

JS-4-10-18-FW-1

THE STATE OF TEXAS)

ARREST WARRANT AFFIDAVIT

COUNTY OF SMITH)

BEFORE ME, the undersigned authority, on this day personally appeared the undersigned affiant, who after being by me duly sworn on oath deposes and says: My name is Detective Gregg W. Roberts and I have good reason to believe and do believe that on or about the 4th day of August, 2017, in Smith County, Texas, William George Davis did then and there commit the offense of Murder (A First Degree Felony), in that William George Davis did then and there: intentionally or knowingly caused the death of Christopher Greenaway by introducing air into his circulatory system.

Against the Peace and Dignity of the State:

My belief of the above is based on the following facts and information:

Affiant, Gregg W. Roberts, is a police officer for the City of Tyler Police Department and as such is a peace officer in and for the State of Texas. Affiant is currently assigned to the Criminal Investigations Division, Crimes Against Persons Unit of the Tyler (Texas) Police Department. Affiant holds a Master Peace Officer Certificate from the Texas Commission on Law Enforcement. Affiant is also designated as a Special Investigator by the Texas Commission on Law Enforcement. Affiant also holds a Basic Instructor Proficiency Certificate through the Texas Commission of Law Enforcement. Affiant is also a Special Deputy United States Marshal and is attached to the United States Marshals Joint East Texas Fugitive Task Force. Affiant has been employed as a peace officer for the past thirty-one years and has attended numerous schools and seminars regarding the investigation of criminal offenses.

On February 8, 2018, Affiant and other members of the Tyler (Texas) Police Department were made aware of a concern on the part of Christus Mother Frances Hospital located at 800 East Dawson Street in Tyler, Smith County, Texas. Investigators were notified of possible criminal activity by one of their employees. Investigators were updated about a series of patients who suffered unexpected medical emergencies while on the Cardiovascular Intensive Care Unit (CVICU) at the Louis and Peaches Owen Heart Hospital located at 703 South Fleishel Avenue, Tyler, Smith County, Texas. Investigators

WITNESS my signature this the 10th day of April, 2018.

Gregg W. Roberts
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

Jack Skeem Jr
MAGISTRATE in and for
SMITH COUNTY, TEXAS
Judge 241st District Court

collected medical records from the Smith County District Attorney's Office obtained by Grand Jury Subpoena.

On February 8, 2018, Affiant and other investigators attended a meeting at 1300 hours to meet hospital staff and counsel. Investigators were advised of a series of profound incidents involving patients at the Christus Mother Frances Peaches and Louis Owen Heart Hospital. There is a list of seven patients and the incidents occurred between the dates of June 2017 through January 2018. Five patients suffered significant injury and two patients are deceased. These events were described as profound and unexplainable incidents resembling stroke-like symptoms. The patients were post-operative cardiovascular surgery patients who were progressing on a Cardiovascular Intensive Care Unit when they suddenly experienced a profound incident. The events all occurred on the night shift and a person of interest emerged as Williams "Will" Davis, a registered nurse on the CVICU. Investigators were informed by hospital officials that it was unknown if a crime was committed, but they wanted police to conduct an investigation. Hospital officials were concerned about the significance of the statistical "anomaly" these incidents represented. The following persons/dates were reported to us as suspicious and/or unexplained events;

1. John Doe 1, a 61-year-old male. Room HH300. Date of incident is 06/22/2017 at 0300 hours. Patient of [REDACTED], nurse assigned [REDACTED], RN.
2. John Doe 2, a 58-year-old male. Room HH302. Date of incident is 07/14/2017 at 0437 hours. Patient of [REDACTED], nurse assigned [REDACTED] RN.
3. Christopher Greenaway, a white male born [REDACTED] (47). Room HH302. Date of incident is 08/04/2017 at 0335 hours. Patient of [REDACTED], nurse assigned [REDACTED] RN.
4. John Doe 3, a 54-year-old male. Room HH303. Date of incident is 08/07/2017 at 2300 hours. Patient of [REDACTED], nurse assigned [REDACTED] RN.
5. John Doe 4, a 56-year-old male. Room HH316. Date of incident is 10/26/2017 at 0415 hours. Patient of Dr. [REDACTED], nurse assigned is [REDACTED] RN.
6. [REDACTED] a white female, born [REDACTED] (63). Room HH308. Date of incident is 11/30/2017 at 1205 hours. Patient of [REDACTED] nurse assigned [REDACTED].
7. [REDACTED], a white male born [REDACTED] (58). Room HH321. Date of incident is January 25, 2018 at 0120 hours. Patient of [REDACTED] nurses assigned are [REDACTED]

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

Investigators obtained hospital security video footage pertaining to the seven profound incidents. Video footage on January 25, 2018 depicts William Davis, RN exiting the nourishment center, Room 3006, and entering [REDACTED] room, Room HH321. Approximately one minute later William Davis, RN exits [REDACTED] room. Video footage on November 30, 2017 depicts William Davis, RN entering [REDACTED] room, HH308, just prior to her incident. Video footage on June 22, 2017 depicts William Davis, RN exiting room HH300, the room John Doe 1 occupied, just prior to his incident.

