IN THE STATE COURT OF DEKALB COUNTY
STATE OF GEORGIA

YOLANDA RATCHFORD, PLAINTIFF, — *VERSUS* — EMORY UNIVERSITY, EMORY HEALTHCARE, INC, THE EMORY CLINIC, INC, OLAMIDE ALABI, MD, GALIMAT KHAIDAKOVA, MD, RONALD CHANG, MD, MILAD SHARIFPOUR, MD, PAULA LAY, NP, ALEXANDER KOSIAK, MD, TYLER HALL, RN, SHAQUIRA HALL, RN, KEERA PRICE, RN, AMN HEALTHCARE, INC, VERONICA HARSANY, RN, AND JOHN/JANE DOES 1-10, DEFENDANTS	CIVIL ACTION FILE NO. 23A01196 JURY TRIAL DEMANDED

PLAINTIFF'S COMPLAINT FOR DAMAGES

STATE COURT OF
DEKALB COUNTY, GA.
3/20/2023 1:10 PM
E-FILED
BY: Monica Gay

Nature of this Action

1. This medical malpractice action arises out of medical and nursing care negligently provided to Yolanda Ratchford on March 26 and 27, 2021.

2. Plaintiff hereby asserts claims of professional negligence against each of the Defendants, either directly or variously. In addition, this Complaint asserts claims of ordinary negligence against each of the corporate Defendants.

3. As used here, "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 Defendants' actions here.

4. Pursuant to OCGA § 9-11-9.1, the affidavits of Tejas Shah, MD, Eric Gluck, MD, and Judith Climenson, RN, are attached as Exhibits 1-3, respectively.

5. This Complaint incorporates the opinions and allegations found in those affidavits. Plaintiff also stipulates that Defendants need not respond to:

- anything contained in the exhibits or attachments to this Complaint,
- statements that are not made in numbered allegations, including footnotes, except where a numbered allegation explicitly incorporates accompanying matter that is not in a numbered paragraph, and
- citations to Bates-stamped pages of records or to graphics or screenshots that accompany allegations (which are included to make it easy to respond to the allegations, but are not part of the allegations).

Parties, Jurisdiction, and Venue

6. **Plaintiff YOLANDA RATCHFORD** is a citizen and resident of Alabama. Plaintiff submits to the personal jurisdiction and venue of this Court.

7. **EMORY UNIVERSITY ("EU")** is a Georgia nonprofit corporation. Its Registered Agent is Amy Adelman. Its physical address is 201 Dowman Drive, 312 Administration Building, Atlanta, GA, 30322, in DeKalb County. Its principal office

address is 505 Kilgo Circle NE, 300 Convocation Hall, Atlanta, GA 30322, in DeKalb County.

8. **EU** is subject to the personal jurisdiction of this Court.

9. **EU** is subject to the subject matter jurisdiction of this Court in this case.

10. **EU** is directly subject to venue[1] in this Court because its principal office is in DeKalb County.

11. **EU** has been properly served with this Complaint.

12. **EU** has no defense to this lawsuit based on undue delay — whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

13. At all times relevant to this Complaint, **EU** was the parent corporation of Emory University Hospital. **EU** thus provided overall coordination (including governance) to Emory University Hospital.

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[1] OCGA §§ 14-2-510 and 14-3-510 provide identical venue provisions for regular business corporations and for nonprofit corporations:

> "Each domestic corporation and each foreign corporation authorized to transact business in this state shall be deemed to reside and to be subject to venue as follows: (1) In civil proceedings generally, in the county of this state where the corporation maintains its registered office…. (3) In actions for damages because of torts, wrong, or injury done, in the county where the cause of action originated, if the corporation has an office and transacts business in that county; (4) In actions for damages because of torts, wrong, or injury done, in the county where the cause of action originated."

These same venue provisions apply to Professional Corporations, because PCs are organized under the general "Business Corporation" provisions of the Georgia Code. *See* OCGA § 14-7-3.

These venue provisions also apply to Limited Liability Companies, *see* OCGA § 14-11-1108, and to foreign limited liability partnerships, *see* OCGA § 14-8-46.

OCGA 9-10-31 provides that, "joint tort-feasors, obligors, or promisors, or joint contractors or copartners, residing in different counties, may be subject to an action as such in the same action in any county in which one or more of the defendants reside."

14. At all times relevant to this Complaint, **EU** was the employer or other principal of Dr. Khaidakova, Dr. Chang, and Dr. Kosiak. If another entity was the employer or other principal of one or more of those Defendants during those times, that entity is hereby on notice that, but for a mistake concerning the identity of the proper party, this action would have been brought against that entity.

15. **EMORY HEALTHCARE, INC. ("EHI")** is a Georgia nonprofit corporation. Its Registered Agent is Amy Adelman. Its physical address is 201 Dowman Drive, 312 Administration Building, Atlanta, GA, 30322, in DeKalb County. Its principal office address is 201 Dowman Drive, 101 Administration Building, Atlanta, GA, 30322, in DeKalb County.

16. **EHI** is subject to the personal jurisdiction of this Court.

17. **EHI** is subject to the subject matter jurisdiction of this Court in this case.

18. **EHI** is directly subject to venue in this Court because its principle office is in DeKalb County.

19. **EHI** has been properly served with this Complaint.

20. **EHI** has no defense to this lawsuit based on undue delay — whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

21. At all times relevant to this Complaint, **EHI** was the parent corporation of Emory University Hospital. **EHI** thus provided overall coordination (including governance) to Emory University Hospital.

22. At all times relevant to this Complaint, **EHI** was the employer or other principal of NP Lay, RN Tyler Hall, RN Shaquira Hall, and RN Price. If another entity was the employer or other principal of one or more of those Defendants during those times, that entity is hereby on notice that, but for a mistake concerning the identity of the proper party, this action would have been brought against that entity.

23. **THE EMORY CLINIC, INC. ("ECI")** is a Georgia nonprofit corporation. Its Registered Agent is Amy Adelman. Its physical address is 201 Dowman Drive, 312

Administration Building, Atlanta, GA, 30322, in DeKalb County. Its principal office address is 1365 Clifton Rd NE, Atlanta, GA, 30322, in DeKalb County.

24. **ECI** is subject to the personal jurisdiction of this Court.

25. **ECI** is subject to the subject matter jurisdiction of this Court in this case.

26. **ECI** is directly subject to venue in this Court because its principal office is in DeKalb County.

27. **ECI** has been properly served with this Complaint.

28. **ECI** has no defense to this lawsuit based on undue delay — whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

29. At all times relevant to this Complaint, **ECI** was the employer or other principal of Dr. Alabi, Dr. Chang, and Dr. Sharifpour. If another entity was the employer or other principal during those times, that entity is hereby on notice that, but for a mistake concerning the identity of the proper party, this action would have been brought against that entity.

30. **OLAMIDE ALABI, MD,** is a Georgia resident. She resides at 2233 Peachtree Rd, NE, Unit 901, Atlanta, GA 30309, in Fulton County.

31. **Dr. Alabi** is subject to the personal jurisdiction of this Court.

32. **Dr. Alabi** is subject to the subject matter jurisdiction of this Court in this case.

33. Pursuant to OCGA § 9-10-31, **Dr. Alabi** is subject to venue in this Court, because at least one of her co-defendants is directly subject to venue here.

34. **Dr. Alabi** has been properly served with this Complaint.

35. **Dr. Alabi** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

36. At all times relevant to this Complaint, **Dr. Alabi** acted as an employee or other agent of ECI.

37. **GALIMAT KHAIDAKOVA, MD,** is an Alaska resident. She resides at 7817 Brentwood Dr, Anchorage, AK 99502, in Anchorage County.

38. **Dr. Khaidakova** is subject to the personal jurisdiction of this Court.

39. **Dr. Khaidakova** is subject to the subject matter jurisdiction of this Court in this case.

40. Pursuant to OCGA § 9-10-31, **Dr. Khaidakova** is subject to venue in this Court because one or more of her co-defendants is directly subject to venue here.

41. **Dr. Khaidakova** has been properly served with this Complaint.

42. **Dr. Khaidakova** has no defense to this lawsuit based on undue delay — whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

43. At all times relevant to this Complaint, **Dr. Khaidakova** acted as an employee or other agent of EU.

44. **RONALD CHANG, MD,** is a Texas resident. He resides at 518 Kingfisher Dr, Sugar Land, TX 77478, in Fort Bend County.

45. **Dr. Chang** is subject to the personal jurisdiction of this Court.

46. **Dr. Chang** is subject to the subject matter jurisdiction of this Court in this case.

47. Pursuant to OCGA § 9-10-31, **Dr. Chang** is subject to venue in this Court because one or more of his co-defendants is directly subject to venue here.

48. **Dr. Chang** has been properly served with this Complaint.

49. **Dr. Chang** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

50. At all times relevant to this Complaint, **Dr. Chang** acted as an employee or other agent of EU or ECI.

51. **MILAD SHARIFPOUR, MD,** is a California resident. He resides at 640 S Curson Ave, Apt 605, Los Angeles, CA 90036, in Los Angeles County.

52. **Dr. Sharifpour** is subject to the personal jurisdiction of this Court.

53. **Dr. Sharifpour** is subject to the subject matter jurisdiction of this Court in this case.

54. Pursuant to OCGA § 9-10-31, **Dr. Sharifpour** is subject to venue in this Court because one or more of his co-defendants is directly subject to venue here.

55. **Dr. Sharifpour** has been properly served with this Complaint.

56. **Dr. Sharifpour** has no defense to this lawsuit based on undue delay — whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

57. At all times relevant to this Complaint, **Dr. Sharifpour** acted as an employee or other agent of ECI.

58. **PAULA LAY, NP,** is a Georgia resident. She resides at 309 Forest Pointe Dr, Forsyth, GA 31029, in Monroe County.

59. **NP Lay** is subject to the personal jurisdiction of this Court.

60. **NP Lay** is subject to the subject matter jurisdiction of this Court in this case.

61. Pursuant to OCGA § 9-10-31, **NP Lay** is subject to venue in this Court because one or more of her co-defendants is directly subject to venue here.

62. **NP Lay** has been properly served with this Complaint.

63. **NP Lay** has no defense to this lawsuit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

64. At all times relevant to this Complaint, **NP Lay** acted as an employee or other agent of EHI.

65. **ALEXANDER KOSIAK, MD,** is an Ohio resident. He resides at 1947 E 85th St, Cleveland, OH 44106, in Cuyahoga County.

66. **Dr. Kosiak** is subject to the personal jurisdiction of this Court.

67. **Dr. Kosiak** is subject to the subject matter jurisdiction of this Court in this case.

68. Pursuant to OCGA § 9-10-31, **Dr. Kosiak** is subject to venue in this Court because one or more of his co-defendants is directly subject to venue here.

69. **Dr. Kosiak** has been properly served with this Complaint.

70. **Dr. Kosiak** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

71. At all times relevant to this Complaint, **Dr. Kosiak** acted as an employee or other agent of EU.

72. **Tyler Hall, RN,** is a Georgia resident. He resides at 5130 Akbar Chase, Atlanta, GA 30339, in Cobb County.

73. **RN Tyler Hall** is subject to the personal jurisdiction of this Court.

74. **RN Tyler Hall** is subject to the subject matter jurisdiction of this Court in this case.

75. Pursuant to OCGA § 9-10-31, **RN Tyler Hall** is subject to venue in this Court because one or more of his co-defendants is directly subject to venue here.

76. **RN Tyler Hall** has been properly served with this Complaint.

77. **RN Tyler Hall** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or other theory.

78. At all times relevant to this Complaint, **RN Tyler Hall** acted as an employee or other agent of EHI.

79. **SHAQUIRA HALL, RN,** is a Georgia resident. She resides at 3795 Butler Springs Dr, Loganville, GA 30052, in Gwinnett County.

80. **RN Shaquira Hall** is subject to the personal jurisdiction of this Court.

81. **RN Shaquira Hall** is subject to the subject matter jurisdiction of this Court in this case.

82. Pursuant to OCGA § 9-10-31, **RN Shaquira Hall** is subject to venue in this Court because one or more of her co-defendants is directly subject to venue here.

83. **RN Shaquira Hall** has been properly served with this Complaint.

84. **RN Shaquira Hall** has no defense to this lawsuit based on undue delay in bringing suit — whether based on the statute of limitations, the statute of repose, laches, or any other similar theory.

85. At all times relevant to this Complaint, **RN Shaquira Hall** acted as an employee or other agent of EHI.

86. **KEERA PRICE, RN,** is a Georgia resident. She resides at 2404 Hadlow Ln, Unit 24, Atlanta, GA 30339, in Cobb County.

87. **RN Price** is subject to the personal jurisdiction of this Court.

88. **RN Price** is subject to the subject matter jurisdiction of this Court in this case.

89. Pursuant to OCGA § 9-10-31, **RN Price** is subject to venue in this Court because one or more of her co-defendants is directly subject to venue here.

90. **RN Price** has been properly served with this Complaint.

91. **RN Price** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

92. At all times relevant to this Complaint, **RN Price** acted as an employee or other agent of EHI.

93. **AMN HEALTHCARE, INC. ("AMN")** is a foreign profit corporation. Its registered agent is Corporation Service Company. Its physical address is 2 Sun Court, Suite 400, Peachtree Corners, GA, 30092. Its principal office address is 12400 High Bluff Dr, Ste 100, San Diego, CA 92130.

94. **AMN** is subject to the personal jurisdiction of this Court in this case.

95. **AMN** is subject to the subject matter jurisdiction of this Court in this case.

96. Pursuant to OCGA § 9-10-31, **AMN** is subject to venue in this Court because one or more of its co-defendants is directly subject to venue here.

97. **AMN** has been properly served with this Complaint.

98. **AMN** has no defense to this suit based on undue delay, whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

99. At all times relevant to this Complaint, **AMN** was the employer or other principal of RN Veronica Harsany. If another entity was the employer or other principal of RN Harsany during those times, that entity is hereby on notice that, but for a mistake concerning the identity of the proper party, this action would have been brought against that entity.

100. **VERONICA HARSANY, RN,** is a South Carolina resident. She resides at 324 Caston Way Ln, Cheraw, SC 29520, in Chesterfield County.

101. **RN Harsany** is subject to the personal jurisdiction of this Court.

102. **RN Harsany** is subject to the subject matter jurisdiction of this Court in this case.

103. Pursuant to OCGA § 9-10-31, **RN Harsany** is subject to venue in this Court because one or more of her co-defendants is directly subject to venue here.

104. **RN Harsany** has been properly served with this Complaint.

105. **RN Harsany** has no defense to this lawsuit based on undue delay in bringing suit — whether based on the statute of limitations, the statute of repose, laches, or any similar theory.

106. At all times relevant to this Complaint, **RN Harsany** acted as an employee or other agent of AMN.

107. **JOHN/JANE DOES 1-10** are yet-unidentified natural and legal persons who may be wholly or partly liable for the damages alleged here. Once served with process, John/Jane Does 1-10 are subject to the jurisdiction and venue of this Court.

Negligent Administration: General Notice of Claim

108. Plaintiff here incorporates by reference all paragraphs of this Complaint.

109. EU, EHI, ECI, and AMN (the "Corporate Defendants") owed ordinary duties of care to Yolanda Ratchford.

110. The Corporate Defendants breached those duties.

111. The Corporate Defendants are directly liable for the breach of those duties.

112. The Corporate Defendants breached those duties through the actions of administrators not licensed for professions listed in OCGA 9-11-9.1(g).

113. The Corporate Defendants breached those duties through the actions professional staff performing purely administrative tasks.

114. Negligent administration by Corporate Defendants created unnecessary and unreasonable potential for medical error by the physicians and nurses involved in the care of Yolanda Ratchford. Negligently administered systems and organizational cultures promoted, rather than prevented, medical error.

115. By violating their duties of ordinary care, the Corporate Defendants harmed Yolanda Ratchford.

116. The persons directly responsible for acts of negligent administration were actual or ostensible agents or otherwise employees or servants of the Corporate Defendants. The Corporate Defendants are vicariously liable for the ordinary negligence of its agents.

Negligent Administration: Detailed Notice of Claim

Statements not in numbered paragraphs require no response from the Defendants.

The foregoing averments suffice to state a claim. In keeping with the overriding goal of the Civil Practice Act — "to secure the just, speedy, and inexpensive determination of every action"[2] — the more detailed averments below are presented to provide further notice, narrow disputes, and simplify discovery and trial.

Nevertheless, Plaintiff does not waive Georgia's notice-pleading requirements, or assume any obligation to provide more than the general notice required by law.[3]

Negligence, not Professional Malpractice

117. Georgia law recognizes that ordinary negligence in the form of negligent administration can contribute to a chain of events that includes medical malpractice and harms a patient.[4]

118. Georgia law recognizes that both ordinary negligence and medical malpractice can exist and combine to cause harm — creating liability for both ordinary negligence and medical malpractice.

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[2] *See* OCGA 9-11-1.

[3] *See Atlanta Women's Specialists v. Trabue*, 310 Ga. 331 (2020) ("Georgia is a notice pleading jurisdiction. Generally, our Civil Practice Act (CPA) advances liberality of pleading. … [A] complaint need only provide fair notice of what the plaintiff's claim is and the grounds upon which it rests . … [The] objective of the CPA is to avoid technicalities and to require only a short and plain statement of the claim that will give the defendant fair notice of what the claim is and a general indication of the type of litigation involved; the discovery process bears the burden of filling in details.") (cleaned up).

[4] *See, e.g.: Dent v. Memorial Hospital,* 270 Ga. 316 (1998) (reversing judgment in favor of hospital, because jury instructions did not make clear that both ordinary negligence and professional malpractice would authorize a verdict against the hospital); *Lowndes County Health v. Copeland,* 352 Ga. App. 233 (2019) (affirming verdict for both ordinary negligence and professional negligence against skilled nursing facility).

119. Any negligence by a person not licensed for a profession listed in OCGA 9-11-9.1(g) is ordinary negligence, not professional malpractice.

120. Georgia courts have not catalogued every purely administrative duty in a hospital.

121. Plaintiff's Negligent Administration claim is not a claim for professional malpractice as defined in OCGA 9-11-9.1. Instead, it is a claim for negligence — that is, "ordinary" or "simple" negligence.

122. This claim is premised largely on the negligence of persons who are not licensed for professions listed in OCGA 9-11-9.1.

123. To the extent this claim is premised on the negligence of persons who *are* licensed for professions listed in OCGA 9-11-9.1, this claim addresses only acts that could permissibly be performed by people who are not so licensed.

124. To the extent trial and appellate courts ultimately determine that any particular act constituted professional malpractice as defined in OCGA 9-11-9.1, Plaintiff stipulates that the act does not support a claim for ordinary negligence.

Non-Licensed Administrators

125. At all times relevant to this action, Emory University was responsible for managing or administering Emory University Hospital, located at 1364 Clifton Rd NE, Atlanta, GA 30322 ("the Hospital").

126. At all times relevant to this action, Emory Healthcare, Inc., was responsible for managing or administering the Hospital.

127. The administrators of the Hospital included persons who were not licensed healthcare professionals and were not licensed for any profession listed in OCGA 9-11-9.1 ("Non-Licensed Administrators").

128. Non-Licensed Administrators had job responsibilities that impacted the safety of patients, including Yolanda Ratchford.

129. Non-Licensed Administrators negligently failed in their duties and thereby contributed to causing injury to Yolanda Ratchford.

130. The negligent administration by Non-Licensed Administrators included failures of monitoring, communication, supervision, training, staffing, and funding, and the failure to create and maintain a culture of safety, among other failings.

Licensed Administrators Acting in a Purely Administrative Capacity

131. The administrators of the Hospital included persons who *were* licensed healthcare professionals but who at times performed purely administrative duties ("Licensed Administrators").

132. Licensed Administrators had some job responsibilities that were purely administrative and impacted the safety of patients, including Yolanda Ratchford.

133. Licensed Administrators negligently failed in those purely administrative duties and thereby contributed to causing injury to Yolanda Ratchford.

134. The negligent administration by Licensed Administrators included failures of monitoring, communication, supervision, training, staffing, and funding, and the failure to create and maintain a culture of safety, among other failings.

Healthcare Administration Generally

135. The way healthcare facilities are managed is not obvious or intuitive.

136. Even clinicians with years of experience in a healthcare facility may have limited knowledge of how that facility is administered.

137. Because most adults will have significant experience with healthcare as patients or consumers, they may have "gut" or "common sense" intuitions about healthcare administration that are strong, but wrong.

Scale of Medical Error, and System Failures as a Cause

138. Preventable medical error is a leading cause of death in the United States.

139. The complexity of hospital care creates potential for medical errors of various kinds — *for example,* inattention, failures of communication, lack of preparedness, mistaken assumptions that someone else is addressing a problem, and others.

140. A central function of healthcare administration is to create systems and organizational cultures that facilitate exposing medical errors before they cause serious harm.

141. Medical errors usually involve (a) error by the clinicians directly involved in a patient's care, and (b) system failures that create unnecessary potential for error.

Management or Administration as a Distinct Discipline

142. Hospital administrators need education, training, and skills different from those required to be a physician or nurse. Hospital administrators must have management training, but need not have gone to medical or nursing school.

143. OCGA 9-11-9.1(g) does not include hospital administrators in the list of professionals to which OCGA 9-11-9.1 applies.

144. Non-Licensed Administrators — because they are not medical professionals — do not apply medical judgment in their work.

145. Where licensed medical professionals occupy administrative roles, some of their duties include administrative tasks that do not require being a licensed medical professional — for example, checking to make sure a certain policy has been communicated to hospital staff, or checking to make sure hospital staff has undergone certain training.

Non-Licensed Administrators & Patient Safety

146. Clinicians treating patients usually are not in a position to fix problems with the systems and organizational cultures in a hospital.

147. Hundreds or even thousands of individual providers may practice in a given hospital. The individual providers practice within the systems and organizational culture maintained by hospital administrators. The individual providers must rely on, and are constrained by, the work of hospital administrators.

148. Patient safety is not solely the responsibility of the individual providers treating a patient.

149. Hospital administrators acting in a purely administrative capacity have responsibilities for protecting patient safety.

150. Negligence by Non-Licensed Administrators can and does foreseeably cause harm to patients. Within the healthcare industry, this principle is accepted and well understood by clinicians and non-clinicians alike.

Responsibilities of Hospital Administrators for Patient Safety

151. Federal regulations impose requirements on hospital administrators concerning patient safety.

152. The Joint Commission's accreditation standards impose requirements on hospital administrators concerning patient safety.

153. Pursuant to industry standards, Non-Licensed Administrators are responsible for the systems and organizational culture of the hospital.

154. Non-Licensed Administrators must learn about and identify the common sources of medical error industry-wide, and must ensure that those general sources of error are addressed effectively in the administrators' own hospital.

155. Concerning policies or protocols for medical care, Non-Licensed Administrators have limited but important responsibilities.

156. Concerning policies or protocols for medical care, Non-Licensed Administrators are responsible for:

a. making sure need-assessments are performed to identify what policies or protocols should be created,

b. making sure policies and protocols are communicated effectively to hospital staff (instead of just papering the file),

c. making sure training is given so that hospital staff understand how to apply the policies and protocols in practice,

d. making clear that the policies and protocols must be followed (*that is,* that they are not bureaucratic formalities which staff can disregard),

e. monitoring compliance, and

f. ensuring remedial actions are taken where compliance problems arise.

157. Non-Licensed Administrators must engage all hospital staff in actively seeking out problems in the hospital's system and culture — and fixing the problems before they cause further harm.

158. Non-Licensed Administrators must ensure the hospital is actually implementing policies. Just papering the file is not enough.

159. Non-Licensed Administrators have important responsibilities in a variety of specific areas. The following is a non-exhaustive list:

a. Culture of Safety

b. Quality Monitoring & Improvement

c. Staffing & Training

d. Communication, Transfers, & Hand-offs

e. Patient Rights & Grievance Process

f. Sentinel Events

Accountability of Hospital Administrators

160. Purely administrative negligence can contribute substantially to medical error that hurts patients.

161. It would be dangerous to exempt hospital administrators from accountability for their own negligence.

162. Exempting hospital administrators from accountability for their own negligence would remove an important incentive for administrators to work diligently to create systems that protect patients. The exemption would thus facilitate medical error and extinguish important safeguards of patient safety.

Negligent Administration in This Case

163. The Corporate Defendants violated duties of ordinary care through administrative negligence, and in so doing, caused harm to Yolanda Ratchford.

164. The care Yolanda received permits inferences of administrative negligence in the ways identified below. Discovery may reveal additional negligence.

a. Communication & Coordination: Hospital administrators must ensure that protocols are in place to ensure proper communication and coordination among providers, including during hand-offs — to avoid gaps that lead to medical error.

b. Policies and Procedures: Hospital administrators must ensure that policies for the investigation of complications, and the administration and management of high-risk medications are properly promulgated, enforced, and followed.

165. The Corporate Defendants failed to take reasonable steps in those regards. Important parts of that work (though not all of it) are purely administrative. These Defendants thus committed administrative negligence that harmed Yolanda.

166. Pursuant to OCGA Title 51, Chapter 4, Plaintiff is entitled to recover from the Corporate Defendants for all damages caused by their negligent administration.

Professional Malpractice: General Notice of Claim

Directly: Against Dr. Alabi, Dr. Khaidakova, Dr. Chang, Dr. Sharifpour, NP Lay, Dr. Kosiak, RN Tyler Hall, RN Shaquira Hall, RN Price, and RN Harsany.

Vicariously: Against each of the Corporate Defendants.

167. Plaintiff here incorporates by reference all paragraphs of this Complaint.

168. On March 26-27, 2021, **Dr. Alabi** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

169. At that time, Dr. Alabi acted as an employee or other agent of **The Emory Clinic, Inc.** As Dr. Alabi's employer or other principal at the time of her negligence, ECI is vicariously liable for her negligence, because Dr. Alabi was acting within the scope of her employment or agency at that time.

170. On March 26-27, 2021, **Dr. Khaidakova** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

171. At that time, Dr. Khaidakova acted as an employee or other agent of **Emory University**. As Dr. Khaidakova's employer or other principal at the time of her negligence, EU is vicariously liable for her negligence, because Dr. Khaidakova was acting within the scope of her employment or other agency at that time.

172. On March 26-27, 2021, **Dr. Chang** owed professional duties of care to Yolanda Ratchford — duties he breached, causing Yolanda harm.

173. At that time, Dr. Chang acted as an employee or other agent of **Emory University or The Emory Clinic, Inc.** As Dr. Chang's employer or other principal at the time of his negligence, EU or ECI is vicariously liable for his negligence, because Dr. Chang acted was acting within the scope of his employment or agency at that time.

174. On March 26-27, 2021, **Dr. Sharifpour** owed professional duties of care to Yolanda Ratchford — duties he breached, causing Yolanda harm.

175. At that time, Dr. Sharifpour acted as an employee or other agent of **The Emory Clinic, Inc.** As Dr. Sharifpour's employer or other principal at the time of his negligence, ECI is vicariously liable for his negligence, because Dr. Sharifpour was acting within the scope of his employment or other agency at that time.

176. On March 26-27, 2021, **NP Lay** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

177. At that time, NP Lay acted as an employee or other agent of **Emory Healthcare, Inc.** As NP Lay's employer or other principal at the time of her negligence, EHI is vicariously liable for her negligence, because NP Lay was acting within the scope of her employment or other agency at that time.

178. On March 27, 2021, **Dr. Kosiak** owed professional duties of care to Yolanda Ratchford — duties he breached, causing Yolanda harm.

179. At that time, Dr. Kosiak acted as an employee or other agent of **Emory University**. As Dr. Kosiak's employer or other principal at the time of his negligence, EU is vicariously liable for his negligence, because Dr. Kosiak was acting within the scope of his employment or other agency at that time.

