IN THE STATE COURT OF FULTON COUNTY
STATE OF GEORGIA

Duane Cox	)	
Sandy Cox,	)	Civil Action
Plaintiffs,	)	
— *versus* —	)	File No. 19EV006790
Harvinder Bhatti, MD	)	
Atlanta Spine, PC	)	Jury Trial Demanded
Principals of the Individual Defendants 1-5	)	
John/Jane Doe 1-5,	)	
Defendants	)	

PLAINTIFFS' COMPLAINT FOR DAMAGES

Nature of the Action

1. This is a medical malpractice action based upon allegations of professional negligence, arising out of medical treatment of Duane Cox by Harvinder Bhatti at Piedmont Hospital Atlanta on February 28, 2018.

2. Pursuant to OCGA § 9-11-9.1, the Affidavit of Kalman D. Blumberg, MD, is attached hereto as Exhibit 1. This Complaint incorporates the opinions and factual allegations contained in those affidavits.

3. As used in this Complaint, the phrase "standard of care" means that degree of care and skill ordinarily employed by the medical profession generally under similar conditions and like circumstances as pertained to the Defendant's actions under discussion.

Parties, Jurisdiction, and Venue

4. **Plaintiffs Duane Cox and Sandy Cox** are Georgia citizens and are subject to the jurisdiction and venue of this Court. Duane and Sandy are married.

5. **Defendant Harvinder Bhatti, MD**, resides at 805 Cog Hill, McDonough, Georgia 30253, in Henry County. Dr. Bhatti may be served at that address.

6. Pursuant to OCGA 9-10-31 and OCGA 14-2-510, Dr. Bhatti is subject to the venue of this Court, because his co-defendant, Atlanta Spine PC holds its registered office in Fulton County.

7. **Defendant Atlanta Spine PC** ("Atlanta Spine"), is a domestic corporation who may be served through its registered agent, Derek Bauer, at 1170 Peachtree Street NE, Suite 2400, Atlanta, Georgia 30309, in Fulton County.

8. Pursuant to OCGA 14-2-510, Atlanta Spine is subject to the venue of this Court, because its registered office is located in Fulton County.

9. **Defendants "Principals of the Individual Defendants 1-5"** include each corporate entity that, in February 2018, served as the principal in an agency relationship with any of the individual Defendants named in this Complaint

(including any individuals later substituted for a John/Jane Doe defendant). Plaintiffs believe Atlanta Spine was the principal of Dr. Bhatti. However, if any other entity was such a Principal, each such entity will receive notice of this lawsuit through their employees or agents. Each unnamed Principal is hereby on notice that but for a mistake concerning the indentity of the proper party, the action would have been brought against it.

10. **Defendants John/Jane Doe 1-5** are those yet unidentified individuals and/or entities who may be liable, in whole or part, for the damages alleged herein. Once served with process, John/Jane Doe 1-5 are subject to the jurisdiction and venue of this Court.

11. This Court has subject matter jurisdiction, and venue is proper as to all Defendants in this Court.

Facts

12. This Complaint incorporates and relies upon the information contained in the attached affidavit of Kalman D. Blumberg, MD.

13. In February 2018, Duane Cox had a large, calcified disc at the T9-T10 level of his spine — that is, in his thoracic spine.

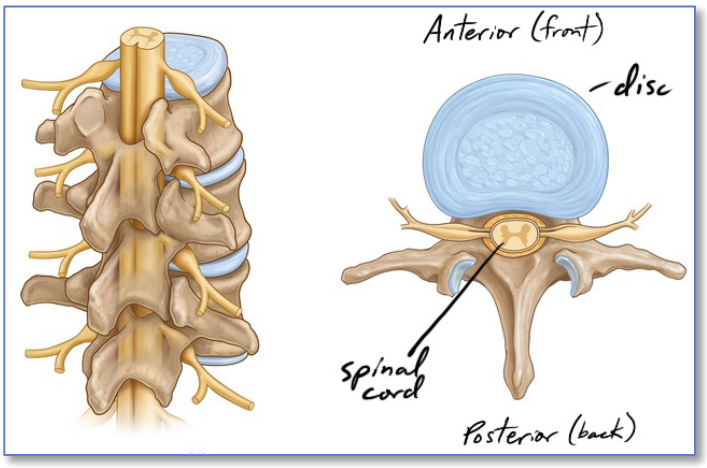
14. Duane needed a thoracic discectomy. That is, he needed the disc in his thoracic spine removed surgically.

15. Thoracic discectomies are more difficult than cervical or lumbar discectomies.

16. Thoracic disc problems that require surgery occur much less commonly than cervical or lumbar disc problems that require surgery.

17. Of the possible approaches to a thoracic discectomy — an anterior approach (from the patient's belly), a lateral approach (from the patient's side), or a posterior approach (from the patient's back) — a posterior approach is the riskiest.

18. The spinal cord sits between the patient's back and the vertebral disc. So taking a posterior approach, the surgeon risks harming the spinal cord in an attempt to get at the disc and to cut and pull it out.



19. Alternative approaches pose less risk that the surgeon will injure the spinal cord during the surgery.

20. The standard of care requires a surgeon to avoid a posterior approach to a thoracic discectomy, unless extenuating circumstances rule out alternative approaches.

21. For Duane Cox in February 2018, no extenuating circumstances existed that required a posterior approach to a thoracic discectomy.

22. Dr. Bhatti nonetheless chose to perform the thoracic discectomy on Duane by a posterior approach.

23. In the process of the operation, Dr. Bhatti injured Duane's spinal cord.

24. The standard of care required Dr. Bhatti to place a drain to remain at the surgical site after the surgery — to prevent a hematoma from forming at the surgical site.

25. Dr. Bhatti did not place such a drain.

26. A hematoma later formed at the surgical site.

27. After the discectomy, at approximately 1500 hrs, Dr. Bhatti learned that Duane couldn't feel or move his right leg.

28. Dr. Bhatti suspected a hematoma had formed over the surgical site and was compressing Duane's spinal cord.

29. The standard of care required Dr. Bhatti to act urgently to remove any hematoma over Duane's spinal cord.

30. Dr. Bhatti did not take Duane to surgery to remove the suspected hematoma until approximately 1923 hours — about 4-1/2 hours after learning that Duane couldn't feel or move his right leg.

31. Even after taking Duane to surgery to evacuate the hematoma, Dr. Bhatti did not make an incision until over an hour later, at approximately 2029 hours — opting to wait until SSEP readings could be had.

32. In these circumstances, SSEP readings served no essential purpose and did not justify an hour-long delay in the evacuation of a hematoma that might be compressing the spinal cord.

33. In total, Dr. Bhatti waited approximately 5-1/2 hours to evacuate a hematoma he suspected was compressing Duane Cox's spinal cord and causing neurological deficits.

34. Duane now suffers permanent, serious neurological injuries.

Count 1 – Common law fraud and Fraud & Deceit pursuant to OCGA 51-6-1 *et al*

35. Plaintiffs incorporate by reference, as if fully set forth herein, all the preceding paragraphs of this Complaint.

36. On February 5, 2018, Duane Cox saw Dr. Bhatti at the latter's office.

37. On February 13, 2018, Duane again saw Dr. Bhatti at his office.

38. On both occasions, discussing the type of surgery Duane needed, Dr. Bhatti told Duane that he (Dr. Bhatti) had performed that surgery at least 20 times.

39. Duane needed a thoracic discectomy.

40. Thoracic discectomies are relatively rare.

41. On information and belief, Dr. Bhatti had not performed 20 thoracic discectomies.

42. Duane relied on Dr. Bhatti's assurance about his experience with the procedure.

43. Dr. Bhatti knew he was mischaracterizing the extent of his experience with thoracic discectomies, and he intended Duane Cox to rely on the mischaracterization.

