

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF FLORIDA  
MIAMI DIVISION  
CIRCUIT CIVIL DIVISION

CASE NO. 10-CV-22236-ASG

HOWARD ADELMAN and JUDITH  
SCLAWY-ADELMAN, as Co-Personal  
Representatives of the Estate of  
MICHAEL SCLAWY-ADELMAN,

COPY

Plaintiffs,

vs.

BOY SCOUTS OF AMERICA, THE  
SOUTH FLORIDA COUNCIL, INC.,  
BOY SCOUTS OF AMERICA; PLANTATION  
UNITED METHODIST CHURCH; HOWARD K.  
CROMPTON, individually and ANDREW  
L. SCHMIDT, individually,

Defendants.

One Bob Hope Road  
Miami, Florida  
March 10, 2011  
Thursday, 10:40 a.m.

DEPOSITION OF WILLIAM HEARN, Ph.D.

Taken before Teri Naar-Cohen, Registered  
Professional Reporter and Notary Public in and for the  
State of Florida at Large, pursuant to Notice of Taking  
Deposition filed in the above cause.

- - -



1 Q May I see it, please?

2 A Yes. Let me see. This is divided into  
3 individual data sets from each of the analyses that we  
4 did.

5 Q What is meant by a basic drug screen?

6 A The basic drug screen is an analysis that we do  
7 on an extract made from the blood, and the way we prepare  
8 it is we add base to the blood so that basic drugs become  
9 extractable from that blood.

10 In other words, we extract the basic drugs and  
11 then we analyze them on an instrument called a gas  
12 chromatograph.

13 To further that, that would be as opposed to an  
14 acidic drug screen, so basic is what we're looking for.

15 Q And in the gray topped tube for blood what was  
16 found?

17 A We found a peak that was initially identified as  
18 ephedrine, but I noted on here that it could also be  
19 pseudoephedrine because this method doesn't distinguish  
20 between those drugs.

21 They're isomers or mirror images of one another  
22 basically.

23 Q Is there a way of quantifying how much ephedrine  
24 or pseudoephedrine was in the blood?

25 A It can be done. We didn't do it in this case.

1 Q How many different drugs would give that test  
2 result of ephedrine, pseudoephedrine?

3 A This particular test there might be something  
4 else that would give a response that would indicate the  
5 presence of ephedrine or pseudoephedrine, but the next  
6 test that we did would conclusively identify which drug it  
7 was.

8 Q Did you do that?

9 A Yes.

10 Q What was that?

11 A Let's see. Where is it?

12 That's what we call our confirmation of  
13 sympathomimetic amines. Do you need spelling of that?

14 Q I'm sure she does.

15 A S-y-m-p-a-t-h-o-m-i-m-e-t-i-c.

16 Those are a large class of drugs that mimic the  
17 neurotransmitters of the sympathetic nervous system and  
18 there's a long list of them on this analysis.

19 We've added more since then, but amphetamine,  
20 methamphetamine, MDMA, which is commonly known as Ecstasy  
21 and its metabolite MDA and then ephedrine and  
22 pseudoephedrine and phenylpropanolamine, which is a  
23 metabolite of the ephedrine and pseudoephedrine and used  
24 to be on the market as a nasal decongestant. PPA it was  
25 called.

1           Then phentermine, which is a diet drug.

2           Fenfluramine, another diet drug.

3           Paramethoxymethamphetamine, which is a designer  
4           drug, an amphetamine derivative that's very toxic.

5           Paramethoxyamphetamine, which is its metabolite  
6           and which is also very toxic.

7           Phenethylamine which is a product of  
8           putrefaction. We often see that so we include it as a  
9           standard in our method.

10          Another one called mephentermine and then  
11          hydroxyamphetamine which is a metabolite of amphetamine  
12          and then phendimetrazine and phenmetrazine, which are two  
13          of the older diet drugs.

14          Q     In Michael's case what was detected in his blood?

15          A     The test identified pseudoephedrine and  
16          phenylpropanolamine and the metabolite of pseudoephedrine.

17          Q     But they are two different drugs?

18          A     They are two different drugs, but one is derived  
19          from the other by the metabolic process in the liver.

