie?

Still pretty good?

**SEE DR. ZACH 9/10 PROGRESS NOTE IN NOTEBOOK IF NECESSARY**

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**SEPTEMBER 11, 2000**

**PREPARE MEDICAL FLIP CHART FOR 9/11 - NURSING OBSERVATIONS**

Dr. Zacharoudis was called at 5 AM on September 11? (108)

He was contacted on the phone?

By the nurses caring for Elie?

The nurses told Dr. Zacharoudis that Elie's blood pressure was down to 72/44? (110)

This is clearly hypotensive, not just a little bit? (122)

Elie was complaining of not feeling well?

His color was pale?

He had chest discomfort?

His H&H, specifically his Hemoglobin had dropped over 2 grams from 6 PM the evening before to 29/9.9? (109, 110)

This 2 gram drop occurred in less than 12 hours?

His heart rate was up to 147?

**USE NOTEPAD TO LIST FACTORS CONSISTENT WITH BLEEDING**

You would agree that when a person is actively bleeding, you may see a drop in the hemoglobin? (111-112, 106)

If you are concerned that this may be a lab variation you can order another blood test?

Also, if you order another blood test and it has decreased further, more concern of active bleeding?

Dr. Zach never ordered another blood test?

Never commented it could be a lab variation?

Agree that someone who has a BP as low as 72/44, it is a sign or symptom of active bleeding? (112)

And when their color is pale it is a sign or symptom of active bleeding? (112-113)

And when they have increased heart rate with low BP it is a sign or symptom of active bleeding? (112-113, 113)

An increase in heart rate and a reduction of blood pressure is the response the body takes to active bleeding? (113)

You would agree that active bleeding should have been part of the list or differential diagnosis for Elie's problemse at 5:00 a.m. on 9/11? (114)

With a 2-gram drop in the hemoglobin from 6:00 p.m. the day before, you would certainly consider active bleeding? (109)

After the nurses contacted Dr. Zacharoudis and told him of Elie's signs, Dr. Zacharoudis came and did a physical exam at 5:00 a.m.?

In fact all Dr. Zacharoudis did, was place a telephone order changing Elie's medication and give him some fluids?

He was called again by the nurses at 6:00 a.m.?

Again at 7:00 a.m.?

At 7:00 a.m., Elie's heart rate was still up in the range of 140? (See 0700 nursing observation note.)

Did Dr. Zacharoudis come in and perform a physical exam of Elie at 6:00 a.m.?

What about at 7:00 a.m.?

At 8:00 a.m., the nurses called Dr. Zacharoudis for the fourth time that morning?

They told him that Elie was complaining of feeling "very weak?" (123, see nursing observation 8:00 a.m. )

His blood pressure was again down to 83/49?

At this time , active bleeding should be on the list? (123)

Should be part of your differential diagnosis? (123)

And that bleeding whether it be into the heart or some other internal space, needs to be a consideration? (123)

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Elie was placed on the medication Heparin the day before by order of Dr. Zacharoudis? (See 9/10/00 Order.)

We know that Heparin is a medication to help prevent blood clots?

Heparin also thins the blood?

If Elie is actively bleeding, the administration of Heparin cause him to bleed more? (67)

And it would cause him to bleed faster? (67)

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During the time that Dr. Zacharoudis was responsible for Elie on the morning of 9/11, from 5:00 a.m. to say 9:00 a.m., there is nothing in the records to show he even suspected bleeding? (126)

There is no register of any thinking of bleeding whatsoever? (126)

At 8:00 a.m. did Dr. Zacharoudis come in and physically see or examine Elie?

There are no notes or any indication in any record that Dr. Zacharoudis considered bleeding on the morning of 9/11? (128-129)

There is no list or differential diagnosis considering bleeding?

There is no list or differential diagnosis of what could be wrong with Elie?

In fact, there is no list or differential diagnosis whatsoever?

\*\*\*\* **USE 0820 ORDER BY DR. ZACHAROUDIS**

Yet, at 8:20 a.m., after Elie has significantly low blood pressure, fast heart rate, 2-gram drop in his blood, his color pale, feeling weak, all signs of active bleeding, Dr. Zacharoudis orders the following...

At 8:20 a.m., he ordered increase in Heparin? (131)

This increase of Heparin increased the bleeding into the area surrounding Elie's heart? (132-133)

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When you are hired by the law firms that represents defendants, and you are asked your opinions as to whether the defendant was negligent, you try to put yourself in that doctor's shoes and ask what would I have done? (59-60)

On the morning of September 11, bleeding would have been on your list of possible problems ? (89, 90)

You would have ordered an echocardiogram? (90-91)

You would have ordered this echocardiogram because of potential bleeding? (90)

You probably would have ordered a CT scan of the chest looking for a bleed? (115)

In post-bypass patients, a chest bleed is the most common cause of a big change in BP, HR, and HGB drop, such as suffered by Elie ? (115)

You would have thought that Elie was actively bleeding into the Mediastinum (*chest*)? (115)

On 9/11, Dr. Zacharoudis did not order an echocardiogram ?