44. If Duane had not been misinformed about Dr. Bhatti's experience, Duane would have sought out a surgeon qualified to perform a thoracic discectomy, and would not have suffered spinal cord damage from a negligent surgery.

45. The law allows Duane Cox to recover from Dr. Bhatti for all damages proximately caused by Dr. Bhatti's fraudulent misrepresentations, including physical, emotional, and economic damages, as well as all other damages allowable under Georgia law.

Count 2 – Personal Injury to Duane Cox from the Professional Negligence of the Individual Defendants

46. Plaintiffs incorporate by reference, as if fully set forth herein, all preceding paragraphs of this Complaint.

47. Each of the Individual Defendants — Dr. Harvinder Bhatti and any individual later substituted for a John/Jane Doe defendant — owed Duane Cox a duty to exercise a reasonable degree of care and skill, namely that degree of care and skill ordinarily employed under similar conditions and like circumstances by similarly situated members of the medical profession generally (the "standard of care").

48. As stated above and in the attached affidavit (incorporated hereby), each Individual Defendant breached his or her duty to exercise reasonable care and skill in his treatment of Duane Cox.

49. As a direct and proximate result of the negligence of the Individual Defendants, Duane Cox suffered serious bodily injury.

50. Dr. Bhatti violated the standard of care in at least these respects:

i. by misrepresenting the extent of his experience with thoracic discectomies,

ii. by understating the risk of spinal cord damage from the operation Dr. Bhatti intended to perform on Duane — a thoracic discectomy from a posterior/laminectomy approach,

iii. by choosing an unnecessarily risky operation, where safer alternatives were available,

iv. by attempting an operation he was not qualified to perform, without assistance from a surgeon qualified to perform that operation,

v. by failing to place a drain to prevent the formation of a post-operative hematoma over the surgical site, and

vi. by waiting over five hours to evacuate the post-operative hematoma.

51. Duane Cox is entitled to recover from each Individual Defendant for all damages suffered, including physical, emotional, and economic damages, as well as all other damages allowable under Georgia law.

Count 3 – Loss of Consortium by Sandy Cox, from the Professional Negligence of the Individual Defendants

52. Plaintiffs incorporate by reference, as if fully set forth herein, all the preceding paragraphs of this Complaint.

53. As a direct and proximate result of the negligence of the Individual Defendants, Sandy Cox suffered loss of consortium deriving from injuries to her husband, Duane Cox.

54. The law allows Sandy Cox to recover from each Individual Defendant for all damages proximately caused by their professional negligence and/or fraud and deceit — including physical, emotional, and economic damages, as well as all other damages allowable under Georgia law.

Count 4 - Vicarious Liability of Atlanta Spine, PC and any other Principals of the Individual Defendants

55. Plaintiffs incorporate by reference, as if fully set forth herein, all the preceding paragraphs of this Complaint.

56. At all times relevant to this Complaint, Atlanta Spine, PC and any other Principals of the Individual Defendants employed Dr. Harvinder Bhatti. Each of these corporate entities (collectively, the "Employers") is vicariously liable for the negligence of their employees or agents in treating or failing to treat Duane Cox.

57. The law allows Duane Cox and Sandy Cox to recover from the Employers for all damages Duane or Sandy suffered as a proximate result of any negligence by the Individual Defendants.

58. Plaintiffs' damages recoverable from Atlanta Spine, PC include physical, emotional, and economic injuries.

Count 5 – Punitive damages against Dr. Bhatti and his Principals pursuant to OCGA 51-12-5.1

59. Plaintiffs incorporate by reference, as if fully set forth herein, all the preceding paragraphs of this Complaint.

60. Dr. Bhatti and Atlanta Spine, PC (and any other principal of Dr. Bhatti) are liable to Plaintiffs for punitive damages, because Dr. Bhatti fraudulently misrepresented his experience with thoracic discectomies.

Count 6 – Expenses of litigation against Dr. Bhatti and his Principals pursuant to OCGA 13-6-11

61. Plaintiffs incorporate by reference, as if fully set forth herein, all the preceding paragraphs of this Complaint.

62. Dr. Bhatti and Atlanta Spine, PC (and any other principal of Dr. Bhatti) are liable to Plaintiffs for expenses of litigation pursuant to OCGA 13-6-11, because Dr. Bhatti fraudulently misrepresented his experience with thoracic discectomies and has thereby acted in bad faith.

Damages

63. Plaintiffs incorporate by reference, as if fully set forth herein, all preceding paragraphs of this Complaint.

64. As a direct and proximate result of the Defendants' individual and collective conduct, Plaintiffs are entitled to recover from Defendants reasonable compensatory damages in an amount exceeding $10,000.00 to be determined by a fair and impartial jury for all damages Plaintiffs suffered, including physical, emotional, and economic injuries.

65. WHEREFORE, Plaintiffs demands a trial by jury and judgment against the Defendants as follows:

a. Compensatory damages in an amount exceeding $10,000.00 to be determined by a fair and impartial jury;

b. Punitive damages and expenses of litigation;

c. All costs of this action; and

d. Such other and further relief as the Court deems just and proper.

December 10, 2019

Respectfully submitted,

/s/ Lloyd N. Bell

Lloyd N. Bell
Georgia Bar No. 048800
Daniel E. Holloway
Georgia Bar No. 658026

BELL LAW FIRM
1201 Peachtree Street NE, Suite 2000
Atlanta, GA 30361
(404) 249-6767
bell@BellLawFirm.com

/s/ Lawrence B. Schlachter

Lawrence B. Schlachter M.D. J.D.
Georgia Bar No. 001353

Schlachter Law Firm
1201 Peachtree Street NE, Suite 2000
Atlanta, GA 30361
(770) 552-8362
larry@schlachterlaw.com

Attorneys for Plaintiff

AFFIDAVIT OF KALMAN D. BLUMBERG, MD

PERSONALLY APPEARS before the undersigned authority, duly authorized to administer oaths, comes Kalman D. Blumberg, MD, who after first being duly sworn, states as follows:

Introduction and Limited Purpose of Affidavit

1. I have been asked to provide this affidavit for the limited purpose of Georgia statute OCGA § 9-11-9.1.

2. This affidavit states my views of the matters discussed below — views I formed from my review of the evidence. However, Plaintiff's counsel drafted this document in consultation with me. Plaintiff's counsel did the typing and supplied the legalese, the formatting, etc.

3. This affidavit does not attempt to state or summarize all my opinions. This affidavit addresses specific matters that Plaintiff's counsel have asked me to examine for purposes of testimony at trial. This affidavit does not address anything else. In particular, I have not attempted to identify every person who may have violated a standard of care. Nor have I attempted to identify every standard of care that a particular person violated. Finally, if additional information becomes available later, then of course my opinions may change.

4. As to the matters this affidavit addresses, I have tried to give a reasonably detailed explanation of my views, but I have not attempted an exhaustive discussion. In deposition or trial testimony, I may elaborate with additional details. In particular, while I cite evidence from the medical records for various facts, I do not attempt to cite *all* the evidence for a given point.

5. I use the term "standard of care" to refer to that degree of care and skill ordinarily exercised by members of the medical profession generally under the same or similar circumstances and like surrounding conditions as pertained to the medical providers I discuss here.

6. I hold all the opinions expressed below to a reasonable degree of medical certainty — that is, more likely than not.

Topic

7. This affidavit concerns medical services provided to Duane Cox, DDS, on February 28, 2018, by Dr. Harvinder Bhatti at Piedmont Hospital.

8. More specifically, this affidavit concerns a thoracic discectomy that Dr. Bhatti performed on Dr. Cox.

9. I believe Dr. Bhatti violated the standard of care in his treatment of Dr. Cox.

10. I believe Dr. Bhatti's standard-of-care violations caused injury to Dr. Cox.

Qualifications

11. I am more than 18 years old, suffer from no legal disabilities, and give this affidavit based upon my own personal knowledge and belief.

