IN THE CIRCUIT COURT FOR THE
FOURTH JUDICIAL CIRCUIT AND
FOR NASSAU COUNTY, FLORIDA

ROBERT HOGAN,

Plaintiff,
vs. No. 06-CA-44

BAPTIST MEDICAL CENTER -
NASSAU, INC., a Florida corporation,

Defendant and
Third-Party Plaintiff,
vs.

AMERICAN CANCER SOCIETY and
GRAY GABLE, NASSAU VILLAGE
VOLUNTEER FIRE DEPARTMENT, INC.,

Third-Party Defendants.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

VIDEOTAPED EVIDENTIARY DEPOSITION OF

ROBERT NORMAN HARDEN, M.D.

VOLUME II

September 12, 2007
5:00 p.m.

446 East Ontario Street, Suite 1011
Chicago, Illinois

Stacee L. Jackson, Notary Public and Certified Shorthand Reporter
within and for the County of Will, State of Illinois
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

APPEARANCES:

.

APPEARED ON BEHALF OF THE PLAINTIFF;
COKER, SCHICKEL, SORENSON & DANIEL
AARON SPRAGUE, ESQUIRE
135 East Bay Street
Jacksonville, Florida 32202
(904) 356-6071

.

APPEARED ON BEHALF OF THE DEFENDANT AND THIRD-PARTY PLAINTIFF VIA SPEAKERPHONE;
SAALFIELD, SHAD, JAY, LUCAS & STOKES, P.A.
CLEMENTE J. INCLAN, ESQUIRE
P.O. Box 41589
Jacksonville, Florida 32202
(904) 355-4401

.

APPEARED ON BEHALF OF THE THIRD-PARTY DEFENDANT AMERICAN CANCER SOCIETY VIA SPEAKERPHONE.
FULMER, LEROY, ALBEE, BAWMANN & GLASS
THOMAS TOLLEFSEN, ESQUIRE
4720 Salisbury Road
Jacksonville, Florida 32256
(904) 562-1020

APPEARANCES: (CONT.)

.

APPEARED ON BEHALF OF THE THIRD-PARTY DEFENDANTS GRAY GABLE AND NASSAU VILLAGE VOLUNTEER FIRE DEPARTMENT, INC.

QUINTAIROS, PRIETO, WOOD & BOYER, P.A.

TERESA A. ARNOLD-SIMMONS, ESQUIRE

One Independent Drive

Suite 1650

Jacksonville, Florida 32202

(904) 354-5500

.

ALSO PRESENT:

MR. MICHAEL DESCHAMP, THE VIDEOGRAPHER.

.

.

.

.

.

.

.

.

.

.

.

Videotaped Evidentiary Deposition of
Robert Norman Harden, M.D.
Volume II
September 12, 2007

THE VIDEOGRAPHER: This is tape No. 1 in the video -- videotaped deposition of Norman Harden (sic), M.D., in the matter of Robert Hogan, plaintiff, versus Baptist Medical Center-Nassau, Incorporated, a Florida corporation, defendant and third-party plaintiff, versus American Cancer Society and Gray Gable, Nassau Village Volunteer Fire Department, Incorporated, third-party defendants, before -- before the matter of the court in the Circuit Court, Fourth Judicial Circuit in and for Nassau County, case No. 06 C A 44, Division A.

This deposition is being held at 446 East Ontario Street, Chicago, Illinois, 60611, on 9/12/07. Approximately the time is 17:19:09. My name is Michael Deschamp and I am your videographer. The court reporter is Stacee Jackson. Counsel, please introduce yourselves and

affiliations, and the witness will be sworn.

MR. SPRAGUE: My name is Aaron Sprague. I represent Robert Hogan, the plaintiff.

MS. ARNOLD-SIMMONS: My name is Teresa Arnold-Simmons, and I represent Gray Gable and Nassau Village Volunteer Fire Department, Inc.

MR. INCLAN: I'm Clemente Inclan appearing on behalf of Baptist Hospital Nassau.

MR. TOLLEFSEN: I'm Thomas Tollefsen appearing on behalf of third-party defendant American Cancer Society.

THE COURT REPORTER: Doctor, would you please raise your right hand?

(WHEREUPON, the witness was duly sworn.)

ROBERT NORMAN HARDEN, M.D., called as a witness by the Third-Party Defendants Gray Gable and Nassau Village Volunteer Fire Department, Inc., having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY-MS.ARNOLD-SIMMONS:

Q. Good afternoon, Dr. Harden. Would you please state your full name for the record, please?

A. Robert Norman Harden.

Q. And where are we currently today?

A. This is the Center for Pain Studies at the Rehabilitation Institute of Chicago.

Q. So we're in Chicago, Illinois?

A. Correct.

Q. Would you tell us briefly what your occupation is?

A. I'm a physician who works in the academic field. As such, I'm a clinician, researcher, administrator, manager, many hats.

Q. Could you take us through your educational background starting with your college degree?

A. Yes. I went to Emory and the University of Georgia for my undergraduate degree, got a degree in bachelor of

science. Then I began a PhD program in neurophysiology which was cut short because I was accepted to medical school; went to medical school, went to the Medical College of Georgia, did my internship and combined residency at the Medical University of South Carolina, did fellowship work back to Emory in the Pain Control Rehabilitation Institute of Georgia with a specialty in pain management. In the course of that fellowship I also spent time at Cornell and Sloan-Kettering University -- I'm sorry -- Sloan-Kettering Cancer Center in New York.

Q. Let me --

A. And then.

Q. Let me stop you for a minute and ask you --

A. Yes.

Q. -- what year did you graduate from medical school?

A. 1984, wasn't it.

Q. Okay. And what did you do your residency in, what specialty?

A. It was actually a combined residency in internal medicine and

neurology.

Q. And then you were telling us about what happened when you were a fellow in pain control in 1989?

A. Yes. I was -- did a fellowship in pain control at Emory with rotations at Cornell and Sloan-Kettering.

Q. Have you had any occasion to be at the NIH for any reason?

A. Yes. I did observerships at the NIH on three occasions.

Q. After medical school did you begin your practice?

A. Well, no. Of course, after my fellowship I began practice.

Q. Right, excuse me. Can you tell us where you began your practice and what type of practice?

A. Yes. I was on the staff of the Medical University of South Carolina in the departments of neurology and the department of physical medicine rehabilitation. And I was sort of the pain management guy at Medical University of South Carolina. I was the director of the pain control and

rehabilitation section, and I founded the headache program and a RSD program at Medical University of South Carolina. After working there for approximately four or five years, I was recruited to come here to Chicago and have worked ever since here as the director of the Center for Pain Studies. I was the founder of the Chronic Pain Care Center here and still serve as an attending physician in that -- in that clinic as well.

Q. Currently what does your practice consist of from a clinical versus research versus teaching capacity?

A. As of the last three years I shifted my attention more to research. But I do still spend time in the clinics in that old clinic that I founded. And I see general chronic pain in that clinic but do have a tendency to see more complex regional pain syndrome than most doctors simply because that's an area of interest and specialization. But then I spend most of my time now as a researcher not only in the area of complex regional pain syndrome

but in other neuropathic conditions, spending a lot of time with post-amputation pain, spinal cord injury pain, post-stroke pain specifically.

Q. Prior to -- to going in or spending more time in research did you have a significant clinical practice?

A. Yes.

Q. How many years have you actually been in more of a clinical practice?

A. Approximately 18 years.

Q. What exactly is the Chronic Pain Care Center here in Chicago?

A. Well, the Chronic Pain Care Center is our clinical operation, and its sister organization, if you will, is the Center for Pain studies. So the one does the clinical work and the other does the research, but there's considerable overlap in terms of personnel, patients' emphasis, et cetera.

Q. Are either of these entities associated with the Rehabilitation Institute of Chicago?

A. They both are.

Q. Okay. Tell us a little bit about the Rehabilitation Institute of Chicago, what type of organization that is, the facility.

A. Well, it is a free-standing rehabilitation hospital. It is not for profit. It is affiliated with Northwestern University. And I am an associate professor at Northwestern University as all our doctors have an academic affiliation with Northwestern. We are fiscally different, separate from Northwestern but, of course, academically affiliated. The Rehab Institute of Chicago is the largest rehabilitation facility in the world. It's been ranked No. 1 in the nation for the last 15 years or so. I think we're actually up to 17 years now.

So it's -- you know, it's a great place to work. I certainly enjoy the opportunity to try to serve rehabilitation patients. And complex regional pain syndrome remains an area of intense interest for us in terms of our research and clinical operation.

Q. Are you board certified, Dr. Harden?

A. Yes, I am.

Q. In what area?

A. Pain management.

Q. As part of your training being a pain management doctor I guess the focus is on pain?

A. Yes.

Q. Is there a component of your training that deals with psychiatric or psychological issues?

A. Yes.

Q. Can you explain to us what training you've had related to that?

A. Well, I have formal rotations that were required in my residency. I took a lot of extra training in psychiatry because I find it very interesting. And my forte has always been psychopharmacology, so a real interest in the drugs or the chemistry and how it worked. Since practicing, of course, as a pain management doctor it's necessary that a good pain management doctor understand and embrace

psychiatric diagnoses, learn how to make these diagnoses and, more importantly, learn how to participate and engage in psychotherapy.

We do some of the cognitive behavioral-based psychotherapy, but a lot of the psychotherapy we do is -- is -- are issues that will not be received well unless they come from the doctor. In other words, a lot of the things that I suggest or help patients to embrace or endorse -- they can only hear it from the doctor.

So we work hand in hand with psychologists and, of course, I take a great interest in who the psychiatrists in our centers are. As a matter of fact, I hired all of them that are working in our center now. I work very closely with them throughout. Obviously, since my role is primarily of psychopharmacology, of course that heavily overlaps with what they're interested in and what they're doing with their talk therapy. So that's my current role in the field of psychopharmacology, if

you will, psychiatry and, of course, psychology.

Q. Okay. Do you diagnose psychiatric conditions such as depression?

A. Yes.

Q. Do you diagnose psychoschematic pain disorders?

A. Yes.

Q. Okay. Do you prescribe antidepressants?

A. Yes, I do.

Q. Do you have to be a psychiatrist to treat psychiatric conditions?

A. No.

Q. How about to diagnose them?

A. No.

Q. Has your practice dealt with the psychiatric issues of pain and how it causes pain?

A. Yes.

Q. How do psychiatric issues explain pain?

A. Explain pain?

Q. Uh-huh.

A. Well, I mean I guess the

question is if somebody has a primary psychiatric diagnosis, can that manifest as pain complaints? I'm sorry. I'm -- is that what you mean?

Q. Yes, sir.

A. Yes. As a matter of fact, we very frequently see that -- that people that -- really their primary diagnosis is depression or anxiety. They will manifest the subjective complaint of pain as a more socially acceptable complaint to get them in to see the doctor. So we embrace that, diagnose the depression or the anxiety, and treat it as such. And -- and in those cases, of course, the pain complaint usually diminishes or goes away.

Q. As a pain doctor, then, do you have to consider psychological or psychiatric issues in your treatment and diagnosis of patients with RSD, also known as CRPS?

A. Yes, ma'am, absolutely. It's 80 plus percent of our patients with that -- with that -- what the psychiatrist would call Axis 1 diagnosis of CRPS have an Axis

2 diagnosis, such as depression or anxiety. It is ubiquitous in the field and must be diagnosed and treated.

Q. Have you, in fact, written articles related to -- dealing with pain and psychological status?

A. Yes, ma'am.

Q. And I'm going to embarrass you a little bit here, Doctor, and ask you to kind of toot your own horn about your awards. Have you received any awards related to your position as a physician?

A. Yes, ma'am.

Q. Okay. Could you tell us what those are?

A. Well, there's a few. For instance, Castle Connolly does national doctors and local doctors. So I've been the top doc. I've been mentioned as top local doctor in the field of pain management. I've received teaching awards; for instance, the Golden Apple. I was considered to be teacher of the year at RIC one year. I've received awards from philanthropic organizations for my work in

this area, particularly the Reflex Sympathetic Dystrophy Association. There's a few things there.

Q. Okay. Are you on any editorial boards?

A. Yes.

Q. Which boards are you on?

A. I'm actually on about a dozen, maybe -- I'm senior editor on the Journal Pain Medicine. I'm a senior editor of the Journal Pain Practice. I have -- I am section editor of the American Pain Society Bulletin. And then there's multiple journals that I serve as -- on the editorial board and certainly many more that I'm a reviewer.

Q. Okay. Do you have any professional -- are you a member of any professional associations related to your position as a physician, pain management physician?

A. Yes, ma'am.

Q. What would those be? Just name a couple of them for us.

A. Well, internationally I belong to

the International Association for the Study of Pain. I have sporadically been a member of the World Institute of Pain which is sort of the second big international organization. Nationally I'm a long-term member of the American Pain Society. I am also a member of the American Academy of Pain Medicine. There's several. Regionally I'm the -- actually have been the president of Midwestern Pain Society and still -- still remain a member of that.

I'm on the Headache. I'm in Headache Societies. I am in Physical Medicine and Rehabilitation Societies. I'm actually an honorary member of the American Academy of Physical Medicine and Rehabilitation which makes me the only -- the only neurologist and the only doctor -- nonphysiatrist doctor to actually hold that post. They've had three or four before, but I think both of those are deceased now. So I -- I may be the only living honorary doctor for the AAPMR. It was actually quite a honor and I -- I felt

touched that they felt -- felt they need to come out and grab me and pull me in to their club because normally I couldn't join that.