[REDACTED] had a coronary artery bypass graft surgery at Christus Mother Frances Hospital on January 24, 2018. The surgery was completed by Dr. [REDACTED], MD. [REDACTED] was transferred to the CVICU where William Davis, RN was assigned. The [REDACTED] incident represented a specific concern because there was an abnormality on his arterial line waveform. The hospital staff captured the arterial line waveforms for [REDACTED]. [REDACTED] RN advised she spoke with William Davis, RN about the [REDACTED] incident. William Davis, RN told [REDACTED] RN information inconsistent with the events captured on security camera. [REDACTED] RN advised [REDACTED] [REDACTED] was not a patient assigned to William Davis, RN. William Davis, RN was in the room of [REDACTED] for approximately one minute and four seconds. While in [REDACTED] room it appears the lights did not come on. William Davis, RN left the room and within approximately three minutes [REDACTED] suffered a profound medical/neurological emergency. [REDACTED] was neurologically intact in his post-operative course. William Davis, RN initially told [REDACTED] RN he had been in the room to reset a pump alarm that showed an "upstream occlusion" on the Baxter IV pump. This statement was later discovered to be untruthful. William Davis, RN did not say he provided any nursing care relative to the arterial line of [REDACTED] RN was concerned after she reviewed the arterial line waveforms from [REDACTED] case. [REDACTED] RN noted an abnormality to the waveform that would indicate to her William Davis RN manipulated the arterial line. [REDACTED] RN advised William Davis, RN did not tell the assigned nurses [REDACTED] RN, he was in [REDACTED] room prior to his medical emergency. [REDACTED] RN and [REDACTED] were in the patient room next to [REDACTED] and did not hear any alarm coming from [REDACTED] room. [REDACTED] RN was concerned because William Davis, RN relayed inaccurate information to her when questioned about the [REDACTED] incident. William Davis, RN contacted [REDACTED] RN the following Sunday and admitted he flushed [REDACTED] arterial line multiple times. [REDACTED] suffered permanent and debilitating injuries as a result of this medical crisis.

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

continues to receive medical and rehabilitative support. Investigators went to San Antonio, Texas on March 21, 2018 and observed [REDACTED] is still bedridden. Investigators advised [REDACTED] cannot speak and must be fed. This assessment is based on a review of his medical records and the observations of investigators.

Further investigation revealed a similar situation involving [REDACTED] [REDACTED] was a patient on the CVICU and was post-operative for an Aortic Valve Replacement. [REDACTED] was operated on by Dr. [REDACTED] at Christus Mother Frances Hospital in Tyler, Texas on November 27, 2017. [REDACTED] came out of surgery with no significant complications and was transferred to the CVICU. It should be noted when [REDACTED] transferred to the CVICU she was neurologically sound. [REDACTED] was hemodynamically monitored and stable. [REDACTED] sustained an unexpected profound neurological event on or about November 30, 2017. Further review of the records revealed [REDACTED] had an arterial line and prior to her event, William Davis, RN entered her room. There was a disturbance on [REDACTED] arterial line waveform that was simultaneous with his presence in her room. This event occurred proximate to the time [REDACTED] suffered an acute unexpected neurological event. As in the case of [REDACTED] was progressing well in her post-operative course. William Davis, RN is documented by security video entering [REDACTED] room. William Davis, RN was in [REDACTED] room when [REDACTED] RN, the primary nurse entered the room and noted that her arterial line pressure was too high. Emergency medical procedures were initiated on her behalf. According to Dr. [REDACTED] MD, a radiologist, a CT image of [REDACTED] brain was captured after the event and air was observed in the image of her brain. [REDACTED] suffered permanent and debilitating injuries as a result of this crisis according to her medical records. Investigators visited [REDACTED] and noted she has limited mobility and visual problems as a result of her stroke-like injuries. [REDACTED] continues to receive medical care and support for the injuries she received.

Affiant examined the medical records of Christopher Greenaway, a 47-year-old male subject, who was treated at the Heart Hospital at Christus Mother Frances. Christopher Greenaway was admitted to the hospital on August 2, 2017. Christopher Greenaway had a coronary artery bypass graft surgery by Dr. [REDACTED] on August 3, 2017. Christopher Greenaway came out of surgery neurologically intact. As in the other cases Christopher Greenaway was transferred to the CVICU. Christopher Greenaway suffered an unexpected neurological incident on August 4, 2017 at about 0335 hours. The time and

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

incident were documented in the medical records by [REDACTED] RN. [REDACTED] wrote, "At approx 0335, Pt became Bradycardic (sic). Upon verbal and physical stimulation, PT's HR and BP increased, however, pt was unarousable. Precedex @ 0.6mcg/kg/hr and Levophed @ 1.6mcg/min were stopped. The code button called, with Dr [REDACTED] arriving and CRNA intubating. Then a Code Stroke was called, Dr [REDACTED] notified, pt was taken to CT with 2 RNs and RT." Dr. [REDACTED] MD was notified and a CT scan of the brain was ordered. The CT scan of the brain showed a pneumocephalus – presence of air in the cranial cavity. Affiant reviewed the flowsheet prior to the incident and noted that Christopher Greenaway's blood pressure was stable in the hours preceding the neurological deficit. Affiant noted the blood pressure was 108/69 at midnight, 108/68 at 0100 hours, 113/75 at 0200 hours, and at 0300 hours it was 111/66. There was constant arterial line monitoring of the blood pressure and it appeared stable in the hours before Christopher Greenaway suffered his incident. It is clear from the complex assessments that Christopher Greenaway was neurologically intact after the surgery. Christopher Greenaway was extubated on August 3, 2017, at about 1636 hours, after surgery and was breathing well on his own.