20          Q     So you identified pseudoephedrine?

21          A     Yes, we did.

22          Q     And then the other drug was phenylpropanolamine?

23          A     We can call it PPA if you like.

24                 You'll get a copy of these documents so the  
25                 spelling of everything will be included.

1 Q You said PPA was taken off the market. Why?

2 A There was an excessive number of adverse events  
3 associated with the use of that medication.

4 Q Such as what?

5 A It's a common cold medication. I don't recall  
6 specifically, but we know that it raises blood pressure.

7 To the best of my recollection, this occurred  
8 about ten years ago, and there were strokes that were  
9 occurring and there may have also been some cardiac  
10 arrhythmias.

11 It wouldn't surprise me, but definitely it raises  
12 blood pressure.

13 Q And when it was on the market what kind of form  
14 would the drug take?

15 A There were a number of usually combination  
16 products. There were a combination of a decongestant,  
17 that's the PPA, and an antihistamine, usually  
18 chlorpheniramine and sometimes there would be Tylenol or  
19 aspirin included with it.

20 Q The presence of pseudoephedrine would do what to  
21 the body? What are the properties of that drug?

22 A Well, the reason --

23 MR. PELTZ: Let me just object to the form and  
24 predicate in that you're not specifying whether the  
25 person took it or if you're referring to it as a

1 metabolite.

2 THE WITNESS: PPA is used as a decongestant.  
3 When it was present in the cold medications it was  
4 used to shrink the mucous membranes by constricting  
5 the blood vessels in those membranes.

6 BY MR. HASTY:

7 Q Are you familiar with something called Claritin  
8 or Claritin-D?

9 A Yes, I am.

10 Q Does Claritin-D have pseudoephedrine in it?

11 A I believe it does. The D would be the  
12 decongestant portion.

13 Claritin is the antihistamine.

14 Q What level of phenylpropanolamine was in his  
15 blood?

16 A Enough that we could clearly identify it, but we  
17 didn't attempt to quantify it.

18 Q Could the identification part of the  
19 quantification be done presently?

20 A Assuming that we have a sufficient sample it  
21 could be done.

22 We don't do it in our laboratory. We would have  
23 to send it out to a reference laboratory. We would send  
24 it to a lab called NMS Labs.

25 Q Where are they located?

1 A That would be the toxicology request form.

2 Q Right. So the only specimens that you got were  
3 blood. No urine?

4 A That's correct. The note indicates that he  
5 attempted to draw urine, but none was present.

6 Q Do you know where he attempted to draw it from?

7 A It would be from the urinary bladder.

8 Q How long do you keep specimens in the ME's office  
9 here from other offices?

10 A Our cases we retain at least the liquid samples,  
11 blood and vitreous and urine for five years.

12 As far as the Collier County Medical Examiner I  
13 would expect that if there is sample remaining in the  
14 tubes that we would still have them at this point, but  
15 that's what I wanted to find out.

16 Could we break for just a minute and let me check  
17 on that and would you like me to make a copy of  
18 everything?

19 Q Yes.

20 A My secretary needs to call and get permission  
21 from the Collier County Medical Examiner to release the  
22 records.

23 I don't think there will be a problem, but it's  
24 just a policy.

25 We have the tubes and there are, I would

1 estimate, about two ml's of blood in the gray topped tube  
2 and the serum separator tube looks like it's clotted and  
3 there's no more than maybe a quarter of a milliliter in  
4 it.

5 I'll be right back.

6 (Discussion had off the record.)

7 THE WITNESS: We got the authorization to make  
8 the copies.

9 I spoke with Dr. Borges while we were out and he  
10 gave me a little bit of information that wasn't  
11 provided in the toxicology request form.

12 Apparently there was no autopsy. That this was  
13 just an external examination.

14 BY MR. HASTY:

15 Q What is a peripheral smear of the blood? The  
16 reason I'm asking is in the ME's office from Collier  
17 County it says they called here and asked for a peripheral  
18 smear of the blood.

19 A I believe there is a test report in the file.  
20 That's not a test that we do. It would have been  
21 something that we would have sent out.

22 It's apparently like a hematology test and I  
23 believe he indicated that without an autopsy it was  
24 difficult to determine the exact cause of death, but that  
25 the most likely was heat stroke from his review of the



1 case.