Q. Are you on any boards or committees related to reflex sympathetic dystrophy?

A. Yes, I am.

Q. Are you involved at all with the Reflex Sympathetic Dystrophy Syndrome Association of America?

A. Yes, I am.

Q. Can you tell us what your involvement is with that organization?

A. I'm the -- one of the chairman of their clinical advisory board with Dr. Rodge (phonetic).

Q. And what are your duties related to that?

A. I'm the scientific liaison. When they have questions or their members have questions about -- scientific questions, specifically diagnosis, drugs, treatments, what works, what doesn't work, what their -- what the status of the evidence about

particular treatments, for instance, that's my role.

Q. Have you written in your career as a physician articles related to complex regional pain syndrome also known as reflex sympathetic dystrophy?

A. Yes, ma'am.

Q. Have you written any books related to those symptoms?

A. I've edited books, yes, ma'am.

Q. Okay. And who were those books generally written for, what's the audience?

A. The audience is a specialty scientific audience in most cases. The two -- the two books I wrote with the International Association for the Study of Pain is -- was written for a very specialty pain management audience. However, some of the -- some of the ramifications of that which was the diagnosis of CRPS was meant for any doctor who would presume to make a diagnosis of CRPS, sort of guidelines that they could use to make that diagnosis properly.

Another book that I had edited

was about treatment guidelines for this. And, again, this was less for the specialty pain management doctors who are supposed to know about that. They're supposed to keep up with the literature but more for the other doctors, the primary care doctors and the secondary care doctors that would be called on to treat CRPS in the community. This is meant to be a practical pragmatic guide so that they could organize their thinking about how to properly treat the disease.

Q. And those are the treatment guidelines for complex regional pain syndrome?

A. That's correct.

Q. Do you make presentations on complex regional pain syndrome?

A. Yes, ma'am.

Q. Okay. Are you making any presentations the week of September 24th?

A. The week of September 24th, no, I'm not. I'll be in -- I'll be in Holland. I will be serving as a senior advisor to the Dutch who are trying to

organize their effort in terms of diagnosis and treatment of CRPS. I won't be making a formal presentation, but I'm sure I'll have a lot of comments about what they're up to.

Q. And is your trip to Holland is -- that is why we are taking your video today?

A. Yes.

Q. Because you will not be able to be with us in Florida on that day?

A. No, ma'am. Unfortunately, I'll be in Europe.

Q. So, I take it, based on everything you -- you've told us that the research, diagnosis, and treatment of RSD is a large part of your practice?

A. Yes, ma'am.

Q. I'm going to hand you a copy of what was provided to us as your CV. It looks like it's 35 pages long and ask you if that is a copy of your CV?

A. Yes, ma'am.

Q. And was I correct? It's 35 pages long?

A. Let me see what that version is.
Q. Okay.
A. That's July 18th. There's a newer one that's 36 pages but, yes.
Q. The newer version, what additional things would have been added to that that's not on this version?
A. Well, really all the research that we've done or presented since obviously July, but mostly poster presentation and abstracts at scientific meetings that have happened since then. As a senior researcher, I get mentioned on an awful lot of research for the -- for my young colleagues out there that they're -- that they're working on different projects and things. I coordinate and direct their efforts, but they're very energetic and there's a lot.
Q. Dr. Harden, could you explain to the jury generally exactly what is reflex sympathetic dystrophy which we also use another term for that, I think, complex regional pain syndrome?
A. Well, this is basically a

disease or a syndrome that has been around since the dawn of time. We certainly see reference to this in some of the very, very old Samarian tablets, for instance. So as far as we know it's been around since people have been injured. It is a syndrome that is characterized in general by pain and a disturbance of the autonomic nervous system. You need to have both, and that is the -- sort of pivot of this disease and what it is.

It was actually well characterized by a doctor in the 18 -- late 1800's with civil war veterans or, as we say in the south, war between the states. So Silas Weir Mitchell gave really good diagnostic information back in the 1800's, but it seems like there hadn't been an awful lot of movement in terms of making that diagnosis properly until recently. But basically it's a disease that is characterized by pain, disturbance of the autonomic nervous system which is the automatic nervous system that controls the tone of blood vessels. It controls

sweating. It is associated with central features that manage pain, and it's remotely related to other changes you can see in the peripheral like changes in skin and hair. So all of these features as a collection are what we use to make the diagnosis now.

Q. What happens to the autonomic nervous system when someone is injured? Give us a little science lesson, I guess, on that if you would.

A. Well, in an acute situation if somebody is injured, their sympathetic nervous system immediately goes into play and clamps down the blood vessels so somebody doesn't, for instance, bleed to death. As time passes normally the sympathetic nervous system resets. The pain begins to subside as healing occurs. In CRPS something goes wrong, and the sympathetic nervous system goes haywire. It starts to sort of act on its own without any -- any useful further input from the pain system.

The pain begins to increase we

feel due to a relationship between the damage and the periphery and the changes in the central nervous system which feed back to the periphery. And it forms these very negative feedback loops between the central nervous system and the periphery unit, and it becomes self-maintaining. Now -- in excess of what you would expect with normal healing and normal recovery.

Q. Is the diagnosis of CRPS controversial?

A. That's an interesting question. I don't think it's controversial. I mean I think that for years there was sort of a chaotic idiosyncratic approach to the diagnosis meaning that, you know, whatever doctor sat down in front of a typewriter in those days could type out a criterion, and people would begin to use that. But lately we have begin to -- begun to apply the principals of the validation of a diagnostic criteria to this disease.

Interestingly, this is one of the first pain diseases that that's ever been done. It was actually done well for

psychiatric disease for years and then done pretty well for headache, and now finally we're trying to get it into other -- other areas of chronic pain. Complex regional pain syndrome represents the very first one that a statistical derivation was done of a diagnostic criteria, and we have that extent now.

Q. Is there disagreement in the medical community as to, then, how to make the diagnosis? Was that part of the problem?

A. There's not disagreement. There may be ignorance. There may be an unwillingness to embrace the criteria that's accepted in the field but, you know, pretty much doctors in the field -- pain management doctors are in good and general agreement about how to make the diagnosis and what criteria should be used.

Q. Have you studied the criteria and help establish criteria to make the diagnosis of CRPS with more specificity?

A. Yes.

Q. And can you explain to the jury

what we mean by specificity as it relates to the diagnostic criteria?

A. Well, there's really two features of a good criteria. The one is sensitivity meaning that it doesn't leave anybody out. If somebody has it, they're going to get caught by this net, if you will, of the criteria. Specificity refers to the ability of that criteria to exclude other disease; in other words, somebody comes in with a collection of signs and symptoms that is CRPS. You want a criteria that is sensitive enough to capture those with a high frequency, but you also want a criteria that is specific enough to not include things like other neuropathic disease or headache or postherpetic neuralgia or diabetic neuropathy.

You want to make sure that your criteria is specific enough to rule those out. Those are other diagnoses. They need to -- doctors need to make the other diagnoses and treat them as such whereas you really want to identify properly the

people with CRPS with sensitivity and specificity so you're treating the right thing. Your not over treating or you're not under treating or you're not using treatments that are unsafe or, you know, irrelevant to the prognosis of the patient.

Q. And is one of the reasons the diagnostic criterion are necessary for CRPS because there's not one test that can diagnosis the condition like an X-ray or something?

MR. SPRAGUE: Objection, leading.

THE WITNESS: Okay. You're correct. There is no gold standard test. It would be nice if we had, you know, a simple objective test that we could give somebody, you know, a blood test that we'd get a number and say you got it. It's not that kind of a syndrome. It is a collection of signs which are to things that a doctor observes and symptoms which are complaints that the patient would have; things like pain and swelling, et cetera.

BY MS. ARNOLD-SIMMONS:

Q. Have you published any articles

or materials related to the diagnostic criterion and their specificity?

A. Yes.

Q. Are you familiar with diagnostic criteria as propounded by the IASP?

A. Yes, ma'am.

Q. Can you explain to us what the IASP is?

A. The International Association for the Study of Pain; that's the big international organization that dedicates itself to the study of -- and the promulgation of research in the area of pain management. So the IASP is huge in my field. They're the big guys. So they -- they have meetings. They have a lot of sociologic efforts in regards to educating patients, educating doctors, but they also involve themselves in, of course, publishing a journal. And it is considered the best journal in pain management. It's the Journal of Pain. And they publish books -- actually a series of books. I happen to have one of them here about the diagnosis and the treatment of pain and

research and pain. So that's -- that's who the IASP are, the International Association for the Study of Pain.

Q. And have you been involved with the ISA -- IASP? Excuse me.

A. Yes, I have.

Q. Now, can you explain to us the IASP criteria? And if you need to, there is a dry erase board behind you that we could move so you can write those down.

A. Okay. Since this is important, I like to make sure I get this correct. And if you don't mind, I'll just carry it with me. But I'll be happy to --

MS. ARNOLD-SIMMONS: If you'll give the videographer one second to adjust so we can see the dry erase board.

THE VIDEOGRAPHER: Going off the record, the time is 17:46:42. We are off the record.

(WHEREUPON, a discussion was had off record.)

THE VIDEOGRAPHER: Back on the record in the deposition of Norman Harden (sic). The time is 17:48:14. Counsel,

you may proceed.

BY MS. ARNOLD-SIMMONS:

Q. Dr. Harden, I think I asked you to list for us the diagnostic criterias propounded by the IASP.

A. Yes. There's actually four criterion or four steps that are used to make this diagnosis. So the first criterion says the presence of an initiating noxious event or cause of immobilization. So this is -- noxious event, something bad happened, and immobilization. The second criteria says continuing pain, allodynia, or hyperalgesia with which the pain is disproportionate to any inciting event. So it's pain.

Allodynia means something that is normally an innocuous stimulus such as a light touch is now very painful up to and including things like even the presence of clothing or even an air conditioner coming on and blowing across the affected part in extreme cases. Hyperalgesia simply means sort of the same thing where there's a sensory phenomenon that is now very, very

sensitive. So hyperalgesia which is disproportionate to any inciting event meaning that if somebody gets a needle stick and just to get a shot -- of course that hurts when it happens. But if the pain is intense and the pain is long lasting we would say it is disproportionate.

Q. Okay.

A. And then it says the third criterion is evidence at some time of edema or swelling, changes in skin, blood flow, or abnormal sudomotor activity in the region of pain. Now sudomotor is, again, back to that sympathetic nervous system. This is how the nervous system controls sweating. So when it says sudomotor that equals sweat. Now remember I said that the sympathetic nervous system also controls blood flow to a part. So this, again, is the sympathetic nervous system. And edema, swelling may or may not be related to the sympathetic nervous system.

Q. What is the fourth criteria?

A. It says this diagnosis is

excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction. In other words, you have to make sure that there's no other better explanation; in other words, not another diagnosis that explains the signs which is what the physician observes or the symptoms which is what the patient portrays. So no better diagnosis or explanation for the sign and symptoms.

Q. Okay. When were the IASP criteria adopted?

A. They were adopted by a consensus group that met in Orlando Florida in 1994.

Q. And have there been any problems with the IASP criteria?

A. Yes. There have been big problems. Now this group when they got together in '94, their charge was to -- to try to clean this up, clean up some of the chaos and confusion that had surrounded this diagnosis prior to. And one of the ways that they did that was to say we're going to -- we're going to stop using the term reflex sympathetic dystrophy. The

point being there may or may not be reflexes involved. We don't know that. The sympathetic nervous system must be involved, but it may be an innocent bystander.

So RSD implied that the sympathetic nervous system caused the problem. It may not be the cause. And probably, most importantly, dystrophy only occurs in about 10 percent of cases. So the old name RSD or reflex sympathetic dystrophy was considered misleading. So the first thing that this consensus group did -- and I might add it took them a long time to do this. They had to meet two times before Orlando to agree on a name. But they agreed on the term complex regional pain syndrome as a general name, sort of a general overarching theme that would be very sensitive, that would bring everybody under the umbrella, if you would. Nobody would be left out in the cold or in the rain.

So their charge was to create a very broad, very general name and a very

broad and very general diagnostic criteria that would make sure that nobody was left out. And they did that by creating a list here that was very, very open, very general, sort of loose. They did that with the full understanding that they would create a very sensitive diagnostic criteria with the understanding that the research would be done to validate this empirically so that we would improve the specificity as time passed.

Q. Okay.

A. So what we have with the IASP criteria is a very broad, very general diagnosis that really a lot of people can get under this umbrella. The specificity was supposed to come with research over time, empirical validation research.

Q. Through the use of this broad criteria have there been experienced problems by pain management?

A. Yes, a lot of over diagnosis; many people would come in with something else. Somebody would sort of superficially go through this, not thoughtfully go

through this and they would conclude that they had RSD or CRPS -- to use the proper term -- and then they would charge off with very expensive treatments, very inappropriate treatments, and in some cases very dangerous treatments.

Certainly there's a lot of the more experimental treatments that are quite dangerous. They have death and morbidity associated with those. So, you know, it's a real problem if you use a criteria like this and you bring too many people into the fold and begin treating all of those people as if they truly had the disease; so a lot of over diagnosis. There has also been abuses in -- obviously in this field of people that because this is so loose, they can easily make this diagnosis. And they can actually make it on the basis of a subjective report of the patient. So that a patient that comes in and says, you know, I had a noxious event; I have this pain and allodynia which is subjective -- that's my report. And I had edema and blood flow changes, swelling, and, you

know, it was -- the limb got cold one time, and it turned blue. And it was sweating. They can say that that happened weeks ago or months ago. So to use this criteria you would have to say, well, maybe that's CRPS. And then it's the doctor's absolute responsibility to look at this and say is this what it is or are there other possibilities that could explain this?

But there have been a lot of abuses. Either doctors that, you know, take this as gospel in the sense that they feel like this is a real good tight specific criteria, which it is not, or patients that -- for instance, the psychiatric patient that can't come in and say I'm depressed, I'm crying all the time. But they can come in to a doctor. They feel comfortable saying I have pain. It's horrible. My hand turns blue. And the doctor looks at it and says, well, your hand is not blue now. They say, well, but on the basis of this we can accept historical symptoms.