180. On March 26-27, 2021, **RN Tyler Hall** owed professional duties of care to Yolanda Ratchford — duties he breached, causing Yolanda harm.

181. At that time, RN Tyler Hall acted as an employee or other agent of **Emory Healthcare, Inc**. As RN Tyler Hall's employer or other principal at the time of his negligence, EHI is vicariously liable for his negligence, because RN Tyler Hall was acting within the scope of his employment or other agency at that time.

182. On March 26-27, 2021, **RN Shaquira Hall** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

183. At that time, RN Shaquira Hall acted as an employee or other agent of **Emory Healthcare, Inc**. As RN Shaquira Hall's employer or other principal at the time of her negligence, EHI is vicariously liable for her negligence, because RN Shaquira Hall was acting within the scope of her employment or agency at that time.

184. On March 27, 2021, **RN Price** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

185. At that time, RN Price acted as an employee or other agent of **Emory Healthcare, Inc**. As RN Price's employer or other principal at the time of her negligence, EHI is vicariously liable for her negligence, because RN Price was acting within the scope of her employment or other agency at that time.

186. On March 26-27, 2021, **RN Harsany** owed professional duties of care to Yolanda Ratchford — duties she breached, causing Yolanda harm.

187. At that time, RN Harsany acted as an employee or other agent of **AMN Healthcare, Inc.** As RN Harsany's employer or other principal at the time of her negligence, AMN is vicariously liable for her negligence, because RN Harsany was acting within the scope of her employment or other agency at that time.

Professional Malpractice: Detailed Notice of Claim

Defendants need not respond to statements or other matter (e.g., citations or screenshots) not set forth in numbered paragraphs.

The foregoing averments suffice to state a claim. In keeping with the overriding goal of the Civil Practice Act — "to secure the just, speedy, and inexpensive determination of every action" — the more detailed averments below are presented to give Defendants further notice, narrow disputes, and simplify discovery and trial.

Nevertheless, Plaintiff does not waive Georgia's notice-pleading requirements, or assume any obligation to provide more than the general notice required by law.

Medical Principles

Hematology: Clotting

188. The human body is constantly maintaining a balance between clotting and bleeding. A clot stops bleeding.

189. Injury to a blood vessel causes platelets, a component of blood, to clump together and adhere to the site of the injury. A release of enzymes leads to the formation of fibrin, which holds together the platelets and other blood components to create a blood clot.

190. If there is blood clot inside a blood vessel, this condition is called thrombosis. Thrombosis can reduce or block circulation.

Hematology: Lab Tests

191. Test results for red blood cells, hemoglobin, hematocrit, and platelets can demonstrate hematological problems.

192. A decrease in the number of red blood cells or in hemoglobin indicates anemia.

193. Anemia is defined as a hemoglobin count of less than 12 g/dL.

194. Anemia can be caused by active bleeding.

195. Acute anemia occurs when there is an abrupt drop in red blood cells. This is most commonly caused by either bleeding or a destruction of red blood cells.

196. A nurse should report to a physician a drop in hemoglobin below 10 g/dL or a trend downward from baseline.

197. If a patient receives a transfusion of red blood cells, one unit of packed red blood cells has a hematocrit of 55-80% and a volume of 250 mL. In a 70kg male, one unit will raise his hemoglobin by 1 g/dL and his hematocrit by 3%.

Alteplase: Mechanism of Action

198. Alteplase causes the lysis, or disintegration, of fibrin.

Alteplase: Monitoring

199. Due to the risk of bleeding, providers must carefully monitor patients during the infusion of alteplase and even for several hours afterward.

- Genetech, Inc. (2022). Activase: Highlights of Prescribing Information.

----------------------**WARNINGS AND PRECAUTIONS**-----------------------

- Increases the risk of bleeding. Avoid intramuscular injections. Monitor for bleeding. If serious bleeding occurs, discontinue Activase. (5.1)
- Monitor patients during and for several hours after infusion for hypersensitivity. If signs of hypersensitivity develop, discontinue Activase. (5.2)
- Consider the risk of reembolization from the lysis of underlying deep venous thrombi in patients with pulmonary embolism. (5.3)
- Cholesterol embolism has been reported rarely in patients treated with thrombolytic agents. (5.4)

200. During alteplase therapy, providers must also monitor the patient's neurological status.

201. During alteplase therapy, providers must also monitor hemoglobin, hematocrit, platelets, fibrinogen, and activated partial thromboplastin time.

Alteplase: Complications

202. Bleeding is the most important known side-effect of alteplase therapy.

203. Bleeding is the most common adverse reaction to alteplase.

204. A spinal hematoma is a debilitating complication of alteplase therapy.

- Gupta, K., Sharma, R., Agrawal, N., Puttegowda, B., Basappa, R., & Manjunath, C. N. (2013). Spinal epidural hematoma – A rare and debilitating complication of thrombolytic therapy. *Journal of Cardiovascular Disease Research, 4* (4), 236-238. http://dx.doi.org/10.1016/j.jcdr.2014.01.005

Heparin: Mechanism of Action

205. Heparin binds to proteins in the blood, blocking several factors of the clotting cascade. Through this process, heparin prevents the formation of blood clots.

Heparin: Monitoring

206. Dosages of heparin must be adjusted based on lab results.

207. Activated partial thromboplastin time ("PTT") is one parameter used for the therapeutic monitoring and titration of heparin.

208. Anti-factor Xa levels are another parameter for monitoring heparin. The therapeutic level is 0.3 to 0.7 international units per milliliter.

209. Monitoring for adverse effects includes monitoring the values for hemoglobin, hematocrit, and platelets.

210. During heparin administration, if hemoglobin or hematocrit drop, the possibility of hemorrhage should be investigated.

211. A patient should not receive heparin if the patient has active, uncontrollable bleeding.

Heparin: Complications

212. Heparin is a high-risk medication that requires many safety barriers to avoid errors and protect patients.

- Warnock, L., & Huang, D. (2022). Heparin. In *StatPearls*. StatPearls Publishing. Retrieved November 6, 2022 from https://www.ncbi.nlm.nih.gov/books/NBK538247/?report=printable

> In conclusion, heparin is a high-risk medication that requires many safety barriers to avoid errors and protect patients; this takes an interprofessional team approach in the hospitals consisting of clinicians (MDs, DOs, NPs, PAs), nurses, and pharmacists. [Level 5] It also requires an even greater approach from safety organizations and manufacturing companies.

213. Bleeding is a major complication associated with heparin use. Bleeding is the chief complication that may result from heparin. Bleeding can occur at any site.

214. One rare but critical complication from anticoagulation therapy is spinal epidural hematoma.

- Stetkarova, I., Ehler, E., Brabec, K., Jelinkova, L., Chylova, M., Weichet, J., Ungermann, L., & Peisker, T. (2021). Spontaneous spinal epidural hematoma: management and main risk factors in era of anticoagulant/antiplatelet treatment. *Polish Journal of Neurology and Neurosurgery*. 55, (6), 574–581. DOI: 10.5603/PJNNS.a2021.0066

215. The occurrence of spinal epidural hematoma is strongly associated with induced coagulopathy due to anticoagulants.

- Alahmadi, M., Almolky, K., & Rezai, D. (2022). Spontaneous Spinal Epidural Hematoma Associated With Short-Term Dual Antiplatelet Therapy: A Case Report. *Cureus.* 14, (9), e29415. DOI: 10.7759/cureus.29415

> Spinal epidural hematoma (SEDH), either spontaneous or traumatic, is a rare neurosurgical emergency. Typically, the natural history is a sudden onset of severe neck or back pain, associated with neurological deficit, either immediately or after a short period of the pain onset. MRI is the gold standard investigation. The mainstay of treatment is spinal decompression, in the form of laminectomy or hemilaminectomy, with the evacuation of the hematoma. The occurrence of SEDH has been strongly associated with coagulopathy, especially that induced by anticoagulant use. The association between SEDH and antiplatelet therapy has been scarcely reported in the literature. We report a case of spontaneous SEDH

216. Spinal epidural hematomas tend to develop after therapeutic anticoagulation.

- Lawton, M., Porter, R., Heiserman, J., Jacobowitz, R., Sonntag, V., & Dickman, C. (1995). Surgical management of spinal epidural hematoma: relationship between surgical timing and neurological outcome. *Journal of Neurosurgery*. 83, 1-7.

> Spinal epidural hematomas tend to develop after therapeutic anticoagulation and surgical procedures involving the epidural space. Patients with suspected SEH should be

Alteplase and Heparin in Combination

217. Data on intracranial hemorrhage suggests that the combination of alteplase and heparin creates a greater risk of bleeding than either drug by itself.

218. Anticoagulants increase the risk of bleeding when administered with alteplase.

219. Anticoagulants increase the risk of bleeding if administered prior to, during, or after alteplase.

220. When alteplase thrombolytic therapy and anticoagulant therapy are provided in combination, the patient must be carefully monitored for neurological symptoms.

The Spine: Anatomy of Spinal Meninges

221. The spinal cord is wrapped in cerebral spinal fluid, enclosed by three spinal membranes. They are, from innermost to outermost, the pia mater, the arachnoid mater, and the dura mater. The spinal epidural space lies outside of the dura mater.

222. The spinal epidural space is located between the dura and the surrounding margins of the vertebral canal.

223. The spinal epidural space contains adipose tissue, and the internal vertebral venous plexus — the veins that drain the spinal cord.

The Spine: Vasculature

224. The main arterial blood supply to the spinal cord is by way of the anterior spinal artery and the posterior spinal arteries.

225. The spine drains venous blood by way of the anterior spinal vein and the posterior spinal vein, which drain into the internal venous plexus.

Spinal Epidural Hematoma: Presentation, Diagnosis, and Treatment

226. Spinal epidural hematoma is the accumulation of blood in the spinal epidural space, which compresses the spinal cord and causes acute neurological deficits.

227. A spinal epidural hematoma may be caused by back trauma, anticoagulant or thrombolytic therapy, and lumbar puncture.

- Rubin, M. (2021). Spinal Subdural or Epidural Hematoma. *Merck Manuals Professional Edition*. Retrieved August 24, 2022 from https://www.merckmanuals.com/professional/neurologic-disorders/spinal-cord-disorders/spinal-subdural-or-epidural-hematoma

> Spinal subdural or epidural hematoma (usually thoracic or lumbar) is rare but may result from back trauma, anticoagulant or thrombolytic therapy, or, in patients with bleeding diatheses, lumbar puncture.

228. Spinal epidural hematoma is defined as spontaneous if it occurs in the absence of vertebral fractures.

229. Pain is the most common first symptom of a spinal epidural hematoma, accompanied by neurological deficits.

230. A spinal epidural hematoma should be suspected in any anticoagulated patient who complaints of sudden, severe back pain with neurological symptoms.

- Stetkarova, I., Ehler, E., Brabec, K., Jelinkova, L., Chylova, M., Weichet, J., Ungermann, L., & Peisker, T. (2021). Spontaneous spinal epidural hematoma: management and main risk factors in era of anticoagulant/antiplatelet treatment. *Polish Journal of Neurology and Neurosurgery*. 55, (6), 574–581. DOI: 10.5603/PJNNS.a2021.0066

> **Conclusions.** SSEH should be suspected in any patient receiving anticoagulant/antiplatelet agents who complains of sudden, severe back pain accompanied by neurological symptoms. SSEH is mostly localised in the lower cervical/thoracic spine. Arterial

231. The symptoms of a spinal epidural hematoma can vary based upon the severity and the level of the spinal cord affected.

232. For a suspected spinal epidural hematoma, MRI is the best diagnostic tool. A patient with a suspected spinal epidural hematoma should rapidly undergo an MRI.

233. If a physician suspects a spinal epidural hematoma, thrombolytic or anticoagulant therapy should be stopped immediately.

234. Treatment for spinal epidural hematoma is a decompressive surgery of laminectomy or hemilaminectomy.

Spinal Epidural Hematoma: Prognostic Factors

235. Hematoma in the lower thoracic spine and use of anticoagulants are factors associated with poor outcomes.

- Peng, D., Yan, M., Liu, T., Yang, K., Ma., Y., Hu, X., Ying., G., & Zhu, Y. (2022). Prognostic Factors and Treatments Efficacy in Spontaneous Spinal Epidural Hematoma: A Multicenter Retrospective Study. *Neurology*. 99, (8), e843-e850. doi:10.1212/WNL.0000000000200844

> A total of 105 patients with SSEH were retrieved from medical records, with a mean age of 51.3 years. Eighty-three patients (79%) complained of acute onset of severe neck or back pain. Eighty-two patients (78%) suffered from moderate to severe neurologic deficits (Frankel scale A–C). Anticoagulation usage was found in 20% of cases. Lower thoracic spine ($p = 0.046$), use of anticoagulants ($p = 0.019$), sphincter function disfunction ($p = 0.008$), severe neurologic deficits at admission ($p < 0.001$), and rapid deterioration (<1 hour, $p = 0.004$) were found to be associated with poor outcomes. Surgical decompression was performed in 74 (70%) cases. [The

236. Rapid diagnosis and treatment of a spinal epidural hematoma increases the chance of neurological recovery, and the chances of neurological recovery increase as the time interval from symptom onset to surgery decreases.

- Lawton, M., Porter, R., Heiserman, J., Jacobowitz, R., Sonntag, V., & Dickman, C. (1995). Surgical management of spinal epidural hematoma: relationship between surgical timing and neurological outcome. *Journal of Neurosurgery*. 83, 1-7.

Frankel Grade D patients recovered completely compared to 25% of Frankel Grade A patients. The rapidity of surgical intervention also correlated with outcome; greater neurological recovery occurred as the interval from symptom onset to surgery decreased. Patients taken to surgery within 12 hours had better neurological outcomes than patients with identical preoperative Frankel grades whose surgery was delayed beyond 12 hours. This large series of SEH demonstrates that rapid diagnosis and emergency surgical treatment maximize neurological recovery. However, patients with complete neurological lesions or long-standing compression can improve substantially with surgery.

237. Conversely, delay before surgery decreases the chances of recovery.

238. Patients taken to surgery less than 12 hours from symptom onset have higher rates of improvement than patients taken to surgery after 12 hours.

239. Patients whose maximum neurological deficit lasted less than 6 hours have better neurological outcomes than patients whose maximum neurological deficit lasted longer than 6 hours.

240. Decompression of the spinal cord may be accomplished surgically.

241. Surgery is indicated for patients with a worsening neurologic examination and ongoing spinal cord compression.

242. The outcome of a spinal epidural hematoma correlates inversely with (a) the time interval from symptom onset to surgery and (b) duration of maximum deficit, both of which reflect duration of spinal cord compression.

243. Immediate surgical evacuation of the spinal epidural hematoma is recommended.

244. Preoperative severe neurological deficits and paraplegia time greater than 12 hours are independent adverse prognostic factors.

- Peng, D., Yan, M., Liu, T., Yang, K., Ma., Y., Hu, X., Ying., G., & Zhu, Y. (2022). Prognostic Factors and Treatments Efficacy in Spontaneous Spinal Epidural Hematoma: A Multicenter Retrospective Study. *Neurology*. 99, (8), e843-e850. doi:10.1212/WNL.0000000000200844

associated with poor outcomes. Surgical decompression was performed in 74 (70%) cases. The univariate and multivariate analysis revealed that preoperative severe neurologic deficits (p = 0.005) and extended paraplegia time (>12 hours, p = 0.004) were independent adverse prognostic factors. The univariate analysis revealed that lower thoracic spine location (p = 0.08)

245. Surgical decompression later than 24 hours after the onset of symptoms may cause permanent neurological damage.

- Xu, Q., Wang, Y., Wang, D., Xu, B., Yu, Z., Yin, X., Lang, D., & Ningbo, Z. (2020). Spontaneous Spinal Epidural Hematoma after Percutaneous Mechanical Thrombectomy Combined with Catheter-Directed Thrombolysis for Deep Venous Thrombosis: A Case Report. *Annals of Vascular Surgery*. 66, (670), e1–670.e4. https://doi.org/10.1016/j.avsg.2020.01.078

SSDH has occurred. Surgical decompression beyond 24 hr may cause permanent neurological damage.

Spinal Cord Injury

246. A spontaneous spinal epidural hematoma can cause a spinal cord injury in the absence of trauma.

247. Spinal cord injury results in varying degrees of paralysis and of loss of sensation below the level of the injury.

248. Factors affecting the severity of deficits caused by the spinal cord injury include whether or not the injury is complete and the level of the spinal cord affected.

249. Complete spinal cord injury results in total loss of sensory and motor function below the level of injury. Incomplete spinal cord injury results in mixed loss of motor and sensory function.

250. The level of spinal cord injury refers to the letter-and-number name of the vertebra at the site of the spinal cord injury.

251. Deficits caused by a spinal cord injury are described by the American Spinal Injury Association Impairment Scale (AIS), a classification system that enables an accurate characterization of incomplete and complete spinal cord injuries.

252. The AIS grades a spinal cord injury from A to E, in decreasing severity.

- A 1186

Table 3. American Spinal Injury Association Impairment Scale

A	Complete	No motor or sensory function is preserved in the sacral segments S4–S5.
B	Incomplete	Sensory function preserved but not motor function is preserved below the neurological level and includes the sacral segments S4–S5.
C	Incomplete	Motor function is preserved below the neurological level, and more than half of key muscles below the neurological level have a muscle grade less than 3.
D	Incomplete	Motor function is preserved below the neurological level, and at least half of key muscles below the neurological level have a muscle grade of 3 or more.
E	Normal	Motor and sensory function are normal.

Medical Facts

Admission and History & Physical

253. On Thursday, March 25, 2021, at 2123 hours ("hrs"), Yolanda Ratchford is admitted to Emory University Hospital.

- EU 1976

254. At 2140 hrs, RN Allyson Coleman performs a functional screening. Yolanda is independent in every category of function.

- EU 1311

DOCUMENT NAME: Functional Screen
SERVICE DATE/TIME: 3/25/2021 21:40 EDT
RESULT STATUS: Auth (Verified)
PERFORM INFORMATION: Coleman,Allyson C (3/25/2021
SIGN INFORMATION: Coleman,Allyson C (3/25/2021

Functional Screen Entered On: 03/25/2021 21:40
Performed On: 03/25/2021 21:40 by Coleman, Allyson C

Functional Screen
Katz Activity : Independent
Katz Bathing : Independent
Katz Dressing : Independent
Katz Toileting : Independent
Katz Transferring : Independent
Katz Continence : Independent
Katz Feeding : Independent
Katz Total Score : 7

255. At 2146 hrs, Dr. Stephanie Tom, resident physician of general surgery, takes a history and performs a physical examination of Yolanda.

- EU 45-46

256. Yolanda's chief complaint is extensive deep-vein thrombosis ("DVT") of the iliofemoral. Yolanda has a history of inferior vena cava ("IVC") thrombosis.

- EU 45

257. Yolanda has full range of motion in all extremities.

- EU 46

258. Yolanda's sensation and motor strength are grossly intact in the bilateral lower extremities (her legs).

- EU 46

MSK: full range of motion in all extremities; sensation and motor grossly intact in bilateral LE

259. Dr. Tom's treatment plan includes a high-dose heparin drip and bilateral sequential compression devices.

- EU 46

Assessment/Plan
Ms. Ratchford is a 42yo F with Protein S deficiency, prior IVC thrombus s/p thrombectomy in 2019 and T2DM. Presenting as a transfer from OSH for extensive ileofemoral thombus.

-Admit to floor
-Diabetic diet then NPO at midnight for surgical intervention tomorrow
-mIVF at midnight
-Strict I/Os
-CBC, CMP, Mg, Phos, PT/INR, PTT
-Asymptomatic COVID screening
-High standard heparin drip and bilateral SCDs

Patient discussed with Dr. Fobre, Vascular Surgery Fellow.

Stephanie Tom, MD
Emory General Surgery, PGY-1

260. In connection with the plan, vascular surgeon Dr. Olamide Alabi requests a hypercoagulable workup before starting the drip, and a hematology consultation the following morning.

- EU 47

I requested hypercoagulable workup before initiation of heparin gtt.
I also requested hematology consultation in the morning- I don't see a situation where this patient should not be on chronic anticoagulation (she was not prior to presentation and hasn't been since 2019- was started on warfarin for her first episode but was told to take for 3-4 months).
Offered her percutaneous mechanical thrombectomy, possible lytic therapy but was clear with her and her mother that this may not work in the short term or in the long term. After discussion of risks and benefits, she was willing to proceed.
Of note, she lives in eastern Alabama.

Olamide Alabi, MD
Vascular Surgeon

Administration of High-Dose Heparin

261. At 2208 hrs, consistent with the treatment plan, vascular surgery resident physician Galimat Khaidakova orders high standard heparin protocol for Yolanda.

262. Per Emory's High Dose Heparin Protocol and Flowsheet, Dr. Khaidakova orders the heparin drip to be titrated to an anti-Xa level of 0.5-0.7 units/mL.

- EU 1050

Order: **hePARIN drip 25,000 unit(s) + Premix Diluent 250 mL**			
Order Start Date/Time: 3/25/2021 22:08 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Pharmacy	Activity Type: Pharmacy
End-state Date/Time: 3/26/2021 17:43 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Tom,Stephanie K on 3/25/2021 22:08 EDT			
Order Details: HIGH STANDARD PROTOCOL, Titrate, Instructions: Start at 18 Units/Kg/hr. Patients greater than 133 kg, INITIAL STARTING RATE 24 mL/hr. Titrate to goal anti-Xa level of 0.5-0.7 based on High Dose Heparin Protocol and Flowsheet, IV, 3/25/21 10:08:00 PM EDT, Total volume: 250 mL, 48 kg			
Order Comment: CONC 100 units/mL. DO NOT EXCEED the maximum INITIAL infusion rate of 24 mL/hr for HIGH STANDARD HEPARIN PROTOCOL			

263. The Heparin Protocol and Flowsheet reflects Emory's policies for administering heparin to patients by infusion in 2021.

- *See* EU 2024

HIGH Standard Maintenance Dose Adjustments
Initial Starting Dose 18 units/kg/hr--INITIAL INFUSION RATE NOT TO EXCEED 24mL/hr
Patients weighing greater than or equal to 134 kg, set pump at 24 mL/hr for initial set up
Maintenance Dose Adjustments

Heparin Anti Xa Level (units/ml)	Less than 0.15	0.15-0.29	0.3-0.49	0.5-0.7 (Therapeutic)	0.71-0.79	0.8-0.89	Greater than 0.89
Adjustment based on level	Re-bolus (see bolus dosing table) & increase rate 3 units/kg/hr	Increase rate by 2 units/kg/hr	Increase rate by 1 unit/kg/hr	NO CHANGE	Decrease rate by 2 units/kg/hr	STOP infusion for 1 hour, then decrease rate by 2 units/kg/hr	STOP infusion for 2 hours, then decrease rate by 3 units/kg/hr
Next Heparin Anti Xa Level	6 hours after rate changed	6 hours after rate changed	6 hours after rate changed	If 1st therapeutic level: 6 hrs after last level If 2nd consecutive therapeutic level: Next Morning	6 hours after rate changed	6 hours after infusion resumed	2 hours after infusion resumed

264. At 2232 hrs, Yolanda's white blood count, red blood count, hemoglobin, and hematocrit are each normal—within the reference range.

- EU 1941

Procedure / Units / Reference Range	White Blood Count 10E3/mcL [4.0-10.0]	Red Blood Cell Count 10E6/mcL [3.93-5.22]	Hemoglobin gm/dL [11.4-14.4]	Hematocrit % [33.3-41.4]	MCV fL [79.4-94.8]
Collected Date/Time					
3/25/2021 22:32 EDT	4.1 *1	3.93 *1	11.5 *1	35.5 *1	90.3 *1

Labs

265. At 2232 hrs, Yolanda's platelet count is within the reference range.

- EU 1943

Procedure / Units / Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]
3/25/2021 22:32 EDT	39.6 *1	0 *1	195 *1

266. At 2232 hrs, Yolanda's values for PTT, INR, and PT are each within the reference range.

- EU 1946

Procedure / Units / Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/25/2021 22:32 EDT	12.5 ^1 *1	1.08 ^2 *1	33.9 ^3 *1	-

Heparin Administration Begins

267. At 2242 hrs, Yolanda receives a bolus of high-dose heparin.

- EU 1762

268. At 2242 hrs, Yolanda is put on the heparin drip (infusion).

- EU 1786

269. At 2351 hrs, Yolanda's heparin is on hold until her labs are drawn.

- EU 292

> *Progress Note Subject :* Hep gtt initiated at 2240. Dr. Tom w/Vascular surgery, called to ask if anticoagulation labs just ordered @ approx 2330 could be added on to previous labs drawn. Per EUH lab customer service, new specimens to be drawn. D/w Dr. Tom who verbalized to hold heparin until labs are drawn. Confirmed order to hold heparin gtt until ordered labs are drawn. Heparin gtt now on hold until after labs are drawn; phlebotomy at bedside.
>
> Coleman, Allyson C - 03/25/2021 23:51

270. On March 25, 2021, Emory providers do not give Yolanda pain medication.

- *See* EU 1762

Labs and Heparin Adjustments

271. On Friday, March 26, 2021, at 0008 hrs, Yolanda's coagulation values have all risen above the reference range:

a. Her PT is 13.4 seconds.

b. Her PTT is greater than 249 seconds.

c. Her heparin anti-Xa is 1.66 units/mL—more than double the upper range of the therapeutic level for high dose heparin protocol.

- EU 1946

Procedure / Units / Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/26/2021 00:08 EDT	13.4 H ^1 *1	-	>249.0 ! R2 ^3 *1	1.66 ^4 *1

- *See* EU 2024

272. At 0040 hrs, as Yolanda has "no visible distress" and shows "no bleeding or other signs of HIT," RN Coleman restarts Yolanda on the heparin drip, at a rate of 18 units per kilogram per hour.

- EU 291

Nursing Progress Note
Progress Note Subject : AntiCoag labs drawn and in processing. Hep gtt restarted at 18 u/kg/hr (8.64 ml/hr). MD notified. Patient in no visible distress, no bleeding or other signs of HIT noted. Will cont to closely monitor patient.
Coleman, Allyson C - 03/26/2021 00:40

273. At 0334 hrs, Yolanda's anti-Xa remains elevated at 1.38—nearly double the upper limit of the therapeutic range.

- EU 1946

Procedure / Units / Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/26/2021 03:34 EDT	-	-	-	1.38 ^4 *1

274. At 0334 hrs, Yolanda's platelet count has dropped from 195 to 176.

- EU 1943

Procedure / Units / Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]

3/26/2021 03:34 EDT	-	-	176 [1]
3/25/2021 22:32 EDT	39.6 [1]	0 [1]	195 [1]

275. At 0615 hrs, RN Adams stops the heparin drip for two hours.

- EU 2025

Nursing Assessments

276. At 0800 hrs, RN Ana Perry performs a neurological assessment. Yolanda has a steady gait and 5/5 normal motor strength in all extremities.

- EU 1410

277. At 0825 hrs, with the two-hour hiatus over, RN Adams restarts Yolanda on the heparin drip.

- EU 1786

278. RN Adams lowers the rate by 3 units—from 18 to 15 units per kilogram per hour.

- EU 1786
- EU 2025

279. At 1029 hrs, Yolanda denies pain.

- EU 1508

Vascular Surgery Evaluation & Progress Note

280. At 1141 hrs, under Dr. Alabi's supervision, PA-C Naomi Lux performs a pre-operative assessment. Yolanda is doing well, her lower extremity swelling is greatly improved, and she is ready for the OR.

- EU 287

281. At 1141 hrs, Dr. Alabi's treatment plan consists of a cavagram, bilateral lower extremity venogram with possible thrombectomy, possible lysis, possible intervention, and other procedures as indicated, to be started later the same day.