Investigators know at the time of the incident [REDACTED] RN was the assigned nurse for Christopher Greenaway. Investigators know that [REDACTED] RN checked Christopher Greenaway at about 0300 hours and he believed Christopher Greenaway was stable. [REDACTED] RN asked William Davis, RN to watch his patient while he went to lunch. [REDACTED] RN left the campus and when he returned he heard the code for room HH302 - the room Christopher Greenaway occupied. [REDACTED] RN responded to the room to assist. Investigators know from the arterial waveforms of Christopher Greenaway there was a disturbance on the arterial waveform between 3:30:19 and 3:31:30 hours. This disturbance in the arterial line waveform is consistent with the [REDACTED] and the [REDACTED] incidents. Investigators also know from an interview of [REDACTED] (Unit Technician) William Davis, RN was at or near Christopher Greenaway's room at the time of the event. Despite medical intervention Christopher Greenaway died on August 8, 2017, at 800 East Dawson Street, Tyler, Smith County, Texas.

In the February 20, 2018 interview of William Davis, RN he referenced the Christopher Greenaway incident of August 4, 2017. William Davis, RN remembered the incident and referenced to him as the "young guy". William Davis, RN spoke about Greenaway's age being either 47 or 49, but young. William Davis, RN stated [REDACTED] was taking care of

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

Christopher Greenaway. [REDACTED] RN was the nurse assigned to Christopher Greenaway on August 4, 2017 when he suffered the sudden and unexpected neurological crisis that led to his death. William Davis, RN admitted the situation was shocking and said he (Greenaway) was doing well. William Davis, RN said that he was there and remembers watching him (Greenaway) and said [REDACTED] was going to lunch or to get something to eat. William Davis, RN said that Greenaway became bradycardic and he went in to see what was going on. William Davis, RN said he wasn't doing much of anything and he (William Davis) turned down the Precedex. Investigators asked William Davis, RN if anyone else was helping to watch [REDACTED] patient and he initially said there was no one else. William Davis, RN added it was a long time ago and he could not remember if anyone else was around.

Affiant and other Tyler Police Investigators have looked at staffing and payroll records. Investigators determined William Davis, RN was on duty and was assigned to the CVICU on the dates of all seven incidents initially reported to the Tyler (Texas) Police Department. Affiant and investigators noted that William Davis, RN is the only nurse assigned consistently to the CVICU at the date and time of each incident.

On March 6, 2018, Dr. [REDACTED] MD came to the Tyler (Texas) Police Department. Dr. [REDACTED] MD is a radiologist that is board certified in radiology with a certificate of added qualification (CAQ) in neuroradiology. Dr. [REDACTED] MD was retained by the Smith County (Texas) District Attorney's Office as a medical expert and has reviewed the medical records in this case. Dr. [REDACTED] MD talked about the consistency of the damage noted in the brains of John Doe 2, Christopher Greenaway, John Doe 3, John Doe 4, [REDACTED] and [REDACTED] on the imaging. Dr. [REDACTED] MD emphasized this pattern of damage was consistent and concerning. Dr. [REDACTED] MD noted in the imaging of the brains of Christopher Greenaway and [REDACTED] he could see the air where there should be none. These images were captured quickly after the neurological deficits were noted. Dr. [REDACTED] MD said air dissipates rapidly. Investigators discussed the interviews between [REDACTED] RN and William Davis, RN where he initially lied to disclose his activities with regard to the [REDACTED] case. Investigators provided Dr. [REDACTED] MD with the investigative materials. Dr. [REDACTED] MD's preliminary conclusion found air was deliberately introduced into the arterial circulation using the patient's arterial lines. Dr. [REDACTED] MD also noted the strong connection regarding William Davis, RN's presence to Christopher Greenaway, [REDACTED] and [REDACTED] at or near the time of their unexpected medical/neurological

WITNESS my signature this the 10th day of April, 2017.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of

[Signature], 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

crisis. Dr. [REDACTED] MD told investigators it was important to note each of the patients came out of surgery neurologically intact in their post-operative course. The medical records show all the patients were neurologically stable after surgery and transferred to the CVICU. All patients were hemodynamically monitored and stable prior to their events. Affiant believes Dr. [REDACTED] MD is a credible person and a medical expert qualified to provide an expert medical assessment. (See Attachment "A", Letter from Dr. [REDACTED] which is incorporated as part of this affidavit and warrant)

March 8, 2018, Affiant met with Dr. [REDACTED] Chief Forensic Pathologist for Forensic Medical of Texas. Investigators provided Dr. [REDACTED], MD with medical records for all seven patients. Investigators gave Dr. [REDACTED] MD an overview of the criminal investigation conducted by the Tyler (Texas) Police Department. Dr. [REDACTED] MD informed investigators he would need an opportunity to review the records and would consult with us in the near future.

On March 22, 2018, Investigators met with Dr. [REDACTED], MD at his office in Dallas, Texas. Dr. [REDACTED] MD is a board certified radiologist with a certificate of added qualifications in neuroradiology. Dr. [REDACTED] MD practices at Texas Interventional Radiology in Dallas, Texas. Dr. [REDACTED] MD completed his residency in diagnostic radiology at Baylor University Medical Center, Dallas, Texas. He completed a fellowship in diagnostic neuroradiology and interventional radiology with the Mayo Clinic in Rochester, MN. He is currently the Chairman of the Department of Radiology, Director of Interventional Radiology, and a Physician Leader for the Cerebrovascular Center at Baylor University Medical Center, Dallas, Texas and a Clinical Associate Professor at Texas A&M Health Science Center. Dr. [REDACTED] MD is an expert witness for this investigation. Dr. [REDACTED] MD reviewed the medical records of each patient. Investigators also gave Dr. [REDACTED], MD an overview of the criminal investigation conducted by the Tyler (Texas) Police Department. Dr. [REDACTED] MD agreed the neurological emergencies in the cases are not accidental in nature. [REDACTED], MD told investigators he believes William Davis, RN is responsible for causing the neurological injuries/damage done to Christopher Greenaway, [REDACTED] and [REDACTED]. Dr. [REDACTED] MD was concerned William Davis, RN caused injuries to John Doe 2, John Doe 3, and John Doe 4. Dr. [REDACTED] MD advised he made his assessment based upon the medical records and the information regarding the criminal investigation. Affiant believes Dr. [REDACTED], MD is a credible person and a medical expert qualified to provide an expert medical assessment.