So there were a lot of problems

that came in directly due to this point that -- I know it's very technical but this point that, you know, it's very sensitive, embraces many people that have pain and anything going wrong with them but not specific. See, the problem is that we didn't -- for a long time we didn't really get back and improve on the specificity of this so we can now say this is really what you have. You don't have something else. It's just sort of sliding in under the umbrella to use the analogy I keep using.

Q. So the I -- can using the IASP criteria -- you can make a diagnosis through a patient report alone without a physician seeing signs or symptoms?

A. That's correct.

Q. Have other criteria --

A. Well, I want to add to that too.

Q. Sure.

A. That, of course, ignores Criteria 4 because it's still the absolute responsibility of the physician to do a good history to do a good physical

examination. So they're going to have data that will allow them to answer Criterion No. 4 which is -- you know, there's other possibilities. And really good practice requires that they list the other possibilities as well. To not go into a situation and say, well, somebody said this was CRPS, so I guess that's what this is and to focus on that as the only possibility.

Q. Okay.

A. Okay.

Q. Since 1994 have other criteria been developed to address these issues?

A. Yes.

Q. Can you tell us what those criteria are?

A. Did you want me to sit down or...

Q. Well, I'm going to ask you to write those events on the board, if you can tell us what they are.

A. Well, the -- remember the charge was that these guys were going to create this broad loose umbrella diagnostic

criteria because they trusted that research would march ahead and that we would do what's called empirical validation of these criteria, meaning we would go to the patients. We would run the statistics and we would improve on that specificity -- I'm sorry -- the, the -- yeah, the specificity feature. So we actually did that. We -- we empirically validated these criteria.

Q. When you say we, were you involved in that?

A. Yes. I was.

Q. I'm sorry. I didn't mean to interrupt you.

A. We being a team of biostatistician and clinicians and actually I like to include my patients in this. I feel like our patients helped us a lot to try to understand what was going on. But we collected all the signs and all the symptoms that had ever been mentioned in any literature about this in a very methodical way. And then we went back and said what signs and what symptoms are specific to this diagnosis and what signs

and what symptoms don't help us to rule out other disease; in other words, to develop a statistical process where we could now start to talk about improving the specificity.

In fact, the specificity for making the diagnosis -- in other words, the ability to rule out other disease is less than a coin flip using this criteria. In other words, it's less than a doctor just saying, well, do they have it or not and flipping a coin. It's 40-percent specific. It's essentially 100-percent sensitive but it's only 40-percent specific. It's less good than a coin flip. So using the empirical validation, internal validation, external validation, factor analysis, cluster analysis, all these biostatistical technologies that are -- that are well proven. They were proven in psychiatry and proven in headache and now applied to improving criteria for all pain -- should be applied for all pain for all diagnoses in medicine for that matter.

But we applied this to this, and

we did create a criteria which was considerably more specific, and basically twice as specific. So now we were achieving specificity -- can achieve specificity of 80 percent or better which is great for any type of diagnostic test; for X-rays or MRI's or whatever. A specificity of 80 percent is good. A specificity of 40 percent is terrible. So somewhere in there is where you want to be. And we retained good sensitivity I might add on the basis of this empirical derivation of a new criteria.

Q. And what year was the new criteria developed?

A. Well, it was over time. It obviously takes a lot of time and a lot of work to do this. But we had been doing this work in the late 90's and published the two similar articles about this in 1999, the internal and external validation. Then we took that statistical derivation of the research criteria and clinical criteria and then we subjected that to consensus meaning we went back to the research

community and the IASP sponsored a -- a -- what's called a closed workshop, basically a think tank of all the international experts we could get ahold of; researchers, clinicians, interventionalists, PhD's, everybody that was involved either in trying to understand how the disease worked or how to treat the disease or how to diagnosis the disease and put these people in a room actually in the city of Budapest which is why it's called the Budapest criteria.

And they sat down and very critically assessed what the statistics were telling us and said does this make sense in terms of reality? Does this make sense in terms of really diagnosing these people that we see in our clinics all the time? And to make a long story short after four days of hard work and a lot of jumping up and down and yelling and screaming, if you will, but -- but -- but, finally, at the end of the day we were in agreement and we said yes.

Q. And what you --

A. These statistically derived criteria are good. They do apply and we should embrace these. We should adopt these as the criteria for making the diagnosis.

Q. And what year was that?

A. That would have occurred around about 2001 I believe.

Q. And so the more -- and so I understand, is the more specific diagnostic criteria --

A. Yes.

Q. -- called the Budapest criteria?

A. Correct.

Q. And what's written on the board right now is not the Budapest criteria?

(Indicating.)

A. No. This is the IASP. This is the loose, very sensitive, not very specific criteria with the less than coin flip specificity in terms of ruling out other disease when somebody walks into your office.

Q. Can you -- I don't know if you --

A. This is the one that we were meant to improve on. And that's -- that's what the charge with the crew that put this together. They said, look, we don't have to worry about this right now. We want to get something going so that research can kick in and improve on this. They had no intention on this going forward as a long-term solution to the real problem of diagnosing this.

Q. Can you set out for us on the board then what are the Budapest diagnostic criteria? And we're talking about clinical criteria. Is that right?

A. Well, there's two. Let me explain. In research you need to have the maximum degree of specificity, meaning that you don't want anybody in your research paradigms that don't have CRPS because you're doing such thing as trying to determine if drug A works or therapy B works. So you can't have people that don't have the disease in there or your results are obviously completely compromised. So in research we have to

have a maximum degree of specificity.

However, because as you move up in terms of higher and higher specificity -- and we -- the Budapest research criteria goes up above 90 percent specificity which is extraordinary in medicine. Because the sensitivity started to fall off what happened was a lot of people that had previously had a diagnosis of CRPS would now go undiagnosed if we use that. So some of the clinicians in the group, including myself, said, well, maybe this is too hard. This is too hard a cut. Let's drop back and create a corollary criteria that's very similar. There's actually only one difference, as I'll go into.

Let's create a corollary criteria that's more for clinical use people who have the disease will still retain good specificity. We'll still retain much better sensitivity than we would get with a research criteria. And let's do that and create a clinical criteria that is now statistically derived and consensus validated by the IASP group here and

include that as well. So, in other words, clinically as is relevant in this case we want to use the clinical -- the Budapest clinical diagnostic scheme, okay.

(Indicating.)

Q. Okay.

A. Are we clear?

Q. We are. Could you set out then for us what the Budapest clinical diagnostic criteria are?

A. Okay. Now -- okay, this is what the statistics tell us. We looked at the patients and they now -- we say these signs and these symptoms. So it's going to be similar to IASP, but there will be some differences.

Q. Okay.

A. So basically the signs and symptoms that we saw in our patients fell into four categories. One of the categories was sensory. And that's pain. And that is this thing, allodynia, I talked about. Innocuous stimuli is now painful or painful stimuli is now very, very painful. It is vasomotor. And that's the

sympathetic nervous system acting on the vessels. In other words, if you have the sympathetic nervous system active, it causes vasoconstriction which when you look at a limb, it's going to cause that limb to be blue colored. It's going to cause that limb to be cooler relative to a part that doesn't have the sympathetic activity and vasoconstriction. So vasomotor just simply means the size and the diameter of the blood vessels which controls the heat and the color of the limb -- of the skin.

Q. Okay.

A. Then there was sudomotor. Now everybody knows that's sweat. But also was included in that was edema.

Q. By edema what do we mean?

A. Swelling. And then there's motor. Now, this is something that's new because we talked about these symptoms before in terms of the IASP criteria and just basically defining what the disease is. But the new one -- this is what the patients told us and the statistics require that we include in the new criteria was

motor changes. And this means power, strength. It also means things that are wrong with the motor system such as tremor. People you can actually see with this disease have these strange tremor, and sometimes they have contractions of the muscles or contractions sometimes long term of the tendons. They have these -- these -- these very awkward postures that you see.

So these all fall under this category of motor. Now -- so the statistics say, yes, pain is clearly in there. So Criterion 1 of the new criteria -- the Budapest criteria requires that you have pain and, of course, pain that is disproportionate with what you would expect. If somebody has a fracture, certainly it's going to hurt. But as the healing occurs and the fracture resolved the pain goes away. So if somebody has pain six months or a year later after the fracture is resolved, that is disproportionate.

So we still had the disproportionate, disproportionate pain.

But the thing we lose on this was the immobilization. Everybody knows that immobilization is terrible with CRPS and the treatment guidelines at least -- so we took that out. It didn't -- it was always a nonmandatory criteria anyhow. So that was gone -- statistically gone and gone by consensus by the Budapest group.

(Indicating.)

Q. Okay.

A. Criterion No. 2 requires that we have -- I'm sorry. At this point it doesn't -- it doesn't fall under the 1, 2, 3, 4 kind of thing. But basically under No. 2 we required, for a clinical diagnosis of CRPS by the Budapest criteria, that we had at least one -- now, this is -- this is -- remember I said that there's signs and symptoms.

Q. Right.

A. Patients come in and tell us symptoms. So the Budapest clinical requires that there is at least a symptom in three of these four categories.

Q. And so we understand, what is a

symptom?

A. It's pain or it's I can't move my arm or it's my hand turned blue.

Q. Are symptoms something that patients report?

A. Correct.

Q. Okay. How is that different from a sign?

A. A sign is something that a physician observes and documents. Obviously, the physician can observe symptoms -- observe signs but not document them, but then they're useless in terms of moving forward with diagnostic criteria or certainly court where you need it to be documented in the record. But -- so they have to have symptoms of what the patient tells us is going on with them, and they have to have three of four; in other words, at least one -- one symptom in all -- in three of these four categories, okay.

Q. Okay.

A. Three requires that there be two signs. This means it's something that the physician observes; the color changes, the

temperature changes, the allodynia, motor changes like the dystonia in two, so signs in two of four categories. So you have to have Criterion 2 now which is three or four symptoms. You have to have Criterion 3 which is two or four signs. And then four we still have no matter explanation, no other diagnosis -- no other diagnosis, okay. And all of these, of course, are required now to make the clinical diagnosis under the Budapest criteria. Now, if you do that -- you'll notice that there's not a huge change from what we were doing with the IASP except we're now requiring the doctor see at least two of these quasi-objective signs in the lab or in the clinic and record those as well as three of four symptoms.

So they require that they have to have that. To achieve that specificity they have to have that to retain that sensitivity and, of course, it -- it improves the diagnostic acumen, if you will, by 100 percent because we go from a 40-percent -- I'm sorry -- .4 specificity

to .8 specificity, 100-percent improvement.

Q. Doctor, I think you might retake your seat, and I think we may need to change out the tape.

A. Okay.

THE VIDEOGRAPHER: This is the end of tape No. 1 in the deposition of Norman Harden (sic). The time is 18:14:16. We are off the record.

(WHEREUPON, a discussion was had off record.)

THE VIDEOGRAPHER: Back on the record. This is the beginning of tape No. 2 in the deposition of Norman Harden (sic). The time is 18:19:47. Counsel, you may proceed.

MS. ARNOLD-SIMMONS: Thank you.

BY MS. ARNOLD-SIMMONS:

Q. Dr. Harden, you had just set out for us the Budapest criteria, and I want to make sure I -- I understand -- or the jury understands. Can you tell us what you mean by sensory component of a patient report?

A. This is subjective presentation

by the patient; when it's symptoms it mean things like I have pain, it's burning, it's stinging, it's electrical. If it is signs, it is more in the hands of the investigator such as they will -- they will use a light touch or a brush or a light touch of their hand to see if that causes pain now which is allodynia. They will use a pin and actually do light pin pricks, and the patient will say, you know, that hurts, of course, with a pinprick. But if it hurts intensely and it hurts for a long way, that's hyperpathia. So those are the components, both signs and symptoms, that we would be looking for in the diagnosis of CRPS.

Q. What about for the vasomotor area? What are the symptoms that a physician would look for to comply with that part of the criteria?

A. Well, the -- the symptoms the patient will portray was -- either temperature changes in the limb or color changes in the limb; both of which reflect the amount of blood flow to the -- the

subcutaneous tissues. So symptoms; the patient would say it turns blue or it turns red or it's cooler or it's hotter than the unaffected side. Of course, the signs that the doctor would be looking for would be to observe, obviously, for color and to lay hands on the patient and actually feel for temperature differences. This is an area where there are some tests that -- although they're not required for the diagnostic criteria, they do corroborate and they do quantitate the result.

Q. How about for the area of the criteria called the sudomotor? How -- what would you as a physician look for -- for the patient report as to the sudomotor being a component?

A. The patient would say, for instance, the affected part or the affected region is drenched in sweat. You know, I can't keep it dry. I change my socks five times a day or it's dripping sweat when I'm trying to grab something and it's slippery. The signs, obviously, again would be a physician observing these sweat

changes. And then there are ways to quantitate that again. There is a very, very research-based test called the Quantitative Sudomotor Axon testing which we don't need to go into because it's strictly research.

Q. How about the area of motor as part of the criteria? What would a physician look for to see a patient report?

A. In terms of the symptoms the patient would say I'm weak. I can't move as fluidly as I did. Or in the case of dystonia they'll say it locks into this uncomfortable odd posture, and I can't get it out of that. Or they'll say it jerks around on its own and, of course, the symptoms would be formal strength testing by the doctor. The range of motion can be measured by the physician in terms of normal range or comparing it to the opposite side. Dystonia and the tremors can be documented recorded, you know. Of course, in our labs we actually film that or take a picture of that.