- EU 289

282. At 1341 hrs, prior to the start of the thrombectomy, providers have not administered pain medication to Yolanda so far during the hospital admission.

- *See* EU 1762

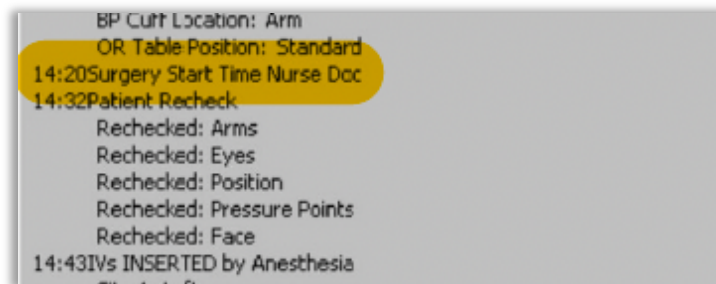
First Procedure: Thrombectomy

283. At 1341 hrs, Dr. Alabi enters the OR as primary surgeon.

- EU 102

284. At 1420 hrs, the thrombectomy begins.

- EU 152


BP Cuff Location: Arm
OR Table Position: Standard
14:20Surgery Start Time Nurse Doc
14:32Patient Recheck
Rechecked: Arms
Rechecked: Eyes
Rechecked: Position
Rechecked: Pressure Points
Rechecked: Face
14:43IVs INSERTED by Anesthesia

285. Over the three hours that follow, from approximately 1420 hrs to 1715 hrs, Dr. Alabi performs the thrombectomy, with:

a. ultrasound-guided access of bilateral popliteal veins;

b. left and right lower extremity venograms;

c. left and right iliocaval venogram;

d. selective injection of iliolumbar vein and hemiazygos vein;

e. intravenous intravascular ultrasound evaluation of bilateral femoral popliteal segments, bilateral iliac vein segments, and inferior vena cava;

f. percutaneous mechanical thrombectomy of bilateral femoral popliteal and iliocaval segments with the 12-French lightening device by penumbra; and

g. balloon angioplasty of bilateral iliocaval vein segments.

- EU 119

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PROCEDURE:
1. Ultrasound-guided access of bilateral popliteal veins.
2. Left lower extremity venogram.
3. Right lower extremity venogram.
4. Ileo caval venogram on the left and right.
5. Selective injection of ileo lumbar vein and hemi azygous vein.
6. Intravenous intravascular ultrasound evaluation of the bilateral femoral
   popliteal segments, bilateral iliac vein segments, and inferior vena cava.
7. Percutaneous mechanical thrombectomy of bilateral femoral popliteal and
   ileo caval segments with the 12-French lightening device by penumbra.
8. Balloon angioplasty of bilateral ileo caval vein segments.
```

286. During the venogram, when Dr. Alabi attempts to move the wire into the common iliac vein, she encounters a difficulty: the wire keeps coursing into Yolanda's iliolumbar vein and hemiazygos system.

- EU 120