2 Q Is that what he just told you now?

3 A Yes.

4 Q Oh, okay. The peripheral smear would have been  
5 done where?

6 A I'll have to check the file to determine that.  
7 Ordinarily I think we would have sent it over to  
8 the Jackson Memorial Hospital laboratory. That's where we  
9 send a lot of the clinical testing that's done.

10 Q What is a peripheral smear? I don't even know  
11 what that is.

12 A I'm not certain. I suspect that it's a  
13 hematology test.

14 He mentioned something about that he wanted an  
15 examination of the hemoglobin, but that's out of my area  
16 of expertise so it's best that you discuss that with him.

17 Q Did you say that there is a result here in your  
18 file of that?

19 A There is a laboratory report from a send out  
20 that's in our file.

21 Q On the toxicology report what is meant by  
22 volatile?

23 A That's a term that we use for a blood alcohol  
24 test because we also screen for other volatile substances  
25 like acetone and rubbing alcohol and methyl alcohol or

1 wood alcohol, which is very toxic.

2 Q The next category is barbiturates.

3 A Yes.

4 Q What does that mean?

5 A That includes things like phenobarbital and  
6 butalbital, which are pretty much the only ones that we  
7 currently see.

8 It used to include a lot more like secobarbital  
9 and pentobarbital, but we don't see that much anymore.

10 Q Another category is opiates. What is meant by  
11 opiates?

12 A Opiates are things that are derived from opium,  
13 like morphine, codeine and some of the semisynthetics like  
14 hydrocodone and hydromorphone.

15 Also with that test if there were a high enough  
16 concentration we would detect Oxycodone.

17 Q Another category is benzodiazepines. What are  
18 those?

19 A That's a class of drugs including things like  
20 Valium and Xanax. They're sedative, hypnotic and  
21 anxiolytic drugs.

22 Some of them at least are drugs of abuse so we  
23 include that in our routine screen.

24 Q Going back to the phenylpropanolamine for a  
25 moment you mentioned that was detected.

1           Is that ever used as a diet drug or in connection  
2 with diet drugs sold?

3           MR. PELTZ: Object to the form and predicate.

4           THE WITNESS: It may have been. Both  
5 pseudoephedrine and phenylpropanolamine are in the  
6 class of compounds called ephedra alkaloids and there  
7 are others like ephedrine and those were definitely  
8 marketed as diet drugs.

9           I believe they were taken off the market back  
10 about six or seven years ago, something like that by  
11 the FDA.

12 BY MR. HASTY:

13           Q     If those drugs were taken off the market six or  
14 seven years ago do you have any way of figuring out why it  
15 would be present in this young man's blood when he died in  
16 2009?

17           A     Well, what was taken off the market was the,  
18 quote, nutritional supplements which were generally  
19 unregulated as far as the amount of drug and that kind of  
20 thing that they might contain.

21           They might be assay, but they were not as tightly  
22 regulated as pharmaceuticals.

23           Now, ephedrine and pseudoephedrine are still on  
24 the market as medications. Pseudoephedrine is  
25 nonprescription.

1           Ephedrine is used to support blood pressure  
2 during like spinal anesthesia, things like that and so it  
3 is still used as a medication, but the unregulated  
4 product, the crude extract of the plant ephedra is not  
5 used in this country presently.

6           Q     Was it in 2009?

7           A     It was, yes. I'm pretty sure it was about five  
8 or six years ago that it was taken off the market.

9           Q     Okay.

10          A     It may have been even longer than that, but it  
11 was in the 2000's and my recollection is it was around the  
12 middle of the decade.

13          Q     Were you ever given any history as to why or how  
14 Michael Adelman got pseudoephedrine or phenylpropanolamine  
15 in his system?

16          A     I was never given any information about that, but  
17 typically it would be by taking a decongestant, generally  
18 an over-the-counter decongestant which would contain  
19 pseudoephedrine, and then the phenylpropanolamine would be  
20 a metabolic product produced in the body from the  
21 pseudoephedrine.

22          Q     But those are two separate drugs I thought.

23          A     They are, yes, but one can be produced from the  
24 other in the body and that's the most likely explanation  
25 for these findings.