The test that can corroborate

that impression, of course, are -- there's a lot of formal testing of motor such as EMG or electromyography. There's strength testing with devices to measure the strength of the patient, the sustained strength so...

Q. And you may have already told us and maybe I just forgot, but what is the fourth criteria under the Budapest criteria?

A. The fourth criteria is that there's no better explanation for what you see, meaning signs or symptoms. This comes into your office, and you don't have a better way to explain that. There's no diagnosis that could equally well explain this or better explain it than CRPS.

Q. Now, the things you have listed for the Budapest criteria, are those -- do the criteria require that those be seen all during one visit?

A. The symptoms have to be portrayed and documented, and the signs have to be seen and documented at the visit.

Q. Okay. What if a another

physician documents that they've seen something. What type of finding is that?

A. That doesn't have any place in the criteria. It's -- you know, it is the responsibility of a doctor that presumes to make a diagnosis and treat this disease that they assume responsibility for documenting this and recording this, however they prefer to do so. But it's clearly their responsibility. And it's no good that, you know, it was observed, you know, months ago by doctor X because obviously that can't be corroborated. That can't be -- you know, that can't be attested to by the physician -- who's now -- it's that doctor's responsibility to make the diagnosis. It's that doctor's responsibility to elicit the signs and symptoms necessary to meet the criteria -- the established criteria for the diagnosis.

Q. As part of the Budapest criteria are there objective findings that are required?

A. That's really an interesting question, but objective, to me, as a

scientist means that it's -- it's something that's measured and reported by a machine. It's not subject to bias, meaning it's not the patient's subjective opinion or their portrayal of something. It's not even the doctor who in their opinion now -- if they see a blue extremity -- and it always should be relative to the other side or the unaffected side which, of course, it -- it -- although it's a trained medical professional, and they should be able to observe and record accurately, they're, of course, biased at this point by what the patient has told them because we get the history first. So they're already biased before they even go in to do the exam. But they do measure and record hopefully reliably, hopefully truthfully into the record, and that's -- that's what's required for the criteria. There are no fully objective tests for CRPS. If we had that, we would have the -- you know, we would the gold standard, and we wouldn't need to do a syndromic diagnosis anymore. We would have it.

Q. Are there any objective tests to measure temperature change in the extremities?

A. Yes.

Q. What is that?

A. The best test for measuring temperature in the extremity in this context -- because you can't do points. You can't just say, well, it was hot here or cold here because we know that temperature across the surface of an extremity is -- is -- is very changeable. It goes from hot to cold in a patchy distribution and then there's gradations where, for instance, your hands are cooler than your shoulder.

So it's no good to measure a spot. You have to measure the whole limb at once. And there's really only one technology that can do that. And it is quantitative infrared telethermography. It's basically a camera that measures the -- the infrared radiation or emitted heat off of a surface, and then the computer now will assess the average temperature of

one side versus the other side. And then you can say this -- you know, this side -- the affected region is hotter or the affected region is colder. You can say -- you know, of course now because it's fully objective and coming off a machine off a computer, you can say it's 1.23 degrees centegrate higher or lower on the affected part versus the unaffected part. But that's really the only technology that allows us to fully objectively measure temperature.

Q. How about edema? Is there a way to objectively measure edema in a person?

A. Yes. It's called volume immetry and basically it's a big bucket full of water. And the patient puts the unaffected part into that water and see how much water they displace. You can measure that in cubit centimeters. Then they take the affected part and put it in, and you can see, if it's swollen, it's going to displace more water. And then you can say uneffected versus affected there was a

displacement of 42 centimeters square more water by the affected part; the conclusion being it's bigger.

Now, to get back and say that that's actually edema or swelling is a trick because I mean it could be that the unaffected side is smaller or atrophy. So this has to be in the context of a clinical examination where you can say that, you know, the left side is the unaffected side and it is normal in strength, power, range, all that. And then you go to the affected side and say it looks to me to be swollen to have edema. You know, I will push on it and it's kind of boggy. There seems to be fluids there. And by volume immetry, this technology I'm talking about, there's a 40-centimeters cubed more displacement. That is the most objective technology that can be used to measure this. So this is -- this is a bedside test. However, you know, it's not -- it's not required for the criteria. It is the best way of doing this.

Q. Can you also measure edema using

a tape measure?

A. Yes. Now -- again, you know, that has to be very carefully documented; what -- you know, where you put the tape measure on. Obviously you have to again compare the unaffected to the affected side. And, you know, you have to say it's 37 centimeters down from the -- the elbow crease on the unaffected side, the same place on the -- and then you can compare side to side. Of course, that only gets align as opposed to a whole affected part. So it's not nearly as good as the volume immetry. And this is something that -- it has to be one or the other really that is required to make the bedside diagnosis of CRPS.

Q. Let me ask you a question. As a physician how important is documentation to you?

A. It's critical, absolutely critical, not only in terms of being able to convince my colleagues that I did it right and that this is what I saw but to communicate to myself because I'll come in

to see the patient the next time -- I mean I see hundreds of patients. I won't remember exactly all the features. So I can look for change, either change bad or change good; in other words, they're getting better, they're getting worse. I need to change my approach. I need to change my therapy. Without documentation all is lost unless you have a picture perfect memory which I do not which most doctors do not. That would be a rare commodity.

Q. Doctor, have you reviewed certain materials in the case we're here today about?

A. Yes, I have.

Q. Have you reviewed the bylaws of Baptist Medical Center?

A. Yes, I did, a piece of those bylaws, the portion about credentially.

Q. Have you reviewed a copy of the complaint in this matter?

A. Yes, I have.

Q. Have you reviewed any deposition transcripts in this case?

A. Yes, I have.
Q. Have you reviewed the deposition transcripts of Dr. Robert Hogan?
A. Yes, ma'am.
Q. Have you reviewed the deposition transcripts of Dr. Dennis George?
A. Yes, ma'am.
Q. Have you reviewed the deposition transcript of Dr. George Mada (phonetic)?
A. Yes, ma'am.
Q. Have you reviewed the deposition transcript of Dr. Anthony Kirkpatrick?
A. Yes, ma'am.
Q. Have you also reviewed medical records?
A. Yes, ma'am.
Q. Have you reviewed medical records from Dr. George Mada?
A. Yes, ma'am.
Q. From Dr. Ullah?
A. Yes, ma'am.
Q. Dr. Dana Twiggs?
A. Yes.
Q. Dr. Bruce Steinberg?
A. Yes, I have.

Q. Dr. Anthony Kirkpatrick?
A. Yes, ma'am.
Q. Dr. Greggory Hartly?
A. I'm sorry. Who?
Q. Greggory Hartly. I think he might be a dentist actually.
A. Oh, yes, yes, those huge dental records. Yes, I did review those.
Q. Have you reviewed records from the Institute of Pain Management and First Coast Pain Management which would be Dr. George?
A. Yes, ma'am.
Q. Have you reviewed records from Health South?
A. Yes, ma'am.
Q. Have you reviewed records from Dr. Drunani (phonetic)?
A. Junani (phonetic).
Q. Drunani.
A. Oh, yes, I have with a D. Thank you.
Q. Sorry. Have you reviewed medical records from Baptist Medical Center-Nassau?

A. Yes, ma'am.

Q. Have you reviewed medical records -- excuse me. Have you reviewed a report from Dr. Halprin related to a medical examination done on Dr. Hogan?

A. Yes, ma'am.

Q. Okay. Having reviewed those documents, do you have an opinion as it relates to this case?

A. Yes, ma'am.

Q. Okay. And can you tell us what your opinion is to a reasonable degree of medical certainty as it relates to this case?

A. Specifically in regards to the diagnosis of complex regional pain syndrome, I cannot state to a reasonable degree of medical certainty that on the basis of this record I would make that diagnosis.

Q. Okay. And why can you -- why is there insufficient information in the medical records and documentation you reviewed to make that diagnosis?

A. At no place in this record in no single occasion by no doctor is there

sufficient signs and symptoms to make this -- the more specific Budapest criteria in this case.

Q. And which criteria did you use for your opinion?

A. Well, I always use the more specific criteria which is the Budapest clinical criteria which is obviously the relevant criteria in this case.

Q. And is that the criteria you normally use in your practice?

A. Yes. That's the criteria I always use in my practice.

Q. You have of course reviewed the medical records of Dr. Anthony Kirkpatrick, I believe?

A. Yes, ma'am.

Q. Could you bring those out for us? And what I would like you to do is explain to us why his records are insufficient for a diagnosis of RSD.

A. Okay. Well, in general I can say I went through all his records such as they are. And in no case did I find, as I say, three of the four symptoms and two

of the four signs in the same record at the same time. In fact, in aggregate if I put all his records together, I still don't have enough signs and symptoms to meet the Budapest clinical criteria, okay.

Q. Okay.

A. So do you want me to elaborate on that?

Q. Yes, if you would.

A. Okay. So, for instance...

Q. There you go.

A. Thank you. I have a -- I have a note here dated 1/18/2006. And Criterion 1 requires pain. And he does report pain. Criterion 2 requires -- remember symptoms. In this -- in this note I have -- he mentions dysesthesia but says that he does not have allodynia.

Q. Why is that important?

A. Well, it's critical. Remember that allodynia is one of those signs and symptoms that the statistics led us to as being necessary for the criteria. So dysesthesia is not mentioned as a criterion for CRPS. Allodynia is. And he actually

says in this that he does not have allodynia. So obviously that's -- that doesn't count.

He mentions modeling to bluish discoloration as a symptom. Modeling is -- is not real clear. That means sort of a -- a particulated pattern, sort of a geographic, you know, in some places blue, some places white. So that's sometimes -- certainly saying it's CRPS, but it's not part of the criteria but more -- more to the point more bluish. So he does record that symptom. So that's one of three that we need. And then he goes on to say that there was some swelling. So that was two of four where we need three of four. So it doesn't meet the symptoms in this letter.

Q. Did he have any recording in his documentation of meeting any signs that he personally saw?

A. Yes. And he calls this in this note objective, but that means physical examination. And he says that it's swollen. So it has edema. He says that it

has a bluish discoloration. And that's it. And then he goes on to talk about skin appears to be bluish. He says that again. And then he talks about the patient's gait which is irrelevant to his upper extremities. So in this case he -- let me see. We've got two; edema, blue. He's got -- he's got two signs that he documents.

Q. Okay.

A. Two of four so he meets the signs but not the symptoms on this note.

Q. Is there -- as a clinician who diagnoses RSD is there anything you look at related to asymmetry as it relates to this condition?

A. This is a critical issue and a critical lack, I think, in terms of either Dr. Kirkpatrick's exam or his documentation is he doesn't say. I mean he says it's -- the skin appears to be bluish. What skin? I mean is he talking about the affected part? Is he talking about the affected part relative to the unaffected part so is it in general? I mean he

didn't even really mention that that is specifically in regard to -- let's see. Yes, he does mention upper extremity and lower extremity, but he doesn't -- he doesn't bother to tell us that this -- that the affected part is blue relative to the unaffected side. And that's critical because all of these tests require that it be a distinct difference from the unaffected side.

So to not mention that this is asymmetrical and this is different from side to side is pretty much a critical lack. In terms of a hard cut in terms of looking for signs and symptoms you would have to essentially discard everything that he says because he does not mention the symmetry or the asymmetry specifically in regards to the criteria.

Q. In your review of these records was there any physician that actually looked at all of the diagnostic criteria under Budapest and looked at the symmetrical considerations that you just told us about?

A. Some -- some doctors do refer to the symmetry or asymmetry but, again -- as I say, I went through these records in great detail and no doctor gives enough signs or enough symptoms to make the Budapest clinical criteria. Also, several doctors don't mention what body part they're referring to when they say it's blue or cold or swollen which again -- you know, in terms of at least being a research scientist I would have to say, you know, I don't know what they're talking about. But that throws it pretty much out anyhow. So, A, they don't have signs and symptoms. B, they don't mention that critical piece which is symmetry or asymmetry in regards to affected part versus unaffected part.

Q. Does the fact that a physician may have some of the signs or symptoms in their notes -- is that sufficient for the diagnosis of CRPS or RSD?

A. No. Well that's why there is a criteria, and the answer is of course no. We wouldn't have bothered to go through all

that trouble if it was okay for people to say, well, you know, I think this is it. And I've got a couple things here. It has to be more rigorous with that or we go back to the chaos of the 60's and 70's in terms of making this diagnosis.

Q. And can you make the diagnosis just by looking at all the records together over a continuum of time using the Budapest criteria?

A. But that's not acceptable in terms of Budapest criteria. It has to be all done at the time of the exam and documented at the time of the exam. However, I can tell you that an aggregate of all the records would not allow me to make on the basis of any doctor that saw him, a diagnosis -- a clinical diagnosis of CRPS by the Budapest clinical criteria.

Q. Have you reviewed the medical examination as done by Dr. Halprin?

A. Yes, I have.

Q. Did Dr. Halprin -- tell me your opinion as to -- as to your review of Dr. Halprin's report as to his documentation of

criterias or list of CRPS?

MR. SPRAGUE: I'm going to be -- I'm going to object as being not the proper subject of expert testimony.

THE WITNESS: I'm sorry. I didn't hear.

MR. SPRAGUE: I just made an objection for the record.

BY MS. ARNOLD-SIMMONS:

Q. Here. Let me rephrase the question. Is there any physician whose report that you reviewed who followed the Budapest criteria and listed them all in his report?

A. Yes. Remember I said that there's nobody that gave sufficient signs and symptoms to make the diagnosis of CRPS. The only doctor that actually reviewed sufficient data to say he asked and answered the question of signs and asked and answered the question of symptoms thoroughly was Dr. Halprin. But Dr. Halprin, if you look at what he did, he has -- he answers no to enough questions. He answers not based on criteria to enough

things that he concludes, and I conclude that he does not support a diagnosis of CRPS. In other words, he does sufficient signs and he does sufficient symptoms for me to say Dr. Hogan does not have CRPS. But he's the only doctor that's bothered to record and document all of those signs and symptoms.

