

DOCKET NO.: CV-03-0519859 S : SUPERIOR COURT  
BOGAZIS, JEFFREY, ET AL : J.D. OF NEW BRITAIN  
VS. : AT NEW BRITAIN  
BRISTOL HOSPITAL, INC., ET AL : JUNE 26, 2006

**OBJECTION TO DEFENDANT BRISTOL HOSPITAL'S MOTION IN LIMINE RE:  
POSITIONAL ASPHYXIA AND MOTION TO PRECLUDE CERTAIN TESTIMONY  
OF DEFENDANTS' WITNESSES UNDER STATE V. PORTER**

The Plaintiff hereby objects to Bristol Hospital's Motion in Limine re: Positional Asphyxia. The Defendant Hospital's request for a *Porter* hearing re: positional asphyxia should be denied because there is no debate as to the scientific principles underlying the anticipated testimony of Plaintiff's expert witnesses. Moreover, even if the Court finds that a *Porter* analysis is required, it must find that the Plaintiff has met his burden in establishing the reliability of the expected testimony because:

- (1) The scientific validity of positional asphyxia is well-established in the scientific community; and
- (2) The scientific validity of positional asphyxia is undisputed by the Defendants' experts in this case.

**ORAL ARGUMENT REQUESTED**  
**TESTIMONY NOT REQUIRED**

In addition, the Plaintiff hereby moves *in limine* to preclude the Defendants from offering any evidence or attempting to elicit any testimony relating to studies which have shown that, in certain controlled environments, the ventilation of young, sober, healthy men restrained in the prone position (with and without weight on the back) has not diminished to such a degree as to cause hypoxemia. This evidence should be precluded as it is irrelevant to the present case and fails to meet the threshold standards for the admissibility of scientific evidence under Connecticut law.

A Memorandum in support of this Motion is attached hereto.

THE PLAINTIFF

By \_\_\_\_\_  
Joseph McManus  
Trantolo & Trantolo, LLC  
  
Hartford, CT

**ORDER**

The foregoing objection having been heard by the Court, it is hereby Ordered:  
SUSTAINED/OVERRULED.

BY THE COURT

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Judge/Clerk

**ORDER**

The foregoing motion having been heard by the Court, it is hereby Ordered:  
GRANTED/DENIED.

BY THE COURT

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Judge/Clerk

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**MEMORANDUM RE: POSTIONAL ASPHYXIA**

**PART I: BRISTOL HOSPITAL'S MOTION IN LIMINE MUST BE DENIED**

**A. Introduction**

The following facts are undisputed:

- (1) Debbora Bogazis was obese at the time of her death.
- (2) Debbora Bogazis was intoxicated at the time of her death.
- (3) Debbora Bogazis struggled violently for approximately forty minutes while restrained in the prone position prior to her death.
- (4) Shortly before Debbora Bogazis' cessation of movement, incontinence and cardiopulmonary arrest, Bristol Hospital Emergency Department staff members re-restrained Debbora Bogazis in such a manner that prohibited her from getting up on her elbows and lifting her chest off of the stretcher. While doing so, Hospital staff members situated their bodies over Debbora Bogazis to restrict her ability to raise her chest off of the stretcher. *See* Deposition Transcript of Sharon

Kraft 35:15-36:24, attached hereto as **Exhibit 1**; Deposition Transcript of Herman Castillo 23:12-21, 51:22-25, attached hereto as **Exhibit 2**.<sup>1</sup>

(5) Debbora Bogazis did not recover from her arrest.

The Plaintiff has alleged that the misconduct of the two defendants, Bristol Hospital and Dr. Lawrence Levine, resulted in Debbora Bogazis' death. Specifically, Plaintiff's expert pathologist, Dr. Edward Willey, has testified that "she died because of insufficient ventilatory capability which was compromised by being placed face down in the prone restraint and then being restrained further such that she couldn't lift off the cot. What that does is it presses the abdomen, presses the chest, and it compromises the ability of the diaphragm to descend which is an integral part of active breathing. At the same time she's compromised because she has an increased metabolic demand by her agitation." Deposition Transcript of Dr. Edward Willey 59:3-13.<sup>2</sup>

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<sup>1</sup> Both Sharon Kraft and Herman Castillo are staff members of Bristol Hospital who participated in the restraint.

<sup>2</sup> In its Motion in Limine, the Defendant Hospital incorrectly argues that Dr. Willey is unable to support his opinions with any confirmatory references to the literature. See Bristol Hospital's Motion in Limine, page 29. This is manifestly untrue. At his deposition, Dr. Willey testified that his opinions were based on the medical literature concerning positional asphyxia in the aggregate as well as his training and experience as a pathologist. See Deposition Transcript of Dr. Edward Willey 56:1-58:25. Moreover, Dr. Willey produced and described 27 specific pieces of literature upon which he relied in forming his opinions. They were then marked for identification. See *Id.* at 46:1-54:15, attached hereto as **Exhibit 3**. A number of these 27 specific pieces of literature are described in subsection (c): "The Acceptance of Positional Asphyxia in the Scientific Community," *infra*, and attached as exhibits hereto.

Plaintiff will also call Dr. Michael M. Baden as an expert witness in this case. Dr. Baden is the former Chief Medical Examiner for New York City. He is board certified in clinical, anatomical and forensic pathology. For the past 32 years Dr. Baden has been the forensic pathologist responsible for investigating all deaths in corrections, jails and lock-ups in New York State with regard to establishing the cause of death, including all restraint deaths. Deposition Transcript of Dr. Michael Baden 175:10-24, attached hereto as **Exhibit 4**. He is also a member of “the commission that examines all restraint deaths in mental hospitals in New York State.” *Id.* At his deposition in this case, Dr. Baden testified that “over the years I have sort of developed a specialization in how people die during restraints...” *Id.*

At trial, Dr. Baden will testify as to the cause of Debbora Bogazis’ death. Reading from the emergency department record, Dr. Baden testified, at his deposition, as follows: “...patient noted to be breath—to be holding breath. Encouraged to breath. Thrashing yelling ceased. Patient now unresponsive. Apneic, face cyanotic. That’s a description of somebody becoming unconscious due to inability to breath.” *Id.* at 95:24-96:7. When asked, at his deposition, why he believed that Debbora Bogazis could not breath, Dr. Baden replied “[b]ecause people are pressing on her and had her in a position that she couldn’t breath.” *Id.* at 99:20-22. Dr. Baden further testified that “people don’t die in a situation like this if you don’t interfere with their breathing.” *Id.* at 100:13-15.

Bristol Hospital has moved *in limine* to preclude Drs. Willey, Baden and all other witnesses from offering expert testimony regarding positional asphyxia and/or the danger associated with restraining a patient in the prone position due to the risk of positional asphyxia. The purported basis for the Defendant Hospital's Motion in Limine is that the concept of positional asphyxia is not based on reliable scientific methodology. The Defendant's position is without merit.

There is no need for this Court to conduct a *Porter* analysis of the proffered testimony because it is based on undisputed scientific principles. Moreover, even if the Court concludes that a *Porter* analysis is warranted, it must find that the subject testimony is admissible based on the fact that the concept of positional asphyxia is generally accepted in the scientific community. In fact, the validity of positional asphyxia is not debated in this case. Bristol Hospital's own expert witnesses recognize its scientific validity. In addition, the Defendant Hospital's own expert witnesses do not dispute that the prone position impairs respiration. In fact, respiratory impairment in prone restraints has been demonstrated by studies which have been performed by the Defendant Hospital's own opinion witness, Dr. Tom Neuman.<sup>3</sup> The only issue concerning causation in this case is whether or not the conduct of the Defendants was a substantial factor in Debbora Bogazis' death. In answering this question, the experts

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<sup>3</sup> Dr. Neuman's study, see Part II, *infra*, discovered a 14% reduction in ventilation of subjects that were restrained in the prone position for 15 minutes. Theodore C. Chan, et al., *Restraint Position and Positional Asphyxia*, 30 ANNALS EMERGENCY MEDICINE 578 (1997), attached hereto as **Exhibit 25**.

may differ, but such difference in opinion is due to competing interpretations of the facts of this case—not to underlying scientific methodology.