1 Q There is a lab report that at the top says 1611  
2 Northwest 12th Avenue, Miami, Florida 33136.

3 It just says in the middle of the page laboratory  
4 report and it has physicians and it lists Emma Lew on it.

5 Do you think this report is the blood smear? It  
6 has neutrophils.

7 A Yes, I'm pretty sure it is.

8 Q Okay.

9 A The 1611 Northwest 12th Avenue would be probably  
10 Jackson Memorial Hospital's address.

11 Yes. It says here JM, performed by Jackson  
12 Memorial Hospital laboratories.

13 Q Do you know why Dr. Lew's name is there?

14 A Because she is our deputy chief medical examiner  
15 and they need a physician's name on the request in order  
16 to process it as a clinical laboratory.

17 Q You never spoke to her and she never spoke to you  
18 that you know of?

19 A I never spoke to her about this case.

20 I can't say for sure that no one ever spoke to  
21 her, but it wouldn't be necessary in order to put her name  
22 on a request for a clinical test.

23 Q Under the column for specimens there are gastric  
24 contents as a possibility as a specimen that could be  
25 analyzed. Correct?

1 A Yes.

2 Q Now, on the left-hand side of the page under  
3 specimens there are printed categories that could be  
4 potential specimens to be analyzed.

5 Is that correct?

6 A Yes, that's a form that we produced and that was  
7 provided to the District 20 Medical Examiner for  
8 submission of samples for toxicology.

9 Q Up to the next column it says number of tubes or  
10 cups and then there are numbers filled out down the page  
11 to correspond to the categories of specimens. Correct?

12 A Yes.

13 Q Whose handwriting is there, do you know, about  
14 where it says zero with a slash through next to blood, a  
15 large red -- do you know whose handwriting is that?

16 A I can't answer that. I don't know whose  
17 handwriting that is.

18 It may be from Dr. Borges or it may be from  
19 someone who was assisting him at the Medical Examiner's  
20 Office in Naples.

21 Q But whoever filled that out, that column that  
22 says number of tubes or cups would have been done over in  
23 his office, not in this office?

24 A Correct, and the form that we saw before that the  
25 gentleman there has I believe it would have those numbers

1 on it, and, as I said before, that was prior to sending it  
2 to us.

3 Q So for whatever reason the ME's office in Collier  
4 County determined not to do ocular fluid, not to do urine,  
5 not to do gastric contents, liver, bile, brain or other?

6 A Well, not exactly. Let me explain.

7 Since there was no autopsy they couldn't obtain  
8 some of these samples. There was an objection to an  
9 autopsy.

10 He drew the blood by sticking a needle in through  
11 the skin and penetrating the femoral vein.

12 As far as urine he tried to get urine, although  
13 the normal procedure would be to expose the urinary  
14 bladder and then stick a needle into it and draw urine  
15 out, but that would have required an autopsy so he had to  
16 again stick a needle through the stomach or the abdomen  
17 and into the bladder and try to get some urine.

18 Q That's a blind stick if the patient is not open?

19 A That's correct.

20 Q All right.

21 A Now we have copies of the entire file. They're  
22 stapled.

23 Q Whose copy is this?

24 A I don't know. You provided that to me.

25 Q That's my copy, all right.

1 A And one for the court reporter.

2 Q The top sheet which has Dade County Medical  
3 Examiner Department, Toxicology Division, this one sheet  
4 stands by itself?

5 A Yes. That's a copy of our report.

6 MR. HASTY: I'll mark that as one.

7 (The document was marked "Defendant's Exhibit No.  
8 1 for Identification.")

9 BY MR. HASTY:

10 Q The toxicology request form from Collier County,  
11 is that a one sheet document?

12 A Yes, it is.

13 MR. HASTY: We'll mark that as two.

14 (The document was marked "Defendant's Exhibit No.  
15 2 for Identification.")