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of

April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

Affiant spoke with Dr. [REDACTED] MD on March 26, 2018. Dr. [REDACTED], MD advised Affiant he believes Christopher Greenaway died as a result of the injury sustained on or about August 4, 2017. Dr. [REDACTED] MD advised it is his opinion the cause of death in this case is induced air embolism. Dr. [REDACTED] MD advised it is his opinion the manner of death is homicide.

On March 27, 2018, Affiant received a report from Forensic Medical of Texas, case number 2017-0315. Dr. [REDACTED] MD rendered the following opinion, "The presence of an air embolus in the brain indicates a substantial amount of air entering the arterial circulation from an external source. Such events are possible in cases of severe trauma in which an artery has become damaged and is exposed to air, in cases of decompression sickness (the bends) as seen in divers, or in cases of introduction of a bolus of air through an arterial catheter. Had the source of the air embolism been venous, then the area affected would have been the pulmonary vasculature, not cerebral. In light of the findings that a number of patients suffered very similar injuries in the same hospital ward over a period of approximately seven months and that some of those patients have evidence of manipulation of their arterial line immediately preceding their own acute cerebral events, the logical conclusion is that the underlying cause of the events is deliberate introduction of an air embolus into the patients' arterial lines. In view of these findings, the cause of death of Christopher Greenaway is cerebral ischemia due to an induced air embolus. The manner of death is homicide." Affiant does believe that Dr. [REDACTED] MD is a credible person and a medical expert qualified to provide an expert medical assessment. (See Attachment "B", Letter from Dr. [REDACTED] which is incorporated as part of this affidavit and warrant)

Affiant received a final report/opinion from Dr. [REDACTED], MD on April 2, 2018. Dr. [REDACTED], MD's conclusion is as follows, "Conclusion: The series of events described in each of these patients share concerning similarities. Each patient was recovering after open cardiothoracic surgery in expected fashion. They were all extubated, awake and following commands in the cardiac ICU. None of the patients had a focal neurological deficit prior to their rapid decline. Each of the patients had bilateral watershed ischemic infarcts on subsequent brain MRI evaluation. This type of stroke occurs after a prolonged cardiovascular event and/or in patients with severe arterial narrowing, which none of these patients experienced. Even more unusual is the presence of intra-arterial air emboli in Mr. Greenaway and [REDACTED]. In the absence of an intracardiac shunt, this

WITNESS my signature this the 10th day of April, 2018.

[Signature]
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

[Signature]
MAGISTRATE in and for
SMITH COUNTY, TEXAS

air must have been introduced through the patients' radial arterial lines in a forceful manner. The observation of air in these two cases on CT imaging was likely related to the rapid timing of the CT scan after introduction of the intra-arterial air (as intra-arterial air is rapidly resorbed from the blood). Based upon my observations, I must conclude that these patients were intentionally injected with air through their radial artery lines by nurse William Davis. I can find no other logical explanation for the events described above after reviewing the records and information available to me at the time of this report. The actions of nurse Davis led to the death of Mr. Greenaway and the permanent injuries suffered by

████████████████████ All of my medical opinions are based upon a reasonable degree of medical certainty. Sincerely, ████████████████████ MD, MS, ██████████ (See Attachment "C", Letter from Dr. ██████████ which is incorporated as part of this affidavit and warrant)

After reviewing the investigative materials, interviews, medical records, hospital records and assessing the opinions of the medical experts in this case, Affiant has good reason to believe and does believe that on or about August 4, 2017, in Smith County, Texas William George Davis intentionally or knowingly caused the death of Christopher Greenaway by introducing air into his circulatory system.

WHEREFORE, I request that an arrest warrant be issued for the suspect hereinbefore designated according to the laws of this State.

WITNESS my signature this the 10th day of April, 2018.

Mary W. Balk
AFFIANT

SUBSCRIBED AND SWORN TO BEFORE ME this the 10th day of April, 2018.

Jack Skeen, Jr.
MAGISTRATE in and for
SMITH COUNTY, TEXAS
Judge 241 District Court

JS-4-10-18-FW-1

TYLER RADIOLOGY ASSOCIATES
627 Turtle Creek Dr
Tyler, TX 75701
Charles Crum MD

ATTACHMENT
A

Preliminary report: At the request of the board the medical records and imaging studies of the following patient's were reviewed.

Christopher Greenaway date of birth [REDACTED]
[REDACTED] date of birth [REDACTED]
[REDACTED] date of birth [REDACTED]

[REDACTED]

[REDACTED] is a 58-year-old gentleman with a significant past medical history of hypertension, diabetes, chronic alcohol use and coronary artery disease who was transferred into Trinity mother Frances Hospital for multivessel coronary artery diagnosed on a cardiac catheterization. The patient then underwent coronary artery bypass grafting with three-vessel bypass within the early morning on 1/24/2018. The patient progressed appropriately, and was extubated later on January 24. At approximately 1:21 AM on 1/25/2014 the patient became acutely hypertensive with a blood pressure 165/96. This was followed by subsequent bradycardia with heart rate of 45. This was appropriately managed acutely with cessation of the norepinephrine drip and Precedex. It was noted at that time that the patient was unarousable with a Glasgow Coma Scale of 3. The pupils are sluggish and there was subsequent acute hypoxic respiratory failure. At this point the patient was reintubated successfully on the first attempt and Dr. [REDACTED] was notified appropriately without bedside at 0155 hours. The patient definitely had some seizure like activity. Neurology consultation was performed and EEG was administered. EEG findings are consistent with a diffuse global encephalopathy with some focal atelectatic discharge. The patient then subsequently improved without other seizure-like activity. At that point, MRI of the brain was recommended after removal of Swan-Ganz catheter.