**B. A Porter Analysis is Not Required Because the Scientific Principles are Undisputed**

Under Connecticut law, “[e]xpert testimony should be admitted when: (1) the witness has a special skill or knowledge directly applicable to a matter in issue, (2) that skill or knowledge is not common to the average person, and (3) the testimony would be helpful to the court or jury in considering the issues.” (Internal quotation marks omitted.) *Hayes v. Decker*, 263 Conn. 677, 683 (2003).

In addition, when expert testimony is based on scientific evidence, that evidence must undergo a validity assessment under *State v. Porter*, 241 Conn. 57 (1997) (*en banc*), cert denied, 523 U.S. 1058. Recently, our Supreme Court has specified that “[t]he mere fact that ‘scientific evidence’ is sought to be admitted into evidence, however, does not require necessarily that a *Porter* inquiry be conducted as to the threshold admissibility of the evidence.” *Maher v. Quest Diagnostics, Inc.*, 269 Conn. 154, 169 (2004). This occurs in cases where the scientific evidence can be reduced to basic concepts “with no serious debate within the medical community as to their scientific reliability.” *Id.* at 172. Under such circumstances, the evidence is viewed as “well established principles of the scientific



community to which *Porter* simply does not apply.” *Id.* (citing *Hayes v. Decker*, 263 Conn.677, 689 (2003), wherein the Supreme Court held that a *Porter* analysis was not required because the scientific evidence could be reduced into the following three basic principles “(1) an increase in blood pressure causes an increase in the heart’s demand for oxygen; (2) oxygen deprivation to the heart causes heart tissue death; and (3) increased blood pressure during a heart attack causes increased heart tissue damage.” *Id.* at 688-89).

Similarly, a *Porter* analysis is unnecessary in the present case as the disputed evidence can be reduced to the following two undisputed principles: (1) the ability of the chest muscles and diaphragm to create a bellows effect is a necessary component of respiration; and (2) an asphyxial death can occur if respiration is impaired to a level causing hypoxemia.<sup>4</sup> Bristol Hospital’s expert witnesses cannot and do not disagree with either of these principles. They are undisputed. They are scientific law. The parties in this case simply disagree as to whether the actions of the Defendants impaired Debbora Bogazis’ respiration to a level where she became hypoxemic. This is not a *Porter* issue. The science is well-settled.

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<sup>4</sup> Hypoxemia is defined as insufficient oxygen in the blood.

**B. Plaintiff's Expert Testimony Satisfies Porter**

Even if this Court finds that a *Porter* analysis is warranted under the circumstances, it must find the disputed testimony sufficiently reliable under *Porter*.

In *State v. Porter*, our Supreme Court abandoned the traditional *Frye* approach regarding the admissibility of scientific evidence, *see Frye v. United States*, 293 F. 1013 (D.C.Cir. 1923), in favor of the approach adopted by the federal courts in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Under *Frye*, the sole inquiry into the admissibility of scientific evidence was whether or not it was generally accepted in the scientific community. In adopting the *Daubert* test, *State v. Porter* expanded the admissibility of scientific evidence in Connecticut courts. Under *Porter*, scientific testimony that is not generally accepted in the scientific community, but can be demonstrated to be based on reliable methodology, is also admissible. Thus, under *Porter*, general acceptance in the scientific community alone will render scientific testimony admissible; whereas a lack of general acceptance will not necessarily preclude its admissibility provided that its proponent may establish its reliability by other means.<sup>5</sup> The *Porter* Court articulated this standard as follows:

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<sup>5</sup> Such other means include: whether the methodology underlying the scientific evidence has been tested and subjected to peer review; the known or potential rate of error; the prestige and background of the expert witness supporting the evidence; the extent to which the technique at issue relies upon subjective judgments made by the expert rather than on objectively verifiable criteria; whether the expert can present and explain the data and

Even under *Daubert*, courts should continue to consider whether a scientific principle has gained “general acceptance” in making admissibility determinations. Although “general acceptance” is no longer an absolute prerequisite to the admission of scientific evidence, it should, in fact, be an important factor in a trial judge's assessment. Indeed, “[w]e suspect that general acceptance in the relevant scientific community will continue to be the significant, and often the only, issue. Thus, “[a]lthough *Frye* may no longer be the standard for admissibility, general acceptance remains a part of the analysis, and in many cases its presence may alone be sufficient to admit the evidence.” That is, if a trial court determines that a scientific methodology has gained general acceptance, then the *Daubert* inquiry will generally end and the conclusions derived from that methodology will generally be admissible. If a principle has *not* gained general acceptance, however, we emphasize that “a proponent of [the] scientific opinion ... may [still] demonstrate the reliability or validity of the underlying scientific theory or process by some other means, that is, without establishing general acceptance.” *Id.* at 84-85.

In the present case, the concept of positional asphyxia must be admitted under a *Porter* analysis because it is generally accepted in the relevant scientific community. In other words, there is simply no debate in the scientific community as to the validity of positional asphyxia as a cause of death. That is not to say that every member of the scientific community agrees on whether or not positional asphyxia has caused each particular death in which it has been alleged, but the fact that human beings may die from positional asphyxia is undisputed. In fact, it undisputed in this case. Every single one of Bristol Hospital's expert witnesses admits

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methodology underlying the testimony in a manner that assists the jury in drawing conclusions therefrom; and whether the technique or methodology was developed solely for purposes of litigation. *State v. Porter*, 241 Conn. at 84-85 (1997).

its validity. Hence, in terms of a *Porter* analysis, positional asphyxia “has garnered general acceptance in the relevant scientific community.” See *Maher v. Quest Diagnostics, Inc.*, 269 Conn. 154, 178 (2004).

**C. The Acceptance of Positional Asphyxia in the Scientific Community**

Asphyxia is defined as “a lack of oxygen or excess of carbon dioxide in the body that is usually caused by interruption of breathing and that causes unconsciousness.” *Merriam-Webster’s Medical Dictionary* (2002). Positional or mechanical asphyxia refers to a forced position of the body in which the neck is compressed, or the diaphragm and rib cage are prevented from moving to create the bellows effect necessary for air to enter and exit the lungs.

The recognition that the immobilization of the chest cavity can cause an asphyxial death is not a recent discovery. Ronald L. O’Halloran & Janice G. Frank, *Asphyxial Death During Prone Restraint Revisited: A Report of 21 Cases*, 21 AM. J. FORENSIC MEDICINE & PATHOLOGY 39 (2000) attached hereto as **Exhibit 5** (on page 16 of exhibit). “Burking,” a form of mechanical asphyxia, in conjunction with smothering, which involved sitting on a person’s chest, was used by the nineteenth century murderers-for-profit Burke and Hare. *Id.*

The terms “restraint asphyxia” or “traumatic asphyxia” have been suggested for asphyxial deaths that occur through interference with the mechanical bellows action of the

chest, such as those that occur while a person is restrained in the prone position and held down in such a way that prohibits the chest from rising. Ronald L. O'Halloran & Larry V. Lewman, *Restraint Asphyxiation in Excited Delirium*, 14 AM. J. FORENSIC MEDICINE & PATHOLOGY 289 (1993); Donald T. Reay, *Death in Custody*, 18 FORENSIC PATHOLOGY 1 (1998) attached hereto as **Exhibits 6 and 7**.