16 BY MR. HASTY:

17 Q Now, there's an analysis report from an ELISA  
18 assay --

19 A Yes.

20 Q -- on the blood and that's two pages?

21 A Yes, the printout of the results and then the  
22 cover sheet.

23 MR. HASTY: We'll mark these two pages three for  
24 identification.

25 (The documents were marked "Defendant's Composite



1 Exhibit No. 3 for Identification.")

2 BY MR. HASTY:

3 Q Where it says blood GT, is that gray top?

4 A That would be gray top, yes.

5 Q In the document known as three, the first sheet  
6 there are some things that say not tested.

7 Do you see that?

8 A Yes.

9 Q How do you pronounce this?

10 A Methamphetamine.

11 Q Not tested?

12 A Correct.

13 Q So there was no effort to see if Michael was  
14 taking meth?

15 A Not with that test, but the subsequent test ruled  
16 that out.

17 Q The next one was amphetamine. That was not  
18 tested?

19 A Correct.

20 Q And then cannabinoids would be what? Marijuana?

21 A Marijuana.

22 Q That was not tested?

23 A Correct.

24 Q The decision to not test or test was made by  
25 whom?

1           A     That's our routine panel. We had those other  
2 tests available, but we didn't do them routinely unless  
3 there was a specific request.

4           MR. HASTY: The next batch of documents is what's  
5 called volatiles by Head Space GC.

6           We'll mark that as four composite.

7           (The documents were marked "Defendant's Composite  
8 Exhibit No. 4 for Identification.")

9 BY MR. HASTY:

10          Q     I count three pages, but one page has a front and  
11 back to it.

12          A     I'm missing something here. The one I'm missing  
13 is the ELISA data so let me check. I found it. It was  
14 stuck together.

15          Q     We're okay?

16          A     Yes. I need to add something to my testimony  
17 here.

18                A non-routine test that we don't usually do here  
19 for Fentanyl, which is a very potent narcotic that is  
20 often requested by the Collier County Medical Examiner,  
21 that test was done.

22                It doesn't appear on the report, but it was done  
23 and it was negative.

24          Q     Okay.

25          MR. PELTZ: Is that in one of those sheets you

1 Q Did you find any evidence of that?

2 A No.

3 Q That brings us to pseudoephedrine.

4 A Correct.

5 Q Which you've indicated you did find some evidence  
6 of?

7 A Yes, we did.

8 Q And then the next one is phenylpropanolamine?

9 A Yes.

10 Q And did you find some evidence of that?

11 A Yes.

12 Q Those were the only two drugs that you found any  
13 evidence of with regard to all the testing that you did?

14 A Yes.

15 Q Now, the pseudoephedrine is a substance that  
16 would be typically found in something like Claritin-D?

17 A It would be. Any product that is a decongestant  
18 may have pseudoephedrine.

19 Q By decongestant that would be something that we  
20 would go into the CVS or Wal-Mart or Walgreens and be able  
21 to get without a prescription?

22 A Presently, yes.

23 Q And what do people take decongestants for?

24 A Generally for allergies, although they would also  
25 be taken for a cold or they might be taken for the flu.

1 I need to clarify also that presently in the last  
2 couple of years all of these products containing  
3 pseudoephedrine have been moved behind the counter.

4 You can't just walk up and pick them off a shelf  
5 because people were diverting pseudoephedrine to make  
6 methamphetamine in clandestine laboratories, so now they  
7 moved them behind the counter and there's a limit to how  
8 much you can buy, but it doesn't require a prescription.

9 Q So someone can just walk in and ask the  
10 pharmacist can I have some Claritin-D or some other  
11 antihistamine and they don't need a prescription from  
12 their doctor to get it?

13 A Correct.

14 Q You had indicated that the phenylpropanolamine or  
15 PPA is a metabolite of pseudoephedrine.

16 Can you explain what a metabolite is?

17 A Yes. When you put a drug or other substance into  
18 the body that is not normally there, the body has  
19 developed over millennia the ability to break that product  
20 down or that chemical down and that is a process called  
21 drug metabolism.

22 Mostly it takes place in the liver. There are  
23 enzymes in the liver that act on a variety of different  
24 chemical structures to basically convert them to a  
25 substance that's more easily excreted and in many cases

1 that substance that it's converted to may be inactive.

2 In other words, it may no longer have the drug  
3 properties, but sometimes it does.

4 Q If the excreted substance is inactive, will it  
5 still register on your testing?

6 MR. SUMMERS: Objection to form.

7 THE WITNESS: It depends on the substance. That  
8 would be normally something that we would test for in  
9 urine, which we didn't test in this case.