12. I do not recite my full qualifications here. I recite them only to the extent necessary to establish my qualifications for purposes of expert testimony under OCGA 24-7-702.

13. However, my Curriculum Vitae is attached hereto as Exhibit "A." My CV provides further detail about my qualifications. I incorporate and rely on that additional information here.

14. The acts or omissions at issue here occurred in February 2018.

15. I am qualified to provide expert testimony pursuant to OCGA 24-7-702. That is:

a. In February 2018, I was licensed by an appropriate regulatory agency to practice my profession in the state in which I was practicing or teaching in the profession.

   Specifically, in 2018 I was licensed by the State of Florida to practice medicine. That's where I was practicing medicine in February 2018.

b. In February 2018, I had actual professional knowledge and experience in the area of practice or specialty which my opinions relate to — specifically, the areas of:

   - Performing discectomies at all levels of the human spine and choosing the appropriate approach to the surgery,

   - Consulting with patients about potential surgeries and disclosing the risks of the surgical approach and disclosing the surgeon's level of experience with the chosen approach.

c. I had this knowledge and experience as the result of having been regularly engaged in the active practice of the foregoing areas of specialty of my profession for at least three of the five years prior to February 2018, with sufficient frequency to establish an appropriate level of knowledge of the matter my opinions address.

   Specifically, I completed a four-year residency in orthopedic surgery in 1989 at the Medical College of Virgina. I then completed a one-year fellowship in spine surgery at Thomas Jefferson University Hospital and Pennsylvania Hospital in Philadelphia. I am Board Certified in orthopedic surgery.

   I have been practicing as a spine surgeon continuously since at least 1990. While thoracic discectomies are rare, I have performed multiple thoracic discectomies, and many cervical and lumbar discectomies. I am familiar with the criteria for evaluating and choosing the approach (anterior, lateral, posterior, etc.) for a discectomy at any level of the spine.

Summary of Opinions

16. I believe Dr. Bhatti violated the applicable standards of care in the following principal respects:

a. by choosing an unnecessarily risky operation — namely, a thoracic discectomy and decompression of the spinal cord from a posterior/laminectomy approach — despite the availability of safer alternatives,

b. by failing to inform Dr. Cox of the unnecessarily heightened risks from the surgical approach Dr. Bhatti intended to use,

c. by failing to insert a drain to remain in place at the end of the discectomy operation, to prevent formation of a hematoma at the surgical site, and

d. by failing to keep proper medical records.

17. I believe Dr. Bhatti's standard-of-care violations caused Dr. Cox to suffer neurological damage.

Evidence Reviewed

18. I have reviewed medical records from Piedmont Hospital, Atlanta Spine Center, PC, Wellstar Kennestone Hospital, and Wellstar Neurology concerning Mr. Cox's thoracic discectomy and subsequent complications.

19. I have also been told Dr. Cox's account of his pre-surgery consultations with Dr. Bhatti. For purposes of this affidavit, I accept that account as accurate, though I do not purport to have first-hand knowledge of those consultations – beyond what I can read in the medical records. I understand, of course, that Dr. Bhatti may dispute Dr. Cox's account, and that the law empowers the jurors to decide the truth of the matter.

20. I include parenthetical page references to the medical records from which I draw the facts of Dr. Cox's medical treatment.

Discussion and Factual Basis for Opinion

21. Generally, spine surgery is a major medical operation and all medical providers involved must act with diligent care in all matters related to the surgery — including among other things, planning for the surgical approach, informing the patient of significant risks, and keeping accurate medical records.

22. On 10/11/2017, Dr. Cox underwent a thoracic spine MRI scan that showed a large T9-10 disc/osteophyte complex protruding into the spinal canal and causing severe spinal cord compression. (NECI 1-2.)

IMPRESSION:
1. T9-T10 large right paracentral disc and osteophyte complex impressing on the cord and deviating it to the right with partial loss of the internal CSF space. Correlate clinically.

23. On 2/5/2018, Dr. Cox had his first office visit with Dr Bhatti. Dr. Bhatti noted that Dr. Cox had symptoms for over 24 months. Symptoms included back pain and limited endurance when walking. On examination Dr. Cox was kyphotic and had no evidence of myelopathy: Strength, sensation, reflexes and bowel/bladder function were normal. (Atlanta Spine 18-22.)

breath, no coughing up blood, and no sleep apnea. He reports no abdominal pain, no nausea, no vomiting, no constipation, normal appetite, no diarrhea, not vomiting blood, no dyspepsia, and no GERD. He reports no incontinence, no difficulty urinating, no hematuria, and no increased frequency. He reports no muscle aches, no muscle weakness, no arthralgias/joint pain, no back pain, and no swelling in the extremities. He reports no

Gait is antalgic. NO obvious pelvic obliquity. Patient is able to rise on the toes. Patient is able to rock back on heels. Flexion-extension at the lumbar spine causes severe pain with extension. He has a kyphotic deformity in the spine and walks with his knees flexed to compensate. Palpation of the lumbar spine induces severe tenderness. Straight leg raise is negative. Femoral stretch is negative. Hip range of motion is full and pain-free. 5/5 strength in the EHL, FHL, GS, TA, quadriceps, hamstrings, hip flexors, and hip extensors. Sensation is intact to light touch, pain and temperature to the deep peroneal, superficial peroneal, tibial, and saphenous nerves. Achilles and quadriceps reflexes are normal.

24. Dr. Bhatti recommended surgery, noting "We will proceed with a Left T9-10 TLIF and PSIF with decompression of calcified disc fragment." (Atlanta Spine 21.)

MRI of the thoracic spine confirms a large disc osteophyte complex severely compressing the spinal cord at T9-T10. On the left-hand side there is calcification of the disc fragment with central canal stenosis with only 2-3 mm left spinal cord.

as given to the patient in the surgical packet. We will proceed with a Left T9-10 TLIF and PSIF with decompression of calcified disc fragment.

25. Dr. Bhatti's plan to perform a "T9-10 TLIF and PSIF" was unreasonable. That plan disregarded the important distinction between a lumbar discectomy and a thoracic discectomy.

26. A TLIF is a transforaminal *lumbar* interbody fusion.

27. The T9-10 level of the spine is in the thoracic, not the lumbar, spine.

28. The thoracic spine and the lumbar spine are different parts of the spine. The anatomy differs between the thoracic and lumbar spines. A discectomy in the thoracic spine presents unique risks to the spinal cord that do not apply to a discectomy in the lumbar spine.

29. Apart from being an oxymoron (because there is no such thing as a lumbar operation in the thoracic spine), Dr. Bhatti's reference to a "T9-10 TLIF" indicates that he approached this thoracic discectomy essentially as he would approach a lumbar discectomy.

30. Dr. Bhatti's plan to perform a PSIF was part of his disregard of the distinct risks posed by a thoracic discectomy, and was also unreasonable.

31. A PSIF is a posterior spinal instrumented fusion — in which a surgeon cuts away parts of the posterior vertebral body and uses hardware (screws and rods) to stabilize the spine.

32. A posterior approach is generally inappropriate for a thoracic discectomy, because it creates a heightened risk that the surgeon will injure the spinal cord during the surgery. Other approaches (lateral or anterior) are safer and therefore required, unless exigent circumstances rule them out.

33. The spinal cord runs through a canal in the middle of the spinal column. The vertebral discs lie anterior to the spinal cord (toward the patient's belly). The posterior vertebral bodies are toward the patient's back. So if a surgeon approaches a thoracic discectomy from the back, the surgeon must get past the spinal cord in order to reach the disc.

34. In the lumbar (low back) spine, a posterior approach may allow the surgeon to manipulate the neurologic structures without damage.