```
this location.  We attempted to course the wire up into the inferior vena cava
and we were able to get into the external iliac vein reliably.  However, we
could not easily get into the common iliac vein.  It kept coursing into an
iliolumbar vein and then into the hemi azygous system.  We then obtained
```

287. Dr. Alabi nevertheless goes forward with the thrombectomy.

288. On March 26, 2021, intraoperative DSA extremities imaging shows extravasation of contrast in Series 11, 12, 13, and 14.

289. Dr. Alabi does not document these findings.

290. The presence of contrast agent outside the blood vessels indicates that one of Yolanda's blood vessels has a puncture and is leaking.

291. Dr. Alabi does not document the likely puncture, leak, or bleeding.

292. Nor does Dr. Alabi take any step to diagnose or treat Yolanda's bleeding.

Blood Transfusion

293. At 1709 hrs, while Yolanda is still undergoing the thrombectomy, Emory providers give her a blood transfusion of one unit of red cells.

- EU 1374

Blood Transfusion

Recorded Date	3/26/2021
Recorded Time	17:09 EDT
Recorded By	Thornton,James H
Procedure	
Red Cells Infused	1 R2

Result Comments
R2: Red Cells Infused
=W20032108186100

- EU 153

Intake Comments

Red Cells Infused - 1 mL @ 17:09
=W20032108186100

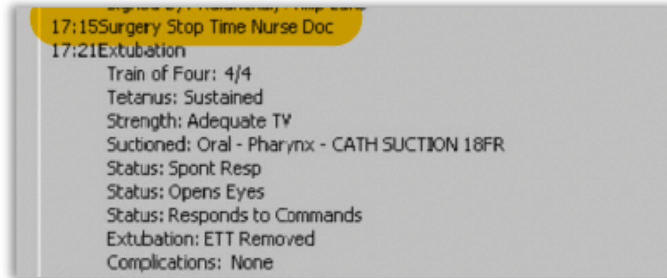
End of Thrombectomy Procedure

294. At about 1715 hrs, at the close of the thrombectomy procedure, Dr. Alabi and her team place thrombolysis catheters bilaterally in Yolanda's popliteal veins.

- EU 122

295. At 1715 hrs, the thrombectomy procedure ends.

- EU 152



17:15Surgery Stop Time Nurse Doc
17:21Extubation
Train of Four: 4/4
Tetanus: Sustained
Strength: Adequate TV
Suctioned: Oral - Pharynx - CATH SUCTION 18FR
Status: Spont Resp
Status: Opens Eyes
Status: Responds to Commands
Extubation: ETT Removed
Complications: None

296. On March 26, 2021, despite encountering difficulties during the thrombectomy, Dr. Alabi does not take any steps to address complications of the procedure, including bleeding.

Post-Procedure Care, Alteplase & Heparin Drips

297. At 1735 hrs, RN Veronica Harsany performs a neurological assessment. Yolanda has motor strength of "5-normal movement" in all four extremities.

- EU 1410

298. At 1735 hrs, Yolanda's Modified Aldrete Score is 8. Yolanda moves only two extremities. This is inconsistent with the contemporaneous neurological assessment.

- EU 1510

Recorded Date Recorded Time Recorded By	3/26/2021 17:35 EDT Harsany,Veronica
Procedure	
Aldrete Activity	Moves 2 extremities
Aldrete Respiration	See Below T310
Aldrete Circulation	See Below T312
Aldrete Consciousness	Arouses when name called
Aldrete Saturation	See Below T314
Aldrete Score	8

299. At 1735 hrs, Yolanda also has pain in her back. RN Harsany applies a lidocaine patch.

- EU 1508

300. This appears to be the first time Yolanda complains of back pain during this admission.

301. On March 26, 2021, even though it is a new complaint, RN Harsany does not report Yolanda's back pain to a physician.

302. On March 26, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang do not consider, let alone address, Yolanda's back pain.

303. At 1735 hrs, Yolanda is started on alteplase and heparin drips in her legs.

- EU 1785-1786

304. At 1737 hrs, Yolanda receives IV Plasma-Lyte.

- EU 1759

305. At 1738 hrs, Yolanda receives sodium chloride solution, by IV.

- EU 1759

306. On March 26, 2021, prior to beginning the heparin and alteplase infusions, no provider assesses Yolanda for complications from the thrombectomy.

Orders from Vascular Surgery

307. At 1742 hrs, Dr. Khaidakova notes the following: Yolanda has two ports in each popliteal vein, requires complete blood counts and fibrinogen checks every Q 6 hours, is to keep her legs straight, must have frequent neuro checks, and must have frequent neurovascular and pulse/signal checks of the bilateral lower extremities.

- EU 286

The patient has two ports in EACH popliteal vein. On each side, one port is attached to a heparin gtt which will run at 250 units hourly with no titration. The second (blue) is attached to alteplase, to run at 0.5 mg/hr. This comes to a total of 1mg of alteplase an hr, and 500 units of heparin without titration.

The patient will require q6 hour fibrinogen checks and CBCs (labs ordered). If fibrinogen level drops below 150, please notify the on call vascular surgery service so that adjustments can be made.

Keep bilateral legs straight, do not bend at the hip or the knee. Can tilt bed to 15 degrees (no bending).

Foley should be maintained while patient is undergoing lysis.

CLD, NPO at MN for lysis catheter check tomorrow.

Patient has PRN medications ordered for HTN. It is important to keep normotensive, as hypertension may result in intracranial hemorrhage. Titrate to SBP < 140.

Frequent neuro checks, as stroke is a possible complication of lysis. Frequent neurovascular and pulse/signal checks of the bilateral lower extremities, please notify on call if there are changes in exam immediately.

308. At 1746 hrs, Dr. Khaidakova orders neurovascular assessments of Yolanda's extremities with each vital-sign check.

- EU 980

Order: **Neurovascular Assessment Extremity**			
Order Start Date/Time: 3/26/2021 17:46 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Asmt/Tx/Monitoring
End-state Date/Time: 4/9/2021 21:31 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:46 EDT			
Order Details: 3/26/21 5:46:00 PM EDT, PRN, PRN, with each vital sign check			
Order Comment:			

309. At 1746 hrs, Dr. Khaidakova orders vital signs checks PRN per ICU protocol, with neuro checks.

- EU 984

Order: **Vital Signs**			
Order Start Date/Time: 3/26/2021 17:46 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Asmt/Tx/Monitoring
End-state Date/Time: 4/9/2021 21:31 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:46 EDT			
Order Details: 3/26/21 5:46:00 PM EDT, PRN, PRN, per ICU Protocol, with neuro checks. Goal SBP of <150			
Order Comment: Maintain SBP <170 mmHg			
Action Type: Discontinue	Action Date/Time: 4/9/2021 21:31 EDT	Action Personnel: SYSTEM,SYSTEM	
Communication Type:			
Review Information: Doctor Cosign: Not Required			
Action Type: Order	Action Date/Time: 3/26/2021 17:49 EDT	Action Personnel: Khaidakova,Galimat	
Communication Type: Written			
Review Information: Nurse Review: Electronically Signed, Hall,Tyler on 3/26/2021 22:10 EDT Doctor Cosign: Not Required			

310. At1746 hrs, Dr. Khaidakova also orders that a physician or provider be notified of excessive bleeding at access sites, change in level of consciousness, back pain, bloody urine, headache, and/or neurovascular changes.

- EU 981

Order: **Notify MD/Provider -Assessment**			
Order Start Date/Time: 3/26/2021 17:46 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Communication Orders
End-state Date/Time: 4/9/2021 21:31 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:46 EDT			
Order Details: 3/26/21 5:46:00 PM EDT, Excessive bleeding at access sites, change in level of consciousness, back pain, bloody urine, headache, neurovascular changes			

311. At 1746 hrs, Dr. Khaidakova orders to hold additional anticoagulants while Yolanda is on tPA (alteplase).

- EU 976

Order: **Communication Order**			
Order Start Date/Time: 3/26/2021 17:46 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Communication Orders
End-state Date/Time: 4/9/2021 21:31 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:46 EDT			
Order Details: 3/26/21 5:46:00 PM EDT, Hold additional anticoagulants while on tPA			
Order Comment:			
Action Type: Discontinue	Action Date/Time: 4/9/2021 21:31 EDT	Action Personnel: SYSTEM,SYSTEM	
Communication Type:			
Review Information: Doctor Cosign: Not Required			

312. At 1751 hrs, Dr. Ronald Chang, vascular surgery fellow, orders a sub-therapeutic heparin protocol, not to be titrated, of 500 units per hour through the systemic IV.

- EU 969

Order: **hePARIN drip 25,000 unit(s) + Premix Diluent 250 mL**			
Order Start Date/Time: 3/26/2021 17:51 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Pharmacy	Activity Type: Pharmacy
End-state Date/Time: 3/28/2021 13:58 EDT		End-state Reason:	
Ordering Physician: Chang,Ronald		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:51 EDT			
Order Details: SUB THERAPEUTIC PROTOCOL 500 units/hr, DO NOT TITRATE, Instructions: 500 units per hour systemic IV; do not titrate, Titration Range: none, IV, 3/26/21 5:51:00 PM EDT, Total volume: 250 mL, 48 kg			
Order Comment: 500 units per hour systemic IV; do not titrate			

313. At 1752 hrs, Dr. Chang orders a sub-therapeutic heparin protocol, not to be titrated, of 250 units through the popliteal port.

- EU 968

Order: **hePARIN drip 25,000 unit(s) + Premix Diluent 250 mL**			
Order Start Date/Time: 3/26/2021 17:52 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Pharmacy	Activity Type: Pharmacy
End-state Date/Time: 3/27/2021 12:17 EDT		End-state Reason:	
Ordering Physician: Chang,Ronald		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:52 EDT			
Order Details: SUB THERAPEUTIC PROTOCOL units/kg/hr, DO NOT TITRATE, Instructions: 250 units via side port from popliteal sheath to run continuously without titration, Titration Range: none, IV, 3/26/21 5:52:00 PM EDT, Total volume: 250 mL, 48 kg			
Order Comment: 250 units without titration through popliteal port			

314. On March 26, 2021, the therapeutic range for sub-therapeutic heparin protocol is an anti-Xa level of 0.1-0.29 units/mL.

- EU 2024

SUB-THERAPEUTIC Standard Maintenance Dose Adjustments
Initial Starting Dose 9 units/kg/hr--INITIAL INFUSION RATE NOT TO EXCEED 10 mL/hr
Patients weighing greater than or equal to 112 kg, set pump at 10 mL/hr for initial set up
Maintenance Dose Adjustments

Anti Xa Level (units/mL)	Less than 0.1		0.1-0.29 (Therapeutic)	0.3-0.5	Greater than 0.5

315. On March 26, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang do not assess Yolanda for complications from the thrombectomy.

316. On March 26, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang do not address Yolanda's bleeding complication.

Labs

317. At 1804 hrs, Yolanda's white blood count has jumped from 4.1 to 10.4, which is above the reference range. Accordingly, the value is now flagged as high.

- EU 1941

318. At 1804 hrs, Yolanda's red blood cell count has dropped from 3.93 to 3.56, which is below the reference range. Accordingly, the value is now flagged as low.

- EU 1941

319. At 1804, Yolanda's hemoglobin has dropped from 11.5 to 9.7, which is below the reference range. Accordingly, the value is now flagged as low.

- EU 1941

320. At 1804, Yolanda's hematocrit has dropped from 35.5 to 30.9, which is below the reference range. Accordingly, the value is now flagged as low.

- EU 1941

Procedure / Units / Reference Range	White Blood Count 10E3/mcL [4.0-10.0]	Red Blood Cell Count 10E6/mcL [3.93-5.22]	Hemoglobin gm/dL [11.4-14.4]	Hematocrit % [33.3-41.4]	MCV fL [79.4-94.8]
3/26/2021 18:04 EDT	10.4 H *1	3.56 L *1	9.7 L *1	30.9 L *1	86.8 *1
3/25/2021 22:32 EDT	4.1 *1	3.93 *1	11.5 *1	35.5 *1	90.3 *1

321. At 1804 hrs, Yolanda's platelet count has dropped from 176 to 158.

- EU 1943

Procedure / Units / Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]
3/26/2021 18:04 EDT	48.4 H *1	0 *1	158 *1
3/26/2021 03:34 EDT	-	-	176 *1
3/25/2021 22:32 EDT	39.6 *1	0 *1	195 *1

322. On March 26, 2021, even though Yolanda's 1804 lab results are evidence of active bleeding, no nurse notifies a physician or anyone else.

323. On March 26, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang, do not address Yolanda's 1804 hematology lab results.

324. Instead, at 1830 hrs, Yolanda receives a continuous infusion of alteplase on her left leg.

- EU 1785

325. At 1900 hrs, Yolanda receives continuous infusions of alteplase and heparin on her left and right legs.

- EU 1785

Pain Management

326. At 1911 hrs, Yolanda is now "grimacing" with back pain.

- EU 1508

327. At 1911 hrs, RN Harsany administers Yolanda fentanyl for pain, by IV.

- EU 1758, EU 1831

Admin Date/Time: 3/26/2021 19:11 EDT
Medication Name: **fentaNYL (Fentanyl 100mcg/2 mL inj)**
Ingredients: fentanyl01 25 mcg 1 mL
Admin Details: (Auth) IV, Hand Left Behavioral Pain Indicators: Grimacing; Pain Scale Used: Behavioral/Physiological; Pain Type: Back

328. RN Harsany does not notify any physician or other provider of Yolanda's continuing back pain.

329. Consequently, Dr. Alabi, Dr. Khaidakova, and Dr. Chang do not consider, much less address, the back pain.

330. At 1916 hrs, Yolanda receives an injection of IV lactated ringers.

- EU 1757

331. At 2000 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1784-1785

332. At 2027 hrs, Yolanda receives 100 micrograms of fentanyl, by IV.

- EU 1757

Orders from Vascular Surgery

333. At 2056 hrs, Dr. Khaidakova orders frequent neuro checks of Yolanda.

- EU 956

Order: **Neuro Checks Frequent**			
Order Start Date/Time: 3/26/2021 20:56 EDT			
Order Status: Completed	Department Status: Completed	Catalog Type: Patient Care	Activity Type: Asmt/Tx/Monitoring
End-state Date/Time: 3/26/2021 22:06 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 20:56 EDT			
Order Details: 3/26/21 8:56:00 PM EDT, hemorrhagic stroke a potential complication of lysis, 3/26/21 10:06:02 PM EDT			

334. At 2056 hrs, Dr. Khaidakova also orders frequent neurovascular assessments of Yolanda's extremities.

- EU 956

Order: **Neurovascular Assess Extremity Frequent**			
Order Start Date/Time: 3/26/2021 20:56 EDT			
Order Status: Completed	Department Status: Completed	Catalog Type: Patient Care	Activity Type: Asmt/Tx/Monitoring
End-state Date/Time: 3/26/2021 22:06 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 20:56 EDT			
Order Details: 3/26/21 8:56:00 PM EDT, BLE, 3/26/21 10:06:06 PM EDT			

335. At 2100 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1784

336. At 2103 hrs, Yolanda again receives 100 micrograms of fentanyl, by IV.

- EU 1757

337. At 2200 hrs, Yolanda again receives continuous infusions of alteplase and heparin on her legs.

- EU 1783

338. At 2210 hrs, RN Tyler Hall signs Dr. Khaidakova's order for vital signs with neuro checks.

- EU 984

Order: **Vital Signs**			
Order Start Date/Time: 3/26/2021 17:46 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Asmt/Tx/Monitoring
End-state Date/Time: 4/9/2021 21:31 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Khaidakova,Galimat on 3/26/2021 17:46 EDT			
Order Details: 3/26/21 5:46:00 PM EDT, PRN, PRN, per ICU Protocol, with neuro checks. Goal SBP of <150			
Order Comment: Maintain SBP <170 mmHg			
Action Type: Discontinue	Action Date/Time: 4/9/2021 21:31 EDT	Action Personnel: SYSTEM,SYSTEM	
Communication Type:			
Review Information: Doctor Cosign: Not Required			
Action Type: Order	Action Date/Time: 3/26/2021 17:49 EDT	Action Personnel: Khaidakova,Galimat	
Communication Type: Written			
Review Information: Nurse Review: Electronically Signed, Hall,Tyler on 3/26/2021 22:10 EDT Doctor Cosign: Not Required			

Critical Care Consultation

339. At 2230 hrs, intensivist physician Milad Sharifpour and NP Paula Lay are consulted.

- EU 69-80

340. According to NP Lay's note, the reason for Yolanda's admission to the ICU is postoperative hemodynamic management.

- EU 69

Basic Information
Admitting Physician: Alabi, Olamide.
Attending Physician: Sharifpour, Milad.
Other Specialist: CCM , Sharifpour, Milad.
Reason for ICU Admission: postoperative hemodynamic management --> s/p Bilateral ultrasound guided popliteal vein access. IVUS of IVC and BLE. Left femoral, bilateral iliac and IVC thrombectomy and balloon angioplasty. Lysis catheter placement bilaterally..
Code Status: Full.
ICU (Day): Admitted 3/26/21.
POD (Day): 0 , s/p Bilateral ultrasound guided popliteal vein access. IVUS of IVC and BLE. Left femoral, bilateral iliac and IVC thrombectomy and balloon angioplasty. Lysis catheter placement bilaterally..

341. At about 2230 hrs, Yolanda has had an estimated blood loss of 700 mL. NP Lay does not note the red blood cell transfusion Yolanda received during the thrombectomy.

- *See* EU 74

Output			
Estimated Blood Loss - AN		700 ml	
Indwelling Urethral Cath Output:			150 ml
Urine Output - AN		235 ml	
Urine Voided mL		1225 ml	
Total Output	**2310 ml**		

342. At approximately 2230 hrs, NP Lay reviews Yolanda's labs, including red blood cell count, hemoglobin, hematocrit, PT, PTT, and heparin level.

- EU 77

Red Blood Cell Count	**3.57 10E6/mcL LOW**
Hemoglobin	**9.8 gm/dL LOW**
Hematocrit	**30.2 % LOW**
MCV	84.6 fL
MCH	27.5 pg
MCHC	32.5 gm/dL
Red Cell Distribution Width-CV	**15.8 % HI**
Red Cell Distribution Width-SD	**48.2 fL HI**
Auto Nucleated Red Cell Count	0 % NA
Platelet Count	**138 10E3/mcL LOW**
Mean Platelet Volume	**8.6 fL LOW**
Auto Nucleated Red Bood Cell, Absolute	0.0 10E3/mcL
Pt Result	**13.8 second(s) HI**
INR	1.19 NA
Partial Thromboplastin Time	**168.1 second(s) HI**
Heparin Level	1.42 unit/mL NA

343. At approximately 2230 hrs, Yolanda has acute post-procedural pain. Accordingly, NP Lay plans for frequent neuro checks.

- EU 78

Plan: Neuro:
Acute post procedural pain
- CAM (-) RASS (0)
- PRN Morphine/APAP/Oxycodone
- Freq neuro checks 2/2 increased CVA risk w/ lytic therapy

344. At about 2230 hrs, Yolanda also has "acute blood loss anemia."

- EU 79

Heme/ID:
Acute blood loss anemia/anticoagulated/h/o Protein S deficiency and multiple DVTs

345. Yolanda thus has acute blood loss anemia despite the transfusion of red blood cells she received during the thrombectomy.

346. At about 2230 hrs, NP Lay orders (i) monitoring for active bleeding, (ii) stat labs, (iii) coagulation tests and complete blood counts every 6 hours, and (iv) compliance with the protocol for heparin titration.

- EU 79

Heme/ID:
Acute blood loss anemia/anticoagulated/h/o Protein S deficiency and multiple DVTs

- afebrile
- periop abx
- monitor temp curve and WBC
- on Heparin at 250 units/hr
- on tPA at 0.5mg/hr
- monitor for active bleeding
- stat labs - coags/cbc/bmp and AM labs
- coags/CBC q 6 hours
- follow protocol for titration of gtts adjustments made based on coags/heparin level. Notify vascular sx if Fib <150.

347. On March 26, 2021, NP Lay does not notify a provider about Yolanda's acute blood loss anemia. As a result, no provider, including Dr, Alabi, Dr. Khaidakova, Dr. Chang, Dr. Sharifpour, and NP Lay, addresses Yolanda's anemia.

Nursing Care

348. At 2233 hrs, Yolanda receives continuous infusions of alteplase and heparin on her leg.

- EU 1782-1783

349. At 2233 hrs, Yolanda is now moaning with pain at a level of 7/10.

- EU 1507

350. RN Tyler Hall does not notify any physician or other provider about Yolanda's 7/10 pain. As a result, no provider, including Dr, Alabi, Dr. Khaidakova, Dr. Chang, Dr. Sharifpour, and NP Lay, takes any step to diagnose or treat the cause of Yolanda's pain.

351. At 2233 hrs, RN Tyler Hall performs a neurological assessment of Yolanda.

- EU 1410-1411

352. Yolanda's motor strength in the right and left lower extremities has dropped from 5/5 to 2/5, which means "lateral movement not against gravity."

- EU 1410-1411

353. RN Tyler Hall does not notify a physician or other provider about the lack of anti-gravity movement in Yolanda's lower extremities. As a result, no provider, including Dr, Alabi, Dr. Khaidakova, Dr. Chang, Dr. Sharifpour, and NP Lay, takes any step to address those deficits.

354. At 2233 hrs, RN Tyler Hall performs a musculoskeletal assessment of Yolanda.

- EU 1468

355. Yolanda has a weak level of motion in her left lower extremity and her right lower extremity.

- EU 1468

356. RN Tyler Hall does not notify a provider about the weak motion in Yolanda's legs. As a result, no provider, including Dr, Alabi, Dr. Khaidakova, Dr. Chang, Dr. Sharifpour, and NP Lay, takes any step to address those deficits.

357. At 2249 hrs, Yolanda receives hydromorphone, by IV.

- EU 1757

358. At 2249 hrs, Yolanda receives PO acetaminophen.

- EU 1757

359. At 2300 and 2305 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1781-1782

Orders from Vascular Surgery

360. At 2309 hrs, Dr. Khaidakova orders that a "doctor/provider" be notified if Yolanda's hematocrit drops "greater than 10% of baseline" or if her PTT is "greater than 60 seconds."

- EU 948

Order: **Notify MD/Provider -Lab/Tests**			
Order Start Date/Time: 3/26/2021 23:09 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Communication Orders
End-state Date/Time: 3/30/2021 04:45 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Lay,Paula N on 3/26/2021 23:09 EDT			
Order Details: 3/26/21 11:09:00 PM EDT, fibrinogen less than 150 mg/dL, HCT drop greater than 10% of baseline, PTT greater than 60 seconds, 3/30/21 4:45:00 AM EDT			

361. At 2309 hrs, Dr. Khaidakova orders that "Vascular Surgery MD" be notified of "heparin level of 0.1 or greater."

- EU 950

Order: **Notify MD/Provider -Lab/Tests**			
Order Start Date/Time: 3/26/2021 23:09 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Communication Orders
End-state Date/Time: 3/30/2021 04:45 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Lay,Paula N on 3/26/2021 23:09 EDT			
Order Details: 3/26/21 11:09:00 PM EDT, Call Vascular Surgery MD for Heparin Level 0.1 or greater for Heparin Titration Orders, 3/30/21 4:45:00 AM EDT			

362. At 2309 hrs, Dr. Khaidakova also orders that a "doctor/provider" be notified of back pain and neurovascular changes.

- EU 947

Order: **Notify MD/Provider -Assessment**			
Order Start Date/Time: 3/26/2021 23:09 EDT			
Order Status: Discontinued	Department Status: Discontinued	Catalog Type: Patient Care	Activity Type: Communication Orders
End-state Date/Time: 3/30/2021 04:45 EDT		End-state Reason:	
Ordering Physician: Khaidakova,Galimat		Consulting Physician:	
Entered By: Lay,Paula N on 3/26/2021 23:09 EDT			
Order Details: 3/26/21 11:09:00 PM EDT, excessive bleeding at access sites, change in level of consciousness, back pain, bloody urine, headache, neurovascular changes			

363. Dr. Khaidakova does not address Yolanda's back pain, lack of anti-gravity movement, or weak motion.

Labs

364. At 2358 hrs, Yolanda's PTT is elevated to 168.1 seconds—obviously greater than 60 seconds.

- EU 1946

Procedure Units Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/26/2021 23:58 EDT	13.8 H ^1 *1	1.19 ^2 *1	168.1 H ^3 *1	1.42 ^6 *1

365. Despite Dr. Khaidakova's order entered 49 minutes earlier (at 2309 hrs), no one notifies any physician/provider that Yolanda's PTT is greater than 60 seconds. As a result, no physician addresses Yolanda's PTT of 168.1 seconds.

366. At 2358, Yolanda's heparin is 1.42 units/mL.

- EU 1946

367. That is nearly five times the upper range for the therapeutic level of sub-therapeutic heparin protocol.

- *See* EU 2024

368. That is also 14.2 times the threshold (0.1) requiring notification to a vascular surgery physician, pursuant to Dr. Khaidakova's order.

- *See* EU 950

369. Yet neither RN Tyler Hall, nor anyone else, notifies any physician. As a result, no physician even considers, much less addresses, Yolanda's heparin level.

370. At 2358 hrs, Yolanda's red blood cell count, hemoglobin, and hematocrit remain below the reference range, and are therefore flagged as low. In fact, Yolanda's hematocrit has decreased further, this time from 30.9 to 30.2.

- EU 1941

Procedure Units Reference Range	White Blood Count 10E3/mcL [4.0-10.0]	Red Blood Cell Count 10E6/mcL [3.93-5.22]	Hemoglobin gm/dL [11.4-14.4]	Hematocrit % [33.3-41.4]	MCV fL [79.4-94.8]
3/26/2021 23:58 EDT	10.9 [H *1]	3.57 [L *1]	9.8 [L *1]	30.2 [L *1]	84.6 [*1]
3/26/2021 18:04 EDT	10.4 [H *1]	3.56 [L *1]	9.7 [L *1]	30.9 [L *1]	86.8 [*1]
3/25/2021 22:32 EDT	4.1 [*1]	3.93 [*1]	11.5 [*1]	35.5 [*1]	90.3 [*1]

371. At 2358 hrs, Yolanda's platelet count has decreased further, this time from 158 to 138. It is now below the reference range.

- EU 1943

Procedure Units Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]
3/26/2021 23:58 EDT	48.2 [H *1]	0 [*1]	138 [L *1]
3/26/2021 18:04 EDT	48.4 [H *1]	0 [*1]	158 [*1]
3/26/2021 03:34 EDT	-	-	176 [*1]
3/25/2021 22:32 EDT	39.6 [*1]	0 [*1]	195 [*1]

372. At 2358 hrs, Yolanda's acute blood loss anemia is worsening.

373. No one notifies a physician of these lab results. As a result, no physician even considers, much less addresses, the abnormal findings.

Overnight Assessments and Medications

374. On Saturday, March 27, 2021, at 0000 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1780-1781

375. At 0000 hrs, RN Tyler Hall performs a musculoskeletal assessment. Yolanda has a weak level of motion in her left lower extremity and her right lower extremity.

- EU 1467

376. RN Tyler Hall does not notify a physician of the weak motion in Yolanda's lower extremities. As a result, no physician addresses those deficits.

377. At 0053 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1780

378. At 0100 hrs, Yolanda receives Plasma-Lyte on right her arm, and continuous infusions of alteplase and heparin on her legs.

- EU 1779

379. At 0146 hrs, Yolanda receives an infusion of Plasma-Lyte on her right arm.

- EU 1779

380. At 0158 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1778-1779

381. At 0158 hrs, RN Tyler Hall performs a musculoskeletal assessment. Yolanda has a weak level of motion in her left lower extremity and her right lower extremity.

- EU 1467

382. RN Tyler Hall again does not notify a physician of the weak motion in Yolanda's lower extremities. As a result, no physician addresses those deficits.

383. At 0200 hrs, Yolanda receives Plasma-Lyte on right her arm, and continuous infusions of alteplase and heparin on her legs.

- EU 1777-1778

384. At 0253 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1777

385. At 0300 hrs, Yolanda receives Plasma-Lyte on right her arm, and continuous infusions of alteplase and heparin on her legs.

- EU 1776-1777

386. At 0345 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1776

387. At 0356 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1775

388. At 0356 hrs, RN Tyler Hall performs a musculoskeletal assessment. Yolanda has a weak level of motion in her left lower extremity and her right lower extremity.

- EU 1467

389. RN Tyler Hall again does not notify a physician of the weak motion in Yolanda's lower extremities. As a result, no physician addresses those deficits.

390. At 0400 hrs, Yolanda receives Plasma-Lyte on right her arm, and continuous infusions of alteplase and heparin on her legs.

- EU 1774-1775

391. At 0402 hrs, Yolanda receives PO acetaminophen-oxycodone.

- EU 1755

392. At 0500 hrs, Yolanda receives Plasma-Lyte on right her arm, and continuous infusions of alteplase and heparin on her legs.

- EU 1774

393. At 0509 hrs, Yolanda receives continuous infusions of alteplase and heparin on her legs.

- EU 1773

Labs

394. At 0545 hrs, Yolanda's PT is 13.1 seconds, and her PTT is 87.9 seconds. Both values are flagged as high.

- EU 1946

Procedure Units Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/27/2021 05:45 EDT	13.1 H ^1 *1	1.13 ^2 *1	87.9 H ^3 *1	0.87 ^4 *1

395. At 87.9 seconds, Yolanda's PTT continues to be greater than 60 seconds.

396. Despite Dr. Khaidakova's order at 2309 hrs the night before, no one notifies any physician or other provider that Yolanda's PTT is greater than 60 seconds.

- *See* EU 950

397. As a result, on March 27, 2021, no physician even considers, much less addresses, Yolanda's elevated PTT of 87.9 seconds.

398. At 0545 hrs, Yolanda's heparin level is 0.87 units/mL.

- EU 1946

399. That is three times the upper range for the therapeutic level of sub-therapeutic heparin protocol.

- *See* EU 2024

400. That is also 8.7 times the threshold (0.1) requiring notification to a vascular surgery physician, under Dr. Khaidakova's order at 2309 hrs.

- *See* EU 950

401. No one notifies any physician of Yolanda's heparin level. As a result, no physician even considers, much less addresses, Yolanda's heparin level.

402. At 0545 hrs, Yolanda's red blood cell count, hemoglobin, and hematocrit remain below the reference range. Each is flagged as low.

- EU 1941

Procedure Units Reference Range	White Blood Count 10E3/mcL [4.0-10.0]	Red Blood Cell Count 10E6/mcL [3.93-5.22]	Hemoglobin gm/dL [11.4-14.4]	Hematocrit % [33.3-41.4]	MCV fL [79.4-94.8]
3/27/2021 05:45 EDT	8.9 *1	3.31 L *1	9.0 L *1	28.1 L *1	84.9 *1
3/26/2021 23:58 EDT	10.9 H *1	3.57 L *1	9.8 L *1	30.2 L *1	84.6 *1
3/26/2021 18:04 EDT	10.4 H *1	3.56 L *1	9.7 L *1	30.9 L *1	86.8 *1
3/25/2021 22:32 EDT	4.1 *1	3.93 *1	11.5 *1	35.5 *1	90.3 *1

403. In addition, Yolanda's red blood cell count has decreased from 3.57 to 3.31, her hemoglobin from 9.8 to 9.0, and her hematocrit from 30.2 to 28.1.

- EU 1941

404. At 0545 hrs, Yolanda's platelet count remains below the reference range and is therefore again flagged as low.

- EU 1943

405. In addition, Yolanda's platelet count has dropped further—from 138 to 124.

- EU 1943

Procedure / Units / Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]
3/27/2021 05:45 EDT	49.2 H *1	0 *1	124 L *1
3/26/2021 23:58 EDT	48.2 H *1	0 *1	138 L *1
3/26/2021 18:04 EDT	48.4 H *1	0 *1	158 *1
3/26/2021 03:34 EDT	-	-	176 *1
3/25/2021 22:32 EDT	39.6 *1	0 *1	195 *1

406. At 0545 hrs, Yolanda's acute blood loss anemia is worsening.

407. No one notifies a physician of these lab results. As a result, no physician even considers, much less addresses, the abnormal findings.

Nursing Care

408. At 0600 hrs, Yolanda remains on alteplase, heparin, and Plasma-Lyte infusions.

- EU 1773

409. At 0610 hrs, Yolanda remains on alteplase and heparin drips.

- EU 1772

410. At 0610 hrs, RN Tyler Hall performs a musculoskeletal assessment. Yolanda continues to have a weak level of motion in both legs.

- EU 1466

411. RN Tyler Hall does not notify a physician of the weak level of motion in Yolanda's legs. As a result, no physician addresses those deficits.

412. At 0655 hrs and 0728, Yolanda remains on alteplase and heparin drips.

- EU 1771-1772

Hematology Consultation

413. At 0741 hrs, Dr. Christine Kempton, of hematology and oncology, is consulted, for evaluation of protein S deficiency and for anticoagulation recommendations.

- EU 66

DOCUMENT NAME:	Consultations
SERVICE DATE/TIME:	3/27/2021 07:41 EDT
RESULT STATUS:	Auth (Verified)
PERFORM INFORMATION:	Kempton,Christine L (3/28/2021 08:13 EDT)
SIGN INFORMATION:	Kempton,Christine L (3/28/2021 08:13 EDT)

Reason for Consultation
Evaluation of protein S deficiency - anticoagulation recommendations - requested by Dr. Olamide Alabi (Vascular Surgery)

414. At 0741 hrs, Yolanda is in significant pain in her left leg.

- EU 67

sub acute and chronic thrombus was seen. She was started on alteplase 0.5 mg/hour. Prior CT scan of the chest performed at OSH was reported to not have PE. She denies any SOB or chest pain. She is in significant pain in her left leg.

415. Yolanda does not have a clinically significant protein S deficiency or other relevant thrombophilia. Accordingly, Dr. Kempton recommends cancelling the ordered thrombophilia testing.

- EU 68

416. At 0800 hrs, Yolanda is again moaning in pain.

- EU 1506

Recorded Date Recorded Time Recorded By	3/27/2021 08:00 EDT Price,Keera E
Procedure	
Pain Scale Used	Behavioral/Physiological
Pain Score	-
Behavioral Pain Indicators	Moaning

417. Nevertheless, RN Keera Price forgoes a neurological assessment of Yolanda.

- *See* EU 1409

Second Vascular Surgery Procedure

418. At 0817 hrs, Yolanda is admitted to the OR for a vascular procedure.

- EU 95

419. Prior to the procedure, Dr. Alabi does not document any exam or evaluation of Yolanda. Dr. Alabi does not document whether Yolanda can move her legs.

420. Prior to the procedure, Dr. Alabi does not address any of Yolanda's clinical changes, including her hematology lab results and neurological deficits.

421. At 0907 hrs, Dr. Alabi, as primary surgeon, begins the procedure.

- EU 95

422. The procedure includes lysis check, venogram, and bilateral iliofemoral venoplasty.

- EU 95

423. At 1006 hrs, Dr. Alabi completes the vascular procedure.

- EU 95

424. At 1042 hrs, RN Leela Miller receives Yolanda from the OR.

- EU 1155

Nursing Assessment of Neurological Deficits