10 The ultimate metabolite may be the molecule of  
11 the drug, but it may also have another substance  
12 attached to it by a secondary metabolic process  
13 called conjugation and we can look for conjugated  
14 drugs or drug metabolites, but we would look for them  
15 in urine if we were going to.

16 BY MR. PELTZ:

17 Q Would it be fair to describe the metabolite  
18 process in this manner: If someone eats a steak, fries  
19 and a milkshake, it goes through the body system and goes  
20 through various organs. There are chemical changes and  
21 what's left at the end of the day are waste products?

22 A Well, that would be one kind of metabolism. That  
23 differs from drug metabolism.

24 Q With a drug metabolite does the individual take a  
25 product that has a type of drug or medication in it, it

1 goes through the body system such as the liver and can it  
2 result in it being converted into a different type of  
3 drug?

4 A Yes, it can.

5 Q If an individual takes an antihistamine such as  
6 Claritin-D that has pseudoephedrine, how does the body  
7 react to that to result in producing phenylpropanolamine?

8 MR. SUMMERS: PPA.

9 BY MR. PELTZ:

10 Q Or PPA.

11 A PPA, yes.

12 Well, the difference between these two molecules  
13 is the pseudoephedrine has a one carbon addition on the  
14 amine portion of the molecule and the PPA has that single  
15 carbon group removed by an oxidative process.

16 It goes from what's called a secondary amine to a  
17 primary amine and so that's the only change to the  
18 molecule. Otherwise the rest of the molecule is the same.

19 Q And would you expect to find PPA or the  
20 phenylpropanolamine as a metabolite if you did a test in  
21 connection with someone who had taken an antihistamine, an  
22 over-the-counter antihistamine that had pseudoephedrine in  
23 it?

24 A Yes, we would.

25 Q So with regard to the issue of how the

1 phenylpropanolamine was detected in the blood sample that  
2 you tested is it your opinion that that resulted from a  
3 metabolite from pseudoephedrine?

4 MR. HASTY: Object to the form.

5 THE WITNESS: Yes.

6 BY MR. PELTZ:

7 Q And is that within a --

8 A Within a reasonable scientific certainty, yes.

9 Q Since there was an objection let me just rephrase  
10 the question.

11 Within a reasonable scientific certainty do you  
12 have an opinion as to where the phenylpropanolamine which  
13 was detected in Michael's blood that you tested came from?

14 A Yes. From the metabolism of the pseudoephedrine.

15 Q Which would be consistent with having taken  
16 Claritin-D at some point?

17 A Yes.

18 Q Or some similar antihistamine?

19 A Something containing pseudoephedrine.

20 Now, Sudafed, for example, is another product  
21 that doesn't have the antihistamine so that would yield  
22 the same results.

23 We don't detect the Claritin drug molecule with  
24 the methods that we used in this process so we can't say  
25 for sure that he took Claritin-D, but it would be

1           A     There probably is in the gray topped tube. I  
2 would need to check their specimen requirements.

3                     They do have a website if you just Google NMS  
4 Labs.

5           Q     N, as in Nancy, MS Labs?

6           A     Yes. It used to be National Medical Services,  
7 Incorporated, but they changed their name to NMS Labs.

8                     I believe, I'm virtually certain that they have  
9 their catalog of testing online on their website so you  
10 could check, or if it's not available online you could  
11 call.

12                    There would be contact information and you could  
13 find out the specimen requirement for a quantitative  
14 assay.

15           Q     What would the quantitative assay yield for us?

16           A     It would tell you the concentration of  
17 pseudoephedrine and phenylpropanolamine in that blood  
18 sample.

19           Q     Just so the record is clear, you didn't receive  
20 any past medical history or hospital or pediatric records  
21 from any physicians who took care of Michael and provided  
22 care or treatment to Michael either from Naples Community  
23 Hospital or from his physicians in his home county when  
24 you were involved in doing the analysis, the toxicology  
25 reporting you did?