Imaging review: On the preoperative workup the patient's demonstrates a possible 50-69% stenosis on ultrasound dated 1/22/2018. A subsequent CT angiogram of the head and neck was obtained. This demonstrated nothing to suggest stroke. There was approximately 20% stenosis of the left internal carotid artery with less than 40% stenosis of the right internal

6 UN 4/10/18

carotid artery. Intracranially the vasculature appeared normal. Chest radiograph demonstrates normal appearance of the heart and lungs. No acute process was noted. Preoperative echocardiogram demonstrates a normal ejection fraction of 60% with a mild increase in the left ventricular size. Abnormal diastolic function is also noted. Following surgery postoperative chest radiographs appear unremarkable with expected location of the support apparatus.

Following the neurological and physiological event in the early morning of 1/25/2018 the patient's CT head was noted to be unremarkable. No large acute ischemic event or hemorrhagic event was noted. The patient was reintubated and the post intubation chest x-ray was as expected with appropriate location of the support apparatus. Following the removal of the Swan-Ganz catheter and MRI was obtained on 1/27/2018.

On the 1/27/2018 MRI there is a significantly altered appearance involving the brain. There is edema involving the posterior cerebellar hemispheres with significant cortical signal involving the posterior temporal and occipital lobes. There is been striking cortical abnormal signal involving the watershed-type territory of the bilateral frontal lobes and frontal parietal lobes. There is also significant altered T2 signal within the bilateral thalamic regions. No intracranial hemorrhage was noted. No significant mass is noted. On the diffusion images there is striking diffusion signal involving the cortex involving the areas of altered T2 signal and edema. This is consistent with underlying brain infarction. It was thought at this time that a possible anoxic event may have occurred, although the medical record and review of the patient's postoperative course does not support a significant anoxic event.

The patient continued to have a rather poor hospital course and subsequently a tracheostomy tube was placed. The need for long-term care was discussed and will likely be necessary.

Review of the patient's arterial line and hemodynamic parameters were evaluated both before and after the event on 1/25/2018 was performed. It is noted that there was arterial line disruption beginning at 1:17:02 hours which lasted for approximately 30 seconds. Video surveillance demonstrates the suspect entering the patient's room at the time corresponding to be arterial line disruption. The suspect then subsequently left the room and proceeded down the hall and was seated at a separate

GWR 4/10/18

nurses station. Shortly after leaving the patient's room multiple nurses are noted responding to alarms signifying the bradycardic and hypertensive event. The suspect remains seated at a separate nurses station down the hall while multiple other nurses responded to the patient. After several minutes to suspect finally approaches the commotion but never enters the patient's room.

Christopher Greenaway:

Mr. Greenaway was a 47-year-old man with presented with history of hypertension and hyperlipidemia. The patient underwent coronary artery bypass grafting with three-vessel disease on August 3, 2017. Patient awoke from the surgery doing well and was neurologically intact. Patient was appropriately extubated. During the early morning of August 4, 2017 the patient acutely decompensated with weakness. Vital signs were stable without evidence of hypotension. The patient continued to deteriorate clinically over the next couple days and despite adequate treatment brain death evaluation was started at 2:20 PM on 8/6/2017. Patient was then subsequently cleared brain dead the evening of 8/6/2017.

Imaging review:

On the preoperative workup for CABG the carotid ultrasound demonstrates no hemodynamically significant stenosis throughout the carotid or vertebral artery circulations. The patient's chest x-ray appear clear and unremarkable. Following surgery the patient's postoperative chest x-ray demonstrates normal-appearing support apparatus for the CABG. On August 4, 2017 shortly after the decompensation of the patient's neurological status a CT angiogram of the head and neck was performed. On this exam there is extensive arterial air within the watershed territories of the bilateral frontal lobes and bilateral parietal occipital lobes. The vascular structures are otherwise essentially appropriate. No significant stenosis is evident involving carotid circulation or intracranial circulation. A subsequent MRI of the brain performed at 08 24 demonstrates significant edema within the cortical structures that corresponds to the area of air within the sulci of the watershed territory. There is also significant diffusion signal consistent with infarction and cytotoxic edema corresponding within the cortex in these regions. This is consistent with underlying air embolism.

When comparing the clinical situation to the CT angiogram of the head and MRI of the head I favor there was a large volume air embolism within the

GWR 4/10/16

arterial vascular structures which embolized to the distal watershed territory of the cerebral hemispheres. This causes subsequent cortical infarction and ultimately leads to the patient's death. It is noted on a transesophageal echocardiogram that no patent foramen ovale is noted. It is also important to note that no significant venous air is felt present.