35. Since at least the early 2000's, spine surgeons have generally abandoned a posterior approach to a thoracic discectomy, because that approach frequently injures the spinal cord. Instead of a posterior approach, surgeons generally use an anterior or lateral approach.

36. Nothing in Dr. Cox's medical history excluded an anterior or lateral approach in his case, for a thoracic discectomy. (*See* Atlanta Spine 18-22.)

37. Dr. Bhatti's decision to use a "T9-10 TLIF and PSIF" violated the standard of care, because it was an unnecessarily dangerous procedure.

38. The standard of care also requires surgeons to inform their patients of important risks of a procedure and of alternatives to unnecessarily dangerous procedures.

39. Dr. Bhatti's office note from 2/5/2018 says he informed Dr. Cox of the risks of the procedure and gave Dr. Cox some informational papers. Nothing in Dr. Bhatti's note, however, specifically indicates that he informed Dr. Cox of the options for surgical approaches or that he informed Dr. Cox that a posterior approach created heightened, unnecessary danger of injuring Dr. Cox's spinal cord. (Atlanta Spine 21.)

The patient's symptoms are now affecting activities of daily living and they would like to proceed with surgery. After informed consent, and the risks and benefits of the procedure, which include but are not limited to bleeding, infection, damage to blood vessels and nerves, paralysis, cauda equina syndrome, problems with wound healing, hardware failure, need for revision surgery, anesthesia risks, and loss of life & limb, are explained; the patient would like to proceed with surgery. A detailed informed consent is signed with a copy placed in the chart as well as given to the patient in the surgical packet. We will proceed with a Left T9-10 TLIF and PSIF with decompression of calcified disc fragment.

40. Additionally, I understand that on Dr. Cox's account of the oral conversation, Dr. Bhatti did not inform Dr. Cox that a posterior approach to this surgery was unnecessarily dangerous and that safer alternatives were available. I further understand that on Dr. Cox's account, Dr. Cox would not have consented to this surgery, if Dr. Bhatti had informed him of this.

41. By failing to inform Dr. Cox of the dangers of a posterior approach and of the availability of safer alternatives, Dr. Bhatti violated the standard of care.

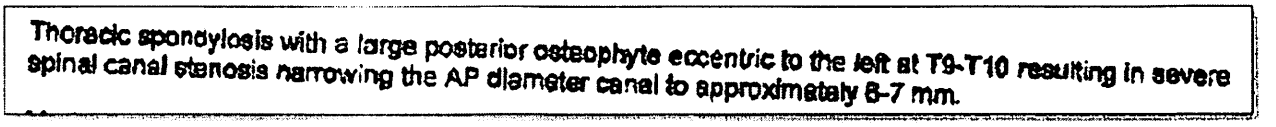
42. I understand that according to Dr. Cox, Dr. Bhatti claimed to have performed 20 or more surgeries like the one he proposed to perform on Dr. Cox.

43. If Dr. Bhatti indeed said that, and if Dr. Bhatti had not performed 20 or more thoracic discectomies, I would regard Dr. Bhatti's statement as misleading and as departing from the standard of care. For the reasons discussed above, a thoracic discectomy – and especially one from a posterior approach — differs too much from a cervical or lumbar discectomy to group them together when giving assurances to a patient about the surgeon's level of experience with thoracic discectomies.

44. On 2/13/2018, Dr. Cox had a second office visit with Dr. Bhatti. The record of that visit indicates that Dr. Bhatti still planned to go forward with a posterior approach to the thoracic discectomy. The record of that visit indicates that Dr. Bhatti repeated the standard-of-care violations from Dr. Cox's 2/5/2018 visit. (The 2/13 office note appears largely to be a copy-and-paste of the 2/5 office note, including the typographical errors.) (Atlanta Spine 14-18.)

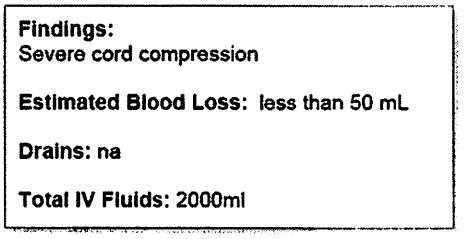
45. Dr. Bhatti ordered a CT of Dr. Cox's thoracic spine. The CT was done on 2/22/2018. (Atlanta Spine 24-25.)

46. The CT scan of the thoracic spine showed a large calcified disc herniation at T9-10 narrowing the AP diameter of the spinal canal to approximately 6-7 mm. (Atlanta Spine 24-25.)


Thoracic spondylosis with a large posterior osteophyte eccentric to the left at T9-T10 resulting in severe spinal canal stenosis narrowing the AP diameter canal to approximately 6-7 mm.

47. Dr. Bhatti performed the surgery on 2/28/2018. (PDH 11-12.)

48. According to the medical records, Dr. Bhatti did not insert a drain to prevent the post-surgical accumulation of fluids in the surgical site. Dr. Bhatti's Op Note excludes any reference to a drain, except to note, "Drains: na." (PDH 11-12.)


Findings:
Severe cord compression

Estimated Blood Loss: less than 50 mL

Drains: na

Total IV Fluids: 2000ml

49. The standard of care required Dr. Bhatti to insert a drain to prevent a hematoma from forming at the surgical site.

50. It appears from the records that Dr. Bhatti wrote and filed his Operative Report before he performed the operation. Dr. Bhatti's Op Note states:

"Date of Service: 2/28/2018 10:35 AM"

"Filed: 2/28/2018 10:43 AM" (PDH 11)

"Electronically signed by Harvinder S. Bhatti, MD on 2/28/2018 10:43 AM" (PDH 12)

Op Note by Harvinder S Ihatti, MD at 2/28/2018 10:35 AM

Author: **Harvinder S Ihatti, MD**	Service: **Orthopedics**	Author Type: **Physician**
Filed: **2/28/2018 10:43 AM**	Date of Service: **2/28/2018 10:35 AM**	Status: **Signed**
Editor: **Harvinder S Ihatti, MD (Physician)**		

Electronically signed by Harvinder S Ihatti, MD on 2/28/2018 10:43 AM

51. The detailed anesthesia records, however, say the procedure started at 1130 hrs. (PDH 87.)

Anesthesia Encounter - Episode ID 22570465 (continued)

Events (continued)

Date	Time	Event
	1034	Start Data Collection
	1044	Induction
	1045	Intubation
	1045	Patient Ready for Procedure
	1111	Transfer/Handoff per Department Guidelines Case Identifiers — Fluids/EBL/UOP Staff - MD/Anesthetist — Blood Product Status/Current La PMH - ASA Status/Allergies — PONV/Relaxants/Abx/Pain Med Mental Status/Sleep Apnea — Drugs/Infusions Contact Precautions — Post Op Plans/PACU/ICU/Airwa Anesthesia type/Airway — Physiological Goals/Monitoring Intra-Op problems — Surgeon's Requests IVs/Lines/Devices — Questions/Concerns Addressed
	1129	Time Out Performed
	1130	Procedure Start
	1132	upper warm air on
	1342	Begin Emergence
	1351	Procedure End
	1358	Extubation
	1405	Stop Data Collection
	1405	Transport to PACU/Phase 2 Patient transported to PACU/Phase 2 with oxygen and appropri (Some patients are recovered in the same area as the procedur transported).
	1409	Anesthesia Stop
	1409	Transfer/Handoff to PACU/Phase 2 per Department Guidelines

52. It thus appears that Dr. Bhatti wrote and filed his Op Note before he started the procedure.

53. The integrity and accuracy of medical records affects patient safety. Medical providers rely on a patient's prior medical records for information about the patient's medical history. Inaccurate or incomplete medical records can lead to

medical error that hurts the patient. Doctors must therefore exercise diligence and care in creating medical records.