MR. SPRAGUE: I'm going to object again as not the proper basis of expert testimony and move to strike that entire last answer.

BY MS. ARNOLD-SIMMONS:

Q. Okay. Dr. Harden, in reviewing -- or in your knowledge and expertise as a pain management physician would using the IASP criteria be appropriate for a diagnosis of CRPS?

A. Well, we should use -- use the newer better criteria. We should use the consensus base statistically derived criteria, but clearly some doctors go back to the older looser criteria and use that. I don't use it but certainly people -- usually people outside of the pain field

would use the IASP criteria.

Q. Okay. Have you reviewed the medical records of Dr. Steinberg in this case?

A. Yes, I have.

Q. Did -- in reviewing those medical records did you see whether the documentation was sufficient for diagnosis of RSD/CRPS?

A. No. He did not meet the criterion for signs or the criterion for symptoms. Actually, he didn't even come close.

Q. Did anyone in your review of these materials work Dr. Hogan up for a neuropathy?

A. Some people sort of did a glancing blow of that possibility, but nobody actually got down and said, oh, well, I think this may be an unusual neuropathy, not CRPS. We don't have support for that. But it may be an unusual neuropathy. Certainly we can explain the signs and symptoms such as they were such as were reported on the basis of

neuropathy. Therefore, it's very logical that we have to entertain that possibility. We have to rule that out. Because it's a different diagnosis. It's a different disease and it's treated differently, et cetera.

Q. In people who actually have RSD or CRPS are those people counseled at all as to the use of the affected part?

A. Yes. The treatment guidelines are very clear about that. We want them to use the affected part as much as possible. In fact, so much so that we counsel our patients if you cannot get to essentially normal use of the part, we cannot help you. You will never feel better. So it's a critical issue that they use the affected part as much as they can; either passive range of motion or lifting or carrying or actually getting back to, you know, complete vocational use of the affected part. It's critical.

Q. Would you encourage a patient diagnosed with RSD or CRPS of the upper extremity to use a sling on that extremity?

A. Absolutely not. That would be dead wrong in terms of -- of their prognosis. You discourage the use of slings and immobilizing, casts or splints. So that's -- that's -- that's -- remember all the way back to the old IASP criteria. They said immobilization was a cause of CRPS. Thus, immobilization is a bad thing. You know, clearly you want to keep them moving and active with the affected part.

Q. We've talked about the criteria as it relates to signs and symptoms but the fourth criteria for the Budapest criteria is what again?

A. No better explanation, no other diagnosis that explains the signs, symptoms as you do see.

Q. And when you're looking at documentation, what does that criteria comport with?

A. Well, it needs -- basically it means that even if you do have signs and symptoms to make a Budapest research criteria, the tightest cut, if you conclude that those signs or symptoms are created on

the basis of a different diagnosis, it's your responsibility to -- to entertain that, to prove that, and then to -- to make that diagnosis and treat it.

So, you know, even -- even if you do have all these Criterion 1, 2, 3 but then fail 4 because you have a better explanation -- you know, something like a diabetic neuropathy as an example of what we use as another disease to test the specificity of the diagnostic criteria. So if you -- if you make Criteria 1, 2, 3 but fail criteria 4 you don't have it. So it is necessary. Again, it's the responsibility of any doctor that holds himself out as a specialist or a pain management doctor who's going to diagnosis and treat CRPS to at least consider other possibilities.

They can't conclude that because, you know, the doctor before me said it was RSD, therefore, I'm just going to look for signs and symptoms and go along. It's their responsibility to create a list of other possibilities. We call that a

differential diagnosis.

Q. Okay.

A. That's a very serious error in medical systems to not do your own history and physical; in other words, to just simply go by what other people have said. And it's also a very serious error to not keep an open mind which is what happens if you just, you know, say, well, you know, the last three doctors have said X. Therefore, I conclude it's X without entertaining the possibility of Y and Z.

So you have to generate a differential diagnosis. You have to test the differential diagnosis, meaning, you know, if you think it may be CRPS, you got to entertain the possibility that it could be an unusual neuropathy or rheumatologic disease or psychiatric disease or sociologic disease, if you will; things like, you know, secondary gain and -- and -- and begin to at least go through some sort of process to rule those out and rule CRPS in. And that -- that should actually go on at every single visit but over time

-- I mean the first visit you should have an extensive differential diagnosis. This is just good practice. Everybody is taught this in medical school.

Q. And so we understand, what exactly do you mean because some of us might not -- by differential diagnosis what is that?

A. Just means all the possible explanations of what you see; it's your responsibility to, as a doctor -- to say, well, it probably is this but I can't absolutely say it's not this, this, or this. And so you list them all. And you say, you know, No. 1 is what I really think it is. So I'm going to run some tests to try to corroborate that diagnosis but, No, 2 that's serious. I need to find out if that's the case because that's totally different. It needs to be treated differently.

And No. 3 and 4, you know, well, you know, that's gee whiz. But, you know, they have some features of that. And there's a test that's going to tell me

for sure whether they have that or not. So at the first visit you really do have to have a differential. That's good medical practice. And you need to begin the process over time of saying, well, I've ruled out No. 4. I've ruled out No. 3. I can't rule out No. 2. So I'm going to have to do another test, and I still hold No. 1 as the best explanation. So over time you finally get to the point where you can now in good faith and in good practice say, yeah, this is what the diagnosis is. And this is what we're going to spend our money and spend our time and our effort to treat.

Q. And was diagnose -- diagnostic criteria No. 4, the Budapest criteria, was it addressed in any of the treating physicians of Dr. Hogan?

A. Some of the doctors mentioned other diagnoses as a possibility, but they're very few. And actually the only other diagnosis that I recall from my review is -- I think Dr. George mentioned depression and anxiety as another diagnosis.

I don't know whether he was mentioning that as differential point, meaning this is an explanation for all the signs and symptoms I see, not CRPS, or whether he was saying it was comorbidity of the CRPS. He's not clear about that. He just throws it out and gives the diagnostic code for that so...

Q. Based on your review of the treating physicians' records in this case do you have an opinion on a differential diagnoses that would apply in this case?

A. Yes.

Q. Okay. And what is your opinion?

A. The opinion from the record -- of course, I've never seen the gentleman. But if I were the doctor and I were getting the history and I were getting the tests and I were getting the physical exam that I saw in this gentleman's case, I would have to immediately conclude neuropathy.

Q. And why is that?

A. Because a lot of the signs and symptoms that he does show -- since, of

course, I've concluded that it's inconsistent with a diagnosis of CRPS -- would be consistent with neuropathy. A specific type of neuropathy or a general type of neuropathy is unclear. But then you have to do the test and you have to entertain that and go forward through the process of ruling in, ruling out which in the case of most neuropathies requires that you do EMG testing or nerve conduction testing, you know, electrodiagnostic test that's pretty quick and pretty easy to rule in and rule out that possibility.

Q. What else would be on your differential diagnosis?

A. Well, throughout the record there's a lot of talk about his mood and certainly doctors and doctors specifically that should make that diagnosis have diagnosed him as being depressed. There's also diagnoses made of anxiety. I would base on the history that I read and the symptoms that I read make a diagnosis of certainly anxiety, depression probably. But that's another criteria. See, that's the

diagnostic and statistic manual revision 4 of the psychiatrist. They have a very formal criteria for making these diagnoses.

And based on their criteria I see signs and symptoms throughout the record that you could make a diagnosis of depression and anxiety. And at least two of the doctors in this record also corroborate that and make a diagnosis of depression. And then Dr. George also makes a diagnosis of anxiety. So that's a differential possibility. Do patients with depression and anxiety have, for instance, changes in temperature? Well, anxiety absolutely cause vasoconstriction especially in the context of panic attack. And it causes intense vasoconstriction and bluish discoloration, cool extremities, modeling of the skin, all of these things we're seeing.

One of the principal symptoms mentioned by depressed patients -- and this is 60 plus percent of depressed patients will say that they have pain of some sort. So pain itself is something that is very frequently endorsed by depressed patients

and anxious patients as well. So although it seems odd, can you have physical manifestations of depression and the answer is yes. Can you have physical manifestations of anxiety? And the answer is absolutely yes especially in terms of some of the things that you see because anxiety activates the sympathetic nervous system. So you can see how that would be an overlap and must be entertained as a differential diagnostic possibility.

Q. Let me --

A. Especially -- I'm sorry. Especially in a case where a gentleman is portraying historically symptoms and signs of anxiety and is being treated now for depression and anxiety.

Q. Can life stressers be a cause of depression and anxiety?

A. Yes.

Q. In somebody like Dr. Hogan would failing your surgical board --

MR. SPRAGUE: Objection --

BY MS. ARNOLD-SIMMONS:

Q. -- be --

MR. SPRAGUE: -- more prejudicial than probative.

MS. ARNOLD-SIMMONS: Can I finish the question first, please?

MR. SPRAGUE: Okay. Go ahead.

BY MS. ARNOLD-SIMMONS:

Q. I think you had told me that life stressers can be a cause of depression and anxiety?

A. Yes, ma'am.

Q. Okay. Can a surgeon failing their boards on four different occasions be a stresser that could be a cause of depression and/or anxiety?

MR. SPRAGUE: Objection, more prejudicial than probative.

MS. ARNOLD-SIMMONS: You can answer.

THE WITNESS: Yes, ma'am.

BY MS. ARNOLD-SIMMONS:

Q. Okay. Can being substantially in debt either through defaulted student loans or tax liens be the type of stresser that can cause depression or anxiety?

MR. SPRAGUE: Objection, more

prejudicial than probative.

THE WITNESS: Yes, ma'am.

BY MS. ARNOLD-SIMMONS:

Q. How about being involved in litigation such as there's a judgment against someone -- is that type of stresser that can cause depression and anxiety?

MR. SPRAGUE: Objection, more prejudicial than probative.

THE WITNESS: Yes, ma'am.

MR. INCLAN: Excuse me. This is Clemente. I cannot hear Aaron's objection. I just need to know what they are for the record, please.

MS. ARNOLD-SIMMONS: The objections are more prejudicial than probative.

MR. INCLAN: Okay. Thank you.

BY MS. ARNOLD-SIMMONS:

Q. Okay. Can the possibility of losing one's job and one's privileges to practice be the type of stresser that can cause depression and anxiety?

MR. SPRAGUE: Objection, more prejudicial than probative.

THE WITNESS: Yes, ma'am.

BY MS. ARNOLD-SIMMONS:

Q. Those things I just listed for you; failing the boards, the tax liens, lawsuits, the possibility of losing medical privileges, and the defaults on student loans, have you -- do you have any knowledge of that as it relates to this case?

MR. SPRAGUE: Objection, more prejudicial than probative.

THE WITNESS: I have -- I do have some information provided in the record about certain of those things, yes, ma'am.

BY MS. ARNOLD-SIMMONS:

Q. I think I interrupted you to ask you more questions about depression as a cause of pain -- as part of the differential diagnosis. Was there anything else you needed to tell us about depression and anxiety as part of the differential diagnosis?

A. No. Well, except for the fact that -- that -- we -- we -- anxiety and

depression are actually seen in CRPS. But the anxiety thing I think I underlined this, but it's critical that you entertain that as a possibility because it -- it plugs right into the same type of neuroaxis that is involved in CRPS. So, you know, it really would be inappropriate, bad medicine, I guess, to not -- to not entertain that as a differential possibility at least early on and then rule it in, rule it out, call it a comorbidity, what you need to do, but to treat it. Obviously, that's what we're all about here is to try to determine treatment targets.

So if his disease, if his problem, if his principle diagnosis is anxiety, that would be a huge error to not get that and to go off and do things and -- and treatments appropriate to CRPS because those would be dangerous and inappropriate in somebody who has anxiety disorder.

Q. Can someone be depressed and not be getting treatment for it?

A. Yes, ma'am. Yes, ma'am, of

course.

Q. All right. You told us so far that on your differential diagnosis in this case would be neuropathy and psychological causes such as depression and anxiety?

A. Well, that's not all the psychological causes but those are the two preeminent. I mean those are -- those are what the -- the psychiatrists call Axis 2.

Q. Okay. What other things would go on your differential diagnosis as it relates to Dr. Hogan?

A. Well, a big one in this field you need to entertain the possibility that there is secondary gain.

Q. Why is that a big one in this field? Explain that to us.

A. Because the -- as you say stresses and strain and expectation -- basically we are animals like the pigeons in the skitter box. And if you give the pigeons or us positive reenforcement, it tends to propetuate behaviors. If you give us negative reenforcement, it extinguishes the behavior. You know, if you give the

pigeons food pellets and they keep doing that. You give them electrical shock and they stop doing those behaviors.

But, you know, I don't want to equate us to pigeons but we're not much different because things that reenforce behaviors like love, affection, money, the hope of money, getting out of work, getting out of military service; these sort of things can be positively reenforcing. And then, of course, negative reenforcing -- you have to go back to work. You have to work in spite of some discomfort. You know, you still have to pass the test or go forward with, you know, life and pay taxes. You know, all of those things, they're very negative.

You know, if one were to say, you know -- you know, I started to have this pain that something's going wrong and I don't -- but they get a lot of positive reenforcement to continue that behavior and negative reenforcement to get better, it tends to -- to perpetuate those behaviors. So secondary gain is one sociologic piece

that can perpetuate illness, behavior -- is very serious in this business because that's actually a treatment target. We have to break all that up. So secondary gain or, as the psychiatrists say in the DSM-IV, malingering, are important considerations. And they -- again, they have a criteria. They have a diagnostic approach that can be methodically used to rule in, rule out these possibilities.