425. At 1113 hrs, RN Shaquira Hall performs a musculoskeletal assessment. Yolanda now has absent motion and tingling sensation in both lower extremities.

- EU 1466

Recorded Date Recorded Time Recorded By	3/27/2021 11:13 EDT Hall,Shaquira A
Procedure	
Temperature LUE	Warm
Edema LUE	None
Motion LUE	Strong
Capillary Refill RUE	Normal < 2-3 seconds
Sensation RUE	Intact
Color RUE	Within normal limits
Temperature RUE	Warm
Edema RUE	None
Motion RUE	Strong
Capillary Refill LLE	Normal < 2-3 seconds
Sensation LLE	Tingling
Color LLE	Within normal limits
Temperature LLE	Cool
Edema LLE	1+ trace
Motion LLE	Absent
Capillary Refill RLE	Normal < 2-3 seconds
Sensation RLE	Tingling
Color RLE	Within normal limits
Temperature RLE	Cool
Edema RLE	1+ trace
Motion RLE	Absent

426. At 1113 hrs, RN Shaquira Hall notes that a resident is aware of Yolanda's absent motion in the bilateral lower extremities (left and right legs).

- EU 1155

Notification of Neurological Deficits to Critical Care

427. At approximately 1130 hrs, a nurse informs Dr. Alexander Kosiak, critical care resident physician under Dr. Milad Sharifpour, that Yolanda is unable to move her legs.

- EU 283

- **At approximately 1130 today, notified by bedside RN that patient was not moving her lower extremities but was still fairly sedated from General Anesthesia so this was difficult to fully assess. Reassessed at 1345 when patient more alert, patient was unable to move her legs bilaterally as noted in neuro exam above (absent motor function of bilateral LE, sensory deficits at approximately L2-L3 dermatomal level). Vascular Surgery notified immediately and came to bedside as soon as they were available. Dressings were loosened, no change in exam. Neurology consulted urgently and a STAT noncontrast CT head and MRI thoracic and lumbar spine with and without contrast were ordered. Results are pending.**

Nursing Assessment

428. At 1200 hrs, RN Shaquira Hall performs a neurological assessment. Yolanda's legs have 0/5 motor strength, demonstrate no movement, and are flaccid.

- EU 1409

Recorded Date Recorded Time Recorded By	3/27/2021 20:00 EDT Schink,Kevin P	3/27/2021 12:00 EDT Hall,Shaquira A
Procedure		
Swallowing Difficulty	-	Risk for aspiration
Risk For Aspiration	-	See Below T94
Extremity Movement	-	Unequal
Hand Grips	-	Equal
Gait	-	Unable to assess
Pupil Size,Left	3	3
Pupil Description,Left	Round	Round
Pupil Reaction-Pupil,Left CN III	Brisk	Brisk
Pupil Size,Right	3	3
Pupil Description,Right	Round	Round
Pupil Reaction-Pupil,Right CN III	Brisk	Brisk
Dysarthria	-	See Below T96
Facial Symmetry Neuro	-	Symmetric
Motor Strength All Extremities	See Below T119	See Below T120
Motor Strength LUE	5 - Normal movement	5 - Normal movement
Motor Strength RUE	5 - Normal movement	5 - Normal movement
Motor Strength LLE	0 - No movement, flaccid	0 - No movement, flaccid
Motor Strength RLE	0 - No movement, flaccid	0 - No movement, flaccid

429. Nevertheless, RN Shaquira Hall does not inform a physician of these findings, let alone request a physician to examine Yolanda.

Labs

430. At 1213 hrs, Yolanda's PT is 13.6 seconds, and her PTT has risen to 110.2 seconds. Both values are again flagged as high.

- EU 1946

Procedure Units Reference Range	Pt Result second(s) [9.4-12.5]	INR	Partial Thromboplastin Time second(s) [25.1-36.5]	Heparin Level unit/mL
3/27/2021 12:13 EDT	13.6 H ^1 *1	1.17 ^2 *1	110.2 H ^3 *1	1.00 ^4 *1

431. At 110.2 seconds, Yolanda's PTT continues to be greater than 60 seconds.

432. Despite Dr. Khaidakova's order at 2309 hrs the night before, no one notifies any physician or other provider that Yolanda's PTT is greater than 60 seconds.

433. As a result, no physician addresses Yolanda's elevated PTT.

434. At 1213 hrs, Yolanda's heparin level is 1.00 units/mL.

- EU 1946

435. That is more than three times the upper range for the therapeutic level of sub-therapeutic heparin protocol.

- *See* EU 2024

436. That is also 10 times the threshold (0.1) requiring notification to a vascular surgery physician, pursuant to Dr. Khaidakova's order.

- *See* EU 950

437. Yet no one notifies a physician of Yolanda's heparin level. As a result, no physician even considers, much less addresses, the heparin level.

438. At 1213 hrs, Yolanda's red blood cell count, hemoglobin, and hematocrit remain below the reference range. Each is again flagged as low.

- EU 1941

439. In addition, each value has decreased further: her red blood cell count from 3.31 to 3.24, her hemoglobin from 9.0 to 8.9, and her hematocrit from 28.1 to 27.7.

- EU 1941

Procedure Units Reference Range	White Blood Count 10E3/mcL [4.0-10.0]	Red Blood Cell Count 10E6/mcL [3.93-5.22]	Hemoglobin gm/dL [11.4-14.4]	Hematocrit % [33.3-41.4]	MCV fL [79.4-94.8]
3/27/2021 12:13 EDT	9.5 *1	3.24 L *1	8.9 L *1	27.7 L *1	85.5 *1
3/27/2021 05:45 EDT	8.9 *1	3.31 L *1	9.0 L *1	28.1 L *1	84.9 *1
3/26/2021 23:58 EDT	10.9 H *1	3.57 L *1	9.8 L *1	30.2 L *1	84.6 *1
3/26/2021 18:04 EDT	10.4 H *1	3.56 L *1	9.7 L *1	30.9 L *1	86.8 *1
3/25/2021 22:32 EDT	4.1 *1	3.93 *1	11.5 *1	35.5 *1	90.3 *1

440. At 1213 hrs, Yolanda's platelet count (138) remains below the reference range and is therefore again flagged as low.

- EU 1943

Procedure Units Reference Range	Red Cell Distribution Width-SD fL [35.1-43.9]	Auto Nucleated Red Cell Count %	Platelet Count 10E3/mcL [150-400]
3/27/2021 12:13 EDT	49.0 H *1	0 *1	138 L *1
3/27/2021 05:45 EDT	49.2 H *1	0 *1	124 L *1
3/26/2021 23:58 EDT	48.2 H *1	0 *1	138 L *1
3/26/2021 18:04 EDT	48.4 H *1	0 *1	158 *1
3/26/2021 03:34 EDT	-	-	176 *1
3/25/2021 22:32 EDT	39.6 *1	0 *1	195 *1

441. At 1213 hrs, Yolanda's acute blood loss anemia is worsening.

442. Yet no one notifies a physician of these hematology lab results. As a result, no physician even considers, much less addresses, the abnormal findings.

Nursing Assessment

443. At 1300 hrs, RN Shaquira Hall performs a musculoskeletal assessment. Yolanda continues to have absent motion and tingling sensation in both legs.

- EU 1465

444. Yet RN Shaquira Hall does not even inform a physician of these findings, let alone request a physician to examine Yolanda.

445. At 1300 hrs, Yolanda remains on a heparin drip, on her left leg.

- EU 1769

Critical Care Assessment

446. At 1345 hrs, Dr. Kosiak reassesses Yolanda. She is unable to move her legs bilaterally and has sensory deficits at the L2-L3 dermatomal level.

- EU 283

> **- At approximately 1130 today, notified by bedside RN that patient was not moving her lower extremities but was still fairly sedated from General Anesthesia so this was difficult to fully assess. Reassessed at 1345 when patient more alert, patient was unable to move her legs bilaterally as noted in neuro exam above (absent motor function of bilateral LE, sensory deficits at approximately L2-L3 dermatomal level). Vascular Surgery notified immediately and came to bedside as soon as they were available. Dressings were loosened, no change in exam. Neurology consulted urgently and a STAT noncontrast CT head and MRI thoracic and lumbar spine with and without contrast were ordered. Results are pending.**

447. At 1353 hrs, Yolanda remains on a heparin drip, on her left leg.

- EU 1769

448. At 1400 and 1401 hrs, Yolanda remains on a heparin drip, on her left leg.

- EU 1769

449. At 1401 hrs, RN Shaquira Hall performs a musculoskeletal assessment. Yolanda continues to have absent motion and tingling sensation in both legs.

- EU 1465

450. At 1406 hrs, Yolanda remains on a heparin drip, on her left leg.

- EU 1769

Critical Care Physician at Bedside

451. At 1410 hrs, Dr. Milad Sharifpour, of anesthesiology and critical care, consults on Yolanda's case.

- EU 285

452. Yolanda is not moving her bilateral lower extremities but has intact sensation.

- EU 285

N: CAM -, RASS 0. She is not currently moving her b/l LEs but has intact sensation. Vascular surgery is notified.
CV: Off vasoactive infusions. PRN anti-HTN meds.
Renal: No acute issues
GI: ADAT
Heme: tPA is off. On systemic heparin infusion
ID: Afebrile, no abx
Endo: Hx of type II DM, on SSI
PPx: Heparin infusion.

Electronically Signed on 03/27/2021 02:17 PM by Sharifpour, Milad, MD

453. Vascular surgery is then notified.

- EU 285

Vascular Surgery at Bedside

454. At 1420 hrs, Dr. Chang consults on Yolanda's case.

- EU 275

455. Yolanda is unable to move her bilateral lower extremities.

- EU 275

456. Yolanda complains of paresthesia.

- EU 275

457. Yolanda cannot flex at the hips.

- EU 275

458. Yolanda's motor exam is 1/5 for left knee extension, 0/5 for right knee extension, 0/5 for bilateral knee flexion, and 0/5 for bilateral foot and toe plantar and dorsiflexion.

- EU 275

459. Yolanda has abnormal sensation below the mid thighs bilaterally.

- EU 275

460. Yolanda has weak but not flaccid rectal tone.

- EU 275

> On assessment of patient at around 1420, she was unable to move BLE and complained of parasthesias. Removing bilat compressive dressings did not help. She had palpable DP pulse bilat and biphasic PT signals bilat. No bleeding from popliteal access sites. She was unable to flex at the hips; had 1/5 on L knee extension and 0 on right; had 0 out of 5 for knee flexion and foot/toe plantar/dorsi flexion bilat. On fine touch, she felt sensation was abnormal below mid thighs bilat, but had no overt numbness. Rectal tone seemed weak but not flaccid.

461. At 1427 hrs, a vascular fellow notifies Dr. Alabi that Yolanda cannot move her legs.

- EU 276

462. Noting that she saw Yolanda move her legs prior to the morning's procedure, Dr. Alabi notes difficulty in identifying the time of onset.

- EU 276

463. Dr. Alabi decides to stop the heparin drip, noting an "initial concern" that bleeding may be causing deficits.

- EU 276

I was notified at 2:27pm by the on call vascular fellow that Ms Ratchford could not move her legs
It is difficult to determine the time of onset
I witnessed her moving her legs prior to her procedure this morning, she was intubated, and still relatively sedated when she was extubated. 5E ICU staff alerted us around 2pm, immediately when they became aware of it.
She has intact sensation to pin prick (although subjectively when asked she states it feels diminished but not absent). She does not move her legs on either side. She is awake and cognizant. She denies abdominal or back pain. Her abdomen is soft and without ecchymoses (no suggestion of a pelvic or retroperitoneal hematoma on exam). Groins flat, popliteal fossa flat. Palpable pedal pulses.

Heparin gtt held given initial concern for bleed causing this.

464. At 1428 hrs, the heparin drip is stopped.

- EU 1769

Imaging Orders

465. At 1445 hrs, because of the motor loss on Yolanda's legs and because of her sensory deficits, Dr. Kosiak orders an MRI of the thoracic spine with and without contrast.

- EU 882

Order: **MRI Spine Thoracic w/+ w/o Contrast**			
Order Start Date/Time: 3/27/2021 14:45 EDT			
Order Status: Completed	Department Status: Completed	Catalog Type: Radiology	Activity Type: Radiology
End-state Date/Time: 3/28/2021 12:28 EDT		End-state Reason:	
Ordering Physician: Kosiak,Alexander D		Consulting Physician:	
Entered By: Kosiak,Alexander D on 3/27/2021 14:45 EDT			
Order Details: Stat, 3/27/21 2:45:00 PM EDT, Reason: Other, Other; BLE motor loss and sensory deficit/paresthesia. S/p catheter directed thrombolysis., Please rule out epidural hematoma vs spinal cord ischemia, etc., None, No Sedation			

466. The order asks to "rule out epidural hematoma vs. spinal cord ischemia, etc."

- EU 882

467. At 1445 hrs, Dr. Kosiak also orders an MRI of the lumbar spine with and without contrast.

- EU 881

Order: **MRI Spine Lumbar w/+ w/o Contrast**			
Order Start Date/Time: 3/27/2021 14:45 EDT			
Order Status: Completed	Department Status: Completed	Catalog Type: Radiology	Activity Type: Radiology
End-state Date/Time: 3/28/2021 12:28 EDT		End-state Reason:	
Ordering Physician: Kosiak,Alexander D		Consulting Physician:	
Entered By: Kosiak,Alexander D on 3/27/2021 14:45 EDT			
Order Details: Stat, 3/27/21 2:45:00 PM EDT, Reason: Other, Other; BLE motor loss and sensory deficit/paresthesia. S/p catheter directed thrombolysis., Please rule out epidural hematoma vs spinal cord ischemia, etc., None, No Sedation			

468. This order also asks to "rule out epidural hematoma vs. spinal cord ischemia, etc."

- EU 882

469. At 1500 hrs, Dr. Chang orders a stat CT scan of the abdomen and pelvis without IV contrast.

- EU 880

470. At 1509 hrs, Dr. Shi orders a stat CTA of the neck with contrast.

- EU 879

471. At 1509 hrs, Dr. Shi orders a stat CTA of the head with and without contrast.

- EU 877

472. At 1533 hrs, Yolanda undergoes the CT scan of the abdomen and pelvis.

- EU 1096-1097

473. The CT scan is severely limited without contrast.

- EU 1096-1097

474. The CT scan reveals a calcified thrombus within Yolanda's IVC.

- EU 1096-1097

475. At 1536 hrs, Yolanda undergoes the CTAs of the head and neck.

- EU 1093

476. The studies reveal no acute intracranial abnormality and no large vessel occlusion or flow-limiting stenosis within the head and neck.

- EU 1095

477. At 1540 hrs, RN Shaquira Hall performs a musculoskeletal assessment. Yolanda continues to have absent motion and tingling sensation in both legs.

- EU 1464

Neurology Consultation

478. At 1541 hrs, neurology resident physician Dr. Ashley Nutt and neurologist Dr. Hang (Helen) Shi, consult on Yolanda's case.

- EU 62

479. Dr. Nutt notes that Yolanda has bilateral lower extremity weakness. Yolanda's bilateral lower extremities are flaccid.

- EU 62

480. Yolanda's presentation is concerning for an ASA infarction.

- EU 62

481. Dr. Nutt considers spinal hematoma as less likely because of the popliteal access for Yolanda's vascular procedures.

- EU 62

482. Nevertheless, noting the presence of spinal epidural air on Yolanda's CT imaging, Dr. Nutt recommends a stat MRI of the thoracic and lumbar spine.

- EU 62

483. Dr. Nutt recommends that neurosurgery be urgently consulted if Yolanda's MRIs show spinal cord pathology.

- EU 62

(3/27). Patient has new onset b/l lower extremity weakness (flaccid exam) post-op concerning for ASA infarct. It does not appear patient was ever hypotensive in OR, but is possible she threw a clot to ASA. Her presentation is less likely secondary to intracranial process given she has no azygos ACA and patent ACAs on CTA head. Hematoma compressing spinal cord is also less likely etiology of b/l lower extremity weakness given popliteal access for procedures.

Additionally, Ms Ratchford was noted to have epidural air on sagittal spinal CT images today, which is difficult to explain given patient has not had documented lumbar puncture or epidural anesthesia, and likelihood of air traveling into epidural space from venous procedure or even pneumomediastinum is exceedingly rare. Will manage symptomatically for now.

Recommendations:
-stat MRI T/L spine to evaluate for cord pathology such as infarct or compression
-administer 100/% FiO2 to try and decrease epidural air
-sedation prior to MRI spine as patient's discomfort limiting ability to lay still
-if patient has spinal pathology on MRI please consult neurosurgery urgently

484. At 1640 hrs, RN Shaquira Hall performs a musculoskeletal assessment. Yolanda continues to have absent motion and tingling sensation in both legs.

- EU 1464

MRI Results

485. At 1926 hrs, Yolanda's MRIs, ordered by Dr. Kosiak, are interpreted.

- EU 1090-1092

486. The MRIs reveals critical abnormalities, including.

a. **an extensive epidural hematoma within the dorsal epidural space** from the cervicothoracic junction into the lumbar spine, **causing multiple levels of severe spinal canal stenosis**; and

b. **a ventral epidural hematoma** within the lumbar spine.

- EU 1090-1092

487. The combination of these two hematomas results in **critical thecal sac stenosis and cauda equina compression**.

- EU 1090-1092

IMPRESSION:
1. Extensive, confluent epidural hematoma within the dorsal epidural space extending from the cervicothoracic junction and inferiorly into the lumbar spine, causing multiple levels of severe spinal canal stenosis within the thoracic spine. CTA of the head and neck obtained earlier on the same day demonstrated extension of this collection into the dorsal cervical epidural space as well. No definite cord signal abnormality.

2. Additional ventral epidural hematoma is present within the lumbar spine, which in combination with the dorsal epidural hematoma results in critical thecal sac stenosis and cauda equina compression.

3. Trace bilateral pleural effusions and free intraperitoneal and intrapelvic fluid.

4. Loss of bilateral iliac vein flow voids, could reflect sluggish flow versus thrombus. Correlate with Doppler findings.

488. The CTA of the head and neck taken earlier the same day reveals that the dorsal epidural hematoma has extended into the dorsal cervical epidural space.

- EU 1090-1092

489. At 1939 hrs, Dr. Frederick Kebbel reads back and verifies the MRIs' critical findings with Dr. Chang.

- EU 1092

490. At 1952 hrs, PA-C Lenoci notes that Yolanda's imaging shows a large and extensive epidural hematoma resulting in significant spinal cord compression and multiple levels of spinal canal stenosis.

- EU 272

491. By 1952, Vascular Surgery has consulted "Spine," who is currently at another hospital tending to "another emergency."

- EU 272

- 19:52 - Discussed w/ Vascular Surgery Fellow Ronald Chang
  - Per Vascular, radiology wet read noting large and extensive epidural hematoma beginning at the level of the cervicothoracic junction resulting in significant chord compression and multiple levels of spinal canal stenosis
  - Vascular Surgery has consulted Spine, who is currently at an OSH tending to another emergency.

Spine Surgery Resident at Bedside

492. At 2045 hrs, a spinal surgery resident physician is at Yolanda's bedside.

- EU 273

20:45 - Spinal Surgery Resident at bedside. Awaiting further recs from attending

493. At 2105 hrs, surgical teams plan to take Yolanda to the OR emergently for spinal decompression.

- EU 273

21:05 - Plan to take pt to OR emergently for spinal decompression. Consents obtained by surgical teams.

Spine Surgeon at Bedside

494. At 2113 hrs, Dr. Dheera Ananthakrishnan, of orthopedic spinal surgery, notes an extensive dorsal hematoma in Yolanda's cervicothoracic spine and a multilevel hematoma, both dorsal and ventral, in her lumbar spine.

- EU 271

495. Dr. Ananthakrishnan determines that Yolanda will likely need a perioperative blood transfusion.

- EU 271

DOCUMENT NAME:	Progress Notes Hospital
SERVICE DATE/TIME:	3/27/2021 21:13 EDT
RESULT STATUS:	Auth (Verified)
PERFORM INFORMATION:	Ananthakrishnan,Dheera A (3/27/2021 21:22 EDT)
SIGN INFORMATION:	Ananthakrishnan,Dheera A (3/27/2021 21:22 EDT)

MRI T and L spine evaluated, Extensive dorsal cervicothoracic hematoma as well as multilevel lumbar hematoma both dorsal and ventral. Per Dr Patton the patient has altered sensation below the umbilicus and zero motor function in the legs, arms are intact. Case D/W Ronald Chang of the vascular surgery service, he and Dr Alibi are agreeable for us to perform a multilevel thoracic and lumbar hematoma Case d/w anesthesia, case is posted as an emergency. Pts hemoglobin is 8.3, plt 103 likely will transfuse perioperatively.
Vascular surgery service understands that the patient cannot be anticoagulated after this procedure due to risk of hemorrhage and recurrence of hematoma. Plan to go to the OR tonight.

Laminectomy

496. From March 27, 2021, at 2225 hrs to March 28, 2021, at 0258 hrs, Dr. Ananthakrishnan acts as primary surgeon for Yolanda's laminectomy surgery.

- EU 84

497. At approximately 2321 hrs, the laminectomy begins.

- EU 144

498. On March 28, 2021, at 0310 hrs, Dr. Ananthakrishnan writes the operative report for Yolanda's laminectomy.

- EU 116-117

499. Yolanda was frankly coagulopathic during the entirety of the operation.

- EU 116-117

> L5 were cleaned of all investing soft tissues using Bovie electrocautery. I should note that the patient was frankly coagulopathic during the entirety of

> this case.

Hematology Progress Note

500. On March 29, 2021, at 0751 hrs, Dr. Kempton evaluates Yolanda.

- EU 257

501. Dr. Kempton concludes that Yolanda's risk factors for bleeding **were supratherapeutic unfractionated heparin in conjunction with alteplase.**

- EU 257

> **Addendum by Kempton, Christine L on March 29, 2021 22:20:48 EDT**
> **ATTENDING ATTESTATION:** I saw and evaluated the patient with Ms. Leeson. I agree with the findings and plan. 42 year-old unfortunate women with prior OCP-associated thrombosis now with bilateral LE dVT and IVC thrombosis with attempted thrombolysis c/b spinal hematoma now s/p laminectomy. Anticoagulation on hold. Although therapeutic AC may not be appropriate for some time, favor starting at a minimum UFH 5000 SC q 8 hours 48-72 hours after laminectomy and hemostasis achieved. Her risk of new thrombotic complications increase as the anticoagulation is held J Thromb Haemost . 2010 Jul;8(7):1500-8. doi: 10.1111/j.1538-7836.2010.03882.x. Epub 2010 Apr 8. Anticoagulation can be titrated up as tolerated without achieving a full therapeutic dose until after 7-14 days. Her bleeding risk factors were supratherapeutic UFH in conjunction with alteplase; these are not ongoing risk factors.

Discharge from Emory University Hospital

502. On April 9, 2021, at 0854 hrs, Yolanda is discharged from Emory University Hospital.

- EU 14

503. Yolanda's discharge diagnosis is "epidural hematoma with severe bilateral lower extremity paresis."

- EU 14

Hospital Course
ADMIT DATE: 3/25/2021
DISCHARGE DATE: 4/9/2021

ADMIT DX:
Iliofemoral Thrombus

DISCHARGE DIAGNOSIS: Same as above plus epidural hematoma with severe bilateral lower extremity paresis

REASON FOR HOSPITALIZATION: Iliofemoral Thrombus plus epidural hematoma

Admission to Shepherd Center

504. At 1511 hrs, Dr. Brock Bowman admits Yolanda to inpatient treatment in the spinal cord injury unit at Shepherd Center.

- SC 861

505. Yolanda is admitted to Shepherd Center for assessment of physiological impairments and inpatient rehabilitation.

- SC 876

506. Shepherd Center providers plan for an acute rehab level of care for Yolanda.

- SC 961-962

Impairment Testing

507. On April 10, 2021, Yolanda has an Asia Impairment Scale (AIS) score of C.

- SC 1299

508. Yolanda's neurological level of spinal cord injury is T5.

- SC 1299

INSCSCI SCORES Assessment Type: Admission (04/10/21 0800) Neurological Level of Injury: T5 Asia Impairment Scale (AIS): C		
	LEFT	**RIGHT**
Upper Extremity Motor Score	25	25
Lower Extremity Motor Score	3	2
Light Touch Score	47	47
Pin Prick Score	50	43
Motor Neurological Level	T5	T5
Sensory Neurological Level	T5	T5

Wheelchair Prescriptions

509. On April 29, 2021, Physical Therapist Sarah Leonard prescribes Yolanda a wheelchair.

- SC 1275

510. Yolanda has a T5 incomplete spinal cord injury and will need a wheelchair her whole "lifetime."

- SC 1275

511. On May 5, 2021, Physical Therapist Lindsay Brinker prescribes Yolanda a power assist device for her wheelchair, to assist with propulsion.

- SC 1279

Explanation of Medical Necessity:[LB.1T]

Smart Drive Power Assist Device
Ms. Ratchford presents with a T5 AIS C spinal cord injury. Your client has weakness in bilat LE and UE and has spasticity and pain in left lower extremity that prevents your client from safely and efficiently negotiating over the terrain that is frequently encountered throughout the day including hills, potential van ramp, thresholds and carpet. Your client demonstrated the ability to safely use this product during evaluation. This product is a power assist device, added onto wheelchair, which decreases the amount of times that a person has to push the rim of the wheelchair. When activated, the motor propels the user until it is given a command to stop. Your client will be able to negotiate up inclines independently with the use of these wheels that will allow safety and independence in the home, workplace and the community with ramps, curb cuts and other uneven terrain. The power assist will provide assistance during propulsion and will significantly decrease the stress and repetitive motion of the shoulders and wrists. In addition to decreasing upper extremity pain and predisposition for future injury, this device will also decrease the energy consumption of manual wheelchair propulsion. By increasing the efficiency and decreasing effort, your client will be able to complete daily activities, work-related functions, and family and community responsibilities in a more timely manner with less energy expenditure, allowing maintenance of a consistent level of functional independence. Your client has to travel increased distances for her work, which would be very difficult to do without a power assist device. This device can be removed from the frame of the chair easily and will not create restrictions for loading into a car compared to a power wheelchair that typically requires van transport. Maintaining an active lifestyle for a person with a spinal cord injury is essential to quality of life and perceived satisfaction with life experience. With persons who use manual wheelchairs, the amount of social

Discharge from Shepherd Center

512. On May 26, 2021, Yolanda is discharged from the Shepherd Center inpatient acute rehabilitation program.

- SC 876

513. Yolanda's primary discharge diagnosis is **incomplete paraplegia**.

- SC 877

514. At discharge, Yolanda's active problems include **paraplegia, neurogenic bowel, neurogenic bladder, lumbar canal stenosis, and neuropathic pain**.

- SC 877

515. Yolanda will require a manual wheelchair for safety, mobility, and to perform activities of daily living.

- SC 879

Admission to Shepherd Center Day Program

516. On May 27, 2021, Yolanda is admitted to the Shepherd Center Spinal Cord Injury Day Program.

- SC 2378

Discharge from Shepherd Center Day Program

517. On June 18, 2021, Yolanda is discharged from the Program, with these high-priority problems: **incomplete paraplegia, lumbar canal stenosis, neurogenic bladder, neurogenic bowel, neuropathic pain, and paraplegia.**

- SC 6-7

Admission to EAMC

518. On September 7, 2021, Yolanda is admitted to East Alabama Medical Center ("EAMC") hospital for abdominal pain and bilateral lower extremity weakness.

- EAMCb 236

519. On September 8, 2021, Yolanda undergoes an MRI at EAMC.

- EAMCb 236

520. The MRI reveals that Yolanda **has spinal cord pathology throughout her spine, including dramatic distortion of cauda equina nerve roots which is thought to be severe arachnoiditis and scarring from spinal surgery**.

- EAMCb 236

- MRI Cervical Spine - 1. There is a subtle finding of diffuse long segment T2 hyperintense signal in the midline of the dorsal spinal cord. This was not present on the MRI December 2020. 2. This could reflect subacute combined degeneration of the cord from vitamin B12 deficiency. Other possibilities include demyelination or infection. Recommend neurology consultation for further evaluation

- MRI Spine thoracic - 1. Thoracic spinal cord also has abnormal long segment T2 hyperintensity in the midline of the dorsal spinal cord involving the entire thoracic spinal cord from T1-T11. This is also present throughout the cervical spinal cord. 2. Differential diagnosis remains the same as the cervical spine MRI report including subacute combined degeneration of vitamin B12 deficiency, demyelination, and infectious etiologies. Neurology consultation needed.

MRI Spine Lumbar - 1. Patient has undergone extensive laminectomy L1-L4 since the prior CT in March of this year. There is dramatic distortion of the cauda equina nerve roots throughout the lumbar spine thecal sac. I presume this is all severe arachnoiditis and scarring from surgery. 2. I would recommend MRI with IV contrast to rule out any abnormal enhancement given the dramatic distortion changes present. 3. This distortion in the lumbar spine and surgical change may be the source of the signal abnormality seen in the dorsal column of the cervical and thoracic spinal cord since the surgery has occurred since the prior cervical spine MRI December 2020. 4. Scar tissue fills the bilateral L5/S1 neural foramen with nerve root impingement.

521. On September 8, 2021, Neurologist Nojan Valadi consults on Yolanda's case. Yolanda has chronic lower extremity weakness, which may be permanent. Yolanda's prognosis for ambulation may remain poor.

- EAMCb 247

Patient with chronic lower extremity weakness since March/April 2021, with some improvement with therapy, and no worsening or new bowel/bladder symptoms to suggest new neurological insult. She is s/p laminectomy of T4-T6 & L2-L5 to address the epidural hematomas @ C-T jxn, however with persistent paraparesis. Patient remains at her new baseline, and has improved some in the right LE compared to previous weeks. If not already done, would advise checking B12, TSH, heavy metal panel order to rule out subacute combine degeneration. I think given her recent improvement, it may be reasonable to re-evaluate for inpatient rehabilitation, now w/ cord edema decreased, she may have an opportunity for more improvement, but chances may be very low. However as discussed w/ Dr. Ryan and patient, her prognosis for ambulation may remain poor and her LE weakness may be permanent, although with some room for improvement.

NCEA Neurology Consultation

522. On December 7, 2021, Neurologist Amanda Reimer consults on Yolanda's case at Neurology Center of East Alabama ("NCEA"). Yolanda has "paraplegia following spinal cord injury." She is wheelchair-bound with severe injury to her lumbar spine.

- NCEA 3

Sign Information: REIMER MD,AMANDA M (3/24/2022 10:48 CDT)
Service Date/Time: 3/24/2022 10:47 CDT
Result Status: Auth (Verified)

Chief Complaint
f/u
pcp: bakshi
334-497-1132

Assessment/Plan
1. Paraplegia following spinal cord injury
2. IVC thrombosis
3. Current use of long term anticoagulation
4. Adjustment disorder
43yoF with rather tragic history of complicated lumbar surgeries with poor outcome (hematoma), now wheelchair bound with a lumbar spine MRI with severe injury.
Unfortunately there's nothing I can do to help her at this point. Should cont. symptomatic tx (ie, pain control w/ lyrica, tramadol) which can go through pcp.

Problem List/Past Medical History
Ongoing
Adjustment disorder
Anxiety with depression
BMI less than 19,adult
Current use of long term anticoagulation
Deep vein thrombosis
Diabetes
DMII (diabetes mellitus, type 2)
History of DVT in adulthood
IVC thrombosis
Paraplegia following spinal cord injury
Post-phlebitic syndrome
Right thigh pain

523. In reviewing the treatment Yolanda received at Emory in March 2021, Dr. Reimer notes that Yolanda awoke from the thrombectomy unable to move her legs and that Yolanda has been wheelchair-bound ever since.

- NCEA 4

524. Dr. Reimer personally reviews Yolanda's MRI imaging.

- NCEA 7

525. The post-surgical changes in Yolanda's lumbar spine **"look absolutely awful."**

- NCEA 7

526. Dr. Reimer has "**never** seen this degree of swelling cauda equina."

- NCEA 7

History of Present Illness
Yolanda is a 43yoF referred for a consult by Dr. due to severely abnormal MRI spine w/ concern for demyelinating disease or intracanal lesion s/as subacute combined deg. I have personally reviewed the images for this patient. The postop changes in her L-spine look absolutely awful. I have never seen this degree of swelling cauda equina.

527. Dr. Reimer cannot conceive an explanation for this **"a lumbar spine disaster."**

- NCEA 4

no idea why she has huge scars on her back or an explanation for her lumbar spine disaster seen on MRI here. It seems she's been denied disability

Specific Acts of Professional Malpractice

528. Plaintiff here incorporates by reference all paragraphs of this Complaint.

Dr. Alabi

Violation One: Failure to Abort Difficult Procedure

529. The standard of care requires a vascular surgeon to recognize problems that render a thrombectomy too dangerous to continue, and to abort the procedure when such problems arise.