Positional asphyxia as a cause of death and its relationship to the prone restraint is widely accepted in the medical and law enforcement communities. Although a comprehensive review of the literature is well-beyond the scope of this brief, the following collection of citations from peer-reviewed journal articles, studies, case reports and publications of governmental and non-profit agencies is meant to be illustrative: James R. Gill & Kristen Landi, *Traumatic Asphyxial Deaths Due to an Uncontrolled Crowd*, 25 AM. J. FORENSIC MEDICINE & PATHOLOGY 358 (2004), attached hereto as **Exhibit 8** (discussing traumatic asphyxiation occurring in uncontrolled large crowds due to chest compression when “[c]ompression of the chest interferes with venous return of blood to the heart”); Ronald L. O'Halloran, *Reenactment of Circumstances in Deaths Related to Restraint*, 25 AM. J. FORENSIC MEDICINE & PATHOLOGY 190 (2004), attached hereto as **Exhibit 9** (examining two restraint deaths and suggesting the importance of obtaining early statements from restraint participants in order to determine if the death was caused by restraint asphyxia); Ronald L.

O'Halloran & Janice G. Frank, *Asphyxial Death During Prone Restraint Revisited: A Report of 21 Cases*, 21 AM. J. FORENSIC MEDICINE & PATHOLOGY 39 (2000) , attached hereto as **Exhibit 5** (examining 21 cases of restraint asphyxia where the decedent was restrained in the prone position with weight on the back and concluding that “[a] reasonable diagnosis of restraint asphyxia can usually be made after ruling out other causes and collecting supportive participant and witness statements in a timely fashion. Common elements in this syndrome include prone restraint with pressure on the upper torso; handcuffing, leg restraint, or hogtying; acute psychosis and agitation, often stimulant drug induced; physical exertion and struggle; and obesity. Establishing a temporal association between the restraint and the sudden loss of consciousness/death is critical to making a correct determination of cause of death.”); John L. Hick, et al., *Metabolic Acidosis in Restraint-associated Cardiac Arrest*, 6 ACADEMIC EMERGENCY MEDICINE 239 (1999), attached hereto as **Exhibit 10** (examining 5 restraint deaths and suggesting that the prone position be avoided); Donald T. Reay, *Death in Custody*, 18 FORENSIC PATHOLOGY 1 (1998), attached hereto as **Exhibit 7** (discussing the mechanism of restraint asphyxia by chest compression during restraint: “Respiration depends on an intact airway, pulmonary parenchyma capable of adequate gas exchange, and the mechanical bellows action of the muscular and bony structures of the thorax. The coordinated activity of respiration is mediated by an intact nervous system... *Restraint asphyxia* describes

interference with the bellows action of the chest and prevents an effective gas exchange from occurring and creates a condition of hypoxia that, if prolonged, can result in death.”); Donald T. Reay, et al., *Effects of Positional Restraint on Oxygen Saturation and Heart Rate Following Exercise*, 9 AM. J. FORENSIC MEDICINE & PATHOLOGY 16 (1988), attached hereto as **Exhibit 15** (clinical study finding the prone restraint to have measurable physiological effects); Martin Roeggla, et al., *Cardiorespiratory Consequences to Hobble Restraint*, 109 WIEN KLIN WOCHENSCHR 359 (1997), attached hereto as **Exhibit 11** (clinical study demonstrating that three minutes in prone restraint led to a “dramatic decrease in cardiopulmonary parameters.”); Samuel J. Stratton, et al., *Sudden Death in Individuals in Hobble Restraints During Paramedic Transport*, 25 ANNALS EMERGENCY MEDICINE 710 (1995), attached hereto as **Exhibit 12** (examining two deaths occurring in prone restraint during emergency transport and, after thorough autopsy, determining the causes of death to be positional asphyxia in both cases); Ronald L. O’Halloran & Larry V. Lewman, *Restraint Asphyxiation in Excited Delirium*, 14 AM. J. FORENSIC MEDICINE & PATHOLOGY 289 (1993), attached hereto as **Exhibit 13** (discussing 11 cases of sudden death due to positional asphyxia when the person was restrained in the prone position. “The mechanism of death in these cases falls into the category of positional asphyxiation.”); Michael D. Bell, et al., *Positional Asphyxiation in Adults*, 13 AM. J. FORENSIC MEDICINE & PATHOLOGY 101 (1992), attached

hereto as **Exhibit 14** (evaluating 30 cases of positional asphyxia that occurred over a nine-year period in Dade and Broward County, Florida and concluding that positional asphyxia as a cause of death should not be overlooked in the case of an alcoholic who dies suddenly); Protection & Advocacy, Inc., *The Lethal Hazard of Prone Restraint: Positional Asphyxiation* (April 2002), attached hereto as **Exhibit 16** (investigational report published by an independent, private, nonprofit agency reporting the conclusions of forensic and anatomical pathologist, Werner U. Spitz, M.D. after examining multiple restraint-related deaths and concluding that the prone position was a significant contributing factor); see also internal citations re: positional asphyxia contained therein; Joint Commission on Accreditation of Healthcare Organizations, *Sentinel Event Alert, Preventing Restraint Deaths* (Nov. 18, 1998), attached hereto as **Exhibit 17** (investigation and position statement published by national healthcare accreditation organization concerning preventing restraint deaths and concluding that, in 40% of the cases investigated, the cause of death was asphyxiation); Reginald Allard, Jr., Connecticut Police Academy training materials (2002), attached hereto as **Exhibit 18** (defining positional asphyxia as “[d]eath as a result of body position that interferes with one’s ability to breath as it occurs within a confrontational situation involving law enforcement officers” and promulgating guidelines in order to avoid positional asphyxia, including: getting the subject off his stomach as soon as possible and not sitting on the subject’s back)



Similarly, positional or traumatic asphyxiation is uniformly recognized in forensic pathology and emergency medicine texts. For instance, in *Knight's Forensic Pathology* (2004):

The following conditions may legitimately be considered to be defects in the chain of respiration and hence examples of asphyxia:...Restriction of the respiratory movements of the thorax, preventing the inspiration of air through patent respiratory passages, as in the so-called 'traumatic asphyxia'...Pekka Saukko & Bernard Knight, *KNIGHT'S FORENSIC PATHOLOGY* 352 (3rd ed. 2004) attached hereto as **Exhibit 19**.

In *Simpson's Forensic Medicine*:

Traumatic asphyxia: The essential feature is fixation of the thorax by external pressure that prevents respiratory movements... 'Postural asphyxia' is a related condition, in which an unconscious or disabled person lies with the upper half of the body lower than the remainder... This inverted position means that the abdominal viscera push up against and splint the diaphragm and this can cause death... Deaths with an etiology somewhere between traumatic and postural asphyxia have occurred during restraint when several policemen or prison officers have forced prisoners to the ground and then knelt on them or otherwise pressed their thorax. The difficulty of having to raise some of their own body weight with their respiratory muscles to breathe, combined with the additional pressure of others pressing on their chest, may cause these individuals to be unable to breathe sufficiently or deeply and they will gradually asphyxiate... It is now well accepted that if any individual, especially after violent struggle, is handcuffed and forced on to the ground face down or placed into a police vehicle face down, his respiratory

movements will become difficult or impossible to maintain against the weight of his own body and asphyxia may ensue. Richard Shepherd, *Simpson's Forensic Medicine* 101-02 (12th ed. 2003) attached hereto as **Exhibit 20**.