Q. As a pain management physician in the diagnosis and treatment of CRPS, do you have to assess whether a patient may have issues related to secondary gain in your diagnosis and treatment?

A. Yes. It's absolutely essential that we diagnosis people on biologic grounds but also psychologic grounds and sociologic grounds. We need to understand if there's lawsuits, if there's compensation, if there's disability, also if there's spouses that are saying, you know, honey, stay in bed. Don't go to work. I'll take out the garbage. You're sick. And that, as you can see, is positive

reenforcement for illness behavior. You know, you have to tell spouses don't do that just like you have to say settle the lawsuit. You know, let's get on with life.

Q. What did you see in this case that would cause you to put secondary gain under your differential diagnosis?

MR. SPRAGUE: Objection, lack of predicate, lack of qualification; more prejudicial than probative.

THE WITNESS: Well, it's the context of our interaction here. This is a lawsuit. So in context this is all about compensation and money. As it comes out there's a -- there's a lot of negative reenforcers for getting well and going back to work in Dr. Hogan's case. There are positive reenforcers for staying sick; not just money but, unfortunately, in this case there's -- you know, there's opioid medications. There's drugs that -- that come with staying sick in this regard that some people find to be very -- very positive, very reenforcing, euphoric.

Euphorigenicity of the opioids of course is well known as you can see from street value and diversion and all of that.

BY MS. ARNOLD-SIMMONS:

Q. Even if you were not acting as an expert witness in this case but if you were treating Dr. Hogan, would you be forced to evaluate those secondary gain issues in your treatment and diagnosis?

A. Absolutely. I mean we would have -- we would take a very critical view of these and not -- not to be mean but simply to say, you know, if we want to help this guy get on with his life, we're going to have to clean up some of the sociology. We're going to have to make it seem to be positive to get well and to go back to work and to get on with life as opposed to staying sick and, you know, taking more and more drugs and stronger and stronger drugs, et cetera.

So you have to you have to diffuse the sociologic reenforcers, meaning you have a talk with the support group and say, you know, encourage him to get out

and use the limb. Don't encourage him to stay in bed and not -- not work. You know, the secondary gain money, you don't encourage people to settle quickly or inappropriately or without advice of counsel but, you know, clearly let's do this. Let's get this done. Let's settle this case. Let's get that out of your hair so that you can get on with your life.

And, you know, psychologically you treat the depression. You treat the anxiety. You try to create an operant paradigm so it is the best thing to do to get better and get on with life. That's -- that's a critical part of any pain management doctor's repertoire. It has to be part or they're just not doing the job. For them to treat only biomedical issues they're doomed to failure anyhow. If they don't treat the psychology, they're doomed to failure. If they don't treat the sociology, they're not only doomed to failure, they're doomed to tremendous frustration and -- and, you know, a sense of just not moving forward here.

Q. Okay. You had listed on your differential so far neuropathy, psychological causes, specifically depression and anxiety, secondary gain. Is there anything else you would include on your differential diagnosis in this particular case?

A. Well, yeah. Unfortunately, Dr. Hogan has gotten on some very high doses of opioid medication, and the opioids -- it's very paradoxical. Opioids, of course, are good pain-fighting drugs acutely. But as -- as you take these medicines since over time, they actually cause a resetting of the nervous system. So now people become very sensitized to their environment; in other words, things that were not painful now become painful or allodynia.

They have pains -- things that are normally painful like, you know, basically sitting too long and getting ischemia of your behind now become intensely painful to a patient because they lose that natural ability to modulate pain or to screen out pain because the opioids

-- the drugs have now come in and the -- and the natural -- the dogenous opioid system has gone to sleep. So now anything that hurts is going to hurt ten times worse. And actually documented in the literature -- not only in rats, cats, and dogs but now in people that opioid medication cause allodynia, caused hyperpathia.

Now, opioid medications also cause depressed mood. Opioid medications also cause clumsiness and, you know, inability to do fine motor tasks. So -- So, you know, in this case I see that -- I see him coming in on high dose opioids. I would have to suggest that maybe the drugs, the opioids, are at least part of the problem, if not the problem in this case now. So that's -- that's a big issue and it has to be. Again, any good pain management doctor has to entertain that possibility, has to mention it as a -- as at least a possibility that must be considered and ruled in, ruled out, if that can be accomplished.

Q. Have you reviewed the medications which Dr. Hogan is on as a pain management specialist and as a specialist with an expertise in pharmacotherapy?

A. Yes, ma'am.

Q. Okay. In reviewing his medications is his medication regimen appropriate in this particular case?

A. Well, I don't think so. I mean I think he's on too much opioids obviously for the reasons we just talked about. In our clinics we use opioids very sparingly in these cases and use them short term. We like to use the opioids so we can get moving, but once moving and feeling better we try to withdraw those drugs and get rid of those instead of, unfortunately, in this case where it's more and more and more and stronger and stronger and stronger seemingly without end. So he's on too much opioid.

Q. Do you have an opinion to a reasonable degree of medical certainty whether the amount of opioids he is on could be causing his hyperalgesia and pain?

A. I have -- that -- you phrase

that interestingly. I am not sure but I do believe it could be a cause. It should be included in the differential and it must be addressed. I am sure of that. I am 100 percent sure of that. I'm not sure that that's what's causing his signs and symptoms, and the only way to know that is as his treating doctor -- stop the opioids and see what happens.

Q. Let me ask you, have you also written papers related to the effects of nicotine and caffeine on CRPS/RSD?

A. I have written one paper, but I have done research in that area, yes, ma'am.

Q. And can you tell us is caffeine a factor -- caffeine use a factor in someone with CRPS and RSD?

A. Caffeine is a secondary factor. We did show a trend with caffeine to worsen CRPS because it works on the sympathetic axis and causes vasoconstriction.

Q. How about smoking?

A. Now, that was strongly positive

as a negative factor in CRPS. Nicotine is a powerful vasoconstrictor. It also causes alteration of pain modulatory systems and rewards systems. So it -- it's really a bad idea in CRPS clearly in itself. It can mimic some of the signs and symptoms that we require for the criteria.

Specifically smoking can cause vasoconstriction so much so that in -- in extreme cases -- what's called Berger's disease -- smoking can cause vasoconstriction on to auto amputation. People who are addicted continue to smoke, and they get this clamping down -- this vasoconstriction in the residual limbs so that they actually start to lose fingers, hands, arms, if they can't quit smoking. So it clearly is a very negative habit to continue, if you have a diagnosis of CRPS.

Q. I think you already told us that the criteria that's no longer used is the IASP criteria. Is that correct?

A. Not by pain specialists at least.

Q. In reviewing this chart was

there any physician that made the diagnosis that you could make the diagnosis using this less specific and outdated criteria?

A. Yes. It's my recollection that Dr. George in one note on one occasion actually would have recorded enough signs and enough symptoms in the format of the old IASP criteria to make that diagnosis.

Q. You, of course, treat patients with RSD/CRPS on a regular basis?

A. Yes, ma'am.

Q. Do you have RSD patients who work?

A. Yes, ma'am.

Q. Does the diagnosis of RSD necessarily mean someone cannot work?

A. No, not at all. In fact, remember when I said we encourage them to keep active, keep using the affect part. Therefore, we actually encourage work as part of the therapy in effect.

Q. Does the diagnosis of RSD mean that someone is going to be on narcotics the rest of their life?

A. No, ma'am.

Q. Being an expert in the areas of pain management and RSD, can you tell us what are the usual treatment options when somebody is diagnosed with RSD/CRPS?

A. Because it's a complicated disease that has biopsychosocial aspects it requires a team, what we call an interdisciplinary team, meaning a team working together. They work towards the same goal. They talk. They discuss the case. They discuss progress and problems that the people are having and the plan for the future. And they adapt and modify. They're very flexible in their appropriate.

But it should include physicians for diagnosis critically, monitoring medications. Oftentimes, the physicians are the leaders of these teams but not necessarily. I worked on a team where a psychologist was on the leader and I was the medical director. It requires psychologists absolutely. You can't proceed without psychology in terms of evaluation for the psychosocial part but treatment --

cognitive behavioral treatments, biofeedback, et cetera.

It is essential that you have physical therapy and occupational therapy, again, to keep them moving to pursue the goal of functional restoration. It can involve groups like recreational therapy. Certainly skilled nursing educators are critically important on teams in my opinion. And then I think in a lot of cases vocational rehabilitation plays a big part and then other team players. I mean you can get into chaplaincy and social workers, et cetera, if that seems to be appropriate.

Q. As a physician who treats patients with RSD/CRPS and a physician who does pain management do you make recommendations whether patients should go back to work or not?

A. Yes, I do.

Q. Okay. Do you have an opinion in this case to a reasonable degree of medical certainty as to whether Dr. Hogan can return to work?

A. Yes, I do.

Q. And what is your opinion?

A. I am sure to a reasonable degree of medical certainty and far beyond that 50 percent require -- 51-percent requirement that he can work. You know, as a rehabilitationist I have amputees that have no arm. So worse case scenario as if he were an amputee and had no arm, he can work. I mean there's tens of thousands of jobs that can be done by an amputee, much less somebody with some pain and hopefully the encouragement to use the limb such as would be in this case.

Q. Do you have an opinion whether he can work in the medical field?

A. Again, I'm certain he could. Again, worse case scenario -- let's say that he could never use the arm again. He can still function as a -- for instance, a radiologist. Radiologists sit in a quiet room and observe the films as they come across and -- and then make a report. So he wouldn't have to have his arm to do that. And actually there's many, many

different fields of medicine that he doesn't need to have both arms.

Now, of course, if we could get him moving and using actively the limb again and could show dexterity and show strength, then there's no real reason he couldn't work as a surgeon again. But that's more a choice in regards to, you know, how much the pain impacts his ability to do fine manipulation, et cetera. So, you know, yes, absolutely, he can work in the medical field.

Your next question is going to be how about as a surgeon and I would -- I don't know to a reasonable degree of medical certainty that he can do that. I really don't have enough information. See, if I'm asked to make that judgment, you know, the first thing I do is a functional capacity evaluation, a complete occupational therapy evaluation, a complete vocational rehabilitation evaluation. Then I deliver the treatments that are appropriate to optimize his ability to return to the original job which is, of course, always

the target. And only then using all that data and all that information would I assess whether or not this job was realistic. So, unfortunately, that's never been done here.

Q. As a pain management specialist are you familiar with a treatment option called sympathectomy?

A. Yes, ma'am.

Q. Can you tell me why you're familiar with it?

A. Well, it used to be done. It used to be considered a very -- this is considered a very, you know, third-tier kind of intervention. I guess to use the lay terminology it would be kind of Hail Mary, when all else fails kind of stuff. And people did it for a long time remembering that, you know, it looks like the sympathetic nervous system is dysfunctional. So one way to look at it is, well, you know, if it doesn't work, well, let's destroy it. To me it's like if it doesn't work well, how much sense does it make to cut it out, you know.

So basically my opinion that it doesn't make any sense to completely destroy a part of the nervous system that's not functioning well has been corroborated by the literature and, in fact, it's not considered standard of care and not appropriate to do sympathectomy now in CRPS patients. There's still doctors that do it. There's still doctors that make a good living doing it, and there's still countries that it may be a part of their algorithm. But clearly in the United States amongst pain management doctors nobody is really doing sympathectomies any more.

Q. Based on your review of these records would a sympathectomy be appropriate in this case to a reasonable degree of medical certainty?

A. No. And I say that because sympathetic blocks are no longer effective in his case, and if the sympathetic blocks don't work, it clearly is not indicated to do a surgical manipulation.

Q. Are you familiar with a

treatment modality for CRPS involving spinal cord stimulators?

A. Yes.

Q. And can you tell me what your experience is with the use of spinal cord stimulators?

A. Well, it's -- you know, this is -- this is even further down the line than the surgical sympathectomy in some context. I guess it's more main stream now. But it is experimental. And I say that because all know it's commonly done, there has never been the appropriate scientific research to prove that it works. This is very unfortunately where you got, you know, doctors that are putting in these devices without the support of research to say that it's effective.

I do a lot of pharmaceutical research, drugs. And to convince the FDA that something works, I have to have three huge randomized control trials. In terms of spinal cord stimulators there's only been one small. And everybody in the field agrees, including the doctors that

conducted this, that it's a highly flawed trial. So one small flawed trial that early on suggested that spinal cord stimulators work. But when they analyzed it six months and a year later, it didn't really look like it helped that much.

That's essentially the sum and total of the high level science that supports this. Now, of course, there's a lot of doctors that are saying, gee whiz, I put this in Mr. Smith and he felt better. That's called an anecdote, you know, and that doesn't compel anybody in -- in -- in medicine or in my field that something works. There's open label trials where they just put in the spinal cord stimulator in a whole bunch of people and ask them do you feel better and they say yeah.

The reason that's flawed is because we know there's a huge placebo response. 50 percent of people you start monkeying around with their back and doing surgery, even if you do saline injections or do a sham operation are going to say I

feel better; in other words, a placebo response. That's why we have to do randomized control trials to prove that something works. This has not been done for spinal cord stimulators yet. There's no excuse for it, but it has not been done.

So the point is would I recommend this for in any case or in this case specific, and I would have to say, no, I would not. I don't believe in the things. I really think that when the science is finally done, it's going to show they don't work. And it's a waste of time and money. But it's still in there as an experimental approach. In other words, after everything else has been tried and done and exhausted, you can find a doctor, you know, on any street corner almost that's willing to do this thing because it's very, very highly compensated. I mean it's upwards of $100,000 to do this and it takes 15 minutes to put it in. So I mean there's certainly people that are willing to do this, not me, but certainly there's

doctors that will do this whether it's proven or not. And it is not proven. It is experimental. So I'm sorry. That was a long answer.