530. On March 26, 2021, Dr. Alabi encountered problems with Yolanda's thrombectomy, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

531. Dr. Alabi was required to abort the thrombectomy procedure when she encountered these difficulties, because continuing the thrombectomy exposed Yolanda to unnecessary risk, during a procedure for which Yolanda did not have an emergent indication.

532. Because Yolanda did not have an emergent indication for the completion of the thrombectomy procedure, Dr. Alabi could have easily postponed Yolanda's thrombectomy and continued the procedure on a later date.

533. Puncture of blood vessels is a complication which is inherently risked during a thrombectomy. Difficulties during a thrombectomy increases this risk.

534. By continuing the procedure after encountering difficulties that put Yolanda at risk, Dr. Alabi violated the standard of care.

Violation Two: Failure to Diagnose and Treat a Bleeding Complication

535. The standard of care requires a vascular surgeon to diagnose and treat a patient's bleeding complication from a thrombectomy procedure.

536. On March 26, 2021, the intraoperative DSA imaging for the thrombectomy showed extravasation of contrast agent on Series 11, 12, 13, and 14. The presence of contrast agent outside of the blood vessels indicated that a blood vessel had a puncture and was leaking.

537. On March 26, 2021, Yolanda incurred a bleeding complication during the thrombectomy procedure.

538. On March 26, 2021, and March 27, 2021, Dr. Alabi failed to diagnose and treat Yolanda's bleeding complication. Dr. Alabi thus violated the standard of care.

Violation Three: Improper Administration of Alteplase and Heparin

539. The standard of care requires a vascular surgeon to forgo the administration of alteplase and heparin after a thrombectomy in which difficulties indicate alteplase and heparin would cause an unreasonable danger to the patient.

540. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

541. On March 26, 2021, after this difficult procedure, it was unreasonable for a physician to order alteplase and heparin for Yolanda. Yolanda had a high likelihood of having a bleeding complication from the thrombectomy, and the administration of alteplase and heparin would worsen any existing bleeding complication.

542. The administration of alteplase and heparin should not have been ordered until Yolanda was cleared from any complications from the thrombectomy.

543. On March 26, 2021, Dr. Khaidakova and Dr. Chang failed to hold the administration of heparin and alteplase to Yolanda after her thrombectomy.

544. On March 26, 2021, Dr. Alabi failed to properly supervise and direct Dr. Khaidakova and Dr. Chang. Dr. Alabi thus violated the standard of care.

Violation Four: Failure to Assess for Complications

545. The standard of care requires a vascular surgeon to monitor and assess a patient and to investigate potential complications, after a difficult procedure.

546. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

547. On March 26, 2021, immediately after the thrombectomy procedure, Yolanda began to complain of back pain, began to require regular doses of pain medication, and was moving only two of four extremities normally. On March 26, 2021, and March 27, 2021, RN Tyler Hall documented, across multiple assessments, weak motion in Yolanda's lower extremities.

548. On March 26, 2021, and March 27, 2021, Dr. Alabi failed to assess and monitor Yolanda for complications after the thrombectomy. Dr. Alabi thus violated the standard of care.

Dr. Khaidakova

Violation One: Failure to Assess for Complications

549. The standard of care requires a vascular surgeon to monitor and assess a patient and to investigate potential complications after a difficult procedure.

550. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

551. On March 26, 2021, immediately after the thrombectomy procedure, Yolanda began to complain of back pain, began to require regular doses of pain medication, and was moving only two of four extremities normally. On March 26, 2021, and

March 27, 2021, RN Tyler Hall documented, across multiple assessments, weak motion in Yolanda's lower extremities.

552. On March 26, 2021, and March 27, 2021, Dr. Khaidakova failed to assess and monitor Yolanda for complications post-thrombectomy. Dr. Khaidakova violated the standard of care.

Violation Two: Improper Administration of Alteplase and Heparin

553. The standard of care requires a vascular surgeon to forgo the administration of alteplase and heparin after a thrombectomy in which difficulties indicated alteplase and heparin would cause an unreasonable danger to the patient.

554. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

555. On March 26, 2021, after this difficult procedure, it was unreasonable for a physician to order alteplase and heparin for Yolanda. Yolanda had a high likelihood of having a bleeding complication from the thrombectomy, and the administration of alteplase and heparin would worsen any existing bleeding complication.

556. The administration of alteplase and heparin should not have been ordered until Yolanda was cleared from any complications from the thrombectomy.

557. On March 26, 2021, Dr. Khaidakova failed to hold the administration of heparin and alteplase to Yolanda after Yolanda's thrombectomy procedure. Dr. Khaidakova thus violated the standard of care.

Dr. Chang

Violation One: Failure to Assess for Complications

558. The standard of care requires a vascular surgeon to monitor and assess a patient and to investigate potential complications, after a difficult procedure.

559. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

560. On March 26, 2021, immediately after the thrombectomy procedure, Yolanda began to complain of back pain, began to require regular doses of pain medication, and was moving only two of four extremities normally. On March 26, 2021, and March 27, 2021, RN Tyler Hall documented, across multiple assessments, weak motion in Yolanda's lower extremities.

561. On March 26, 2021, and March 27, 2021, Dr. Chang failed to assess and monitor Yolanda for complications post-thrombectomy. Dr. Chang thus violated the standard of care.

Violation Two: Improper Administration of Alteplase and Heparin

562. The standard of care requires a vascular surgeon to forgo the administration of alteplase and heparin after a thrombectomy in which difficulties indicated alteplase and heparin would cause an unreasonable danger to the patient.

563. On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy and experienced difficulties, in the form of the thrombectomy wire not entering the correct veins. Dr. Alabi documented these difficulties in her operative report.

564. On March 26, 2021, after this difficult procedure, it was unreasonable for a physician to order alteplase and heparin for Yolanda. Yolanda had a high likelihood of having a bleeding complication from the thrombectomy, and the administration of alteplase and heparin would worsen any existing bleeding complication.

565. The administration of alteplase and heparin should not have been ordered until Yolanda was cleared from any complications from the thrombectomy.

566. On March 26, 2021, Dr. Chang failed to hold the administration of heparin and alteplase to Yolanda after her thrombectomy. Dr. Chang thus violated the standard of care.

Dr. Sharifpour

Violation One

567. On March 26, 2021, NP Lay failed to review Yolanda's anesthesia records and failed to consider the impact of a transfusion of red blood cells on Yolanda's lab results. NP Lay thus violated the standard of care.

568. On March 26, 2021, Dr. Sharifpour failed to properly supervise and direct NP Lay. Dr. Sharifpour thus violated the standard of care.

Violation Two

569. On March 27, 2021, Dr. Kosiak failed to quickly investigate Yolanda's severe neurological deficits. Dr. Kosiak thus violated the standard of care.

570. On March 27, 2021, Dr. Sharifpour failed to properly supervise and direct Dr. Kosiak. Dr. Sharifpour thus violated the standard of care.

NP Lay

Violation One

571. The standard of care requires a critical-care nurse practitioner to review a patient's operative records, including anesthesia records.

572. On March 26, 2021, NP Lay noted that Yolanda had acute post-procedure pain and acute blood loss anemia. NP Lay apparently failed to review the anesthesia records for Yolanda's thrombectomy that day, which documented a transfusion of red blood cells. NP Lay then failed to consider how the transfusion impacted Yolanda's hematology lab values. NP Lay thus violated the standard of care.

Dr. Kosiak

Violation One

573. The standard of care requires a physician to immediately investigate a patient's severe neurological deficits.

574. On March 27, 2021, Dr. Kosiak failed to promptly investigate Yolanda's severe neurological deficits. Dr. Kosiak thus violated the standard of care.

RN Tyler Hall

Violation One

575. While a patient is receiving infusions of alteplase and heparin, the standard of care requires a nurse to monitor and report clinically significant changes in the patient's hemoglobin, hematocrit, and platelet values.

576. From 1804 hrs on March 26, 2021, through 2023 hrs on March 27, 2021, Yolanda's hemoglobin, hematocrit, and platelets values decreased repeatedly below the reference range, as reflected in her hematology lab results.

577. On March 26, 2021, and March 27, 2021, RN Tyler Hall failed to monitor and report the clinically significant decreases in Yolanda's hemoglobin, hematocrit, and platelet values. RN Tyler Hall thus violated the standard of care.

Violation Two

578. The standard of care requires a nurse to monitor and report a patient's clinically significant PTT and anti-Xa values.

579. From March 26, 2021, at 0008 hrs, through March 27, 2021, at 1213 hrs, elevations in Yolanda's PTT and anti-Xa results indicated that the dose of heparin she was receiving was at a supratherapeutic level.

580. On March 26, 2021, and March 27, 2021, RN Tyler Hall failed to monitor and report Yolanda's clinically significant PTT and anti-Xa levels. RN Tyler Hall thus violated the standard of care.

Violation Three

581. The standard of care requires a nurse to follow a physician's orders.

582. On March 26, 2021, at 1746 hrs, Dr. Khaidakova ordered the following: perform post-procedural vital signs with frequent neurovascular checks, notify a provider if PTT is greater than 60 seconds, notify a provider of back pain or neurovascular changes, and perform neurovascular assessments with each vital sign check.

583. On March 26, 2021, and March 27, 2021, RN Tyler Hall repeatedly failed to follow Dr. Khaidakova's orders. RN Tyler Hall thus violated the standard of care.

RN Shaquira Hall

Violation One

584. While a patient is receiving infusions of alteplase and heparin, the standard of care requires a nurse to monitor and report clinically significant changes in the patient's hemoglobin, hematocrit, and platelet values.

585. From 1804 hrs on March 26, 2021, through 2023 hrs on March 27, 2021, Yolanda's hemoglobin, hematocrit, and platelets values decreased repeatedly below reference range, as reflected in her hematology lab results.

586. On March 26, 2021, and March 27, 2021, RN Shaquira Hall failed to monitor and report the clinically significant decreases in Yolanda's hemoglobin, hematocrit, and platelet values. RN Shaquira Hall thus violated the standard of care.

Violation Two

587. The standard of care requires a nurse to monitor and report a patient's clinically significant PTT and anti-Xa values.

588. From March 26, 2021, at 0008 hrs, through March 27, 2021, at 1213 hrs, elevations in Yolanda's PTT and anti-Xa results indicated that the dose of heparin she was receiving was at a supratherapeutic level.

589. On March 26, 2021, and March 27, 2021, RN Shaquira Hall failed to monitor and report Yolanda's clinically significant PTT and anti-Xa levels. RN Shaquira Hall thus violated the standard of care.

Violation Three

590. The standard of care requires a nurse to follow a physician's orders.

591. On March 26, 2021, at 1746 hrs, Dr. Khaidakova ordered the following: perform post-procedural vital signs with frequent neurovascular checks, notify a provider if PTT is greater than 60 seconds, notify a provider of back pain or neurovascular changes, and perform neurovascular assessments with each vital sign check.

592. On March 26, 2021, and March 27, 2021, RN Shaquira Hall failed to follow Dr. Khaidakova's orders. RN Shaquira Hall thus violated the standard of care.

Violation Four

593. The standard of care requires a nurse to provide timely, accurate, and concise reports on a patient's clinical status.

594. On March 27, 2021, at 1113 hrs, RN Shaquira Hall noted that there was tingling and absent motion in Yolanda's lower extremities, which was an acute change from the previous assessment which noted sensation intact.

595. At 1130 hrs, although she notified Dr. Kosiak that Yolanda was not moving her lower extremities, RN Shaquira Hall failed to notify Dr. Kosiak that Yolanda's lower extremities had tingling sensation.

596. Instead, RN Shaquira Hall provided additional information that muddied her incomplete report and that appears to be inaccurate: she informed Dr. Kosiak that Yolanda was difficult to assess because of the effects of the general anesthesia.

597. Subsequently, after performing at least three additional assessments, RN Shaquira Hall failed to update Dr. Kosiak on Yolanda's clinical status.

598. On March 27, 2021, RN Shaquira Hall failed to report that: (a) Yolanda's lower extremities were flaccid with no movement, (b) Yolanda had tingling in the lower extremities, and yet (c) Yolanda was able to follow simple commands.

599. Though RN Shaquira Hall repeatedly documented that Yolanda's acute neurovascular changes were continuing, RN Shaquira Hall failed to report their continuation.

600. On March 27, 2021, RN Shaquira Hall thus violated the standard of care.

Violation Five

601. When a patient experiences acute clinical changes, the standard of care requires a nurse to advocate for the patient by reporting the changes and requesting a physician evaluation at bedside.

602. On March 27, 2021, at 1113 hrs, RN Shaquira Hall noted that a resident physician was aware of the absence of motion in the bilateral lower extremities. On March 27, 2021, at 1200 hrs, RN Shaquira Hall assessed Yolanda, and noted that Yolanda had continuing absent movement and flaccidity in her lower extremities.

603. On March 27, 2021, RN Shaquira Hall failed to report Yolanda's acute neurovascular changes and failed to request that a physician evaluate Yolanda at bedside. RN Shaquira Hall thus violated the standard of care.

RN Price

Violation One

604. While a patient is receiving infusions of alteplase and heparin, the standard of care requires a nurse to monitor and report clinically significant changes in the patient's hemoglobin, hematocrit, and platelet values.

605. From 1804 hrs on March 26, 2021, through 2023 hrs on March 27, 2021, Yolanda's hemoglobin, hematocrit, and platelets values decreased repeatedly below the reference range, as reflected in her hematology lab results.

606. On March 27, 2021, RN Price failed to monitor and report the clinically significant decreases in Yolanda's hemoglobin, hematocrit, and platelet values. RN Price thus violated the standard of care.

Violation Two

607. The standard of care requires a nurse to monitor and report a patient's clinically significant PTT and anti-Xa values.

608. From March 26, 2021, at 0008 hrs, through March 27, 2021, at 1213 hrs, elevations in Yolanda's PTT and anti-Xa results indicated that the dose of heparin she was receiving was at a supratherapeutic level.

609. On March 27, 2021, RN Price failed to monitor and report Yolanda's clinically significant PTT and anti-Xa levels. RN Price thus violated the standard of care.

Violation Three

610. The standard of care requires a nurse to follow a physician's orders.

611. On March 26, 2021, at 1746 hrs, Dr. Khaidakova ordered the following: perform post-procedural vital signs with frequent neurovascular checks, notify a provider if PTT is greater than 60 seconds, notify a provider of back pain or

neurovascular changes, and perform neurovascular assessments with each vital sign check.

612. On March 27, 2021, RN Price failed to follow Dr. Khaidakova's orders. RN Price thus violated the standard of care.

RN Harsany

Violation One

613. While a patient is receiving infusions of alteplase and heparin, the standard of care requires a nurse to monitor and report clinically significant changes in the patient's hemoglobin, hematocrit, and platelet values.

614. From 1804 hrs on March 26, 2021, through 2023 hrs on March 27, 2021, Yolanda's hemoglobin, hematocrit, and platelets values decreased repeatedly below the reference range, as reflected in her hematology lab results.

615. On March 26, 2021, RN Harsany failed to monitor and report the clinically significant decreases in Yolanda's hemoglobin, hematocrit, and platelet values. RN Harsany thus violated the standard of care.

Violation Two

616. The standard of care requires a nurse to follow a physician's orders.

617. On March 26, 2021, at 1746 hrs, Dr. Khaidakova ordered the following: perform post-procedural vital signs with frequent neurovascular checks, notify a provider if PTT is greater than 60 seconds, notify a provider of back pain or neurovascular changes, and perform neurovascular assessments with each vital sign check.

618. On March 26, 2021, RN Harsany failed to follow Dr. Khaidakova's orders. RN Harsany thus violated the standard of care.

Causation

619. Plaintiff here incorporates by reference all paragraphs of this Complaint.

620. On March 26, 2021, Vascular Surgeon Olamide Alabi performed a thrombectomy on Yolanda at Emory. The procedure ended at about 1735 hrs.

621. On March 27, 2021, over 30 hours later, Orthopedic Spine Surgeon Dheera Ananthakrishnan performed a laminectomy on Yolanda, to evacuate hematomas that had gone undiagnosed and untreated, likely since the thrombectomy.

622. By that time, as a result of the acts and omissions that delayed the diagnosis and treatment of the hematomas, it was too late.

623. By that time, Yolanda had already suffered irreversible nerve damage resulting in the neurological deficits she will live with for the rest of her life.

624. Had providers recognized and treated the hematomas earlier, Yolanda would have recovered with fewer and less severe neurological deficits, if any.

625. In fact, had providers at Emory <u>promptly</u> diagnosed and treated Yolanda's hematomas, Yolanda would have recovered with no neurological deficits.

626. Insofar as it delayed the diagnosis and/or treatment of the hematomas, each violation of the standard of care outlined above caused Yolanda preventable neurological deficits she will live with for the rest of her life.

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627. As a direct and proximate result of the Defendants' conduct, Plaintiff is 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 Plaintiff suffered, including physical, emotional, and economic injuries.

628. WHEREFORE, Plaintiff 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. all costs of this action;
c. expenses of litigation pursuant to OCGA 13-6-11;
d. punitive damages; and
e. such other and further relief as the Court deems just and proper.

March 20, 2023

Respectfully submitted,

/s/ *Lloyd N. Bell*

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

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STATE COURT OF
DEKALB COUNTY, GA.
3/20/2023 1:10 PM
E-FILED
BY: Monica Gay

AFFIDAVIT OF TEJAS R. SHAH, MD, FACS, RPVI, REGARDING YOLANDA RATCHFORD

PERSONALLY APPEARS before the undersigned authority, duly authorized to administer oaths, comes TEJAS R. SHAH, MD, FACS, RPVI, who after first being duly sworn, states as follows:

Introduction

1. This affidavit addresses medical negligence that occurred during Yolanda Ratchford's admission at Emory University Hospital that began on March 25, 2021.

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

3. This affidavit addresses specific matters that Plaintiff's counsel has asked me to address. I have not attempted to identify all standard-of-care violations. I have not attempted to state every causation opinion I have. I have not attempted to anticipate or address issues the Defense might raise or that otherwise might arise as the case unfolds.

4. 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.

5. Plaintiff's counsel drafted this affidavit after consulting with me, and I reviewed the draft and edited it to make sure it correctly states my views.

6. As to the matters this affidavit addresses, I have tried to give a reasonably detailed explanation, but I have not attempted an exhaustive discussion. In deposition or trial testimony, I may elaborate with additional details. While I cite evidence from the medical records for various case-specific facts, I do not necessarily cite all the evidence for a given point.

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

8. If additional information becomes available later, my views may change.

9. I understand that Plaintiff's counsel will provide this affidavit to the Defense. If anyone on the Defense team believes I have not been given, or have overlooked or misconstrued, any relevant information, I invite the Defense to communicate with me by letter, copied to Plaintiff's counsel.

a. For example, if the Defense believes there are facts in the medical records that contradict or invalidate my conclusions, I invite the Defense to point me to those facts.

b. Similarly, if the Defense is aware of medical literature the Defense believes is inconsistent with my conclusions, I invite the Defense to point me to that literature.

10. The Defense need not wait to take my deposition to communicate with me. I will consider any information the Defense wishes to bring to my attention and, if warranted by such information, reconsider or revise my conclusions.

11. I understand the Defense is not obligated to communicate with me. And I understand that for whatever reason, the Defense may choose not to. However, my intention is to review this case independently, and to be absolutely fair to both sides. I extend this invitation as an extra effort to make sure I fairly consider any information that might support the Defense.

Qualifications

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

13. 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. 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 events at issue here occurred in March 2021.

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

a. In March 2021, 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, I was licensed by the State of Illinois to practice as a vascular surgeon. That's where I was practicing during three of the five years prior to March 25, 2021.

b. In March 2021, I had actual professional knowledge and experience in the area of practice or specialty which my opinions relate to — specifically, the tasks identified on which I offer standard-of-care opinions.

   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 March 2021, with sufficient frequency to establish an appropriate level of knowledge of the matter my opinions address.

   Specifically, I am a vascular surgeon, and for many years I have had great familiarity with each of the tasks on which I offer standard-of-care opinions.

Evidence Considered

16. I have reviewed medical records from Emory University Hospital pertaining to Yolanda Ratchford for the admission from March 25, 2021, to April 9, 2021. This set of medical records is Bates-stamped with the prefix "EU." Citations to these medical records are included in my opinions below in parentheses, listed as the Bates prefix and page number.

17. I invite the Defense to send me any evidentiary materials or commentary they believe may help to exonerate any Defendant.

Principal Opinions

18. My principal opinions are summarized here. In deposition or trial testimony I may elaborate, and in doing so I may offer related, subsidiary, or incidental opinions. These are not all of my opinions pertaining to this case.

i. Task: Recognizing problems that require aborting a thrombectomy

Requirement: The standard of care requires a vascular surgeon to recognize problems that render a thrombectomy too dangerous to continue, and to abort the procedure when such problems arise.

Facts: On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy procedure and experienced difficulties with the procedure, including the thrombectomy wire not entering into the correct veins. Dr. Alabi documented these difficulties in her operative note (EU 119-122). Dr. Alabi continued Yolanda's thrombectomy procedure instead of aborting the procedure. Dr. Alabi was required to abort Yolanda's procedure when Dr. Alabi encountered difficulties with the performance of the thrombectomy because continuing the thrombectomy exposed Yolanda to unnecessary risk during a procedure for which Yolanda did not have an emergent indication. Dr. Alabi could have easily postponed Yolanda's thrombectomy and continued the procedure at a later date. Puncture of blood vessels is a complication which is inherently risked during a thrombectomy. For these reasons, Dr. Alabi was required to abort Yolanda's thrombectomy procedure on March 26, 2021, once Dr. Alabi encountered difficulties with the performance of the procedure.

Violation: On March 26, 2021, Dr. Alabi failed to abort Yolanda's thrombectomy procedure once difficulties were encountered.

Causation: Due to Dr. Alabi continuing the thrombectomy procedure despite the difficulties, Dr. Alabi caused the puncture of a blood vessel, which caused the initiation of Yolanda's spinal hematomas. Dr. Alabi's violation of the standard of care caused harm to Yolanda, by contributing to the development of Yolanda's spinal hematomas. A hematoma in the spinal epidural space puts pressure on the nerves of the spinal cord, causing neurological deficits. The greater duration that these spinal nerves are compressed, the lesser likelihood that the patient will recover neurological function. A delay of hours can have devastating consequences for the patient and can cause permanent harm. If Yolanda had received earlier treatment for her spinal hematomas,

Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: Dr. Alabi's violation of the standard of care caused Yolanda to suffer a debilitating spinal cord injury.

ii. Task: Treating a bleeding complication incurred during a thrombectomy

Requirement: The standard of care requires a vascular surgeon to diagnose and treat a patient's bleeding complication from a thrombectomy procedure.

Facts: The intraoperative DSA imaging for the March 26, 2021, thrombectomy procedure shows extravasation of contrast agent on Series 11, 12, 13, and 14. The presence of contrast agent outside of the blood vessels indicates that a blood vessel has a puncture and is leaking. On March 26, 2021, after the thrombectomy procedure, Dr. Alabi did not treat Yolanda's bleeding complication.

Violation: On March 26, 2021, Dr. Alabi failed to diagnose and treat Yolanda's bleeding complication from the thrombectomy procedure.

Causation: Dr. Alabi's violation of the standard of care caused harm to Yolanda by contributing to the delay in the diagnosis of Yolanda's spinal hematomas. Because Dr. Alabi did not recognize that Yolanda was bleeding during the thrombectomy procedure, Dr. Alabi allowed Yolanda to continue bleeding, causing blood to pool in Yolanda's spinal epidural space. A hematoma in the spinal epidural space puts pressure on the nerves of the spinal cord, causing neurological deficits. The greater duration that these spinal nerves are compressed, the lesser likelihood that the patient will recover neurological function. A delay of hours can have devastating consequences for the patient and can cause permanent harm. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: Dr. Alabi's violation of the standard of care caused Yolanda to suffer a debilitating spinal cord injury.

iii. **Task:** Deciding whether to administer post-thrombectomy alteplase and heparin

Requirement: The standard of care requires a vascular surgeon to forgo the administration of alteplase and heparin after a thrombectomy in which difficulties were encountered that indicate alteplase and heparin would cause an unreasonable danger to the patient.

Facts: On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy procedure and experienced difficulties with the procedure, including the thrombectomy wire not entering into the correct veins. Dr. Alabi documented these difficulties in her operative note (EU 119-122). On March 26, 2021, after this difficult procedure, it was unreasonable for a physician to order alteplase and heparin for Yolanda. Yolanda had a high likelihood of having a bleeding complication from the thrombectomy procedure, and the administration of alteplase and heparin would worsen any existing bleeding complication. The administration of alteplase and heparin should not have been ordered until Yolanda was cleared from any complications from the thrombectomy procedure. On March 26, 2021, after Yolanda's thrombectomy procedure, resident physician Dr. Khaidakova and fellowship physician Dr. Chang ordered the intravenous administration of alteplase and heparin to Yolanda (EU 968-975). On March 26, 2021, Dr. Alabi was the supervising physician of Dr. Khaidakova and Dr. Chang.

Violation: On March 26, 2021, Dr. Khaidakova and Dr. Chang failed to hold the administration of heparin and alteplase to Yolanda after Yolanda's thrombectomy procedure. On March 26, 2021, Dr. Alabi failed to properly supervise and direct Dr. Khaidakova and Dr. Chang.

Causation: Dr. Khaidakova's, Dr. Chang's, and Dr. Alabi's violation of the standard of care caused harm to Yolanda by contributing to Yolanda's spinal epidural hematomas. Alteplase actively lyses blood clots and heparin prevents the formation of blood clots. A blood clot is how the body stops itself from continuing to bleed. With alteplase and heparin in Yolanda's blood vessels, Yolanda's body was not able to form a blood clot to slow or stop the bleeding in the spinal epidural space. If Dr. Khaidakova, Dr. Chang, and Dr. Alabi followed the standard of care, Yolanda's blood clotting factors would not have been deactivated and Yolanda's body would have been able to slow or stop the bleeding in the spinal epidural space. A hematoma in the spinal epidural space puts pressure on the nerves of the spinal cord, causing neurological deficits. The greater duration that these spinal nerves are compressed, the lesser likelihood that the patient will recover neurological

function. A delay of hours can have devastating consequences for the patient and can cause permanent harm. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: Dr. Khaidakova's, Dr. Chang's, and Dr. Alabi's violation of the standard of care caused Yolanda to suffer a debilitating spinal cord injury.

iv. **Task:** Monitoring, assessing, and investigating symptoms of complications after a difficult procedure

Requirement: The standard of care requires a vascular surgeon to monitor and assess a patient and to investigate potential complications after a difficult procedure.

Facts: On March 26, 2021, Dr. Alabi performed Yolanda's thrombectomy procedure and experienced difficulties with the procedure, including the thrombectomy wire not entering into the correct veins. Dr. Alabi documented these difficulties in her operative note (EU 119-122). On March 26, 2021, immediately after the thrombectomy procedure, Yolanda began to complain of back pain (EU 1508), began to require regular doses of pain medication (EU 1754-1759), and was moving two of four extremities (EU 1510). On March 26, 2021, and March 27, 2021, RN Tyler Hall documented, across multiple assessments, weak motion in Yolanda's left and right legs (EU 1466-1468). On March 26, 2021, and March 27, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang did not properly monitor and assess Yolanda after her difficult thrombectomy procedure. On March 26, 2021, and March 27, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang did not properly investigate Yolanda's clinical changes after her difficult thrombectomy procedure. On March 26, 2021, and March 27, 2021, Dr. Alabi was the supervising physician of Dr. Khaidakova and Dr. Chang.