Likewise, in *Forensic Pathology: Principles and Practice* (2005), “[p]ositional asphyxia occurs when an individual acquires a certain body position in which their breathing is compromised...” David Dolinak & Evan W. Matshes, *FORENSIC PATHOLOGY: PRINCIPLES AND PRACTICE* 208 (2005) attached hereto as **Exhibit 21**. Also, from *Forensic Pathology* (2001):

In mechanical asphyxia, pressure on the outside of the body prevents respiration. Mechanical asphyxia is almost always accidental in manner. It can be subdivided into three types:

1. Traumatic asphyxia (a term often used interchangeably with mechanical asphyxia)
2. Positional asphyxia
3. Riot-crush or “human pile” deaths

Traumatic Asphyxia occurs when a heavy weight presses down on an individual’s chest or upper abdomen, making respiration impossible. Vincent J. DiMaio & Dominick DiMaio, *FORENSIC PATHOLOGY* 240 (2<sup>nd</sup> ed. 2001) attached hereto as **Exhibit 22**. For respiration, one has to have an open airway; lungs capable of gas exchange and the ability to ventilate the lungs. In deaths ascribed to positional asphyxia, it is alleged that there is interference with ventilation of the lungs. Ventilation involves movement of the chest wall, diaphragm and abdominal wall. Positional asphyxia occurs when an individual is placed in or somehow gets into a position where there is interference with his ventilatory efforts. *Id.* at 503.

From *Medicological Investigation of Death* (1993), as cited by the court in *Bornstad v. Honey Brook Township*, No. C.A.03-CV-3822, 2005 WL 2212359, 10 n. 19 (E.D.Pa. Sept. 9, 2005) (Surrick, J.), attached hereto as **Exhibit 31**:

A person may die from asphyxia as a result of chest compression....Homicide by compression of the chest, as by kneeling or sitting on the back of a victim, is rare. Such deaths have occurred in the course of police arrests, during attempts to handcuff a violent prisoner, facedown on the floor or the back seat of a police cruiser. Forcing the arms backward, while the chest is pushed forward by the weight of the officer, may lead to immobilization of the chest and death, especially if the prisoner is agitated or under the depressing effect of alcohol or drugs. Spitz & Fisher, MEDICOLOGICAL INVESTIGATION OF DEATH 444, 484 (3rd ed. 1993).

In *Forensic Pathology* (1996) by Bernard Knight:

Closely allied to traumatic asphyxia is the so-called ‘postural asphyxia’, whose description as a separate entity is quite recent. When a person remains in a certain position for an extended time, either due to being trapped, or drunken or drugged state, there may be a mechanical impediment to adequate respiratory movements. In addition, the normal venous return to the heart may be impaired. Bernard Knight, FORENSIC PATHOLOGY 360 (2nd ed. 1996) attached hereto as **Exhibit 23**.

From *Harwood-Nuss’ Clinical Practice of Emergency Medicine* (2005), “[p]atient deaths caused by asphyxiation have occurred when the prone position was used. Consequently patients should always be restrained in the supine position.” Allan B. Wolfson, HARWOOD-NUSS’ CLINICAL PRACTICE OF EMERGENCY MEDICINE 1817 (4th ed. 2005), attached hereto as **Exhibit 24**. Lastly, from *Emergency Care* (2001), “[n]ever ‘hog tie’ the patient or restrain the patient in any manner that will impair breathing. Patients who have been improperly restrained have died as a result of a condition called positional asphyxia.” Daniel Limmer, et al., EMERGENCY CARE 465 (9th ed. 2001), attached hereto as **Exhibit 26**.

**D. The Acceptance of Positional Asphyxia by Bristol Hospital's Witnesses**

As the following collection of deposition testimonies illustrates, the concept of position asphyxia is accepted by Bristol Hospital's own hired witnesses:

According to Charles McKay, Jr., M.D., "Positional asphyxia is impaired lung -- chest wall excursion and therefore impaired ventilation caused by a position that somebody is in."

Deposition Transcript of Dr. Charles A. McKay, Jr. 251:14-17. "A prone position with impairment of chest wall excursion is associated with respiratory distress and can be associated with lack of oxygen in the blood." *Id.* at 165:12-16.

Charles Pinsky, M.D. stated that:

"Positional asphyxia means that because of the position the person is unable to maintain an adequate tidal volume. Usually because of either an occlusion of the airway, which is the most --which is what they are concerned about with a Sentinel event for prone position, and the second is because the compliance of the chest wall for which the diaphragm is a major component is too decreased to allow normal mechanics."

Deposition Transcript of Dr. Charles Pinsky 216:24-217:9.

In Dr. Pinsky's deposition, the following colloquy took place:

Q. But you can get positional asphyxia without a closed-off airway, can't you?

A. Yes, you can.

Q. Okay.

A. If you pushed on their chest and compressed them and prevented them from taking in a breath, you could clearly get positional asphyxia.

Q. And if you did it just at the wrong moment you could tip the scale, couldn't you?

A. Yes, you could.

Q. This leaning on the patient [Debbora Bogazis] or bridging the patient or whatever you want to call it happened within seconds of her arresting?

A. Yes, it did.

*Id.* at 230:22-231:12

And later:

Q. Obesity can affect your respiratory process in a prone restraint?

A. Yes, it can.

*Id.* at 211:8-10.

According to Nicholas DePace, M.D.:

“Positional asphyxia is the suffocation from either obstruction of the upper airway or severe restriction on the air flow bellows not to deliver oxygen from the small alveoli to the capillaries down to the microscopic level carbon dioxide and oxygen exchange. So it could be a combination of either the obstructions to the airway, the mouth, the nose; or it could be obstruction at the level of the throat, or it could be the air bellows being compressed.”  
Deposition Transcript of Dr. Nicholas DePace 162:10-23.

As noted by Tracy Sansone, M.D. at her deposition:

Q. What does the term “positional asphyxia” mean?

A. When a person is in a position that they're unable to breathe.

Deposition Transcript of Dr. Tracy Sansone.232:2-5.

The following discourse took place during the deposition of Charles Wetli, M.D.:

Q. Getting back to your disclosure and the first sentence we were talking about, the objective evidence to support an opinion that the plaintiff decedent's death was caused due to being restrained in a prone position, what type of objective evidence would you expect to retrieve from a medical record, an autopsy report that could support that proposition?

A. That somebody had immobilized her chest approximately three to five minutes or obstructed her upper airway three to five minutes, like put her face down into a pillow.

Q. And if you did have evidence that Ms. Bogazis's chest was immobilized for three to five minutes, would that change your opinions in this case?

A. Of course.

Deposition Transcript of Dr. Charles Wetli, M.D. 70:4-21.

Additionally, the causal relationship between the prone restraint and positional asphyxia is described in the deposition testimony of Nurse Karen Ragaisis, a Psychiatric Advanced Practice Registered Nurse who teaches the PERT class (Preventive Emergency Response Team) at Bristol Hospital.<sup>6</sup> At her deposition, Nurse Ragaisis testified that she teaches the Bristol Hospital PERT members the following with respect to the dangers of restraints. Specifically, Nurse Ragaisis testified to the following:

Q. What is positional asphyxia?

A. It's where you're in such a position that it interferes with your ability to breathe.

Q. All right. And how does relate to the restraint? How do restraints cause positional asphyxia?

A. If you are -- if you are lying down and you're not able to get enough chest excursion to be able to breathe normally.

Q. Well, what position would you be in for that to happen?

A. It could -- it could depend on variables. But it -- you could be on your side. You could be on your face. I mean -- on your face.

Q. Face down.?

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<sup>6</sup> The PERT Team is Bristol Hospital's restraint team.