Q. That's okay. I think we probably need to take a break to change out the tape again.

A. Okay.

THE VIDEOGRAPHER: This is the end of tape No. 2 in the deposition of Norman Harden (sic). The time is 19:22:56 and we are off the record.

(WHEREUPON, a discussion was had off record.)

THE VIDEOGRAPHER: Standby. Back on the record; the beginning of tape No. 3 in the deposition of Norman Harden (sic). The time is 19:29:35. Counsel, you may proceed.

BY MS. ARNOLD-SIMMONS:

Q. Dr. Harden, let me clear up a couple things I forgot to do earlier. Are you being paid for your time and review in acting as an expert witness in this case?

A. Yes, ma'am.

Q. And what is your rate for review?

A. It's $450 for record review. It's $650 for deposition or court time.

Q. And have you generated a bill as it relates to this case?

A. Yes, I have.

Q. And do you have an estimate about what the total is going to be for your fees related to this case?

A. An estimate for the total?

Q. Yes, sir.

A. I think we computed today it would be about $7,000.

Q. Have you ever testified in court as an expert witness prior to your appearance here today?

A. No, I have not.

Q. Have you reviewed cases in the past as a potential expert witness?

A. Yes, I have.

Q. Have you ever given a deposition as an expert witness prior to today?

A. No, I have not.

Q. Earlier we had -- I was asking

you about your differential diagnosis in this case based on everything you had reviewed. Did we go through everything on your differential diagnosis?

A. Well, those to me are the prominent things on the differential. These are things that, if I were to see this case, I would really focus on. There is a half dozen other possibilities. I mean there's rheumatologic disease. There's, you know, things like carpal tunnel that should be entertained, but to me they're less likely in regards to explaining signs, symptoms, and what's going on here.

Q. And, Dr. Harden, do you have an opinion to a reasonable degree of medical certainty whether Dr. Hogan's medical records support a diagnosis of RSD using the Budapest criterion in this case?

A. Yes, I do.

Q. Okay. And what is that opinion?

A. I don't think that the records I see support that diagnosis to a reasonable degree of medical certainty.

MS. ARNOLD-SIMMONS: Dr. Harden, I believe that's all the questions I have at this time but other counsel may have questions for you, please.

THE WITNESS: Okay.

CROSS EXAMINATION

BY-MR.SPRAGUE:

Q. Dr. Harden, now that you're only seeing patients about 10 percent of the time -- or 10 percent of your professional time. Is that correct?

A. Yes, sir.

Q. In fact, you only see patients one day a week. Is that right?

A. Yes, sir.

Q. Now, you mentioned or -- when a patient comes in to see you with chronic pain and RSD is suspected, you would want to take a history from that person, correct?

A. Yes, sir.

Q. And you would want to do that even if you had other medical records to review, correct?

A. Yes, sir.

Q. In fact, that's critical to you in making your diagnosis. Isn't that correct?

A. Yes, sir.

Q. But you didn't do that in this case?

A. No, sir. I'm not a treating physician. I'm asked to review the records as an expert.

Q. So that's a no?

A. Yes, sir. I'm sorry, you're correct. No, I did not do that in this case.

Q. Okay. You would also want to do a physical examination on that -- on that patient, wouldn't you, Doctor?

A. Yes, sir. If I were to treat -- if I were to be responsible, that would be important.

Q. Okay. And doing a physical examination is also crucial to you in arriving at your diagnosis when you're seeing a patient. Is that correct?

A. Yes, sir.

Q. But you didn't do that in this

case either?

A. No, sir.

Q. Okay. And there's also certain tests that you might like to do when you're entertaining a diagnosis of RSD or trying to rule out RSD --

A. Yes, sir.

Q. -- correct?

And you didn't do those either?

A. No, sir. That's not my role here today.

Q. Yeah. You are -- in fact, your role is as a hired expert?

A. Yes, sir.

Q. Okay. And you were hired by the counsel for Gray Gables, one of the third-party defendants in this case, correct?

A. I prefer the term "independent expert." You know, certainly I -- I like to maintain my integrity and answer truthfully. So I'm not hired in the sense I'm going to say what they want me to say. I will say the truth and I will say it clearly and loudly in a case like this.

MR. SPRAGUE: Okay. I'm going to move that as violative of the motions in limine and nonresponsive. And I'm going to ask my question again.

THE WITNESS: Yes, sir.

BY MR. SPRAGUE:

Q. You're actually a hired expert. Isn't that correct?

MS. ARNOLD-SIMMONS: Objection, asked and answered.

BY MR. SPRAGUE:

Q. My question is --

A. You know, I'm really not familiar with this term. I've never been called or asked to be a hired expert. I am an expert witness. I am an expert reviewer. Yes, I am those things.

Q. Yes. And you were hired by one of the defendants?

A. Correct.

Q. Okay. You've never seen Dr. Hogan?

A. No, sir.

Q. Never examined him?

A. No, sir.

Q. Never spoken to him?

A. No, sir.

Q. And yet you're still comfortable making the opinions that you've rendered in this case?

A. Absolutely. I mean I'm asked to review these records and then form opinions about these records. That's appropriate.

Q. And how much is the defendant paying you?

A. $450 an hour to review the records and $650 an hour in this context.

Q. And that's $7,000?

A. Approximately 7,000 all said and done.

Q. And you mentioned that you've acted as an expert in other cases. It's true, Doctor, that five out of six times you've consulted on behalf of defendants?

A. That's correct.

Q. I want to ask you some questions about complex regional pain syndrome in general. You would agree, Doctor, that complex regional pain syndrome, otherwise known as RSD, is -- or can be

characterized by severe and relentless pain?

A. The criteria says that it's pain -- excuse me -- pain that is disproportionate to what you would expect on the basis of a lesion.

Q. Okay. My question was, RSD can be characterized by severe and relentless pain. Is that correct, Doctor?

A. Certainly in some cases I've heard that, yes.

Q. Okay. You also would agree with me, Doctor, that minor injuries can cause complex regional pain syndrome?

A. Yes, sir.

Q. Now, as far as treatment for RSD you would agree, Doctor, that opioids may be effective as far as maintenance of pain relief in patients with RSD?

A. Actually, I believe I opined that we use those drugs acutely, but we rarely would entertain using those drugs as maintenance. Specifically in your question you asked me about maintenance.

Q. Doctor, Doctor, you edited a manual called Complex Regional Pain Syndrome

Treatment Guidelines?

A. I did.

Q. And there is a section in there about pharmacotherapy?

A. Yes.

Q. In that section about pharmacotherapy was written by you?

A. Yes, it was.

Q. And you, in fact, wrote the use of opioids for general chronic pain management is still subject to some controversy, but they may have value as both a rescue and maintenance treatment for CRPS?

A. Correct. And the operative word, the important word is "may." There is no definition that these should be used or have to be used. It's just an occasional use. It's a possibility.

Q. Okay. But they --

A. Not in my clinics, not in my clinics, but I have to entertain the possibility that other doctors may choose to use these drugs.

Q. But they may have value,

correct?

A. Correct.

Q. Okay. And also Methadone may have specific value in the treatment of CRPS. Is that correct?

A. Yes, sir. That's possible.

Q. And in -- you would agree with me that opioids may be an appropriate treatment for intractable pain due to CRPS. Is that correct?

A. Possible, yes.

Q. The subject of a spinal cord stimulator -- again, in this manual you edited a spinal cord stimulator is included in the evasive treatment algorithms that's set forth in this manual. Isn't that correct?

A. By Dr. Burton, yes. I did not write that section.

Q. Yeah. But you edited the manual?

A. That's correct.

Q. Okay. Also you're the clinical affairs director of the RSD Association of America?

A. That's correct.

Q. And dorsal column stimulators, otherwise known as spinal cord stimulators, are listed as a possible treatment for RSD on the RSD Association of America website. Isn't that correct?

A. That's correct.

Q. All right. I want to talk to you about the -- hold on. You would agree with me, Doctor, that RSD can render someone unable to work. Is that correct?

A. That's possible, yes.

Q. It also can render them unable to take care of the activities of daily living, correct?

A. That's a possibility, yes. I've certainly seen that.

Q. And the pain and other psychological factors that are associated with RSD can lead to losses in the areas of families, social acquaintances, and jobs?

A. Yes, sir, that can happen.

Q. The criteria that were set for the diagnosis of RSD in 1994 by the International Association for the Study of

Pain, which we've already discussed, those criteria were codified by one of committees of the IASP. Is that correct?

A. Yes, sir, a committee of two.

Q. The Budapest criteria have not been codified by the IASP. Is that correct?

A. That's not correct. The IASP actually published the book that mentions these criteria. The IASP put together the consensus group in Budapest and, in other words, they sponsored that work and published that work. So, you know, I would say that certainly the IASP is behind this effort and supporting this effort.

Q. Okay. Doctor, listen to me closely.

A. Okay.

Q. The question I asked is, have the Budapest criteria been codified by the Taxonomy Committee of the IASP?

MS. ARNOLD-SIMMONS: Objection to the form. That's not the question.

THE WITNESS: That's not what you asked me. You asked me if the IASP

has codified and I would say, yes, absolutely. They sponsored this work. They published this work. The Taxonomy Committee which has not met since the Budapest consensus group certainly has not commented on that one way or the other. In fact, that group such as it is has asked us to do this consensus work. That is specifically why we had the consensus group. That is specifically why we are revalidating the criteria at this moment. So the IASP Taxonomy Committee is very interested in this, and they're asking us to do a couple more steps before they do, as you say, codify.

BY MR. SPRAGUE:

Q. So the answer to my question is no?

A. The Taxonomy Committee has not -- has not mentioned -- I'm sorry. They have not published a new diagnostic criteria book since 1994. So, of course, they haven't -- they don't have a new criteria.

Q. So the answer to my question is

no?

MS. ARNOLD-SIMMONS: Objection to the form, asked and answered.

THE WITNESS: They have not printed another diagnostic criteria since 1994. That's the answer to the question. You know, to say that they codified or approved or adopt is essentially irrelevant. They just simply have not published another criteria.

BY MR. SPRAGUE:

Q. Okay. Do you remember when your deposition was taken earlier today, Doctor?

A. Yes.

Q. And you were sworn to tell the truth?

A. Yes.

Q. And I asked that exact same question?

A. And you asked the exact same question two different ways at that time as well.

Q. And you answered no?

A. I answered that the IASP has sponsored and published the work of the

Budapest criteria and that the Taxonomy Committee has not -- you know, they haven't written another criteria. They haven't had an opportunity to codify or not codify since 1994. So we live with the 1994 IASP criteria. That doesn't mean that they support or do not support. In fact, the head of the IASP Taxonomy Committee specifically has told us if we accomplish this goal, which we did, and another goal, which we're doing, that he will publish this new criteria in the next book that comes out.

Q. Okay. Doctor, again, you're the clinical affairs director for the RSDAA?

A. Yes, sir, Reflex Sympathetic Dystrophy Association of America, yes.

Q. On that organization's website under the heading of what is RSD the 1994 criteria are set forth. Is that correct?

A. That's correct.

Q. The Budapest criteria are not set forth, correct?

A. I'm sorry, the website?

Q. Yeah.

A. You're correct. However, there's a publication of the RSDAA that does mention the Budapest criteria. It's in their book about the treatment guidelines.

Q. But under the heading what is RSD the Budapest criteria are not to be found there?

A. Correct, on the website under that heading, you're correct.

(Indicating.)

Q. Now, as to your differential diagnosis the list that you gave; neuropathy, depression, anxiety, secondary gain, opioids, you're not in a position as you sit here today to say within a reasonable degree of medical probability that any of these are in fact the cause of Dr. Hogan's problems?

A. That's correct.

MR. INCLAN: Objection.

THE COURT REPORTER: Clemente?

MR. INCLAN: Yes.

BY MR. SPRAGUE:

Q. Okay. Also, as to Dr. -- the treatment for Dr. Hogan you are not in a

position as you sit here today to set forth a treatment plan for Dr. Hogan within a reasonable degree of medical probability. Is that correct?

A. Certainly on the basis of not having, I think, a proper diagnosis it would be -- it would be improper for me to even discuss treatment. You need to diagnosis before you treat. He hasn't been diagnosed in my opinion.

Q. And you haven't seen him?

A. I have not seen him.

Q. So you don't have any opinions as to what the proper treatments for this man is?

MR. INCLAN: Objection.

THE WITNESS: Well, no, that's not correct. I mean there's features. If I can accept the opinions and the signs and symptoms that are mentioned in the records, certainly I would say that he needs aggressive treatment for depression. I can say that unequivocally unless my colleagues are absolutely misportraying his situation. So I can say that, although I

have not seen him, you're correct. I've not seen him. I have not diagnosed him myself. But if my colleagues are presenting the signs and symptoms properly, I would say that, you know, there's a very serious depression problem that needs aggressive treatment. So I would say absolutely if these records are correct to a reasonable degree of medical certainty, somebody needs to treat this man's depression aggressively.

BY MR. SPRAGUE:

Q. Now, then -- you did a records review in this case?

A. Yes, sir.

Q. Okay. Now, as to the Budapest criteria which you wrote on the board didn't you leave out something, Doctor?

A. What are you referring to? I didn't write everything. I was trying to make it fit on the board.

Q. I think you left out trophic changes?

A. Correct. That's -- again, that comes under -- that fell under the -- let

me make sure I get this right. It's important so I get it right. The trophic changes are under the motor. Motor and trophic are clustered together statistically.

(Indicating.)

Q. And you didn't discuss what trophic changes are?

A. That's correct. You're right.

Q. Okay. What are trophic changes?

A. They are changes in the integment, meaning changes in skin, nails, hair. Also not mentioned is a trophic change -- are changes in bony integrity osteopenia as it's called.