Violation: On March 26, 2021, and March 27, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang failed to monitor and assess Yolanda after the thrombectomy procedure. On March 26, 2021, and March 27, 2021, Dr. Alabi, Dr. Khaidakova, and Dr. Chang failed investigate Yolanda's clinical changes as signs that a complication had occurred.
On March 26, 2021, and March 27, 2021, Dr. Alabi failed to properly supervise and direct Dr. Khaidakova and Dr. Chang.

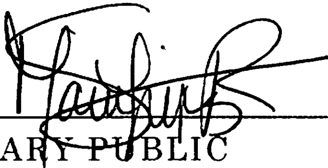
Causation: Dr. Khaidakova's, Dr. Chang's, and Dr. Alabi's violations of the standard of care caused harm to Yolanda, by contributing to the development of and the delay in the diagnosis of Yolanda's spinal hematomas. A hematoma in the spinal epidural space puts pressure on the nerves of the spinal cord, causing neurological deficits. The greater duration that these spinal nerves are compressed, the lesser likelihood that the patient will recover neurological function. A delay of hours can have devastating consequences for the patient and can cause permanent harm. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: Dr. Khaidakova's, Dr. Chang's, and Dr. Alabi's violations of the standard of care caused Yolanda to suffer a debilitating spinal cord injury.

TEJAS R. SHAH, MD, FACS, RPVI

SWORN TO AND SUBSCRIBED before me

February 23rd, 2023



NOTARY PUBLIC

My Commission Expires: 09/14/2026

Tejas R. Shah, MD, FACS, RPVI

E-mail: trshah530@gmail.com
Cell phone : 516-987-0074

Date of Birth: May 30th 1981

Job Experience

Amita Health Alexian Brothers Medical Center July 2018 - Present
Chief Vascular Surgery St.Alexius Medical Center
Director of Vascular Lab St.Alexius Medical Center
Assistant Professor University of Illinois Chicago

Our Lady of Lourdes Hospital New York July 2017 - June 2018

Advanced Vascular Associates New Jersey August 2015 – June 2017
Performed over 2500 complex Open and Endovascular procedures in a busy private practice group including Endovascular AAA repair, Peripheral lower extremity interventions, lower extremity bypass, carotid endarterectomy, dialysis access creation and dialysis maintenance. Also performed a significant number of deep venous procedures including pharmacomechanical thrombectomy, deep venous intravascular ultrasound and stenting.

Education/Training/Research Experience

Fellow in Vascular Surgery, NYU Langone Medical Center NY, NY July 2013 – June 2015

Chief Resident in General Surgery, NYU Langone Medical Center NY, NY
July 2012 – June 2013

Resident in Surgery NYU Langone Medical Center, NY, NY July 2008 – June 2012

Research Fellow in Vascular Surgery, Mount Sinai Medical Center NY, NY
July 2009 – June 2010

Intern in Surgery, NYU Langone Medical Center, NY, NY July 2007 – June 2008

SUNY Downstate Medical Center Brooklyn, NY Aug 2003-May 2007

- Inducted into Alpha Omega Alpha Society

Brooklyn College, City University of New York, Brooklyn, NY Sept 1999 – June 2003

- B.S. in Business/Management/Finance
- Combined BA/MD program
- Graduated Summa Cum Laude
- Departmental Award for Top Honors of Business/Management Finance major.

Exhibit A

- Deans Honor List in all semesters
- Presidential & Regents Scholarship Recipient

Board Certifications

National Board of Medical Examiners 2008
American Board of Surgery, General Surgery 2014 (Certificate # 58891)
American Board of Surgery, Vascular Surgery 2016 (Certificate #102841)

State Licensure

Illinois State License: 036145767
New York State License: 255088-1
New Jersey State License: 25MA09673400
Pennsylvania State License: MD463327

Publications

Publications in Peer Reviewed Journals

1. **Shah, TR,** Baqai Open Repair of the Largest Abdominal Aortic Aneurysm with Associated Aortocaval Fistula. J Vasc Surg: March, 2020 (Under Review)
2. Sheth S, **Shah TR**, Wang Z, Ferdous T, Sadek M, Mussa FF. Endovascular Treatment of Acute Renal Failure Secondary to Caval Thrombosis and Suprarenal Filter Migration. J Vasc Surg: Venous and Lymphatic Disorders . 2015 Apr;3(2):198-200
3. **Shah TR**, Pak P, Garg K, Wang Z, Sheth S, Mussa F, Berland T. Endovascular Repair of Traumatic Popliteal Artery Disruptions: A New Approach to a Classic Injury. JVIR. 25(1):155e10, Jan 2014.
4. **Shah TR,** Rockman CB, Adelman MA, Maldonado TS, Veith FJ, Mussa FF. Nationwide Comparative Impact of Thoracic Endovascular Aortic Repair of Acute Uncomplicated Type B Aortic Dissections. Vasc Endovasc Surg 2014 Apr; 48 (3):230-3.
5. **Shah TR,** Parikh P, Borkon M, Mocharia R, Lonier J, Rosenzweig B, Mussa FF. Endovascular Repair of Contained Abdominal Aortic Aneurysm Rupture with Aortocaval fistula presenting with High Output Cardiac Failure. Vasc Endovasc Surg 2013 Jan; 47 (1) 51-6
6. **Shah TR,** Vouyouka AG, Han DK, Ellozy S, Lookstein R, Shirvalkar P, Marin ML, Faries PL. Infrageniculate Interventions in Female Patients: Improved Patency Rates but Higher Rates of Postoperative Complications. J Vasc Surg 2010 Apr. 51 (4): 1070-71.
7. **Shah TR**, Sadek M, Turnbull I, Marin ML, Faries PL. Investigation of Reduced Permeability Expanded Polytetrafluoroethylene Graft Material for Endovascular Aortic Aneurysm Repair using a Canine Model. Journal of Surgical Research 2010 Jan; 158 (1) 145.
8. **Shah TR,** Maldonado TM, Bauer S, Cayne NS, Schwartz CF, Mussa F,

Adelman MA, Rockman C. Female Patients Undergoing TEVAR May Have an Increased Risk of Postoperative Spinal Cord Ischemia. Vascular and Endovascular Surgery 2010 Jul; 44(5):350-5. Epub 2010 Jun 2..

9. **Shah TR**, Han DK, Shirvalkar P, Marin M, Ellozy S, Vouyouka A, Faries PL. Is Gender Associated with Higher Re-Intervention Rates for Infragenculate Lesions? Journal of Vascular and Interventional Radiology 2009 Dec 20 (12): 1653
10. **Shah TR,** Ellozy SH, Han DK, Vouyouka AG, Lookstein R, Marin ML, Faries PL. Endovascular Therapy for Infrainguinal Disease in Octogenarians: Not As Safe As You May Think. Annals of Vascular Surgery (In Press)
11. Han DK, **Shah TR**, Vouyouka AG, Ellozy SH, Lookstein R, Marin ML, Faries PL. The Success of Endovascular Therapy for All TASC Graded Femoropopliteal Lesions. Annals of Vascular Surgery 2011 Jan;25(1):15-24. Epub 2010 Oct 8.
12. Chung C, **Shah TR,** Shin H, Marin ML, Faries PL. Increased Embolic Risk in Symptomatic Patients Undergoing Carotid Angioplasty and Stenting. Vasc Med 2010 15: 144
13. Du L, **Shah TR**, Zenilman ME. Image of the Month: Intussuscepted Transverse Colonic Lipoma. Archives of Surgery 2007 Dec;142(12):1221
14. Checka C, Dhage S, Adams S, Samii E, **Shah TR**, Shaylor S, Joseph KP The Impact of Screening Mammography in Breast Cancer Patients Age 40-49 at an Urban City Hospital J Clin Oncol 29: 2011

Book Chapters/Review Papers

1. Lipsitz EC, Veith FJ, **Shah TR**. Prosthetic Tibial Bypasses. In: Diabetic Foot: Lower Extremity Arterial Disease and Limb Salvage. 1st Ed. Lipincott Williams & Wilkins, Oct 2005
2. **Shah TR**, Kabnick LS, Berland TL, Cayne NS. et al. The Treatment of Ascending Superficial Vein Thrombosis should be Medical: Say No to Mechanical Management. In: 32nd Symposium Book – Vascular and Endovascular Controversies Update. Biba Medical Publishing April 2010
3. **Shah TR**, Faries PL Carotid Stenting: Indications, Techniques, and Results. In: Haimovici's Vascular Surgery 6th Ed. Wiley-Blackwell Medicine Jan 2010
4. **Shah TR,** Faries PL. Endovascular Therapy for Tibial-Peroneal Arterial Occlusive Disease. In: Atlas of Vascular Surgery and Endovascular Therapy Elisevier March 2010
5. Chung C, **Shah TR**, Han DK, Marin ML, Faries PL. Carotid Stenting Trials: What Have They Taught Us? In: Perspect Vasc Surg Endovasc Ther. 2010 Jun;22(2):93-103. Review.
6. **Shah TR,** Mussa FF. Open Aortic Aneurysm Repair. In: Vascular Surgery: Atlas of Operative Techniques. In Press
7. **Shah TR,** Veith FJ, Bauer SM. Cardiac Evaluation and Management before Vascular Surgery. Curr Opin Cardiol 2014, 29:499–505

Presentations

1. Persistent Endoleak After Snorkel Technique for Thoracoabdominal Aneurysm Treated with Transcaval Access to Aortic Sac and Coil Embolization. By **Tejas R. Shah, MD** Presented at LINC 2020 Leipzig, Germany

2. Aortocaval fistula: A Rare but Lethal Entity. By: **Tejas R. Shah, MD**
   Presented at LINC 2020 Leipzig, Germany
3. Popliteal Artery injuries: A Meta-Analysis and Literature Review of a Complex Injury. By: **Tejas R. Shah, MD,** Ans Fakiha BS, Diego Ayo MD, Frank Veith, MD, Mark A. Adelman, MD, Thomas S. Maldonado, MD, Caron B. Rockman, MD, Firas F. Mussa, MD.
   Presented at: Southern Association of Vascular Surgery Scottsdale, AZ Jan 2015
4. Endovascular Repair of Traumatic Popliteal Artery Disruptions: A New Approach to a Classic Injury By: **Tejas R. Shah,** MD, Peter Pak MD, Firas F Mussa, MD, Todd L Berland, MD
   Presented at: International Symposium of Endovascular Therapy Miami, FL Jan 2014
5. Timing of Carotid Artery Intervention. When is it safe? By: **Tejas R. Shah, MD**
   Presented at: NYU Vascular Conference New York, NY July 2011
6. Dacron versus Low Permeable expandable PTFE Graft for Endovascular Aneurysm Repair. By: **Tejas R. Shah, MD**, Mikel Sadek, MD, Irene Turnbull, MD, Michael L. Marin, MD, Peter L. Faries, MD
   Presented at: International Symposium of Endovascular Therapy Hollywood, FL Jan 2010
7. Infrainguinal Disease in Octogenarians: The Risks of Endovascular Therapy. By: **Tejas R. Shah, MD**, Daniel K. Han, BA, Sharif Ellozy, MD, Ageliki Vouyouka, MD, Michael L. Marin, MD, Peter L. Faries, MD
   Presented at: International Symposium of Endovascular Therapy Hollywood, FL Jan 2010
8. Endovascular Therapy for Below Knee Lesions in Women: Does Gender Make a Difference? By: **Tejas R. Shah, MD**, Ageliki Vouyouka, MD, Daniel K. Han, BA, Sharif Ellozy, MD, Robert Lookstein, MD, Michael L. Marin, MD, Peter L. Faries, MD
   Presented at: International Symposium of Endovascular Therapy Hollywood, FL Jan 2010
9. Endovascular Therapy For Infrainguinal Lesions in Octogenarians: Not as Safe As You May Think. By: **Tejas R. Shah, MD**, Sharif H. Ellozy, MD, Daniel K. Han, BA, Ageliki G. Vouyouka, MD, Robert Lookstein, MD, Michael L. Marin, MD, Peter L. Faries, MD.
   Presented at: Peripheral Vascular Surgical Society Winter Annual Meeting Vail, CO Jan 2010.
5. The Success of Endovascular Therapy for All TASC Graded Femoropopliteal Lesions: Largest Trial to Date. By: Daniel K Han, BA, **Tejas R. Shah, MD**, Sharif H. Ellozy, MD, Ageliki G. Vouyouka, MD, Michael L. Marin, MD, Peter L. Faries, MD
   Presented at: Peripheral Vascular Surgical Society Winter Annual Meeting Vail, CO Jan 2010.
6. Infrageniculate Interventions in Female Patients: Is Gender Associated with Higher Re-intervention and Post-Operative Complication Rates? By: **Tejas R. Shah, MD**, Ageliki G. Vouyouka, MD, Daniel K. Han, BA, Sharif Ellozy, MD, Robert Lookstein, MD, Michael L. Marin, MD, Peter L. Faries, MD
   Presented at: 38th Annual Society for Clinical Vascular Surgery Meeting Scottsdale, AZ April 2010
7. Determinants of embolization during carotid angioplasty and stenting: symptomaticity and coronary artery disease increase embolic risk. By: Christine Chung, BS, **Tejas R. Shah, MD,** Hyunjoo Shin, MD, Michael L.

Marin, MD, Peter L. Faries, MD
Presented at: 130th Annual Meeting of the American Surgical Association
Chicago, IL April 2010

8. Increased Embolic Risk in Symptomatic Patients Undergoing Carotid Angioplasty and Stenting. By: Christine Chung, BS, **Tejas R. Shah, MD**, Hyunjoo Shin, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: 21st Annual Meeting of the Society for Vascular Medicine.
Cleveland, OH April 2010
9. Labeling and Tracking of Mesenchymal Stem Cells in Porcine Abdominal Aortic Aneurysm Model. By: Daniel Han, BA, **Tejas R. Shah, MD,** Alexander Salloum, MD, Rajesh Malik, MD, Michael L. Marin, MD, Peter L. Faries, MD.
Presented at: Experimental Biology Annual ASIP Meeting 2010
Anaheim, CA April 2010
10. Multiphoton Microscopy for Detection of GFP labeled Mesenchymal Stem Cells in Porcine AAA Model By: **Tejas R. Shah, MD,** Daniel K. Han, BA, Rajesh Malik, MD, Alexander Salloum, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: Experimental Biology Annual AAA Meeting 2010
Anaheim, CA April 2010
11. Embolic potential in symptomatic patients undergoing carotid angioplasty and stenting: evaluation of plaque instability through microscopic quantification of particulate debris By: Christine Chung, BS, **Tejas R. Shah, MD,** Hyunjoo Shin, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: Experimental Biology Annual ASIP Meeting 2010
Anaheim, CA April 2010
12. Investigation of Reduced Permeability Expanded Polytetrafluoroethylene Graft Material for Endovascular Aortic Aneurysm Repair using a Canine Model. By: **Tejas R. Shah, MD**, Mikel Sadek, MD, Irene Turnbull, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: 5th Annual Academic Surgical Congress
San Antonio, TX Feb 2010
13. Arteriovenous Fistula After Endovenous Ablation of the Great Saphenous Vein-Long Term Follow-Up. By: Todd L. Berland, **Tejas R. Shah**, Lowell S. Kabnick, Neal S. Cayne, Thomas M. Maldonado, Caron R. Rockman, Glenn R. Jacobowitz, Mark A. Adelman.
Presented at: 22nd Annual Meeting of the American Venous Forum
Amelia Island, FL February 2010
15. Evaluation and Management of Collapsed Thoracic Endografts - A Dual Center Review By: Rami O. Tadros, **Tejas R. Shah, MD,** Daniel Han, BA, Sharif Ellozy, MD, Evan C. Lipsitz, MD, Amit R. Shah, MD, Randell B. Greipp, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: Aortic Symposium
New York, NY April 2010
16. In Vitro Labeling of Porcine Mesenchymal Stem Cells with Positive MR Contrast Agent Ferex. By: **Tejas R. Shah, MD,** Daniel K. Han, BA, Elisa-Yaniz Galende, PhD, Christine Chung, BS, Michael L. Marin, MD, Peter L. Faries, MD.
Presented at: Translational and Molecular Imaging Institute Symposium
New York Academy of Medicine NY, NY April 2010
17. Coronary Artery Disease May Increase the Risk of Cerebrovascular Accidents during Carotid Angioplasty and Stenting. By: Christine Chung, BS, **Tejas R. Shah, MD,** Hyunjoo Shin, MD, Michael L. Marin, MD, Peter

L. Faries, MD.
Presented at: Vascular Annual Meeting
Boston, MA June 2010

18. Endovascular Salvage of Collapsed Thoracic Endografts - A Multicenter Review. By: Rami O. Tadros, MD, Peter L. Faries, MD, **Tejas R. Shah, MD,** Evan C. Lipsitz, MD, Amit R. Shah, MD, Rabib Chaer, MD, Michael L. Marin, MD, Jae Cho, MD
Presented at: Vascular Annual Meeting
Boston, MA June 2010
19. Elephant Trunk Repair of the Transverse Arch and Descending Thoracic Aorta: Long Term Experience with the Hybrid Technique By: **Tejas R. Shah, MD,** Christine Chung, BS, Sharif H. Ellozy, MD, Rajesh Malik, MD, Randall B.Griepp, MD, Gabrielle DiLuozzo, MD, , Michael L. Marin, MD, Peter L. Faries, MD
Presented at: Vascular Annual Meeting
Boston, MA June 2010
20. Improved Hemodynamic Outcomes with Glycopyrrolate over Atropine in Carotid Angioplasty and Stenting. By: Christine Chung, BS, **Tejas R. Shah, MD**, Hyunjoo Shin, MD, Neal S. Cayne, MD, Thomas M. Maldonado, MD, Mark A. Adelman, MD, Patrick J. Lamparello, MD, Thomas S. Riles, MD, Michael L. Marin, MD, Peter L. Faries, MD
Presented at: Peripheral Vascular Surgical Society Meeting of Vascular Annual Meeting
Boston, MA June 2010
21. TEVAR In Female Patients: Increased Aortic Coverage Is Associated With An Increased Risk Of Spinal Cord Ischemia By: **Tejas R. Shah, MD**, Stephen Bauer, MD, Neal S. Cayne, MD, Thomas Maldonado, MD, Charles F. Schwartz, MD, Firas Mussa, MD, Caron Rockman, MD
Presented at: Vascular Annual Meeting
Denver, CO June 2009
22. Spinal Cord Ischemia after Thoracic Endovascular Aneurysm Repair in Women: A Real Risk. By: **Tejas R. Shah, MD**, Stephen Bauer, MD, Neal S. Cayne, MD, Thomas Maldonado, MD, Charles F. Schwartz, MD, Firas Mussa, MD, Caron Rockman, MD.
Presented at: 23rd Annual Meeting of the Eastern Vascular Society
Philadelphia, PA Sept 2009
23. Neurologic Complications after Thoracic Endovascular Aneurysm Repair (TEVAR): A Single Center Experience" By: **Tejas R Shah, MD**, Stephen Bauer, MD, Thomas Maldonado, MD, Charles F. Schwartz, Caron Rockman, MD, Patrick J. Lamparello MD, Mark A. Adelman, MD, Neal S. Cayne, MD
Presented at: International Society of Endovascular Therapy.
Hollywood, FL Jan 2009
24. Complications of Carotid Artery Stenting. By: **Tejas R. Shah, BS**
Presented at: NYU Vascular Conference New York, NY Aug 2006

Paper Discussant

1. Discussant at Vascular Endovascular Surgical Society (June 17th 2015). Paper: Cost Effectiveness of Diagnostic Strategies Used to Identify/Treat Peripheral Artery Disease among People with Diabetic Foot Ulcers. Barshes NR, Flores E, Panos K, Mills JL.

Proceedings of Symposia

1. Berland TL, **Shah TR**, Kabnick LS, Cayne NS, Maldonado TM, Rockman CR, Jacobowitz GR, Adelman MA. Arteriovenous Fistula After Endovenous Ablation of the Great Saphenous Vein-Long Term Follow-Up. Proceedings of the American Venous Forum. Amelia Island, FL February 10-13 2010
2. **Shah TR**, Bauer S, Maldonado T, Schwartz C, Rockman C, Adelman M, Cayne N. Neurologic Complications after Thoracic Endovascular Aneurysm Repair (TEVAR): A Single Center Experience. Proceedings of the International Society of Endovascular Therapy Hollywood, FL. January 18-22 2009
3. **Shah TR**, Bauer S, Cayne N, Maldonado T, Schwartz C, Mussa F, Rockman C. TEVAR in Female Patients: Increased Aortic Coverage Is Associated with an Increased Risk of Spinal Cord Ischemia. Proceedings of Vascular Annual Meeting of the Society for Vascular Surgery. Denver, CO June 11-14 2009.
4. **Shah TR**, Bauer S, Cayne N, Maldonado T, Schwartz C, Mussa F, Rockman C. Spinal Cord Ischemia after Thoracic Endovascular Aneurysm Repair in Women. A Real Risk. Proceedings of Eastern Vascular Society. Philadelphia, PA September 24-26, 2009.
5. **Shah TR**, Sadek M, Turnbull I, Marin ML, Faries PL. Dacron versus Low Permeable expandable PTFE Graft for Endovascular Aneurysm Repair. Proceedings of International Symposium of Endovascular Therapy Hollywood, FL Jan 17-21 2010
6. **Shah TR**, Han DK, Ellozy SH, Vouyouka A, Marin ML, Faries PL. Endovascular Therapy for Infrainguinal Lesions in Octogenarians: Not as Safe as You Think. Proceedings of International Symposium of Endovascular Therapy Hollywood, FL Jan 17-21 2010
7. **Shah TR**, Vouyouka AG, Han DK, Ellozy SH, Lookstein R, Marin ML, Faries PL. Endovascular Therapy for Below Knee Lesions in Women: Does Gender Make a Difference? Proceedings of International Symposium of Endovascular Therapy Hollywood, FL Jan 17-21, 2010
8. **Shah TR**, Ellozy SH, Han DK, Vouyouka AG, Lookstein R, Marin ML, Faries PL. Endovascular Therapy For Infrainguinal Lesions in Octogenarians: Not as Safe As You May Think. Proceedings of Peripheral Vascular Surgical Society Winter Annual Meeting Vail, CO Jan 29-31 2010.
9. Han DK, **Shah TR**, Ellozy SH, Vouyouka AG, Marin ML, Faries PL. The Success of Endovascular Therapy for All TASC Graded Femoropopliteal Lesions: Largest Trial to Date. Proceedings of Peripheral Vascular Surgical Society Winter Annual Meeting Vail, CO Jan 2010.
10. **Shah TR**, Sadek M, Turnbull I, Marin ML, Faries PL Investigation of Reduced Permeability Expanded Polytetrafluoroethylene Graft Material for Endovascular Aortic Aneurysm Repair using a Canine Model. Proceedings of 5th Annual Academic Surgical Congress San Antonio, TX Feb 3-5 2010
11. **Shah TR**, Shin HJ, Marin ML, Faries PL. In Vitro Labeling of Porcine Mesenchymal Stem Cells with Positive Contrast Agent Gadofluorine M. Proceedings of 5th Annual Academic Surgical Congress San Antonio, TX Feb 3-5, 2010
12. **Shah, TR,** Vouyouka AG, Han DK, Ellozy S, Lookstein R, Marin ML, Faries PL. Infrageniculate Interventions in Female Patients: Is Gender Associated with Higher Re-intervention and Post-Operative Complication Rates? Proceedings of 38th Annual Society for Clinical Vascular Surgery Meeting Scottsdale, AZ April 7–10th 2010
13. Chung C, **Shah TR**, Shin H, Marin ML, Faries PL. Determinants of

embolization during carotid angioplasty and stenting: symptomaticity and coronary artery disease increase embolic risk.
Proceedings of: 130th Annual Meeting of the American Surgical Association Chicago, IL April 8-10 2010

14. Tadros RO, **Shah TR,** Han DK, Ellozy S, Lipsitz EC, Shah AR, Greipp R, Marin ML, Faries PL. Evaluation and Management of Collapsed Thoracic Endografts - A Dual Center Review
Proceedings of : Aortic Symposium New York, NY April 29-30 2010
15. Chung C, **Shah TR,** Shin H, Marin ML, Faries PL. Increased Embolic Risk in Symptomatic Patients Undergoing Carotid Angioplasty and Stenting.
Proceedings of: 21st Annual Meeting of the Society for Vascular Medicine. Cleveland, OH April 28- May 2nd 2010
16. Han DK, **Shah TR,** Salloum A, Malik R, Marin ML, Faries PL. Labeling and Tracking of Mesenchymal Stem Cells in Porcine Abdominal Aortic Aneurysm Model.
Proceedings of: Experimental Biology Annual ASIP Meeting 2010 Anaheim, CA April 24-28th 2010
17. **Shah, TR,** Han DK, Malik R, Salloum A, Marin ML, Faries PL. Multiphoton Microscopy for Detection of GFP labeled Mesenchymal Stem Cells in Porcine AAA Model
Proceedings of: Experimental Biology Annual AAA Meeting 2010 Anaheim, CA April 24-28th 2010
18. Chung C, **Shah TR,** Shin H, Marin ML, Faries PL. Embolic potential in symptomatic patients undergoing carotid angioplasty and stenting: evaluation of plaque instability through microscopic quantification of particulate debris
Proceedings of: Experimental Biology Annual ASIP Meeting 2010 Anaheim, CA April 24-28th 2010
19. C. Checka, S. Dhage, S. Adams, E. Samii, **TR. Shah**, S. Shaylor, K. P. Joseph. The impact of screening mammography in breast cancer patients age 40-49 at an urban city hospital.
Proceedings of: American Society of Clinical Oncology Annual Meeting Chicago, IL June 4-8th 2010
20. Chung C, **Shah TR**, Shin H, Marin ML, Faries PL. Coronary Artery Disease May Increase the Risk of Cerebrovascular Accidents during Carotid Angioplasty and Stenting.
Proceedings of: Vascular Annual Meeting Boston, MA June 10-13th 2010
20. Tadros RO, Faries PL, **Shah TR,** Lipsitz EC, Shah AR, Chaer R, Marin ML, Cho J. Endovascular Salvage of Collapsed Thoracic Endografts - A Multicenter Review.
Proceedings of: Vascular Annual Meeting Boston, MA June 10-13th 2010
21. **Shah TR**, Chung C, Ellozy SH, Malik R, Greipp R, DiLuozzo G, Marin ML, Faries PL. Elephant Trunk Repair of the Transverse Arch and Descending Thoracic Aorta: Long Term Experience with the Hybrid Technique
Proceedings of: Vascular Annual Meeting Boston, MA June 10-13th 2010
22. Chung C, **Shah TR,** Shin H, Cayne NS, Maldonado TM, Adelman MA, Lamparello PJ, Riles TM, Marin ML, Faries PL. Improved Hemodynamic Outcomes with Glycopyrrolate over Atropine in Carotid Angioplasty and Stenting
Proceedings of: Peripheral Vascular Surgical Society Meeting of Vascular Annual Meeting Boston, MA June 10-13th 2010
23. **Shah, TR** Persistent Endoleak After Snorkel Technique for Thoracoabdominal Aneurysm Treated with Transcaval Access to Aortic Sac

and Coil Embolization. Proceedings of: Leipzig Interventional Course Meeting Leipzig, Germany January 28-31st 2020

24. **Shah, TR** Aortocaval fistula: A Rare but Lethal Entity Proceedings of: Leipzig Interventional Course Meeting Leipzig, Germany January 28-31st 2020

Research

Division of Vascular Surgery, Dept of Surgery Mount Sinai Medical Center
Advisor: Dr. Peter L Faries July 2009 – June 2010

Division of Vascular Surgery, Dept of Surgery Montefiore Medical Center
Published original publications and case reports on various prosthetic bypass grafts and endovascular repair techniques.
Advisor: Drs. Frank J. Veith/Evan C. Lipsitz June 2004-Sept 2004

Department of Musculoskeletal Development Hospital for Joint Diseases
Performed research on pre-operative autologous blood removed during single and double hip replacements.
Advisor: Dr. Paul DiCesare Jan 2002-June 2002

Department of Medicine SUNY Health Science Center at Brooklyn
Performed research and created original experimental models correlating insulin resistance and cardiovascular disease.
Advisor: Dr. James Sowers Oct 2001-Dec 2001

Department of Physiology SUNY Stony Brook Health Science Center
Published findings on effects of hypertonic and hypotonic solution on acinar cells and their implications of dry eye syndrome.
Advisor: Dr. Peter R. Brink June: 1997-Dec 1997

Grant Support

1. Elite Fellowship Grant For Vascular Research Fellowship for research in Stem Cell Therapy in Abdominal Aortic Aneurysm Repair.
   Sponsor: Medtronic Endovascular Innovations, Inc.
   $105,000 7/10-7/13
   Director: Peter L. Faries **Fellow:** Tejas R. Shah

2. Therapeutic assessment of combined endovascular aneurysm repair (EVAR) stent grafting and stem cell therapy in porcine models of abdominal aortic aneurysms**.**
   Sponsor: Institutional Clinical Translational Research CTSA Grant UL1RR029887
   $40,000 3/10 – 3/11
   PI: Peter L. Faries **Co-Investigator**: Tejas R Shah

3. Endovascular Therapy for Infrainguinal Disease in Octogenarians: Not as Safe as You May Think
   Sponsor: Medtronic, Inc. $2,300 1/10
   PI: Tejas R. Shah

4. Characterizing the Role of Mesenchymal Stem Cells in a Porcine Model of Elastase Induced AAA
   Sponsor: New York State Society for Vascular Surgery $2,500 5/09-6/10
   PI: Tejas R. Shah

5. Neurologic Complications after TEVAR in Women
   Sponsor: Medtronic, Inc. $2,000 4/09 – 6/09
   PI: Tejas R. Shah

6. Spinal Cord Ischemia after Thoracic endovascular aneurysm repair in Women
   Sponsor: Society for Vascular Surgery $1,000 6/09
   PI: Tejas R. Shah

7. Investigation of reduced permeability expanded polytetrafluoroethylene graft material for endovascular aortic aneurysm repair using a canine model. $35,000 6/05-1/10
   Sponsor: Medtronic, Inc.
   PI: Peter L Faries **Co-Investigator**: Tejas R Shah, MD

Awards and Honors

1. Leading Physicians of the World Selected by The International Association of Healthcare Professionals 2017
2. America's Top Surgeons Selected by Consumers' Research Council of America 2017
3. Society for Clinical Vascular Surgery Fellows Scholarship Recipient April 2010
4. Bard Peripheral Vascular Best Poster Award for: Endovascular Therapy for Below Knee Lesions in Women: Does Gender Make a Difference? ISET Jan 2010
5. Finalist: Peter B. Samuels Award for Best Paper at the 38th Annual Society for Clinical Vascular Surgery. Infrageniculate Interventions in Female Patients: Is Gender Associated with Higher Re-intervention and Post-Operative Complication Rates?
6. Finalist: Jay D. Coffman Young Investigator Award for Best Paper at 21st Annual Society for Vascular Medicine. Increased Embolic Risk in Symptomatic Patients Undergoing Carotid Angioplasty and Stenting.
7. New York State Society for Vascular Surgery Basic Science Award: May 2009
8. Society for Vascular Surgery Research Scholarship June 2009
9. Alpha Omega Alpha Society, SUNY Downstate Medical Center Sept 2006
10. Magna Cum Laude, SUNY Downstate Medical Center June 2007
11. Suma Cum Laude, Brooklyn College June 2003
12. Departmental Award for Top Honors of Business/Management Finance June 2003

13. Presidential Scholarship Sept 1999 – June 2003

14. Reagents Scholarship Award May 2003

Experience

- MediReturns Inc: Began my own business regulating inventories and handling expired medications for local pharmacies in Manhattan Many 2002-July 2003
- Medical School Tutor: Tutor for medical school anatomy and microbiology classes at SUNY Downstate Medical Center. Aug 2004-April 2005
- Undergraduate Learning Center Tutor: Tutor for pre-med and various economics/fiancé courses at Brooklyn College. Sept 2001-April 2003
- Carpenter's Apprentice: Assisted carpenter in building cabinets and drawers as well as learning various other techniques of the trade. June 2000-Sept 2000

Activities/Interests

- Tae Kwon Do: Achieved 2nd Degree Black Belt at the end of my 1st year of Medical School.
- Enjoy sailing, tennis, skiing, football, and golf.

Affidavit of Eric H. Gluck, MD, regarding Yolanda Ratchford

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

Introduction

1. This affidavit addresses medical negligence that occurred during Yolanda Ratchford's admission at Emory University Hospital that began on March 25, 2021.

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

3. This affidavit addresses specific matters that Plaintiff's counsel has asked me to address. I have not attempted to identify all standard-of-care violations. I have not attempted to state every causation opinion I have. I have not attempted to anticipate or address issues the Defense might raise or that otherwise might arise as the case unfolds.

4. 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.

5. Plaintiff's counsel drafted this affidavit after consulting with me, and I reviewed the draft and edited it to make sure it correctly states my views.

6. As to the matters this affidavit addresses, I have tried to give a reasonably detailed explanation, but I have not attempted an exhaustive discussion. In deposition or trial testimony, I may elaborate with additional details. While I cite evidence from the medical records for various case-specific facts, I do not necessarily cite all the evidence for a given point.

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

8. If additional information becomes available later, my views may change.

9. I understand that Plaintiff's counsel will provide this affidavit to the Defendants, and that their insurance company will hire lawyers and medical experts to review this case and to review this affidavit. If anyone on the Defense team believes I have not been given, or have overlooked or misconstrued, any relevant information, I invite the Defense to communicate with me by letter, copied to Plaintiff's counsel.

10. The Defense need not wait to take my deposition to communicate with me. I will consider any information the Defense wishes to bring to my attention by letter. If appropriate, I will then provide a supplemental affidavit.

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. 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.

13. The events at issue here occurred in March 2021.

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

a. In March 2021, 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, I was licensed by the State of Illinois to practice as a critical care physician. That's where I was practicing during three of the five years prior to March 25, 2021.

b. In March 2021, I had actual professional knowledge and experience in the area of practice or specialty which my opinions relate to —

specifically, the tasks identified above on which I offer standard-of-care opinions.

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 March 2021, with sufficient frequency to establish an appropriate level of knowledge of the matter my opinions address.

Specifically, I am a critical care physician and pulmonary medicine physician, and for many years I have had great familiarity with each of the tasks on which I offer standard-of-care opinions.

Evidence Considered

15. I have reviewed medical records from Emory University Hospital pertaining to Yolanda Ratchford for the admission from March 25, 2021, to April 9, 2021.

16. I invite the Defense to send me any evidentiary materials or commentary they believe may help to exonerate any Defendant.

Principal Opinions

17. My principal opinions are summarized here. In deposition or trial testimony I may elaborate, and in doing so I may offer related, subsidiary, or incidental opinions. These are not all of my opinions pertaining to this case.