A. Face down.

Q. Prone position? Yes?

A. Uh-huh.

Deposition Transcript of Karen Ragaisis 108:24-109:16 (Volume II)

And further:

Q. Now, positional asphyxia is associated  
with people in the prone position, is it not?

A. Yes.

Q. Especially so in the prone position; correct?

A. It's associated with people in the prone position, yes.

*Id.* at 112:13-19.

Nurse Ragaisis uses a PowerPoint computer slide presentation in connection with her PERT class. This presentation states that “positional asphyxia” and “restraint asphyxia” are physiological consequences of restraint. This PowerPoint presentation is attached hereto as **Exhibit 27**.

Despite this unanimous recognition of positional asphyxia by Bristol Hospital’s hired experts and its restraint trainer, Nurse Ragaisis, the Defendant Hospital has nevertheless moved to preclude what its Counsel calls the “discredited theory of positional asphyxia” in his



brief. In support of its Motion in Limine, Bristol Hospital relies heavily on the deposition testimony of one of its opinion witness, Dr. Tom Neuman—a maverick in the scientific community who has made a living out of testifying that victims do not die of positional asphyxia when their deaths occur in prone restraints. Contrary to Defense Counsel’s representations to this Court,<sup>7</sup> however, even Dr. Neuman recognizes the scientific validity of positional asphyxia, just like all of Bristol Hospital’s other five hired witnesses and Nurse Ragaisis. Dr. Neuman recognizes and admits that: (1) positional asphyxia is a valid concept, and (2) it is a matter of common sense. He specifically states:

Of course, there is a true form of positional asphyxia. Once again, Dr. Willey referred to that. It's a paper by Bell [See **Exhibit 14**], which is from, I guess the early 1980s, but again I'm not a hundred percent of the sure, and I think, if I'm not mistaken, that that was really the first paper that dealt with positional, asphyxia and that was something that I think is intuitively understandable to anyone.... Deposition Transcript of Dr. Tom Neuman 59:10-17.

Dr. Neuman further testified at his deposition as follows: “[s]o I'm not saying there is no such thing as positional asphyxia. Of course there is. I mean, there is no question about it.” *Id.* at 60:13-15.

Therefore, with respect to the issue of positional asphyxia, this is not a case of unfounded scientific methodology. This is not even a case of competing scientific claims.

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<sup>7</sup> In its Motion in Limine, Bristol Hospital claims that “Dr. Neuman is the nation’s leading expert on the theory of ‘positional asphyxia,’ and has conducted experimental studies that has (sic) there is no scientific validity to the theory.” Bristol Hospital’s Motion in Limine, page 7.

Everyone in the scientific community, including Dr. Neuman, agrees that positional asphyxia is a legitimate scientific concept. In terms of a *State v. Porter* analysis, the concept of positional asphyxia “has garnered general acceptance in the relevant scientific community.” *See Maher v. Quest Diagnostics, Inc.*, 269 Conn. 154, 178 (2004). The experts in this case simply differ in opinion as to whether Debbora Bogazis’ death was, in fact, caused by the conduct of the Defendants.

## **PART II: DR. NEUMAN’S TESTIMONY MUST BE PRECLUDED UNDER STATE V. PORTER**

### **A. Introduction**

The Defendant Hospital seeks to introduce the testimony of its opinion witness, Dr. Tom Neuman that “the plaintiff’s decedent did not have an asphyxial death due to a result of being placed in a prone position, Defendant’s Disclosure of Expert Witness, dated March 9, 2006. Dr. Neuman has been disclosed to testify further that, “being placed in the position that she was played no role in the outcome.” *Id.*

The Hospital’s argument that the prone position played no role in Debbora Bogazis’ death contradicts the conclusion of the State’s Medical Examiner. The Hospital’s argument that Mrs. Bogazis did not die an asphyxial death is based on two studies that were performed

by Dr. Neuman and his colleagues with the specific intent of disproving the notion that restraint-related deaths are caused by the misconduct of the restrainers.<sup>8</sup> These studies measured only respiration in healthy, young males of normal body weight. They demonstrated that prone restraints diminish respiration in such subjects.

Under *State v. Porter*, any testimony that Debbora Bogazis did not suffer an asphyxial death that is based on these studies must be precluded for three reasons: (1) Dr. Neuman's studies were conducted solely for litigation purposes; (2) the anticipated testimony does not satisfy the relevancy requirement of the *Porter* analysis; and (3) any testimony regarding Dr. Neuman's studies would mislead the jury and confuse the issues. Therefore, the anticipated testimony of the Defendant's experts does not meet the threshold requirements for admissibility under Connecticut law.

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<sup>8</sup> In addition, Dr. Neuman testified at his deposition that two unpublished studies supported his opinions. The Plaintiff has moved to preclude any reference to these unpublished studies under *State v. Porter*. See Plaintiff's Motion to preclude Evidence re: Unpublished/Non Peer-Reviewed Studies dated June 26, 2006.

**B. Price v. San Diego**

Dr. Newman first became involved with restraint death litigation in 1994 after the family of a man who had died in a prone (“hogtie”)<sup>9</sup> restraint while in the custody of the San Diego Police Department sued the city for his death. *See Price v. County of San Diego*, 990 F.Supp. 1230 (S.D.Cal. 1998). In connection with the city’s defense of this case, Dr. Neuman was asked by a county attorney to “help him with the case” despite the fact that Dr. Neuman had never heard of positional asphyxia prior thereto. Deposition Transcript of Dr. Tom Neuman 33:14-34:11. In order to educate Dr. Neuman on positional asphyxia, the Defense Attorney in the *Price* case provided him with a copy of a study which had been performed by a pathologist, Dr. Ronald T. Reay in 1988. *Id.* at 34:6-11. After comparing oxygen saturation levels and heart rates in subject in the sitting position and hogtie restraint, Dr. Reay’s study demonstrated “[the hogtie] positional restraint to have measurable physiologic effects.” (Donald T. Reay, et al., *Effects of Positional Restraint on Oxygen Saturation and Heart Rate Following Exercise*, 9 AM. J. FORENSIC MEDICINE & PATHOLOGY 16, 18 (1988), attached hereto as **Exhibit 15**). Based on these findings, Dr. Reay et al. suggested that, “[w]hile the relevance to the study of sudden and unexpected death remains unclear, positional restraint and its effects should be considered when investigating deaths in persons who were

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<sup>9</sup> A “hogtie” or “hobble” restraint is a form of the prone restraint whereby the arms and legs are tied behind the back and are tied together.

handcuffed in the prone position.” *Id.* Moreover, Reay et al. suggested that “[a]dditional research is needed to better understand the pathophysiology involved in these deaths.” *Id.*

After reading Dr. Reay’s study, Dr. Neuman agreed to help the defendant city and suggested that he perform his own “study” on “the physiological consequences of the hogtie position.” Deposition Transcript of Dr. Tom Neuman 35:3-10. Dr. Neuman was issued a “grant” by the County of San Diego for his assistance in the *Price* case. *Id.*

The study that Dr. Neuman’s performed for the defendant in *Price* concluded as follows: “[i]n our study population of healthy subjects, **the [hogtie] restraint position resulted in a restrictive pulmonary function pattern**<sup>10</sup> but did not result in clinically relevant changes in oxygenation or ventilation.” Theodore C. Chan, et al., *Restraint Position and Positional Asphyxia*, 30 ANNALS EMERGENCY MEDICINE 578 (1997), attached hereto as **Exhibit 25**. (emphasis added) Specifically the Price study offered the following discussion:

Based on these findings in healthy subjects, we suggest that factors other than body positioning are more important determinants for the sudden, unexpected deaths that occur in individuals who are placed in the restraint position. Recreational drug use..., physiological stress, hyperactivity, hyperthermia, catechol hyperstimulation and trauma resulting from struggle may be more important factors in the deaths of these individuals. *Id.* at 585.