54. Dr. Bhatti's Op Note omitted any direct discussion of a laminectomy, but documentation by a technologist referred to the procedure as involving a "laminectomy with a removal of a bone spur." (*Compare* PDH 11-12 *with* PDH 503.)

55. Dr. Bhatti's Op Note stated that Dr. Cox "awoke neurovascularly intact," but Dr. Bhatti could not know that to be true when he wrote the Op Note (before he performed the surgery). (PDH 11.)

56. By writing and filing his Op Note before he performed the operation, Dr. Bhatti violated the standard of care.

57. As noted above, Dr. Bhatti violated the standard of care by choosing an unnecessarily dangerous procedure, failing to inform Dr. Cox of the risks, and by failing to keep reasonably accurate medical records.

58. I believe these standard-of-care violations caused Dr. Cox to suffer injury to his spinal cord that in turn causes serious neurological harms.

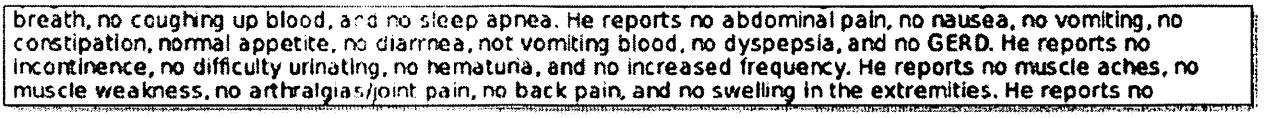
59. I believe that during the T9-10 "TLIF" and PSIF, Dr. Bhatti injured Dr. Cox's spinal cord.

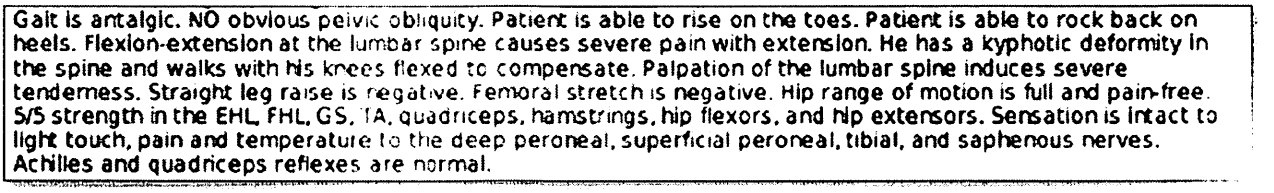
60. Before that surgery, Dr. Bhatti's neurological exam of Dr. Cox indicated no permanent spinal cord injury, but only symptoms consistent with spinal canal stenosis caused by a herniated disc. Thus, on 2/5/2018, Dr. Bhatti noted:

> "The patient denies any bowel or bladder dysfunction. ... He reports no incontinence, no difficulty urinating, no hematuria, and no increased frequency. He reports no ... muscle weakness.... Gait is antalgic. ... Patient is able to rise on the toes. Patient is able to rock back on heels. ... 5/5 strength in the EHL, FHL, GS, TA, qudricepts, hamstrings, hip flexors, and hip extensors. Sensation is intact to light touch, pain and

temperature to the deep peroneal, superficial peroneal, tibial, and saphenous nerves. Achilles and quadriceps reflexes are normal."

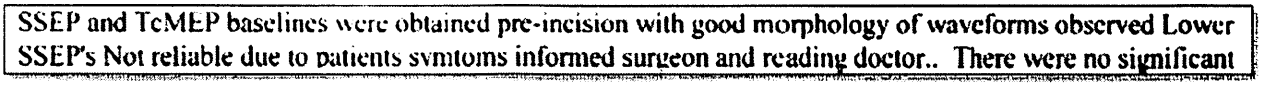
(Atlanta Spine 20.)


breath, no coughing up blood, and no sleep apnea. He reports no abdominal pain, no nausea, no vomiting, no constipation, normal appetite, no diarrhea, not vomiting blood, no dyspepsia, and no GERD. He reports no incontinence, no difficulty urinating, no hematuria, and no increased frequency. He reports no muscle aches, no muscle weakness, no arthralgias/joint pain, no back pain, and no swelling in the extremities. He reports no


Gait is antalgic. NO obvious pelvic obliquity. Patient is able to rise on the toes. Patient is able to rock back on heels. Flexion-extension at the lumbar spine causes severe pain with extension. He has a kyphotic deformity in the spine and walks with his knees flexed to compensate. Palpation of the lumbar spine induces severe tenderness. Straight leg raise is negative. Femoral stretch is negative. Hip range of motion is full and pain-free. 5/5 strength in the EHL, FHL, GS, TA, quadriceps, hamstrings, hip flexors, and hip extensors. Sensation is intact to light touch, pain and temperature to the deep peroneal, superficial peroneal, tibial, and saphenous nerves. Achilles and quadriceps reflexes are normal.

61. Dr. Bhatti's office note on 2/13 repeated these findings. (Atlanta Spine 17.)

62. For the surgery, intra-operative monitoring included somatosensory evoked potential (SSEP) recordings. However, the technician's report states, "Lower SSEP's not reliable due to patients symtoms informed surgeon and reading doctor." (PDH 510.)


SSEP and TcMEP baselines were obtained pre-incision with good morphology of waveforms observed Lower SSEP's Not reliable due to patients symtoms informed surgeon and reading doctor.. There were no significant

63. On waking after the surgery, Dr. Cox had lost sensation and motor response in his right leg. The medical records reflect the following timeline:

1351 Procedure End (PDH 87)

1405 Transport to PACU/Phase 2 (PDH 87)

1409 Anesthesia Stop and Transfer/Handoff to PACU (PDH 87)

1410 Consciousness: level 0 (not conscious) (PDH 471)

1425 Consciousness: level 1 (rousable on calling) (PDH 471)

1445 Lethargic (PDH 469)

R Foot Dorsiflexion: Absent

R Foot Plantar Flexion: Absent

RLE Motor Response: No movement to painful stimulus

RLE Sensation: No sensation

RLE Motor Strength: None

(PDH 470)

1500 "Dr. Bhatti at bedside to evaluate patient. Pt still unable to fully feel (states it's 'numb') or move right lower extremity. STAT MRI ordered. Will continue to monitor." (PDH 74)

Row Name	1430	1425	1420	1415	1410
Consciousness	—	1 -JB	—	—	0 -JB

PACU - Wed February 28, 2018 (continued)

Row Name	1530	1515	1500	1445	1440
Assessment				flexion;Motor response;Sensation;Motor strength -JB	
R Foot Dorsiflexion	—	—	Absent -JB	Absent -JB	—
L Foot Dorsiflexion	—	—	Moderate -JB	Moderate -JB	—
R Foot Plantar Flexion	—	—	Absent -JB	Absent -JB	—
L Foot Plantar Flexion	—	—	Moderate -JB	Moderate -JB	—
RLE Motor Response	—	—	No movement to painful stimulus -JB	No movement to painful stimulus -JB	—
RLE Sensation	—	—	No sensation -JB	No sensation -JB	—
RLE Motor Strength	—	—	None -JB	None -JB	—
LLE Motor Response	—	—	Tremors -JB	Tremors -JB	—
LLE Sensation	—	—	Full sensation -JB	Full sensation -JB	—
LLE Motor Strength	—	—	Can overcome resistance -JB	Can overcome resistance -JB	—

OR Nursing by Jenifer Niscaise Burley, RN at 2/28/2018 3:00 PM

Author: Jenifer Niscaise Burley, RN | Service: Surgery | Author Type: Registered Nurse
Filed: 2/28/2018 3:20 PM | Date of Service: 2/28/2018 3:00 PM | Status: Signed
Editor: Jenifer Niscaise Burley, RN (Registered Nurse)

Dr. Bhatti at bedside to evaluate patient. Pt still unable to fully feel (states it's 'numb') or move right lower extremity. STAT MRI ordered. Will continue to monitor.