[REDACTED]

[REDACTED] is a 63-year-old female with a history of diabetes, morbid obesity and congestive heart failure. The initial cardiac workup demonstrated significant/critical aortic stenosis. The patient underwent median sternotomy and aortic valve replacement on 11/27/2017. Shortly after the procedure the patient had a cardiac arrest and transient hypotension that required a few seconds of CTR and initiation of epinephrine and vasopressin drip. The vasopressors were slowly weaned off and the patient was extubated on 11/28/2017. Over the next few days the patient was noted to be drowsy but arousable and appropriately responsive. Subsequently, on 11/30/2017 the patient was found to be nonresponsive and would not withdraw to pain. Patient was reintubated and placed on mechanical ventilation. Neurology was consulted and had a EEG consistent with severe nonspecific generalized cerebral dysfunction. The patient continued progress and was successfully extubated on 12/5/2017. The the patient's neurological status including her sensorium and motor function is have improved but remains significantly weak and needed long-term care with significant inpatient rehabilitation.

Imaging review:

The preoperative workup included a carotid ultrasound which demonstrates no significant stenosis noted. The patient's preoperative chest x-ray appears appropriate. Shortly after the surgery support apparatus on chest radiography is appropriate. After the event on 11/30/2017 a CT angiogram of the head and neck was performed. The vascular structures at that time appeared in normal. No significant stenosis is identified within the carotid arterial circulations. Several small foci of air were present within the sulci of the right occipital and right parietal frontal region. There is also a tiny locules of likely air within the straight sinus. On an MRI dated 11/30/2017 at 11:26 AM there is some subtle cortical signal and edema within the posterior brain at the parietal and occipital lobes. There is also the suggestion of minimal cerebellar edema. On this exam no definitive acute

GWR
4/10/18

infarction is noted. On a subsequent MRI brain performed on 12/4/2017 there is now striking infarction involving the cortex of the watershed territories of the frontal, parietal and temporal occipital regions. There is also underlying small infarctions within the left cerebellum.

CONCLUSION: When comparing the 3 patient's clinical course there are striking similarities. All three patients underwent a median sternotomy and cardiovascular surgery. [REDACTED] did have a short arrest immediately following the surgery but otherwise all three patients had an otherwise normal postoperative course with expected early extubation. All 3 patients then had a significant neurological event which resulted in a severe neurological compromise of [REDACTED] and [REDACTED] and death of Mr. Greenaway. With evaluation of the imaging studies there are striking similarities. All 3 patient's demonstrate a watershed-type territory of cortical edema and subsequent cortical infarction. This pattern is very unusual without profound prolonged hypotension, which none of the patient's had by close evaluation of the vital signs. [REDACTED] and Mr. Greenway have documented abnormal intracranial air. Given the above findings it is my conclusion that all 3 patient's suffered a catastrophic cerebral air embolism with subsequent infarction involving the watershed territory cortex. No other logical source of the intracranial air can be found in the medical records. Specifically there is no evidence of right to left shunt that would account for paradoxical emboli. It is my conclusion that this is likely iatrogenic/deliberate introduction of air into the arterial circulation, via the patient's radial arterial lines. It is noted that is subject, William George Davis, date of birth 2/3/1984, was present and working during all 3 events and is documented to be in the room of [REDACTED] during the event. It is my conclusion that William George Davis causes a significant continued imminent threat to patient welfare and should have his license immediately suspended/revoked.

[REDACTED]

Board certified in radiology with certificate of added qualification (CAQ) in neuroradiology

627 Turtle Creek Dr
Tyler, TX 75701
(903)593-2539

GWV
4/10/18

JS-4-10-18-FW-1



FORENSIC MEDICAL OF TEXAS

ATTACHMENT
B

March 26, 2018

RE: Christopher W. Greenaway (Case # 2017-0315)

To Whom It May Concern:

I have been asked to review information pertaining to the death of Christopher W. Greenaway and provide an opinion as to the cause and manner of his death.

I have reviewed the following: the autopsy report of Dr. [REDACTED], toxicology report, medical records from Christus Mother Frances Hospital, police and hospital investigation materials, audio recording of an interview with Dr. [REDACTED] and a report by Dr. [REDACTED]

History/circumstances:

Per investigation and police reports, on August 4, 2017, Mr. Greenaway was recovering from cardiac bypass graft surgery at Christus Mother Frances Hospital in Tyler, Texas. At approximately 3:35 AM it was found that Mr. Greenaway was suffering from an acute cerebral infarct. He was subsequently taken for imaging studies which demonstrated arterial air within the watershed areas of the brain, consistent with an air embolus subsequently leading to his death at 6:40 PM on August 6, 2017.

Autopsy findings:

Mr. Greenaway was a 47 year-old adult White male, weighing 192 pounds and measuring 6 feet, 2 inches in height. His external examination was notable for multiple postmortem incisions with sutures following postmortem tissue donation.

Internally, the pathologic findings included coronary atherosclerosis with two coronary artery bypass grafts, left ventricular hypertrophy of the heart, and swelling of the brain with areas of hemorrhage and tissue necrosis. No evidence of a fat embolism or cholesterol embolism of the brain was found.

Per review of medical records and Dr. [REDACTED] report, it is evident that following the coronary artery bypass surgery on August 3, 2017, Mr. Greenaway was neurologically intact until he rapidly decompensated on the morning of August 4, 2017. A CT scan of his head showed extensive air within the watershed areas of his cerebrum with infarction and swelling of the brain, consistent with an air

Beaumont/Jefferson County

P.O. Box 20097
Beaumont, TX 77720
Phone: (409) 726-2571
Fax: (409) 726-2569

www.forensicmedtx.com

Tyler

11980 Highway 155 North
Tyler, TX 75708
Phone: (903) 877-3800
Fax: (903) 877-3880

SWW
4/10/18



FORENSIC MEDICAL OF TEXAS

embolism. No underlying congenital defects like a septal defect of the heart were noted, and no venous air was detected.