1 going to vary for each drug depending upon the  
2 chemical properties of the drug, but I can tell you  
3 that we include a control containing 100 nanograms  
4 per milliliter and we can clearly see both ephedrine  
5 and pseudoephedrine and PPA in that control, so  
6 probably we could see one-tenth of that, but to play  
7 it safe I would say maybe on the order of 20 to 30  
8 nanograms per milliliter we could probably consider a  
9 limit of detection, but that's without determining it  
10 experimentally.

11 BY MR. PELTZ:

12 Q Can you correlate what 20 to 30 nanograms per  
13 milliliter would equate to as far as the amount of  
14 pseudoephedrine that a person would have to have in their  
15 body for it to be detectable?

16 A No. I can tell you concentrations that are  
17 produced in clinical studies, but because of the post  
18 mortem redistribution they would change after death so it  
19 wouldn't be proper to try to say, okay, well such and such  
20 a concentration represents 20 milligrams and therefore he  
21 took more or whatever because of that uncertain  
22 relationship between the time of death and the post mortem  
23 sample.

24 Q So does that mean that there is no way for you to  
25 determine how much pseudoephedrine was in Michael's system

1 just before he died?

2 MR. HASTY: Object to the form.

3 THE WITNESS: First of all, you'd need a  
4 quantitative measure, how much is there in his post  
5 mortem blood.

6 Secondly, if it was very high you could say it  
7 was a lot. If it was very low and consistent with  
8 what we are used to seeing routinely, then you would  
9 say it's probably consistent with a therapeutic  
10 administration, but you wouldn't be able to say he  
11 took, you know, ten pills or whatever based upon any  
12 number that you get out. You couldn't calculate the  
13 exact dose.

14 BY MR. PELTZ:

15 Q So when you say that your testing did not provide  
16 any quantitative measure, by that do you mean that your  
17 testing did not even attempt to measure how much  
18 pseudoephedrine was in Michael's blood?

19 A Correct.

20 Q And would the same thing be true that your  
21 testing did not even attempt to measure how much PPA, the  
22 metabolite from pseudoephedrine was in his blood?

23 A That's also correct.

24 Q And without knowing how much pseudoephedrine was  
25 in Michael's blood prior to the time he died would it not

1 be impossible to render any conclusions or reach any  
2 conclusions within reasonable medical probability as to  
3 what effects, if any, that pseudoephedrine would have had  
4 on his system?

5 MR. HASTY: Object to the form.

6 MR. SUMMERS: Object to the form.

7 THE WITNESS: Quantitatively, yes, but  
8 qualitatively we know that it was in his blood, it  
9 was circulating in his body and therefore the effects  
10 of that drug are likely to be present.

11 BY MR. PELTZ:

12 Q But the effects could have been completely  
13 minimal?

14 MR. HASTY: Objection to the form. I don't know  
15 what minimal means.

16 THE WITNESS: Well, as I say, the only way to say  
17 with any level of confidence would be to measure it  
18 and let me just explain that a little bit.

19 We don't routinely quantify everything we find  
20 for the District 20 Medical Examiner because  
21 especially things that we have to send out we have to  
22 pass that cost on to them, so we're trying to be  
23 aware of the impact on their office budget and  
24 therefore only do quantitative things when they ask  
25 us to.

1 BY MR. PELTZ:

2 Q Well, here's my question. Without knowing the  
3 amount of pseudoephedrine that was in Michael's system  
4 immediately prior to the time he died would it be possible  
5 to reach any conclusions within reasonable medical  
6 probability as to what effect, if any, it would have had  
7 on his blood pressure at the time?

8 MR. HASTY: Object to the form. He's already  
9 testified to that.

10 MR. SUMMERS: Objection. And asked and answered.

11 THE WITNESS: I can't give you a quantitative  
12 opinion, but the fact that the drug was present and  
13 it's not just a tiny little trace, it's present and  
14 definitely detectable, there would probably be some  
15 effect, but I can't tell you whether -- in other  
16 words, I can't say it was an overdose or it was near  
17 the end of the excretion, but having it present I  
18 would expect there would be some vasoconstriction,  
19 and the presence of that drug is consistent with the  
20 effects of that drug being involved in a hyperthermia  
21 or in a heat stroke situation.

22 There are other cases that I've looked at with  
23 virtually identical circumstances, not hiking in the  
24 Everglades but exercising vigorously where a person  
25 has collapsed and needed resuscitation.