On 9/11, Dr. Zacharoudis did not order a CT scan of the chest?

On 9/11, Dr. Zacharoudis did no tests to assess whether Elie was bleeding ? (116)

On 9/11, Dr. Zacharoudis did not take any steps to assess whether Elie was bleeding? (116)

On 9/11, all that Dr. Zacharoudis did from his telephone, was to change Elie's medication and order fluids? (115-116)

???? - **SEE SOC CHART DR. ZACHAROUDIS**

## DR. BARTZOKIS AND ECHOCARDIOGRAM

Some time after 9:00 a.m., Dr. Zacharoudis "signed out?"

This usually means that you are passing the responsibility for the care of the patient to another physician?

When you sign out on a patient, you generally tell the patient?  
(102)

And you indicate on the chart that you are signing out responsibility to whichever Dr. will take over care at that time?  
(102)

There is no indication in the chart that Dr. Zacharoudis signed out?  
(102)

Dr. Bartzokis ordered a test called an Echocardiogram?

He ordered this test be read and interpreted by the defendant, Dr. Zacharoudis?

This test was read by Dr. Zacharoudis?

This test does not involve a physical exam?

Although Dr. Zacharoudis read this test, he still did no physical exam?

And he read this test some time after he said he "signed out?"

It is clear that his interpretation of the test would be relied upon by other doctors?

Although he has said he "signed out," he is responsible to read and interpret this test correctly?

And he is responsible to suggest the test be done again, if it is not a good and clear test?

This test was done on the morning of Sept. 11, 2000 on Elie?

The echocardiogram, was limited to a very few views and a very short recording? (135)

Generally, the test is a good five minutes of material that is recorded? (136)

In the test on Elie read and interpreted by Dr. Zach, you can only visualize the left ventricle for a few seconds or a few beats? (138)

And the same for the right ventricle, a couple of beats? (139)

You would agree that this echocardiogram was very, very, very limited? (138)

You cannot say from this test that there was blood or fluid behind the heart? (140)

However, this test does tell us that there was some blood in the area in front of the heart? (119)

We cannot tell from this test how fast or how much Elie was bleeding into the area around the heart based ? (120-121)

And, we cannot tell by this test how much blood is accumulating in the area around the heart? (121)

In order to tell how fast or how much blood is filling the area around Elie's heart, another test or echocardiogram would need to be ordered and read so that the two can be compared? (121)

That was never done? (121)

After Dr. Zacharouds read this very, very, very limited study, neither Dr. Zacharouds or Dr. Bartzokis did any follow-up study or test? (122)

After Dr. Zacharouds ready this very, very, very limited study, there was no follow up whatsoever of Elie, such as a physical exam or anything? (122)

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There was some discussion in your earlier testimony that right side chamber was not seen collapsing on the echo?

This does not exclude more significant bleeding in the area around the heart? (139-140)

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Doctor, there is a test called a TEE that would have given us a more clear picture of the rear of the heart? (142)

It would have given us a better picture of the amount of blood filling the area around the heart? (141)

There were no contraindications for either Dr. Zach or Dr. Bart to have ordered a TEE? (141-142)

And, it gives a clearer picture of the heart? (142)

## VI. CAUSATION-PART II

On 9/11, Elie was actively bleeding? (66)

He was actively bleeding into the area around his heart? (66)

This bleeding into the area surrounding the heart is called PE?

And this bleeding is what lead to compression of his heart called CT?

CT is the ultimate event of too much blood filling around the heart?

This compression of the heart caused the heart to stop beating or a cardiac arrest?

Ely's surgeon, Dr. Bott, opened Elie's chest at the bedside and his heart had

stopped?

And it stopped b/c of the large amount of blood and clots that were behind his heart? (146)

Several hundred cc's - a large amount of blood and clots? (146)

You have treated people with PE?

And CT? (104)

And the treatment is opening the chest and draining the blood or clots? (104)

And the timing of the diagnosis of blood filling the area around the heart is crucial? (104)

Dr. Zacharouds did not diagnose bleeding?

Dr. Zacharouds did not do anything to stop the bleeding?

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The cause of Elie's heart to stop beating was CT? (64)

When his heart stopped beating, he lost oxygen to the brain? (65)

When someone loses oxygen to the brain, it can cause brain damage?

In the the most extreme case is when someone suffers brain death? (65)

And brain death is when a person loses so much of the brain function that they are no longer conscious?

You cannot activate centers in the brain? (65)

They have no response?

Cannot open their eyes?

Communicate?

Nothing?

They are gone?

Irreversible?

That is what happened to Elie Bentel on Sept. 11, 2000?

That is what ultimately caused his death?

This was all caused by the undiagnosed bleeding? (65)

#### VII.-FABRE

You have no opinion that any other physician, including Dr. Bott, Elie's surgeon was negligent in this case? (60)

You have no opinion as to any physician, including Dr. Bott that caused or contributed to the death of Elie Bentel? (62-64)