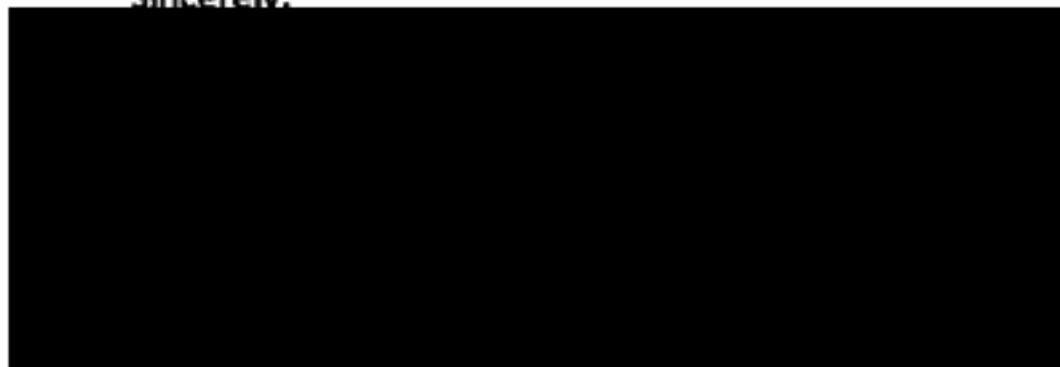
Opinion:

The presence of an air embolus in the brain indicates a substantial amount of air entering the arterial circulation from an external source. Such events are possible in cases of severe trauma in which an artery has become damaged and is exposed to air, in cases of decompression sickness (the bends) as seen in divers, or in cases of introduction of a bolus of air through an arterial catheter. Had the source of the air embolus been venous, then the area affected would have been the pulmonary vasculature, not cerebral. In light of the findings that a number of patients suffered very similar injuries in the same hospital ward over a period of approximately seven months and that some of those patients have evidence of manipulation of their arterial line immediately preceding their own acute cerebral events, the logical conclusion is that the underlying cause of the events is deliberate introduction of an air embolus into the patients' arterial lines.

In view of these findings, the cause of death of Christopher Greenaway is cerebral ischemia due to an induced air embolus.

The manner of death is homicide. *AK*

Sincerely,



Beaumont/Jefferson County

*P.O. Box 20097
Beaumont, TX 77720
Phone: (409) 726-2571
Fax: (409) 726-2569*

www.forensicmedtx.com

Tyler

*11980 Highway 155 North
Tyler, TX 75708
Phone: (903) 877-3800
Fax: (903) 877-3880*

*6022
4/10/12*

JS-4-10-18-FW-1

[REDACTED] MD, MS, FAHA

April 2, 2018

ATTACHMENT
C

Dear Mr. Bingham,

I have been asked to provide an expert opinion on a series of events involving Christopher Greenaway [REDACTED] and [REDACTED] at the Christus Mother Francis Peaches and Owen Heart Hospital in Tyler, Texas. Based upon my background, training and experience, I am qualified to render an opinion in this matter as it relates to the neurological decline and imaging abnormalities in the cases below.

My undergraduate studies were completed at Oklahoma State University in Stillwater, Oklahoma. My undergraduate degree was in premedical science while majoring in chemical engineering. Subsequently, I attended medical school at the University of Oklahoma College of Medicine and graduated with distinction in 1999. Following medical school, I completed an internship in Pediatrics at the University of Oklahoma College of Medicine in Tulsa, Oklahoma. Diagnostic radiology residency training followed my internship and was completed in June 2004 at Baylor University Medical Center in Dallas, Texas. Separate fellowships in diagnostic neuroradiology and then interventional neuroradiology were completed at the Mayo Clinic in Rochester, Minnesota. In 2006, I returned to Dallas, Texas and joined American Radiology Associates (ARA) and I have been a partner of ARA since 2009. For a listing of my committee experiences, research/teaching efforts and leadership roles, I have also sent my CV for your reference. This includes my current position as the Chairman of the Radiology Department at Baylor University Medical Center and Director of Interventional Neuroradiology at Baylor University Medical Center.

As part of my training and current clinical practice, I am qualified to interpret imaging studies of the brain and its vasculature. This would include computed tomography (CT), computed tomography angiography (CTA), magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA) examinations of the head and neck. Furthermore, my training and current clinical practice includes endovascular interventional treatments of the head and neck such as brain aneurysm repair, removal of blood clots from the head and neck and digital subtraction angiography (DSA) of the blood vessels of the head, neck and aortic arch. A crucial part of my interventional practice deals with percutaneous access to the arteries and veins of the body which allow for placement of catheters into the circulation leading to and coming from the brain and neck. Common access sites for arteriography of the brain and neck include the common femoral artery and the radial artery. In addition to my clinical practice, I have done scientific research related to ischemic stroke, radial artery catheterization and treatments for various diseases of the brain and cerebral vasculature. Given my background, training and research described

G.W.
4/10/18

above, I am qualified to render an opinion on the incidents involving Christopher Greenaway [REDACTED] and [REDACTED] at Christus Mother Francis Peaches and Owen Heart Hospital. I will describe each patient separately below based upon my review of the medical records, imaging studies and other information obtained from the hospital and through law enforcement. These medical and hospital records include multiple patients from June 2017 through January 2018, including the three patients described below. The events are presented in chronological order based upon the date of the hospitalization.