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<sup>10</sup> A “restrictive pulmonary function pattern” occurs when someone “can’t ventilate the lungs properly because of chest constriction.” Deposition Transcript of Dr. Michael Baden 103:16-18.

Apparently, Dr. Neuman viewed his findings as inconsistent with or even contrary to Dr. Reay's research because he went on to testify for the defendant city which had paid him to perform the study.

During the *Price* trial, Dr. Reay was called to testify on behalf of the Plaintiff and was cross-examined by the defense attorney as to the findings of Dr. Neuman's study, whereupon, Dr. Reay readily acknowledged the value of Dr. Neuman's contribution to the subject. (See Affidavit of Donald T. Reay attached hereto as **Exhibit 28**) Unfortunately, District Judge Rhoades, for the *Price* Court, misconstrued Dr. Reay's testimony as a retraction of the "theory" of positional asphyxia.<sup>11</sup> *Price*, 990 F.Supp. at 1238. Since that time, Dr. Neuman and company have been relying on *Price* as blanket judicial approval of the use of the prone position and as support for the proposition that Dr. Reay has retracted his position. In fact, in its Motion in Limine, Bristol Hospital relies exclusively on language from the *Price* decision and the false position that Dr. Reay has retracted his support for the concept of positional asphyxia.

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<sup>11</sup> With all due respect to Judge Rhoades, it is clear from the closing paragraphs of his opinion that the fact that the plaintiff was a methamphetamine addict heavily influenced his decision: "[i]n many ways, this case is symptomatic of a larger problem that has swept the San Diego area in recent years. The scourge of methamphetamine daily ravages its victims. Quite apart from the medical cause of death...methamphetamine abuse precipitated this entire case. If Price had not abused methamphetamine, he would not have acted in a bizarre fashion, the deputies never would have arrived, and none of the incidents of this case would have transpired." *Price*, 990 F.Supp. at 1247.

For two reasons the Defendant's reliance on the *Price* decision is erroneous. First, the *Price* Court was simply wrong that Dr. Reay retracted his position. In reaction to the repeated representations that have been made by Dr. Neuman and his colleagues since the *Price* case, Dr. Reay has submitted a sworn affidavit to a Ms. Charly D. Miller, an emergency medical technician who administers a web site designed to inform other EMTs about the dangers of restraint asphyxiation and the prone position, *see* Affidavit of Donald T. Reay attached as **Exhibit 28**. In this affidavit, Dr. Reay avers the following:

I readily acknowledged the value of these [Dr. Neuman's] studies in the San Diego case of "Price vs. San Diego" which had many other features besides hog-tying in the restraint maneuvers used to control the victim. This has since been presented in law enforcement publications as my retraction of positional asphyxia as a cause of death, with particular reference to hog-tying.

Such is not the case! I still maintain that there are risks and hazards to restraint maneuvers including hog-tying and each case must be evaluated to assess the presence or absence of respiratory restriction in light of the method of restraint.

A 280-pound man with a large abdominal panniculus [layer of tissue] is at risk in the face down position as well as a person with obstructive pulmonary disease. And there are many shades in between.

The point is that street deaths are much different in controlled investigations. If 14% respiratory restriction by hog-tying [as demonstrated by Dr. Neuman's study] is not viewed as clinically significant in normal people, it has to be evaluated in the context of the event where it may be significant. *Id.*

Second, courts have uniformly allowed the admission of expert testimony concerning restraint asphyxia as a cause of death since the unfortunate *Price* decision. *See, e.g., Johnson v. City of Cincinnati*, 39 F.Supp. 2d 1013, 1017 (S.D. Ohio 1999) (attached hereto as **Exhibit 29**) (“According to the *Price* decision, even Dr. Reay now conceded that the restraint at issue was ‘physiologically neutral.’ Because Dr. Reay’s study appears to be a critical foundation of subsequent studies supporting sudden death by agitated delirium with restraint, including those by Dr. O’Halloran, the City argues that Dr. O’Halloran’s report should not be considered scientific evidence. The Court disagrees and believes this is a classic ‘battle of the experts’ situation...[T]he University of San Diego study published by Dr. Neuman and his colleagues has its own limitations which makes questionable its application to [the plaintiff’s] death. The University of San Diego study was restricted to healthy subjects. It did not attempt to duplicate field conditions. Finally, the study admitted that underlying medical conditions, intoxication, agitation, delirium, struggle and body position could all affect respiration in a way that the study could not detect. (Internal quotations omitted)); *Lewis v. City of Hayward*, No. C 03-5360 CW, 2006 WL 43134, 8 (N.D. Cal. Feb 21, 2006) (*Claudia Wilken, J.*), attached hereto as **Exhibit 30** (“Defendants argue that Dr. Cooper’s report should be excluded because it relied on the theory of ‘restraint asphyxia,’ as set forth in a 1988 study by Dr. D.T. Reay and later disproved by Defendants’ expert Dr. Tom Neuman, among



others...However, Defendants' argument attacks a straw man; Dr. Cooper does not purport to rely on Dr. Reay's theory of positional asphyxia. Dr. Cooper concurs that 'the state of being prone and with the hands being restrained...generally its not felt that that in itself is enough to compromise a person's respiration enough to kill them. For this reason, the Court denies the Defendants' motion to exclude Dr. Cooper's expert report and testimony as based on 'junk science.'");<sup>12</sup> ***Bornstad v. Honey Brook Township*, No. C.A.03-CV-3822, 2005 WL 2212359, 11 (E.D. Pa. Sept. 9, 2005) (Surrick, J.)**, attached hereto as **Exhibit 31** ("[W]e conclude that Hood's expert testimony regarding compression asphyxia rests on a reliable foundation. Hood compiled information about Bornstad's death from several sources, including witness interviews and his own competent autopsy of Bornstad. Applying his extensive background knowledge of forensic pathology generally and asphyxia specifically, he reviewed all of this information and concluded that compression asphyxia was a significant contributing factor in Bornstad's death. We understand that several forensic pathologists may review the same data regarding a person's death and arrive at different conclusions regarding the cause of that death. In fact, in this case Defendants' experts have reviewed many of the same materials on which Hood relied but arrived at different conclusions. Such disagreements, however, do not make Hood's own methods unreliable. We are satisfied that

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<sup>12</sup> Similarly, in the present case, Dr. Baden has testified that if Debbora Bogazis was just restrained in the prone position without being pressed down "[s]he'd probably still be alive." Deposition Transcript of Dr. Michael Baden 108:12.

Hood's methodology in determining Bornstad's cause of death is sound."); *Smith v. Pierce*, No. 247154, 2004 WL 2951889, 4 (Mich.App. Dec. 21, 2004) (*per curiam*), attached hereto as **Exhibit 32** ("Moore argues that the trial court improperly allowed testimony from plaintiffs' forensic pathology expert, Dr. Spitz, concerning the cause of Smith's death. Dr. Spitz theorized that Smith died as a result of positional asphyxia, which Dr. Spitz defined as an 'interference with the oxygen exchange as a result of position.'...In short, Dr. Spitz opined that the officers' restraint of Smith rendered him unable to breath and ultimately caused him to asphyxiate. This expert testimony is proper. Moore contends that Dr. Spitz's opinion is unreliable because it contradicts studies suggesting that hogtying a person in prone position cannot result in positional asphyxia. Here, however,...the gravamen of Dr.. Spitz' testimony is that Moore asphyxiated Smith by kneeling on Smith's back for an extended period of time. Moreover, Moore's contention is belied by defense experts' testimony that persons can die as a result of asphyxiation when their bellows are compressed and they are unable to breath. The defense experts simply disagreed that it occurred in this case. Thus, Moore's argument that Dr. Spitz' testimony is unreliable is without merit...")