Electronically signed by Jenifer Niscaise Burley, RN on 2/28/2018 3:20 PM

64. The MRI was performed from 1617-1650 hrs and revealed increased epidural tissue at the T9-10 level and noted "epidural hemorrhage is the most likely etiology." (PDH 140.)

Opinion:
1. Recently status post T9-T10 surgery. Increased epidural soft tissue at the T9-T10 level as detailed above with high-grade narrowing of the spinal canal and compression and signal alteration of the thoracic cord. Given recent surgery, epidural hemorrhage is the most likely etiology.

65. After the MRI, Dr. Bhatti performed a second surgery, documented as having a Date of Service of 2/28/2018 at 1923 hrs. (PDH 12.)

Op Note by Harvinder S Ihatti, MD at 2/28/2018 7:23 PM

Author: Harvinder S Ihatti, MD | Service: Orthopedics | Author Type: Physician
Filed: 3/1/2018 8:41 AM | Date of Service: 2/28/2018 7:23 PM | Status: Signed
Editor: Harvinder S Ihatti, MD (Physician)

Exploration Procedure Note

Indications: The patient had weakness in RLE after surgery. MRI was urgently performed and confirmed a possible post operative hematoma. This was confirmed with the radiologist on call. I discussed the options with the patient. At this point we would like to return to the OR and decompress the cord with an exploration of the hematoma and ID.

66. In the Op Note for that operation, Dr. Bhatti noted that he had evacuated a hematoma compressing the spinal cord at T9-10. (PDH 12.)

Op Note by Harvinder S Ihatti, MD at 2/28/2018 7:23 PM (continued)

An epidural hematoma was found on the right which was decompressed, it moderately compressed the cord and thecal sac. Hemostasis was achieved. This was concordant with the MRI scan.

67. After the hematoma evacuation, Dr. Cox continued to suffer the same symptoms in his right leg, and he suffered symptoms of a neurogenic bladder. For example:

2120

R Foot Dorsiflexion: Absent

R Foot Plantar Flexion: Absent

RLE Motor Response: Flaccid

RLE Sensation: No sensation

RLE Motor Strength: None

(PDH 466.)

2129 Placement of urethral catheter (PDH 77)

2135

R Foot Dorsiflexion: Absent

R Foot Plantar Flexion: Absent

RLE Motor Response: Flaccid

RLE Sensation: No sensation

RLE Motor Strength: None

(PDH 466)

2150 Same (*Id.*)

2205 Same (PDH 463-64)

2230 Same (*Id.*)

2300 Same (*Id.*)

PACU - Wed February 28, 2018 (continued)

Row Name	2150	2135	2120
R Foot Dorsiflexion	Absent -AB	Absent -AB	Absent -AB
L Foot Dorsiflexion	Strong -AB	Strong -AB	Strong -AB
R Foot Plantar Flexion	Absent -AB	Absent -AB	Absent -AB
L Foot Plantar Flexion	Strong -AB	Strong -AB	Strong -AB
RUE Motor Response	Responds to commands -AB	Responds to commands -AB	Responds to commands -AB
RUE Sensation	Full sensation -AB	Full sensation -AB	Full sensation -AB
RUE Motor Strength	Normal power -AB	Normal power -AB	Normal power -AB
LUE Motor Response	Responds to commands -AB	Responds to commands -AB	Responds to commands -AB
LUE Sensation	Full sensation -AB	Full sensation -AB	Full sensation -AB
LUE Motor Strength	Normal power -AB	Normal power -AB	Normal power -AB
RLE Motor Response	Flaccid -AB	Flaccid -AB	Flaccid -AB
RLE Sensation	No sensation -AB	No sensation -AB	No sensation -AB
RLE Motor Strength	None -AB	None -AB	None -AB

PACU - Wed February 28, 2018

Row Name	2330	2300	2230	2215	2205
R Foot Dorsiflexion	—	Absent -AB	Absent -AB	—	Absent -AB
L Foot Dorsiflexion	—	Strong -AB	Strong -AB	—	Strong -AB
R Foot Plantar Flexion	—	Absent -AB	Absent -AB	—	Absent -AB
RLE Motor Response	—	Flaccid -AB	Flaccid -AB	—	Flaccid -AB
RLE Sensation	—	No sensation -AB	No sensation -AB	—	No sensation -AB
RLE Motor Strength	—	None -AB	None -AB	—	None -AB

68. Dr. Cox continued to suffer severe neurological deficits, particularly in his right leg and in bladder dysfunction. For example, a 3/1/2018 Therapy Note at 1344 hrs notes "severe deficits" in sensation for Dr. Cox's right leg and notes bowel and bladder function "impaired." (PDH 69.)

Therapy Note by Katey Durham, PT at 3/1/2018 1:44 PM (continued)

Neuro Assessment:

Sensation
Light Touch: Severe deficits in the RLE;Partial deficits in the LLE
Bowel and Bladder Function: Impaired (Foley removed just prior to session for trial)
Proprioception
Proprioception: Partial deficits in the LLE;Partial deficits in the RLE
Balance Assessment
Sitting Balance: Static;2/5 supports self independently with both UEs

Upper and Lower Extremity and Spine Assessment:

RLE Assessment
RLE Assessment: Exceptions to WFL
Strength RLE
R Hip Flexion: 1/5
R Hip Internal Rotation: 1/5
R Hip External Rotation: 1/5
R Knee Flexion: 0/5
R Knee Extension: 0/5
R Ankle Dorsiflexion: 0/5
R Ankle Plantar Flexion: 0/5

69. Dr. Cox continued to suffer neurological deficits. He remained at Piedmont Hospital for several days and was then transferred to a rehabilitation facility, where he remained as an in-patient for appromately three months. Within two weeks of discharge from the rehabilitation hospital, on May 31, 2018, Dr. Cox went to Wellstar Kennestone Hospital's emergency room with "unbearable" pain relating to bowel dysfunction. (*See* WKH 129-30, 136-37.)

History & Physicals (continued)

H&P by John J Han, DO at 5/31/2018 7:10 AM (continued)

MRI imaging urgently was done that revealed the patient to have osteophyte complex / epidural hemorrhage compressing the spinal cord on the right at T9-10 requiring emergent evacuation of the hematoma site.

The patient suffered several infections during his hospital course and was eventually transferred to Good Sheppard Rehab for approximately 3 months where he has been.

He was discharged 2 weeks ago from there and has been home ever since.

On this present admission, the wife notes that that patient over the past several days has been complaining of obstipation / abdominal pain / distension despite supportive measures done ie. Enemas/etc. The patient states also that the abdominal pain was "unbearable," that he became pale, light headed / dizzy / fatigued and sought evaluation.

70. On July 14, 2018, Dr. Cox was examined at Wellstar Kennestone Hospital by Dr. William Benedict, a neurosurgeon. Dr. Benedict diagnosed Dr. Cox as suffering from a neurogenic bladder and spastic paraparesis. (WKH pages 605-606.)

Consult Notes (continued)

Consults by William J Benedict Jr., MD at 7/14/2018 4:49 PM (continued)

procedure was done for infection. He has had a spastic paraparesis since his surgery in February 2018.

The patient has a neurogenic bladder, requiring self catheterization at times. In addition to the infection

71. On August 29, 2018, Dr. Benedict again examined Dr. Cox. Dr. Benedict concluded that Dr. Bhatti improperly used a posterior approach to the thoracic discectomy he performed on Dr. Cox. Dr. Benedict further concluded that Dr. Bhatti injured Dr. Cox's spinal cord during the surgery, and that Dr. Cox would suffer permanent neurological deficits:

The patient and his wife seem to have poor insight concerning the patient's condition and how he got this way. He suffered a spinal cord injury at surgery. The cause of this is unclear to me. The patient suggests that he could not move his legs after the fusion and he was taken back soon after that procedure for

n 1/28/19 4:08 PM Page 15

WellStar Neuro 0016

All Notes (continued)

Progress Notes by William J Benedict Jr., MD at 8/29/2018 2:30 PM (continued)

hematoma evacuation. Of concern is that this patient had a discectomy procedure from posterior through a laminectomy, not a costotransversectomy or transpedicular decompression as would be expected. If these procedures cannot be done by a surgeron, an anterior approach is recommended for calcified disc material causing thoracic spinal cord compression.