Patient Christopher W. Greenaway [REDACTED] was a 47 year old male with a history of mixed hyperlipidemia, obstructive sleep apnea and anxiety. He was initially evaluated due to a severely elevated calcium score on CT screening despite treatment with medications for his hyperlipidemia. Given the additional presentation with exertional shortness of breath, he underwent a cardiac catheterization on 08/02/2017. This study revealed severe 3 vessel coronary artery disease and he was admitted for urgent coronary artery bypass graft (CABG) procedure. Mr. Greenaway underwent a CABG procedure on the morning of 08/03/2017 preceded by placement of a right radial artery line and a pulmonary artery Swan Ganz catheter. A transesophageal echocardiogram (TEE) was also performed prior to the CABG procedure. This TEE revealed no right to left intracardiac shunting lesion. The surgical procedure was uneventful and the patient recovered in the ICU later that day as expected. He was subsequently extubated and was neurologically intact. There was no initial focal neurological deficit encountered and his level of awareness was normal. Sometime between 0330 and 0400 on 08/04/2017, the patient experienced a sudden deterioration of his neurological status. He was transiently bradycardic and not responsive to stimuli. Mr. Greenaway was intubated for airway protection and emergent CT, CTA, and CT perfusion studies were performed. The initial head CT and CTA studies revealed a large volume of intravascular air within the high convexity sulci and trace air in the superior sagittal sinus consistent with large volume arterial air embolization. A subsequent brain MRI on the morning of 08/04/2018 revealed bilateral watershed infarcts. At the time of the event, the patient was being taken care of by nurse William Davis while nurse [REDACTED] was off site for a lunch break. Mr. Greenaway subsequently died several days later as a result of this catastrophic stroke.

Patient [REDACTED] was a 63 year old female with a history of obesity, diabetes, hyperlipidemia, hypertension and congestive heart failure. She was diagnosed with a symptomatic severe aortic stenosis and was admitted to the hospital for aortic valve replacement on 11/27/2017. Prior to the procedure she had a right radial artery line and pulmonary artery Swan Ganz catheter placed. She developed an episode of transient hypotension and cardiac arrest which required a few seconds of CPR with initiation of vasopressors after surgery. There was no prolonged hypotension during the event and she was extubated on 11/28/2017. TEE revealed no evidence for an intracardiac shunting defect. Over the next 2 days, the patient was responsive and had no focal neurological deficits. She was last seen normal at 1115 hours on 11/29/2017. Shortly after midnight at approximately 0005 hours on 11/30/2017, she was found unresponsive and would not respond to painful stimuli. A Code

600
4/16/18

Stroke was called, the patient was intubated, and CT as well as CTA of the head and neck were performed. A small amount of intra-arterial air was present over the right cerebral hemisphere and in the inferior sagittal sinus. Subsequent MRI evaluations revealed evolving bilateral watershed ischemic infarcts and evidence for posterior reversible encephalopathy syndrome. Of interest, nurse William Davis is observed on hospital video surveillance entering the room of [REDACTED] just a few minutes prior to her severe neurological event.

Patient [REDACTED] was a 58 year old male with a history of hypertension, diabetes, coronary artery disease and ongoing chest pain with NSTEMI. He underwent a coronary angiogram that revealed severe multi-vessel coronary artery disease. He was transferred to Christus Mother Francis Peaches and Owens Heart Hospital for a CABG procedure. CT head and CTA angiogram of the head and neck were performed on 1/23/2018 prior to surgery. He had a right radial artery line placed prior to surgery along with a pulmonary artery Swan Ganz catheter. TEE prior to surgery showed no right to left intracardiac shunting. [REDACTED] underwent an uneventful 3 vessel CABG on 01/24/2018. He was extubated later that day and was awake, alert and following commands. The patient subsequently became acutely bradycardic and unresponsive. He was last seen normal on 01/25/2018 at 0100 hours then developed HR of 44 and increased BP at approximately 0125 hours. After being found unresponsive, he was reintubated and remained neurologically compromised. A head CT performed at 1000 hours on 01/25/2018 revealed no abnormality. However, a subsequent MRI performed on 01/27/2018 revealed bilateral watershed infarcts along with bilateral thalamic and cerebellar infarcts. The arterial waveforms present just prior to the event revealed multiple very unusual spikes of significant pressure elevation in a short period of time. This occurred just prior to the patient becoming unresponsive and bradycardic. Furthermore, the arterial waveform abnormalities occur while nurse William Davis is noted in the room on video surveillance. The catastrophic decline occurs shortly after nurse Davis leaves the room. Surprisingly, nurse Davis does not respond to the ensuing resuscitative medical attempts.

Conclusion: The series of events described in each of these patients share concerning similarities. Each patient was recovering after open cardiothoracic surgery in expected fashion. They were all extubated, awake and following commands in the cardiac ICU. None of the patients had a focal neurological deficit prior to their rapid decline. Each of the patients had bilateral watershed ischemic infarcts on subsequent brain MRI evaluation. This type of stroke occurs after a prolonged cardiovascular event and/or in patients with severe arterial narrowing, which none of these patients experienced. Even more unusual is the presence of intra-arterial air emboli in Mr. Greenaway and [REDACTED]. In the absence of an intracardiac shunt, this air must have been introduced through the patients' radial arterial lines in a forceful manner. The observation of air in these two cases on CT imaging was likely related to the rapid timing of the CT scan after introduction of the intra-arterial air (as intra-arterial air is rapidly resorbed from the blood). Based upon my observations, I must conclude that these patients were intentionally injected with air through their radial artery lines by nurse William Davis. I can find no other

6ww
4/10/18

logical explanation for the events described above after reviewing the records and information available to me at the time of this report. The actions of nurse Davis led to the death of Mr. Greenaway and the permanent injuries suffered by [REDACTED] and [REDACTED]. All of my medical opinions are based upon a reasonable degree of medical certainty.

Sincerely,

[REDACTED] MD, MS, FAHA

624
4/10/18