C. **Any Testimony Concerning Dr. Neuman’s Studies Must Be Precluded Under State v. Porter**

Under *State v. Porter*, 241 Conn. 57 (1997) (*en banc*), cert denied, 523 U.S. 1058, before the trial court may admit scientific knowledge based on a particular theory, the judge must determine that such evidence is both reliable and relevant. *Porter*, 241 Conn. at 64. In *State v. Porter*,<sup>13</sup> our Supreme Court articulated upon a list of nonexclusive factors that the trial court may consider when establishing whether proffered scientific knowledge based upon a particular theory is reliable. *Id.* at 84-87. Under *Porter*, these factors are to be considered in assessing reliability if the proffered scientific evidence is not generally accepted in the relevant scientific community. See Part I, subsection (b), *supra*. These factors include: whether the methodology underlying the scientific evidence has been tested and subjected to peer review; the known or potential rate of error; the prestige and background of the expert witness supporting the evidence; the extent to which the technique at issue relies upon subjective judgments made by the expert rather than on objectively verifiable criteria; whether

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<sup>13</sup> In *State v. Porter*, the Connecticut Supreme Court abandoned the traditional *Frye* approach regarding the admissibility of scientific evidence, see *Frye v. United States*, 293 F. 1013 (D.C.Cir. 1923), in favor of the approach adopted by the federal courts in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). As noted by Justice Borden in the majority opinion in *State v. Porter*, “the *Daubert* [reliability] approach will provide structure and guidance to what has until now been a potentially confusing and sparsely defined area of legal analysis in our state jurisprudence.” *Porter*, 241 Conn. at 68 (citing *Taylor v. State*, 889 P.2d 319, 329 (Okla.Crim.App. 1995)). Thus, to ameliorate the confusion surrounding the *Frye* approach – an approach that was governed *only* by whether scientific knowledge was generally accepted in the scientific community – the court concluded that the *Daubert* approach should govern the admissibility of scientific evidence in Connecticut. *Id.*

the expert can present and explain the data and methodology underlying the testimony in a manner that assists the jury in drawing conclusions therefrom; and whether the technique or methodology was developed solely for purposes of litigation. *Maher v. Quest Diagnostics, Inc.*, 269 Conn. 154, 180 (2004). The *Porter* court proscribed that these various factors be evaluated on a case-by-case basis to determine whether the proffered scientific evidence has sufficient validity to be helpful to the trier of fact. *Porter*, 241 Conn. at 86-87.

Our Supreme Court in *Porter*, in adopting the approach articulated by the federal courts in *Daubert*, elaborated upon two supplemental requirements in dealing with the admissibility of scientific evidence. First, the proffered scientific evidence must “fit” the case in which it is presented. *Id.* at 65. Proposed scientific evidence must be demonstrably relevant to the facts or the case and not simply valid in the abstract. *Id.* For instance, “[t]he study of the phases of the moon...may provide valid scientific ‘knowledge’ about whether a certain night was dark, and if darkness is a fact in issue, the knowledge will assist the trier of fact. However (absent creditable grounds supporting such a link), evidence that the moon was full on a certain night will not assist the trier of fact in determining whether an individual was unusually likely to have behaved irrationally on that night.” *Id.* Second, even if the proffered evidence meets the aforementioned criteria, it is nevertheless subject to evidentiary provisions allowing for the exclusion of relevant evidence “if its probative value is substantially

outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury.”  
*Id.*

In the present case, the Plaintiff anticipates that Bristol Hospital will attempt to elicit testimony from certain opinion witnesses at trial that is clearly inadmissible under *Porter*. This testimony concerns two studies that have been performed by Dr. Neuman and his colleagues regarding the physiological consequences of the prone position. The first study is the aforementioned study which was performed at the request and expense of the defendant in the case of *Price v. County of San Diego*. The study, entitled “Restraint Position and Positional Asphyxia” and attached hereto as **Exhibit 25**, was conducted on “15 healthy men ages 18 through 40 years. Subjects were excluded for a positive urine toxicology screen [meaning they were not intoxicated], body mass index (BMI) greater than 30 kg/m<sup>2</sup> [meaning they were not fat— Deposition Transcript of Dr. Tom Neuman 75:5-9]<sup>14</sup>, or abnormal screening pulmonary function testing (PFT) [meaning they had no problems breathing].” *Id.* This study exercised these healthy, young men for four minutes before allowing them to rest in the sitting or prone (“hogtie”) position. *Id.* The subjects then remained in the respective positions for fifteen minutes. *Id.* The study concluded that the prone restraint resulted in a restricted pulmonary function pattern [meaning that it impaired

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<sup>14</sup> At 5’6” and 320 pounds, Debbora Bogazis’ BMI was 52, see BMI Index Table attached hereto as **Exhibit 33**.

ventilation] by approximately 14%. *See Id.* However, since blood oxygen levels did not drop to the level of hypoxia, its authors interpreted these findings as demonstrating that “[t]here is no evidence to suggest that hypoventilatory respiratory failure or asphyxiation occurs as a direct result of body restraint position in healthy, awake, nonintoxicated individuals with normal cardiopulmonary function at baseline.” *Id.*

A careful reading of this study reveals the following acknowledged restrictions on its applicability:

There are limitations to this study. First, we restricted subjects to healthy men between the ages of 18 and 40 years with a BMI less than 30kg/m<sup>2</sup>...It is not known what effect positional restraint may have on women, the young, the elderly, or other individuals with underlying cardiopulmonary disease or disability. It is possible that extremely obese individuals with large abdominal girths and BMIs greater than 30 kg/m<sup>2</sup> may be at risk for development of restrictive pulmonary function pattern as a result of abdominal compression from body position. We specifically excluded potential subjects who has a positive result on urine toxicology screening for recreational drug use. As noted previously, many of the deaths of restrained individuals involved subjects who were intoxicated or under the influence of recreational drugs... This study did not attempt to duplicate exact field conditions under which restraint position deaths have occurred...We kept our subjects in the restraint position for 15 minutes after the exercise period...It is possible that had our subjects remained in the restraint position for a longer period we may have detected more significant alterations in respiratory physiology...We attempted to reproduce the physiological effects of struggle by requiring our subjects to exercise for 4 minutes before being placed in the restraint position. It is unlikely that this period of exercise would simulate all the physiologic alterations that may occur with struggle and agitation. In addition, we did not reproduce the effects of trauma and psychological stress that often occur with apprehended individuals...It is possible that a combination of factors,

including underlying medical condition, intoxication, agitation, delirium, and struggle as well as body position, may result in respiratory compromise that would not be detected by our study. *Id.*

In response to widespread criticism of this study, Dr. Neuman et al. performed a second study which purported to study the effects of the prone position with weight force on respiratory function. *See Theodore C. Chan, et al., Weight Force During Prone Restraint and Respiratory Function, 25 AM. J. FORENSIC MEDICINE & PATHOLOGY 185 (2004), attached hereto as Exhibit 34.* The subjects were again young men, ages 21-40. *Id.* Their BMIs ranged from 21.3 to 35.3 km/m<sup>2</sup>. *Id.* This study was conducted by measuring the respiratory function of the subjects in four different settings: sitting, lying prone, lying prone with 25 pounds on their backs and lying prone with 50 pounds on their backs. They remained in each position for five minutes. *Id.* Again, the study demonstrated that the prone position, with and without the additional weight force, resulted in a restrictive pulmonary pattern, but not to the point of causing hypoxemia under the experimental setting. Dr. Neuman and company acknowledged the following limitations of their second study:

First, as this was a laboratory physiology study, we could not reproduce all conditions encountered in the field setting with such cases. In particular, we did not simulate trauma, struggle, drug intoxication, and other physiologic and psychologic stresses that commonly occur with individuals who are being restrained in the field setting. Second, the amount of weights selected for this study may not reproduce the actual amount of weight force used on individuals during the restraint process. It is possible that heavier amounts of weights could have impacted respiratory function to a greater degree. Similar

to traumatic to traumatic or mechanical asphyxia cases, extreme amounts of weights could have resulted in significant chest wall trauma and marked elevations in intrathoracic pressure that could have impacted cardiovascular function. To our knowledge, this is the first laboratory investigation studying the effects of weight force during restraint. As a result, we chose weight amounts which we felt would approximate weight force used in the field setting, heavy enough to indicate any trends if respiratory function was impacted, but not so heavy as to potentially place our subjects at risk for injury.