- I was clear with the patient that I do not expect a "complete recovery" as he was told by his ortho spine surgeon. He has significant spinal cord myelomalacia. He has a neurogenic bladder and significant lower extremity deficits. He will likely recover more function with time, but I expect persistent sensory and motor dysfunction (probably spasticity).

(WellStar Neuro 16-17.)

72. I agree with the conclusions stated in Dr. Benedict's note.

73. I believe it is most likely that Dr. Bhatti injured Dr. Cox's spinal cord during the thoracic discectomy, because of Dr. Bhatti's use of a posterior approach.

74. I believe it is possible but less likely that the post-operative hematoma caused Dr. Cox's permanent neurological damage. However, the post-op hematoma likely would not have formed if Dr. Bhatti had inserted a drain, so any injury caused by the hematoma was in turn caused by the failure to place a drain. If Dr. Bhatti did not injure the spinal cord during the discectomy/decompression surgery, then Dr. Bhatti's failure to place a post-surgical drain caused the injury to Dr. Cox.

75. In short, I believe Dr. Bhatti violated the standard of care, and that this violation caused injury to Dr. Cox's spinal cord, which in turn causes Dr. Cox to suffer serious neurological deficits.

Miscellaneous

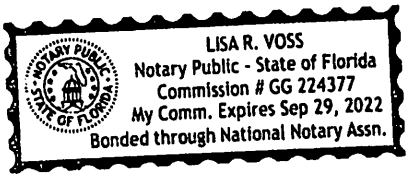
76. To repeat, this affidavit does not exhaust my current opinions and of course does not reflect any opinions I may form later.

77. Again, I hold each opinion expressed in this affidavit to a reasonable degree of medical probability or certainty; that is, more likely than not.

Kalman D. Blumberg, MD

SWORN TO AND SUBSCRIBED before me

December 4, 2019



NOTARY PUBLIC

My Commission Expires:

CURRICULUM VITAE

Kalman D. Blumberg, M.D.

OFFICE

Florida Spine Specialists
6000 North Federal Highway
Ft. Lauderdale, FL 33308
Telephone: (954) 771-2551
Facsimile: (954) 771-2772
Cell: (954) 235-1161

Federal Tax I.D. No: 27-0949204
License No: ME0056059
NPI: 1346234796

PERSONAL

Born December 23, 1956 in Miami, Florida. Married with three children. Interests and hobbies include boating and fishing.

EDUCATION

Fellowship
Thomas Jefferson University Hospital & Pennsylvania Hospital; Philadelphia, Pennsylvania
Spine Surgery; July 1989 – July 1990

Residency
Medical College of Virginia; Richmond, Virginia
Department of Orthopaedics and Rehabilitation
Orthopaedic Surgery; July 1985 – June 1989

Internship
Medical College of Virginia; Richmond, Virginia
Department of Surgery
General Surgery; July 1984 – June 1985

Doctor of Medicine
University of Miami School of Medicine
Miami, Florida; August 1980 – June 1984

Bachelor of Science, Engineering
Tulane University
New Orleans, Louisiana; August 1978 – May 1980

Technion
Israeli Institute of Technology
Haifa, Israel; July 1977 – July 1978

EDUCATION (Cont.)

University of Florida
Gainesville, Florida; July 1976 – July 1977

Vanderbilt University
Nashville, TN; July 1974 – July 1975

CERTIFICATION AND LICENSURE

Diplomate, American Board of Orthopaedic Surgery
MOC current 2014
Fellow, American College of Surgeons
Licensed in Florida, Virginia, and Pennsylvania

PROFESSIONAL APPOINTMENTS

Broward General Medical Center
Holy Cross Hospital
Imperial Point Medical Center

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Medical Association
Broward County Medical Association
Broward County Orthopaedic Society
Caducean Society of Greater Fort Lauderdale
Florida Medical Association
Florida Orthopaedic Society
North American Spine Society

NATIONAL PRESENTATIONS

Brooker-Wills vs. Russell-Taylor Femoral Nail; A Prospective Randomized Trail
Scientific Presentation American Academy of Orthopaedic Surgeons; Atlanta, GA, 1988
Poster Exhibit American Academy of Orthopaedic Surgeons; Atlanta, GA, 1988

Brooker-Wills Femoral Nail; Technical Difficulties of Insertion
Orthopaedic Trauma Association Meeting; Baltimore, MD, November 1987

Femoral Intramedullary Rods; Clinical performance and Related Laboratory Testing
American Society for Testing Materials
Cincinnati, OH, May 1987

NATIONAL PRESENTATIONS, Continued

The Pullout Strength of Titanium Alloy MRI Compatible and Stainless Steel MRI Incompatible Gardner-Wells Tongs
Cervical Spine Research Society; San Antonio, TX, November 1990
Scientific Presentation American Academy of Orthopaedic Surgeons; Anaheim, CA, March 1990

PUBLICATIONS AND PRESENTATIONS

"The Brooker-Wills Femoral Nail: Technical Difficulties and Their Avoidance,"
Intramedullary Rods: Clinical Performance and Related Laboratory Testing, ASTM STP 1008, J.P. Harvey, A.U. Daniels and R.F. Games, Eds., American Society for Testing and Materials, Philadelphia, PA., 1989, pp. 119-129.
Kalman D. Blumberg, M.D.; G.A. Hanks,M.D.;
W.C.Foster, M.D.; J.A. Cardea, M.D.

"A Comparison of the Brooker-Wills and Russell-Taylor Nails in Fractures of the Femoral Shaft"
JBJS, No. 7, 72-A, pp. 1019-1024, 1990
Kalman D. Blumberg, M.D.; W.C. Foster, M.D.; J.F. Blumberg, et.al.

"Presentation and Treatment of Pyogenic Vertebral Osteomyelitis"
Symposium on Infections of the Spine, Seminars in Spine Surgery, accepted for publication, Dec. 1990.
Kalman D. Blumberg, M.D. and R.A. Balderston, M.D.

"Infection in Spine Surgery"
An, H., Balderston, R.A. (eds.): Complications of Spinal Surgery, accepted for publication.
Kalman D. Blumberg, M.D. and R.A. Balderston, M.D.

"Cervical Spondylitic Myelopathy, Surgical Indications"
Harry N. Herkowitz (ed.), Spine, 3rd Edition, accepted for publication.
Kalman D. Blumberg, M.D. and F.A. Simeone, M.D.