Q. So changes to the appearance of the skin would qualify as a trophic change?

A. Yes, sir.

Q. And that would include if the skin appeared to transition as being shiny, correct?

A. Shiny is considered to be an early trophic change. It's not a hard trophic change such as scaliness, horniness, thickness. But certainly shiny skin, if it

is different from the unaffected side, is relevant.

Q. Okay. Now, Dr. Twigg observed hyperesthesia to the left third finger. That would be a sign of sensory -- a sign of complex regional pain syndrome in the sensory category, would it not, Doctor?

A. I'm sorry. I don't -- repeat the question because I can't find the record right this second.

MS. ARNOLD-SIMMONS: Here it is, Doctor.

THE WITNESS: Oh, I'm sorry.

MS. ARNOLD-SIMMONS: Here you go.

(Indicating.)

BY MR. SPRAGUE:

Q. Dr. Twigg observed hyperesthesia --

A. Yes.

Q. -- in the left third finger?

A. Yes.

Q. That would be a sign of RSD under the sensory category, correct, Doctor?

A. That is a sign, yes.

Q. Dr. Hogan complained to Dr. Twigg of left hand weakness. That would be a symptom under the motor category, would it not, Doctor?

A. That's correct.

Q. Dr. Twigg also observed that left handgrip strength was decreased. That would be a sign of RSD under the motor category, would it not, Doctor?

A. This actually could be a symptom and a sign because the patient -- it requires patient participation, patient compliance with what the doctor is asking the patient to do. So it is in the hands -- if you'll pardon the pun -- of the patient as to what -- you know, whether or not they actually try as hard as they can.

Q. Okay. Sign or symptom it's a -- it's consistent with RSD, correct?

A. Correct.

Q. She also observed skin color as shiny in the appearance of the left hand. That would be a sign of RSD under the trophic category, would it not, Doctor?

A. Yes.

Q. Dr. Steinberg observed that the left hand was cold. That would be a sign of RSD under the vasomotor category of the criteria, correct, Doctor?

A. Yes.

Q. Okay. Moving to Dr. George, Dr. George observed discoloration in the left hand. That would be a sign of RSD in the vasomotor category, correct?

A. Yes, sir.

Q. He also observed that it was noticed -- the left hand was noticeably cooler. That's also a sign of RSD under the vasomotor category?

A. Yeah. That's not a separate -- I mean that's not a separate category. That's still one single category.

Q. It's one category but it's another sign in that category?

A. That's correct.

Q. He also observed that the left upper extremity was pale. That's also a sign in the -- of RSD in the vasomotor category?

A. Same category, yes, yet another

embellishment to that category.

Q. He also observed -- made a finding of hyperalgesia and allodynia. That's a sign of RSD in the sensory category, correct?

A. Correct.

Q. He also has found weakness in the upper -- the left upper extremity or that grip strength was reduced. And, again, as we discussed, this would be a sign or symptom of RSD in the motor category, correct?

A. Correct.

MR. INCLAN: Mr. Sprague, can you tell us what date you're referring to?

MR. SPRAGUE: I'm skipping around.

MR. INCLAN: Okay.

BY MR. SPRAGUE:

Q. Dr. Ullah, he observed left upper extremity edema, correct?

A. Yes.

Q. And that is a sign of RSD, correct?

A. That's correct.

Q. He also observed decreased range of motion as a sign of RSD in the motor category, correct?

MR. INCLAN: Objection.

BY MR. SPRAGUE:

Q. Correct?

MS. ARNOLD-SIMMONS: Objection.

THE WITNESS: If it's asymmetric, yes.

MR. SPRAGUE: Okay.

THE COURT REPORTER: If it's...

THE WITNESS: Asymmetric meaning side-to-side differences.

(Indicating.)

BY MR. SPRAGUE:

Q. Dr. Ullah in that same note, Doctor, also observed that the right upper extremity was perfectly normal, did he not?

MR. INCLAN: Objection.

THE WITNESS: Correct.

BY MR. SPRAGUE:

Q. So this is asymmetrical, correct?

A. Correct. I decided to start saying that because many of the doctors that you mentioned before did not bother to

discuss symmetry, and this doctor actually did.

Q. Okay. So -- and he also discussed purple discoloration of the left upper extremity, correct?

A. That's correct.

Q. And that is a sign of RSD, correct?

A. That's correct.

Q. Okay. Now, we have had some discussion about Dr. Kirkpatrick. I want you to assume that Dr. Kirkpatrick's whose deposition has been taken in this case and he's testified that his notes regarding his observations of the left upper extremity are all in comparison to the right upper extremity and should be taken to indicate asymmetry. Can you make that assumption with me, Doctor?

A. I will make that assumption. It's certainly not in his records so.

Q. But, again, assuming that he's testified that way in his deposition, he has observed swelling in the left upper extremity. That would be a sign of RSD,

correct?

A. That's correct.

Q. Decreased strength in the left upper extremity, that would also be a sign of RSD, correct?

MR. INCLAN: Objection.

MS. ARNOLD-SIMMONS: Objection.

BY MR. SPRAGUE:

Q. Correct?

A. I'm sorry. What was the question again? You distracted me.

(Indicating.)

Q. He also -- he also observed decreased strength in the left upper extremity, and that would also be a sign of RSD, correct?

A. If we assume that he is speaking in reference one side to the other, yes, you're correct.

Q. And, again, we're making that assumption based on his deposition.

A. Yes.

Q. He testified of -- or to swelling of the left upper extremity. That would be a sign of RSD, correct?

A. That is correct.

Q. And also bluish discoloration; that would also be a sign of RSD, correct?

A. Now, it's important to note, of course, this is across many notes, many context, but you are correct. That is a sign.

Q. Okay. So we have Dr. George, Dr. Twigg, Dr. Ullah, Dr. Steinberg, and Dr. Kirkpatrick who all have observed signs of RSD in this man, correct?

A. Yes.

Q. And you noted that Dr. George has in your opinion observed enough to meet the criteria of the 1994 IASP criteria, correct?

A. That's correct.

Q. And that is --

A. On one occasion.

Q. And that is the -- that is the criteria that is currently codified by the Taxonomy Committee of the IASP, correct?

A. Yes, the Taxonomy Committee.

MR. SPRAGUE: I don't have any other questions.

(Indicating.)

MS. ARNOLD-SIMMONS: Mr. Inclan?

MR. INCLAN: Yes.

EXAMINATION

BY-MR.INCLAN:

Q. Hello, Doctor. This is Clemente Inclan on behalf of Baptist Hospital. I just want to clarify that as counsel for the plaintiff was just asking you questions regarding different entries in the medical records for various physicians, was he reviewing with you notes from one particular entry or was he taking you through an entire medical record for each individual physician?

A. It is -- it's clear that -- that he was aggregating signs and symptoms across multiple notes for multiple doctors.

Q. What does aggregating mean for somebody who doesn't understand what that means, like myself?

A. Well, for instance, for Dr. Kirkpatrick he had gone through all of his notes and selected the signs across all of those notes, different notes, different

days.

Q. Okay. Regarding counsel for the plaintiff's questioning regarding Dr. -- Dr. George, did he ask you about signs and symptoms that cover more than one note?

A. I believe so, yes.

Q. Same question with regards to Dr. Kirkpatrick's entries?

A. Yes, sir.

Q. Okay. Doctor, let me ask you to assume that Dr. Hogan, the plaintiff in this case, at or about the time that -- well, at or about the time of November where this dunking booth incident occurred -- let me ask you to assume that at that time he had a tax lien with the IRS of $150,000. Let me also ask you to assume, Doctor, that he had a judgment entered against him for a previous job that he had a Lake City Medical Center whereby the judgment against him was for over $90,000.

Let me also ask you to assume, Doctor, that at the same time Dr. Hogan was behind on his student loans. Let me ask you to assume also that he was behind

in paying the rent for his office at Baptist-Nassau. Let me ask you to assume also that Dr. Hogan at the time was aware of the fact that his ability to maintain his staff privileges at Baptist-Nassau were dependent upon his ability to become board certified as a general surgeon and that in fact he had taken and not passed the board exam on four previous occasions.

Let me ask you to assume also, Doctor, that all of these stressers were on Dr. Hogan at or about the time of this dunking booth. Can you say more likely than not whether or not those stressers can affect an individual, such as Dr. Hogan, to become depressed based on your training and experience?

MR. SPRAGUE: Okay. Objection, more prejudicial than probative, lack of predicate, and beyond the scope of this expert's qualifications.

THE WITNESS: Yes. Absolutely, the sociologic and psychologic stressers clearly could precipitate depression and anxiety in terms of the literature and in

terms of common medical knowledge and psychiatric knowledge.

MR. INCLAN: Okay. Thank you, Doctor.

MS. ARNOLD-SIMMONS: Is that all, Mr. Inclan?

MR. INCLAN: (No response.)

MR. TOLLEFSEN: Yeah, Doctor, this is Tom Tollefsen. I think Mr. Inclan answered -- everything I'd have for you, so I don't think I have any questions for you.

EXAMINATION

BY-MS.ARNOLD-SIMMONS:

Q. Dr. Harden, I just have a couple of follow-ups for you. The medical records that you were asked about by attorney Sprague; Twiggs, George, Ullah, any of those use the Budapest criteria which is what is necessary to make a diagnosis of RSD?

A. No.

MR. SPRAGUE: Objection.

BY MS. ARNOLD-SIMMONS:

Q. Looking at Dr. Ullah's record,

do you have that in front of you?

A. Yes, I do.

Q. If not -- I can -- if you would look at the last page, does he assess lower extremities in the last page of his report?

A. Yes, he does.

Q. And does he find any problem with the lower extremities?

MR. SPRAGUE: Objection, beyond the scope of cross.

THE WITNESS: No. The quote is full range of motion of all joints, no active swelling, no edema, good pedal pulses, no varicosity of leg veins in terms of the lower extremities, both sides.

BY MS. ARNOLD-SIMMONS:

Q. Now, I would ask you to look at Dr. Twiggs' records that you were asked about earlier. That's in your hand right there.

A. In my hand?

Q. (Indicating.)

A. Okay. Thank you.

Q. Looking at her note, does she

make the comparison from left to right as required under the Budapest criteria or as required for diagnosis?

A. In one case she -- she does talk about the left hand slight hypothenar wasting, hyperesthesia of the distal left third finger which would have to theoretically be compared to the right hand. But she doesn't say that. She doesn't specifically compare or mention asymmetry, but she does at least mention left. And then she goes on to talk about left hand; so only in the case of motor abnormalities. Again, motor abnormalities are contingent on patient's effort and patient's compliance with the direction of the doctor.

MS. ARNOLD-SIMMONS: Okay. Thank you. That's all.

MR. INCLAN: Aaron, are you going to ask more?

MR. SPRAGUE: Hold on.

MR. INCLAN: While Aaron is looking, Teresa, can you look at your BlackBerry?

MS. ARNOLD-SIMMONS: Yeah.

MR. SPRAGUE: Yes, I do have a question.

EXAMINATION

BY-MR.SPRAGUE:

Q. Dr. Harden, were you given the report of Dr. Dansinger (phonetic) in this case?

A. Dansinger?

Q. Dr. Dansinger.

A. I don't believe I have that. There was a D -- a doctor whose name began with D, but I think it was D-w, something, Drewin (phonetic), no, not Dansinger.

Q. So you're unaware of any of his opinions as they relate to the cause of Dr. Hogan's psychological problems, if any?

A. I don't have those records. No, sir.

MR. SPRAGUE: Okay. No further questions.

(Indicating.)

EXAMINATION

BY-MS.ARNOLD-SIMMONS:

Q. Doctor, one further question. In

your experience as a pain management specialist treating patients with RSD have you had any experience with patients who were factitious or manufacturing RSD?

A. Yes.

Q. Okay. And can you tell me how that can happen?

A. I had one specific case that comes to mind where a lady was putting a tourniquet on her extremity prior to coming into the clinic. Putting a tourniquet on for approximately 30 minutes will cause swelling, discoloration, pain, and, of course, mimicks some of the signs and, of course -- well, specifically the signs of CRPS. We actually caught her doing that, of course, and that was the cause of unraveling a sociologic issue now with her. But it's actually fairly easy to create or feign the -- some of the symptoms of -- and some of the signs of CRPS.

MS. ARNOLD-SIMMONS: Okay. Thank you. That's all I have.

MR. SPRAGUE: Nothing.

MS. ARNOLD-SIMMONS: I think

that's it.

THE VIDEOGRAPHER: This is the end of tape No. 3 which concludes the deposition of Norman Harden. The time is 20:07:20 and we are off the record.

(WHEREUPON, a discussion was had off record.)

THE COURT REPORTER: Everybody's order is the same?

MS. ARNOLD-SIMMONS: Yes.

MR. SPRAGUE: Yes.

MR. INCLAN: Yes.

MR. TOLLEFSEN: Yes.

MR. SPRAGUE: And I would like to order that video if I could get that by Friday.

NO EXHIBITS MARKED

NO EXHIBITS ATTACHED

.

.

.

.

.

.

.

CERTIFICATE OF REPORTER

.

I, STACEE L. JACKSON, Certified Shorthand Reporter for the State of Illinois, do hereby certify that the foregoing was reported by stenographic and mechanical means, which matter was held on the date, and at the time and place set out on the title page hereof and that the foregoing constitutes a true and accurate transcript of same.

I further certify that I am not related to any of the parties, not am I an employee of or related to any of the attorneys representing the parties, and I have no financial interest in the outcome of this matter.

I have hereunder subscribed my hand on the 14th day of September, 2007.

.

_____

STACEE L. JACKSON, CSR

.

.