i. **Task**: Report a patient's neurological deficits

Requirement: The standard of care requires a nurse to report a patient's neurological deficits.

Facts: On March 26, 2021, at 0800 hrs, RN Perry noted that Yolanda had normal motor movement in all four extremities (EU 1410). On March 26, 2021, at 1735 hrs, RN Veronica Harsany noted that Yolanda moved two extremities (EU 1510). On March 26, 2021, and March 27, 2021, RN Tyler Hall documented, across multiple assessments, weak motion in Yolanda's left and right legs (EU 1466-1468).

Violation: On March 26, 2021, and March 27, 2021, RN Harsany and RN Tyler Hall failed to report Yolanda's neurological deficits over many hours.

Causation: RN Harsany's, and RN Tyler Hall's violations caused harm to Yolanda, by contributing to the delay in the diagnosis and treatment of Yolanda's spinal hematomas. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: This violation caused Yolanda to suffer a debilitating spinal cord injury.

ii. **Task**: Reviewing operative records and anesthesia records

Requirement: The standard of care requires a critical care nurse practitioner to review a patient's operative records, including anesthesia records.

Facts: On March 26, 2021, Yolanda was placed in the critical care ICU for hemodynamic management following her thrombectomy procedure (EU 69). A critical care nurse practitioner must review a patient's operative and anesthesia records for information supporting the patient's postoperative care. On March 26, 2021, NP Lay consulted with Yolanda (EU 69-80). NP Lay noted that Yolanda had acute post procedural pain (EU 78) and acute blood loss anemia (EU 79). NP Lay did not review the anesthesia records for Yolanda's March 26, 2021, thrombectomy procedure, which documented a transfusion of red blood cells (EU 153, EU 1374). NP Lay did not consider how the transfusion would have impacted Yolanda's hematological lab values. On March 26, 2021, Dr. Sharifpour was the supervising physician for NP Lay.

Violation: On March 26, 2021, NP Lay failed to review Yolanda's anesthesia records and failed to consider the impact of a transfusion of red blood cells on Yolanda's lab results.
On March 26, 2021, Dr. Sharifpour failed to properly supervise and direct NP Lay.

Causation: NP Lay's and Dr. Sharifpour's violations caused harm to Yolanda, by contributing to the delay in the diagnosis and treatment of Yolanda's spinal hematomas. If Yolanda had received earlier treatment for her spinal

hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: This violation caused Yolanda to suffer a debilitating spinal cord injury.

iii. **Task**: Investigating a patient's severe neurological deficits

Requirement: The standard of care requires a physician to immediately investigate a patient's severe neurological deficits.

Facts: On March 27, 2021, at 1130 hrs, resident physician Dr. Kosiak was notified by a nurse that Yolanda was unable to move her legs following Yolanda's second vascular surgery procedure. Dr. Kosiak waited two hours and fifteen minutes before reassessing Yolanda (EU 283). A patient who cannot move her legs is a medical emergency requiring immediate attention to prevent a worsened outcome. A patient's grogginess upon cessation of anesthesia does not impact the patient's ability to move her legs.
On March 27, 2021, Dr. Sharifpour was the supervising physician of Dr. Kosiak.

Violation: On March 27, 2021, Dr. Kosiak failed to quickly investigate Yolanda's severe neurological deficits. On March 27, 2021, Dr. Sharifpour failed to properly supervise and direct Dr. Kosiak.

Causation: Dr. Kosiak's and Dr. Sharifpour's violations caused harm to Yolanda, by contributing to the delay in the diagnosis and treatment of Yolanda's spinal hematomas. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: This violation caused Yolanda to suffer a debilitating spinal cord injury.

iv. **Task**: Determining the urgency of an imaging order

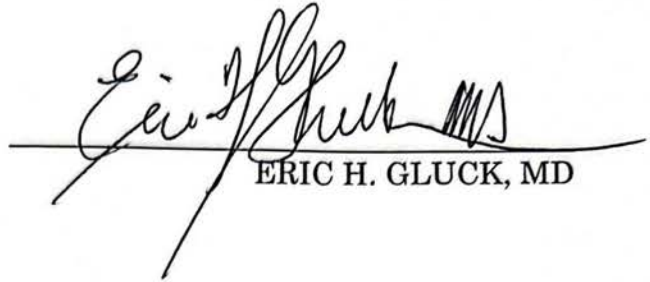
Requirement: The standard of care requires a physician to order an MRI as "STAT," or to be performed as immediately as possible, when a patient shows signs of spinal cord problem.

Facts: On March 27, 2021, physicians confirmed that Yolanda had a lack of sensation and movement in her legs. A patient losing the ability to move her legs is a medical emergency. Any imaging ordered to investigate a patient losing the ability to move her legs must be ordered to be performed as immediately as possible. On March 27, 2021, resident physician Dr. Kosiak ordered an MRI of the thoracic spine and an MRI of the lumbar spine. Neither MRI was ordered as "STAT" (EU 881-882). On March 27, 2021. Dr. Sharifpour was the supervising physician for Dr. Kosiak.

Violation: On March 27, 2021, Dr. Kosiak failed to order "STAT" MRIs of Yolanda's spine. On March 27, 2021, Dr. Sharifpour failed to properly supervise and direct Dr. Kosiak.

Causation: Dr. Kosiak's and Dr. Sharifpour's violations caused harm to Yolanda, by contributing to the delay in the diagnosis and treatment of Yolanda's spinal hematomas. If Yolanda had received earlier treatment for her spinal hematomas, Yolanda would have recovered with fewer neurological deficits, or no deficits at all.

Damages: This violation caused Yolanda to suffer a debilitating spinal cord injury.



ERIC H. GLUCK, MD

SWORN TO AND SUBSCRIBED before me

February 18, 2023

Emily Kornak

NOTARY PUBLIC

My Commission Expires: 9/28/2026

CURRICULUM VITAE

Eric Howard Gluck, M.D.

OFFICE ADDRESS: Director of Critical Care Services
Swedish Covenant Hospital
5145 North California Avenue
Chicago, Illinois 60625

OFFICE PHONE: 773.293.3200 egluck@aol.com

MARITAL STATUS: Married, September 6, 1978 (Margaret Ostram)
Children: Heidi Nan, August 1, 1981
Paul Matthew, December 13, 1983
Molly Bea, September 20, 1989

EDUCATION: City College of New York, B.S., 1972
New York Medical College, M.D., 1975

INTERNSHIP: Beth Israel Medical Center, New York, 1975-1976

RESIDENCY: Beth Israel Medical Center, New York, 1976-1978

FELLOWSHIP: Pulmonary Fellowship, University of Utah
College of Medicine, 1978-1980

ACADEMIC: July 1998 to Present
Professor of Medicine
Finch University of Health Sciences/The Chicago Medical School
3333 Green Bay Road
North Chicago, IL 60064

January 1994 to July 1998
Associate Professor of Medicine
Finch University of Health Sciences/ The Chicago Medical School
3333 Green Bay Road
North Chicago, Illinois 60064

March 1991 to December 1993
Associate Professor of Medicine
Section of Pulmonary and Critical Care Medicine
Rush-Presbyterian St. Luke's Medical Center

Exhibit A

1725 West Harrison Street, Suite 306
Chicago, Illinois 60612

Assistant Professor of Medicine
University of Connecticut Medical School
Farmington, Connecticut
1980 - 1991

PROFESSIONAL:

January 2000 to present
Director of Critical Care Services
Swedish Covenant Hospital
5145 North California Avenue
Chicago, Illinois 60625

Chief, Medical Service 1997-1999
North Chicago VA Medical Center
3001 Green Bay Road
North Chicago, IL 60064

January 1994 to 1999
Section Chief Pulmonary and Critical Care Medicine
North Chicago VA Medical Center
3001 Green Bay Road
North Chicago, Illinois 60064

Division Chief Critical Care Medicine-1993- present
The Chicago Medical School
North Chicago, Illinois

Division Chief Pulmonary Medicine 1994-Dec 1999
The Chicago Medical School
North Chicago Illinois

Section of Pulmonary & Critical Care Medicine 1991-1993
Rush-Presbyterian St. Luke's Medical Center
Chicago, Illinois
1991 - 1993 Sept 1996 to Jan 2000

March 1991 - December 1993
Associate Director of Respiratory Therapy
Rush-Presbyterian St. Luke's Medical Center
1725 West Harrison Street, Suite 306
Chicago, Illinois 60612

Private Practice 1980-1991
Hartford Lung Physicians
Hartford Connecticut

BOARD CERTIFICATION:

National Board of Medical Examiners	1976
American Board of Internal Medicine	1978
Subspecialty, Pulmonary Medicine	1980
Subspecialty, Critical Care Medicine	1991/2001

LICENSURES:

New York	1976 - 1980
Utah	1979 - 1980
Connecticut	1980 - 1991
Illinois	1991 - Present

SPECIAL COURSES: Laser Workshop, The Institute for Applied Laser Surgery, Inc., 1984

PROFESSIONAL SOCIETIES:

Society of Critical Care Medicine (Fellow)
American College of Chest Physicians (Fellow)
The Chicago Institute of Medicine [Fellow]
American Thoracic Society
Society of Sigma XI
Alpha Omega Alpha
American Society of Law, Medicine and Ethics

AWARDS:

Chemistry Honors Society	1972
Analytical Chemistry Award	1972
Merck Award for Excellence in Medicine	1975
Resident of the Year	1977
John C. Leonard Teaching	1982
Award of Excellence in Teaching	1982
Who's Who of Rising Americans	1990
Governors Community Service Award-ACCP	2000
Teacher of the Year	2001

LECTURES:

Critical Care Nursing Course
University of Utah College of Nursing,
"Anatomy and Physiology of the Respiratory System", and "Analysis of Blood Gases", September, 1978 and February, 1979.

LDS Hospital Critical Care Nursing Course,
"Acid Base Metabolism and: Analysis of Blood Gases", September, 1978.

Connecticut Society for Respiratory Therapy,
"High Frequency Ventilation, When, Why?",
January, 1984.

Emergency Nurses Association, North Central Connecticut Chapter
"The Physiologic Effects of Asthma and Emergency Care', November 4, 1987.

Connecticut Society for Respiratory Therapy,
"Jet Ventilation", November 4, 1987.

Symposium - "Use of Inhaled Corticosteroids",
American College of Allergy & Immunology,
March 16, 1988, Anaheim, California.

Connecticut Society of Respiratory Therapy -
"Auto-PEEP and its Clinical Implications".

Niel Institute of Medicine-Lille, France,
"Effect of Ultra High Frequency
Jet Ventilation on Patients with ARDS",
April, 1990.

Resuscitation of Patients with Respiratory Failure,
N.E. Symposium of Emergency Medicine.

New York State Society of Respiratory Care,
Annual Symposium - Alternate Modes of Ventilation
November, 1991.

Pulmonary Grand Rounds/Bay State Medical Center

Ultra High Frequency Jet Ventilation,
November, 1991.

Cook County Medical Society - Review course
in Critical Care Medicine -
Emergency Treatment of Asthma
November, 1991.

Mechanical Ventilation - Update ACCP Post Graduate
Course, December 13, 1991.

Pulmonary Grand Rounds - Chicago
Osteopathic Hospital Asthma Update, March, 1992.

Connecticut Society Respiratory Care
Ultra High Frequency Jet Ventilation Update,
April, 1992

Pulmonary Intensive Care Update - National Finish
Meeting.
Tempire, Finland May, 1992.

Fourth Pulmonary Fellows symposium,
Occupation Lung Disease - Ft. Lauderdale, Florida
May, 1992.

Kansas City Society of Respiratory Care
Weaning from Mechanical Ventilation
May, 1993.

Iowa Society Respiratory Care
Ultra High Frequency Ventilation, June, 1993.

Connecticut Society of Respiratory Care,
Helium Therapy, April 1993.

Third International Symposium on High Frequency
Ventilation - Can protocols be written for
ventilator control of gas exchange during HFV?
Dusseldorf, Germany, April, 1993.

Challenges in Critical Care; Respiratory Care
Department of Dartmouth-Hitchcock Medical Center:

Weaning from mechanical ventilation; April, 1994.

Illinois Society of Respiratory Care: Reducing costs of ventilating patients; High Frequency Ventilation; June, 1994.

California Society of Respiratory Care: Reducing costs of ventilating patients; High Frequency Ventilation; June, 1994.

National Meeting on Monitoring in the ICU, Sapporo, Japan; Reducing duration of mechanical ventilation; June,1994.

Special Symposium on ICU Medicine, Beijing, China; Reducing stays on mechanical ventilation; June, 1994.

Respiratory Society Meeting; Taipei, Taiwan; Optimizing the care of ventilator patients; June, 1994.

Huff and Puff Society of San Francisco: Weaning from Mechanical Ventilation; May, 1994.

Special Symposium; LSU University Medical Center, New Orleans; Weaning from Mechanical Ventilation; May, 1994.

Minnesota Society Respiratory Care - Treatment of ARDS in 1990's, September, 1994

Course Director- Chicago Critical Care Symposium July 1995

International Congress of Internal Medicine-Manila Phillipines; COPD - cu

University of Southern California- Barlow Respiratory Hospital Symposium on Mechanical Ventilation; The Use of Protocols inWeaning from Mechanical Ventilation. April 1996

University of Miami- 1st Annual Doug Onorato Memorial Lecture; The use of inhaled heliox in the management of acute airway obstruction. June 1996

Course Director-Chicago Critical Care Symposium Aug 1996

Course Director-Chicago Critical Care Symposium July 1997

Computerization of Weaning Protocols-plenary session, American College of Chest Physicians Nov 1999

American Academy of Physician Assistants-Annual Meeting; Chicago Ill, June 2000- Diagnosis and treatment of Pulmonary Embolism

American Academy of Physician Assistants-Annual Meeting; Chicago Ill, June 2000- Treatment of Congestive Heart Failure

Illinois Masonic Hospital- Medical Grand Rounds- Chicago Ill 2000- Use of Non invasive positive pressure ventilation

St Francis Hospital- Medical Grand Rounds- Evanston, Ill 2000- Use of Non-Invasive Positive Pressure Mechanical Ventilation

Our Lady of the Resurrection Medical Center- Chicago Ill 2001- Update on the Pathophysiology of Sepis.

Norwegian Medical Center- Chicago Ill 2001- Update on the Pathophysiology of Sepis.

APEC- Downers Grove Ill 2001 Update on the Pathophysiology of Sepis.

American College of Chest Physicians – National Meeting, Philadelphia, PA- 2001- Rules and Regulations in the ICU.

New York State Society of Respiratory Therapy- 25 Years of Weaning from Mechanical Ventilation – Oct 2001

COMMITTEE APPOINTMENTS:

Ethics Committee - Chair 2001- present
Critical Care Committee- Chair- 2001- present

Investigational Review Board – CMS- 1995-present
Infection Control Committee
Graduate Medical Education Committee (Swedish Covenant Hospital)
Chairman VISN 12 Taskforce - Innovations in delivery of health care
Deans Committee - CMS January 1997
Finance Committee – American College of Chest Physicians-1996
Research Committee - Chicago Medical School-'95

ABSTRACTS
Eric Howard Gluck, M.D.

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PUBLICATIONS:
Eric Howard Gluck, M.D.

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2. Armstrong JD, Gluck EH and Hughes JMB, "Measurement of lung water with helium dilution". Thorax, 1983.

3. Littenberg B, and Gluck EH, "Controlled trial of methylprednisolone in the emergency treatment of acute asthma". New England Journal of Medicine, 314:3, January 16, 1986, pp. 150-152.

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2. Trauma Management for the Internist: Quick Reference Textbook of Internal Medicine; Igaku Shoin, Ltd, New York: Bone R, Rosen R, Editors 1994

3. Mechanical Ventilation: Principles and Management of Critical Care Medicine; CV Mosby, Chicago: Parillo J, Bone R, Editors: (1995).

4. Non-traditional Mechanical Ventilation: Principles and application of respiratory care equipment: Mosby CV, Eubanks DH and Bone R, Editors, Chicago. May, 1994.

5. Year Book of Critical Care Medicine - Co- Editor 1992-1998, 2000

6. Year Book of Pulmonary Medicine - Co-Editor 1992-1995

7. Consulting Editor- Hospital Physician- Critical Care Medicine 1995-1998

8. High Frequency Ventilation - Acute Respiratory Distress in Adults; Evans T and Haslett C, Editors; Chapman and Hall Medical, London, UK. 1996

9. Series Editor- Hospital Physicians- Critical Care Medicine – Jan 1998 to present

10. Associate Editor - Audio Reviews - Chest Section. - Aug 1998 to present

11. Editor- Practical Reviews in Chest Medicine-Oakstone Medical Publishers, Brimingham Ala. Jan 2000 to present

12. Mechanical Ventilation: in Critical Care: Mosby, Gluck EH, Sarringainidis A, Dellinger P: Parillo and Dellinger editors: (2001)

13. Altered Mental Status: in Textbook of Neurointensive Care: Saunders, Philadelphia PA. Editors; Layon AJ, Gabrielli A and Friedman W.; 2004

DRUG RESEARCH

Eric Howard Gluck, M.

1982-1983 Co-investigator, Drug Study for Schering Corp., "A Multicenter Long Term Study Comparing the Safety and Efficacy of Albuterol Nebulizer solution 2.5 mg, with Isoproterenol Nebulizer Solution 2.5 mg Delivered by a Compressed-Air Powered Nebulizer to Reverse Bronchospasm".

1983-1984 Co-Investigator, Drug study for Schering Corp., "A Long-Term Study Comparing the Safety and Efficacy of Albuterol Nebulizer Solution, 2.5 mg Isoetharine Nebulizer Solution, 2.5 mg delivered by a compressor powered nebulizer to reverse bronchospasm".

1983-1984 Co-investigator, Drug study for Perdue-Frederick Co., Multi-Investigator open-label study of Uniphyl in patients with asthma, asthmatic-bronchitis or COPD.

1982 Co-Investigator, Drug study for Adria corp., "Early detection of Adriamycin toxicity".

1984 Co-investigator, Drug study for Warner-Lambert/ Parke-Davis Pharmaceutical Research Division, "The effect of sodium meclofenamate in premenstrual asthma".

1985-1986 Co-Investigator, Drug study for Schering Corp., "The effect of single doses of Labetalol and Atenolol on ventilatory function in patients with bronchial asthma".

1985-1986 Co-Investigator, Drug study for Schering Corp., "Albuterol solution for inhalation in acute asthma".

1985-1987 Co-Investigator, Drug study for Boehringer-Ingelheim Ltd., "Oxitropium bromide BA 253 90 day multicenter study".

1985-1987	Co-Investigator, Drug study for Smith Kline and French Laboratories, "Comparative study of the safety and efficacy of monocid versus ceftriaxone for the treatment of community acquired lower respiratory tract infection in patients with chronic lung disease".
1986-1987	Co-Investigator, Drug stuidy for Smith, Kline and French Laboratories, "Comparison of Tagamet and Placebo in the prophylaxis of Upper Gastrointestinal Bleeding due to Stress-Related Gastric Mucosal Damage".
1987-1988	Investigator, Drug study for Cutter Biological "Intravenous Gamma Globulin in the treatment of steroid dependent asthma".
1987-1988	Co-Investigator, Drug study for Schering Corp., "Study of the effects of adding proventil repetabs to theodur in patients with moderate to severe obstructive airway disease".
1987-1988	Co-Investigator, Drug Study for Schering Corp., "Proventil solution for inhalation for home Use".
1987	Co-Investigator, Drug Study for Carter-Wallace, Inc., Placebo controlled comparison of the effectiveness and safety of axelastine and controlled release theophylline in the management of theophylline dependent asthmatics".
1987-1989	Co-Investigator, Drug Study for Boehringer-Ingleheim Ltd., "Twelve-week, double blind, parallel study of atrovent solution in COPD patients who are on concurrent alupent therapy".
1988	Co-Investigator, Drug Study for Schering Corp., "Comparison of theodur 300 mg BID to 450 mg TID".
1988-1989	Co-Investigator, Drug Study for Nix-O-Tine Pharmaceuticals, "Efficacy and safety of repository corticotropin injection (NP0001) as an aid in smoking cessation".
1988	Co-Investigator, Drug Study for Pfizer Central Research, "Azithromycin in the treatment of acute lower respiratory tract infections
1989	Co-Investigator, Drug Study for G.D. Searle and Co., "A Multicenter comparison of the safety and efficacy of Lomefloxacin

and Cefeclor in the treatment of acute exacerbation of chronic bronchitis".

1989	Co-Investigator, Drug Study for Boehringer-Ingleheim Ltd., "Multiple dose comparison of the combination of Ipratropium and Albuterol with its components in a twelve-week parallel study in adults with chronic obstructive pulmonary disease (COPD)".

Affidavit of Judith Climenson RN, CCRN-CMC, CNRN-SCRN, Regarding Yolanda Ratchford

PERSONALLY APPEARS before the undersigned authority, duly authorized to administer oaths, comes Judith Climenson RN, CCRN-CMC, CNRN-SCRN, who after first being duly sworn, states as follows.

Introduction

1. This affidavit addresses medical negligence that occurred during Yolanda Ratchford's admission at Emory University Hospital starting March 25, 2021.

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

3. This affidavit addresses specific matters that Plaintiff's counsel has asked me to address. I have not attempted to identify all standard-of-care violations. I have not attempted to state every causation opinion I may have. I have not attempted to anticipate or address issues the Defense might raise or that otherwise might arise as the case unfolds.

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

5. Plaintiff's counsel drafted this affidavit after consulting with me, and I reviewed the draft and edited it to make sure it correctly states my views.

6. As to the matters this affidavit addresses, I have tried to give a reasonably detailed explanation, but I have not attempted an exhaustive discussion. In deposition or trial testimony, I may elaborate with additional details. While I cite evidence from the medical records for various case-specific facts, I do not necessarily cite all the evidence for a given point.

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

8. If additional information becomes available later, my views may change.

9. I understand that Plaintiff's counsel will provide this affidavit to the Defense. If anyone on the Defense team believes I have not been given, or have overlooked or misconstrued, any relevant information, I invite the Defense to communicate with me by letter, copied to Plaintiff's counsel.

a. For example, if the Defense believes there are facts in the medical records that contradict or invalidate my conclusions, I invite the Defense to point me to those facts.

b. Similarly, if the Defense is aware of medical literature the Defense believes is inconsistent with my conclusions, I invite the Defense to point me to that literature.

10. The Defense need not wait to take my deposition to communicate with me. I will consider any information the Defense wishes to bring to my attention and, if warranted by such information, I will reconsider or revise my conclusions.

11. I understand the Defense is not obligated to communicate with me. And I understand that for whatever reason, the Defense may choose not to. However, my intention is to review this case independently, and to be absolutely fair to both sides. I extend this invitation as an extra effort to make sure I fairly consider any information that might support the Defense.

Qualifications

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

13. 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.

14. Attached as Exhibit A is my Curriculum Vitae, which provides further detail about my qualifications. I incorporate and rely on that information here.

15. The events at issue here occurred in March 2021.

16. I am qualified to provide expert testimony pursuant to OCGA 24-7-702.

a. In March 2021, 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, I was licensed by the State of Arizona to practice as a registered nurse. That's where I was practicing in March 2021.

b. In March 2021, I had actual professional knowledge and experience in the area of practice or specialty which my opinions relate to — specifically, the tasks on which I offer standard-of-care opinions.

   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 March 2021, with sufficient frequency to establish an appropriate level of knowledge of the matter my opinions address.

   Specifically, I am a registered nurse working in a critical care unit, and for many years I have had great familiarity with each of the tasks on which I offer standard-of-care opinions.

Evidence Considered

17. I have reviewed medical records from Emory University Hospital for Yolanda Ratchford, for her admission from March 25, 2021, to April 9, 2021. Those records have been Bates-stamped using the prefix "EU" followed by page number. Below, I cite to those records using the Bates stamp.

18. I invite the Defense to send me any evidentiary materials or commentary they believe may help to exonerate any Defendant.

Principal Opinions

19. My principal opinions are summarized below. These are not all my opinions pertaining to this case. Through discovery, I may develop additional or amended opinions. At deposition or trial, I may elaborate upon the principal opinions below, and in doing so, I may offer related, subsidiary, or incidental opinions.

20. The following requirements of the standard of care generally apply to nurses providing post-operative ICU care to a patient receiving heparin and alteplase infusions to treat thrombosis.

i. Task: Monitoring and reporting hematology changes.

Requirements: While the patient is receiving the infusions, the standard of care requires a nurse to monitor and report clinically significant changes in a patient's hemoglobin, hematocrit, and platelet values.

Facts: From 1804 hrs on March 26, 2021, through 2023 hrs on March 27, 2021, Yolanda's hemoglobin, hematocrit, and platelets values decreased repeatedly, as reflected in her hematology lab results. EU 1941-1943.

Violations: On March 26, 2021, and March 27, 2021, RN Harsany, RN Tyler Hall, RN Hall, and RN Price each violated these requirements, by failing to monitor and report the clinically significant decreases in Yolanda's hemoglobin, hematocrit, and platelet values.

ii. Task: Monitoring heparin levels.

Requirements: The standard of care requires a nurse to monitor and report a patient's clinically significant PTT and anti-Xa values.

Facts: Because heparin is a high-risk medication, providers typically use two tests to monitor its effects: partial thromboplastin time ("PTT") and anti-Xa. By monitoring these values, providers can gauge the patient's response to heparin and titrate the heparin dose accordingly.

From March 26, 2021, at 0008 hrs through March 27, 2021, at 1213 hrs, elevations in Yolanda's PTT and anti-Xa results revealed the dose of heparin she was receiving was at a supratherapeutic level. EU 1946. That is, the heparin dose was higher than necessary to achieve therapeutic benefits.

Violations: On March 26, 2021, and March 27, 2021, RN Tyler Hall, RN Shaquira Hall, and RN Price each violated these requirements, by failing to monitor and report Yolanda's clinically significant PTT and anti-Xa levels.

iii. Task: Following a physician's orders.

Requirement: The standard of care requires a nurse to follow a physician's orders.

Facts: On March 26, 2021, at 1746 hrs, Dr. Khaidakova ordered the following: perform post-procedural vital signs with frequent neurovascular checks (EU 984), notify a provider if PTT greater than 60 seconds (EU 982), notify a provider of back pain or neurovascular changes (EU 981), and perform neurovascular assessments with each vital sign check (EU 980).

On March 26, 2021, at 2233 hrs, RN Tyler Hall performed one neurological assessment during his shift, the only neuro assessment since 1735 hrs on March 26, 2021. On March 27, 2021, at 0800 hrs, RN Keera Price skipped a neurological assessment on Yolanda. On March 27, 2021, at 1200 hrs, RN Shaquira Hall performed one neurological assessment of Yolanda, the only neurological assessment performed since March 26, 2021, at 2233 hrs, and the only neurological assessment performed until March 27, 2021, at 2000 hrs. EU 1409-1410.

On March 26, 2021, and March 27, 2021, Yolanda's PTT was greater than 60 seconds. EU 1946. RN Harsany, RN Tyler Hall, RN Shaquira Hall, and RN Keera Price did not notify a provider of the PTT result.

Violations: On March 26, 2021, and March 27, 2021, RN Harsany, RN Tyler Hall, RN Shaquira Hall, and RN Price each violated these requirements, by failing to follow Dr. Khaidakova's orders listed above.

iv. **Task:** Providing timely, accurate, and concise status reports.

Requirements: The standard of care requires a nurse to provide timely, accurate, and concise reports on the patient's clinical status.

Facts: On March 27, 2021, in the progress notes, the provider documented "at approximately 1130 today, notified by the bedside RN that patient was not moving her lower extremities but was still fairly sedated from General Anesthesia so this was difficult to fully assess." EU 273. This contradicts the charting and notations from RN Shaquira Hall at 1200 hrs. At 1200 hrs, on the Glasgow Coma assessment, RN Shaquira Hall noted Yolanda was able to follow simple commands. EU 1396-1397. If Yolanda was able to follow simple commands, as RN Shaquira Hall noted, then it would have been possible for RN Shaquira Hall to elicit movement in the lower extremities.

On March 27, 2021, at 1113 hrs, RN Shaquira Hall noted that there was tingling in Yolanda's lower extremities, which was an acute change from the previous assessment which noted sensation intact. EU 1473.

On March 27, 2021, at 1200 hrs, RN Shaquira Hall assessed Yolanda, and noted that Yolanda had continued absent movement and flaccidity in her lower extremities. EU 1409.

Violations: On March 27, 2021, RN Shaquira Hall violated these requirements, by failing to report that: (a) Yolanda's lower extremities were flaccid with no movement, (b) Yolanda had tingling in the lower extremities, and (c) Yolanda was able to follow simple commands.

In addition, although RN Shaquira Hall repeatedly documented that Yolanda's acute neurovascular changes were continuing, RN Shaquira Hall failed to report their continuation.

v. Task: Advocating for a patient by reporting acute clinical changes and requesting evaluation at bedside.

Requirements: When a patient experiences acute clinical changes, the standard of care requires a nurse to advocate for a patient by (a) reporting the changes and (b) by requesting a physician evaluation at the bedside.

Facts: On March 27, 2021, at 1113 hrs, RN Shaquira Hall noted that a resident, who was not named, was aware of the absence of motion in the bilateral lower extremities. EU 1155. On March 27, 2021, at 1200 hrs, RN Shaquira Hall assessed Yolanda, and noted that Yolanda had continued absent movement and flaccidity in her lower extremities. EU 1409. RN Shaquira Hall did not advocate for a physician to evaluate Yolanda, leaving Yolanda in an unsafe environment.

Violations: On March 27, 2021, RN Shaquira Hall violated these requirements, by failing to report Yolanda's acute neurovascular changes and by failing to request that a physician evaluate Yolanda at bedside.

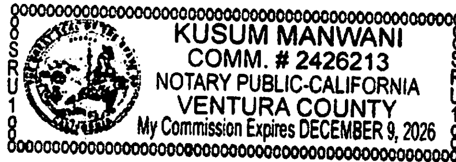
JUDITH CLIMENSON, RN,
CCRN-CMC, CNRN-SCRN

State of California County of Ventura

SWORN TO AND SUBSCRIBED before me
March 07th, 2023 by Judith Climenson

NOTARY PUBLIC

My Commission Expires: Dec. 09th 2026



Judith Climenson RN, CCRN-CMC, CNRN-SCRN

6633 E. Juniper Ave
Scottsdale, AZ 85254
Phone: 805 448-5835

E Mail: jclimenson@cox.net

Summary of Qualifications

41 YEARS EXPERIENCE IN ACUTE AND CRITICAL CARE. 21 YEARS EXPERIENCE AS AN INDEPENDENT LEGAL NURSE CONSULTANT FOR CHART REVIEW FOR MERIT FOR MEDICAL MALPRACTICE, AND EXPERT WITNESSING FOR NURSING STANDARD OF CARE.

Professional Membership

AMERICAN ASSOCIATION OF CRITICAL CARE NURSES; AMERICAN ASSOCIATION OF LEGAL NURSE CONSULTANTS; AMERICAN NURSING ASSOCIATION; AMERICAN ASSOCIATION OF NEUROSCIENCE NURSES

Education

ASSOCIATE DEGREE IN NURSING, COLLEGE OF MARIN, 1980, KENTFIELD, CA.; CCRN CERTIFIED SINCE 1982; CARDIAC MEDICINE CERTIFIED SINCE 2006; NEURO CERTIFIED 2012; STROKE CERTIFIED 2016; ACLS/BLS CERTIFIED; IABP CERTIFIED
REGISTERED NURSE LICENSE: ARIZONA, and CALIFORNIA

Work experience

STAFF RN AT SCOTTSDALE MEDICAL CENTER OSBORN IN THE SCU [SPECIAL CARE UNIT] JULY 2014- August 1, 2021

RN III, SAVANNAH MEMORIAL HEALTH UNIVERSITY MEDICAL CENTER, NEURO & CARDIOVASCULAR INTENSIVE CARE UNIT, APRIL 2009 TO JUNE 2014

STAFF RN, SANTA BARBARA COTTAGE HOSPITAL, CLINICAL RESOURCE NURSE FOR ICU AND CCU, AUGUST 2003-APRIL 2009

CONTRACTED CRITICAL CARE RN, MEDITECH HEALTH SERVICES, VENTURA, CA, ASSIGNMENTS IN ICU, CCU, ER AND TELEMETRY, 2000-2003

STAFF RN- CHARGE NURSE FOR CVICU AND TELEMETRY, SCOTTSDALE HEALTHCARE SHEA, SCOTTSDALE, AZ, 1991-2000

STAFF RN- CHARGE NURSE FOR CVICU AND TELEMETRY, PHOENIX, John C. Lincoln Hospital, AZ, 1985-1998

CHARGE NURSE, SONOMA VALLEY HOSPITAL, CRITICAL CARE UNIT, SONOMA, CA, 1980-1985

Exhibit A