“The Effects of Mesenchymal Stem Cells on Cervical and Lumbar Fusions”
Poster at Society for Minimally Invasive Spine Surgery Annual meeting Miami, FL 9/2012
And at Orthopedic Research Society Annual Meeting San Antonio, TX 1/2013

HONORS AND AWARDS

Medical Doctor degree with research distinction from
University of Miami School of Medicine

Member of Tau Beta Phi National Engineering Honor Society

Cum laude honors Tulane University

Bachelor of Science Biomedical Engineering with Departmental Honors

RESEARCH

Medical College of Virginia
The Brooker-Wills Femoral Nail:
Technical Difficulties of Insertion
Brooker-Wills vs. Russell-Taylor Femoral Nail: A Prospective Randomized Trail

University of Miami School of Medicine
American Heart Association research grant
Lysyl Crosslinks and Arterial Mechanics
Desmosine and Pyridinoline Densities and the Biophysical Properties of Aortic Elastin and Collagen
Lysyl Crosslinks and heart valve leaflet biomechanics

Tulane University
Correlation of Brain Stem Auditory Evoked Potentials and Intracranial Pressure in Cats

Vanderbilt University
Design and Construction of EMG biofeedback Modules For Use in Rehabilitation of Stroke Patients

LECTURES

"Oh, My Aching Back"
Holy Cross Hospital Community Lecture Series, Ft. Lauderdale, FL
November 1996

Lecture Series, North Ridge Medical Center Community, Ft. Lauderdale, FL
September 1997

"Evaluation and Treatment of Low Back Disease"
Broward Association of Rehabilitation Nurses, Ft. Lauderdale, FL
September 1997

"HIV and Domestic Violence Updates 1997," North Ridge Medical Center
September 1997

"The Spine - Current Concepts of Treatment," Palm Beach, FL
September 1997

"Common Back Disorders," North Ridge Medical Center Community Lecture Series
Ft. Lauderdale, FL, March 1997

"Low Back Disease," Imperial Point Medical Center Lecture Series,
Ft. Lauderdale, FL, December 1996

"Arthritis Can Hit Even (if you're) Young," Tamarac, FL
October 1998

“Spine Surgery,” South Florida Case Managers, Hollywood, FL,

January 8, 2003

LECTURES, Continued

"Spine Surgery," B.A.R.N. Association Meeting
Drs. Jeffrey B. Cantor & Kalman D. Blumberg, February 18, 2003

"Spinal Stenosis," North Ridge Medical Center, Ft. Lauderdale, FL
March 24, 2003

"Spinal Stenosis," JM Family Enterprises, Deerfield Beach, FL
October 8, 2003

"Back Pain," Comcast Newsmakers, Ft. Lauderdale, FL
February 20, 2004

"Back Pain," Holy Cross Hospital, Dinner with the Doctors, Ft. Lauderdale, FL
March 10, 2004

"Back Pain," North Ridge Auditorium, Fort Lauderdale, FL
March 24, 2004

"New Techniques in Spine Surgery," Corvel, Ft. Lauderdale, FL
July 28, 2005

"Total Disk Replacement," North Ridge Medical Center, Ft. Lauderdale, FL
October 3, 2005

"Total Disk Replacement," Publix and Seniors, Ft. Lauderdale, FL
January 17, 2006

POST-GRADUATE COURSEWORK / CME

American Academy of Orthopaedic Surgeons Annual Meeting, Orlando, FL
February 1995

AIDS Conference, Ft. Lauderdale, FL, April 1995

Domestic Violence, Ft. Lauderdale, FL, October 1995

Physicians Update: Risk Management, HIV/AIDS and Blood-borne Pathogens,
Ft. Lauderdale, FL, November 1995

Physicians Certification for Workers' Compensation, Ft. Lauderdale, FL
June 1996

Orthopaedic Trauma Association Annual Meeting, Boston, MA, September 1996

THE SPINE: Current Concepts and Treatment, Palm Beach, FL, September 18-21, 1997

Open and Minimally Invasive Surgery of the Lumbar and Thoracic Spine,

Memphis Tennessee, February, 1998.

POST-GRADUATE COURSEWORK / CME, Continued

Coding and Compliance for Spine Practices, Ft. Lauderdale, FL, March 1998

Current Concepts in Spinal Endoscopy, Memphis, TN., July 17, 1999

"15th Annual Meeting" of North American Spine Society, New Orleans, LA
October 25-28, 2000

Controversies & Challenges in Spinal Surgery, Naples, FL., December 9-10, 2000

North American Spine Society, Washington State Convention and Trade Center
November 1-3, 2001

Innovations, Challenges and Controversies in Spine Surgery, Jackson Hole, WY
July 27-28, 2001

"Inflatable Bone Tamp Technology," Kyphon, Sarasota Memorial Hospital, Sarasota, FL, January 11, 2002

"2000 Adult Spine Examination," American Association of Orthopaedic Surgeons, Rosemont, IL, April 29, 2002

"2000 Musculoskeletal Trauma Examination," American Association of Orthopaedic Surgeons, Rosemont, IL, April 29, 2002

"Emerging Concepts in Spine Surgery: Controversies and Challenges in the Spine Surgeon's Practice," Key Largo, FL., May 3-4, 2002

"Minimal Access Spinal Technologies Hands-on Lab", Memphis, TN, May 17, 2002

"ACSS Challenge of the Spine: A Comprehensive Neurosurgical Orthopedic Course," University of Texas Medical Branch, Galveston, TX, October 21, 2002

North American Spine Society, 18th Annual Meeting, San Diego, CA
October 21-25, 2003.

"2nd Annual Dynamic Spine Stabilization," Texas Health Research Institute
November 15, 2003

"Techniques for Fixation in the Cervical and Thoracic Spine," Fort Lauderdale, Florida December 5, 2003

"Innovative Techniques in Spine Surgery," Organization for Spinal Teaching and Research/Spine Technology Education Group, Los Cabos, Mexico, August 4-7, 2004

"Charite' Artificial Disc Comprehensive Training Program," Endo-Surgery Institute, Center for Spine Arthroplasty, Cincinnati, Ohio, November 10, 2004.

"Medical Error Prevention and Root Cause Analysis," CME Resource, February, 2006

POST-GRADUATE COURSEWORK / CME, Continued

"Domestic Violence: The Florida Requirement," CME Resource, February, 2006

"HIV/AIDS: Epidemic Update for Florida," CME Resource, February, 2006

"Eating Disorders," CME Resource, February, 2006

"Vaccinia: The Vaccine That Protects Against Smallpox," CME Resource February, 2006

"Patients Requiring Permanent Pacemakers," CME Resource, February, 2006

"Hepatitis Viruses," CME Resource, February, 2006

"A Review of Interventional Radiology," CME Resource, February, 2006

"Clinical Management of Atrial Fibrillation" CME Resource, February, 2006

"Care of the Pediatric Trauma Patient, CME Resource," April, 2008

"Clinical Management of Patients with Ventricular Arrhythmias," April, 2008

"HIV/AIDS: Epidemic Update," CME Resource, April, 2008

"Medical Error Prevention and Root Cause Analysis," CME Resource, April, 2008

"Domestic Violence: The Florida Requirement," CME Resource, April, 2008

"Medical Ethics for Physicians," CME Resource, April, 2008

"Sepsis: Diagnosis and Management," CME Resource, April, 2008

"Pain Management, Palliative Care and Treatment of the Terminally Ill, " April, 2008"

2009 Annual Meeting, American Association of Orthopaedic Surgeons, Las Vegas, NV, February 25-28, 2009

Federation of Spine Associations, Las Vegas, NV, February 28, 2009

American Association of Orthopaedic Surgeons, "EMR and Other Technologies – Revolutionary Change in Orthopaedic Practice," June 11-13, 2010

American Association of Orthopaedic Surgeons, "Adult Spine Scored and Recorded Self-Assessment Examination of 2009," August 15, 2010

North American Spine Society – 25th Annual Meeting, Orlando, FL, October 5-9, 2010

Cervical Spine Research Society – Instructional Course, Charlotte, NC, December 1,

2010

POST-GRADUATE COURSEWORK / CME, Continued

2010 Annual Meeting Cervical Spine Research Society, Charlotte, NC, December 2-4, 2010

American Association of Orthopaedic Surgeons, “Musculoskeletal Trauma Scored and Recorded Self-Assessment Examination,”December 5, 2010

American Association of Orthopaedic Surgeons, Board Maintenance of Certification™ Preparation and Review (East), November 17-19, 2011

“Orthbullets MOC Daily Study Plans,” CME Resource, September, 2013

“#91331 Medical Error Prevention and Root Cause Analysis,” CME Resource, November, 2013