Any reference to either of these studies must be precluded under *State v. Porter* for the following reasons: (1) the validity of Dr. Neuman's conclusions are suspect as his initial study was developed solely for the purpose of litigation; (2) Dr. Neuman's studies are irrelevant to the facts of this case, and (3) any testimony regarding these studies is certain to confuse the issues and mislead the jury.

As previously discussed<sup>15</sup>, Dr. Neuman's initial study was performed for the defendant city in the case of *Price v. San Diego*. It was performed at the request of the defendant. It was paid for by the defendant. The subjects who were selected were healthy. The results were interpreted in a way that favored the defendant. Specifically, although a 14% reduction in respiration was found in the subjects restrained in the prone position, Dr. Neuman concluded that this showed that other factors were more important than position in

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<sup>15</sup> See Subsection B "Price v. San Diego," *supra*.



restraint-related deaths. In short, the test was designed, conducted and interpreted to confirm the pre-formed conclusions of the sponsoring party.

Moreover, since the *Price* case, Dr. Neuman has made a living out of this. Prior to being approached by the Defense Attorney in *Price*, he was completely unfamiliar with positional asphyxia. Since that time, he has testified regularly in positional asphyxia cases,<sup>16</sup> each time for the defendant, each time relying on his own self-serving studies. This clear facial bias warrants extreme scrutiny in evaluating the admissibility of his testimony under Connecticut law.

More importantly, these studies do not “fit” the facts of this case. They simply have no relevant application. Dr. Newman’s studies were performed on healthy people. They were performed on sober people. They were performed on men. They were not performed on asthmatics. They were not performed on persons with heart conditions. They were not performed on anyone with a BMI even remotely approaching Debbora Bogazis’. They were conducted under controlled, experimental circumstances that do not begin to approximate the 40 minute struggle and ensuing assault that occurred in the present case.

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<sup>16</sup> He has testified in positional asphyxia cases at least eleven times since just 2003.

When asked about what these studies show at his deposition in this case, Dr. Baden, the doctor responsible for determining the cause of death in all restraint-death cases in New York State, testified as follows:

I don't think they've shown much. There have been some studies with people who are young, healthy males who aren't obese, who don't have any preexisting diseases, and they can put—in a couple of studies that are yet to be necessarily repeated and verified by others, supposedly you put 25 pounds, 50 pounds of weight on somebody, its not going to cause breathing difficulty. And if you're a healthy male or healthy female, it shouldn't cause difficulty... But that's not what we're talking about.  
Deposition Transcript of Dr. Michael Baden 113:9-25.

Debbora Bogazis was morbidly obese. She was intoxicated. She was asthmatic. She had a heart condition. Dr. Baden has testified that Mrs. Bogazis came to Bristol Hospital Emergency Department on November 13, 2001 with a reduced capacity to breath. *Id.* at 104:8-105:5. With these pre-existing conditions, Mrs. Bogazis struggled violently in the prone position for approximately forty minutes. Toward the end of the restraint episode, hospital staff members prohibited her chest from moving. Several minutes later, she arrested.

There is no claim in this case that the prone position, in and of itself, killed Mrs. Bogazis. There is no claim that she would have died in the prone position had she been a healthy, sober individual, who had not struggled for an extended period of time before her chest was immobilized. The Plaintiff's claim in this case is that Mrs Bogazis died because of precisely what happened to her, and that the Defendants' acts of misconduct were substantial

factors in her demise. Dr. Neuman's studies are completely irrelevant to this claim. Indeed, by his own sworn testimony, his studies are irrelevant to obese people. *See Price*, 990 F.Supp at 1239 ("Dr. Neuman testified that...[his] study has limited applicability to extremely obese individuals.") In this very case, he testified that "the data don't apply to a five-foot-six, 320-pound individual. There are nowheres near enough of them for that kind of study, for me to be able to do that kind of study. The data exist for people of normal stature." Deposition Transcript of Dr. Tom Neuman 190:15-19. Dr. Neuman has not tested intoxicated persons. He has not tested persons with underlying cardiac or respiratory issues. He has not tested people with any of these conditions. He has excluded them.<sup>17</sup> Accordingly, his studies do not "fit" this case as required for admissibility under *State v. Porter*. The studies are simply irrelevant.

Even assuming, *arguendo*, that the Court finds that Dr. Neuman's studies bear some remote relevance to the present case, they should be excluded from evidence based on their enormous capacity to confuse and mislead. Asphyxia causes brain damage; it causes organ failure. *See* Deposition Transcript of Dr. Tom Neuman 67:23-68:1 (stating, "Well, what's asphyxia? Asphyxia is, at least asphyxial death, is death due to the progressive injury to the organ and organ systems due to lack of oxygen in the blood.") Therefore because no one has

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<sup>17</sup> Also excluded from his second study were people who were unable to be placed in the prone position – whatever this may mean. Theodore C. Chan, et al., *Weight Force During Prone Restraint and Respiratory Function*, 25 AM. J. FORENSIC MEDICINE & PATHOLOGY 185 (2004), attached hereto as **Exhibit 34**.

done tests on human beings to the point where their organs have failed, Dr. Neuman is of the opinion that there is no scientific basis for traumatic or restraint asphyxia. This is confusing; this is misleading. This is intellectually dishonest.

There is no mystery as to why no such studies have been performed. They would be unethical. In the words of Bristol Hospital's expert witness, Dr. Charles Wetli, "[a]ll of these [studies on obese persons, asthmatics or intoxicated persons] would be ethically not permitted." Deposition Transcript of Dr. Charles Wetli 70:2-3. You cannot design studies to kill people, give them brain damage, or organ failure. This is the precise reason that Dr. Neuman excluded people like Debhora Bogazis from his studies—so as to prevent death or serious injury to his subjects.

Moreover, in published format, Dr. Neuman's studies acknowledge their inapplicability to the present case. They explicitly acknowledge their inapplicability to women, to the obese, and to the intoxicated. They acknowledge that the studies do not simulate the physiologic alterations that occur with struggle and agitation. They acknowledge that they may not have left the subjects in the position for a long enough time. They acknowledge that they did not simulate the actual amount of weight used in a restraint process. The studies themselves were forced to reveal these limitations after going through the rigorous process of peer review. If Dr. Neuman is allowed to testify in this case,

unfettered by the criticisms of his peers, the danger of confusing the jury by minimizing these limitations or overstating the conclusions is clear and present.

### **PART III: CONCLUSION**

The Defendant has attempted to depict a false controversy. Throughout his career as an expert witness, Dr. Neuman has attempted to characterize the issue in restraint death cases as whether or not the prone position interferes with blood oxygen levels in experimental settings. This is the way that Bristol Hospital would like the Court frame this issue in the present case. To do so would be an enormous mistake. When someone dies in physical restraints, the only issue with respect to causation is whether or not they were restrained in manner that interfered with their breathing. There is no debate as to whether positional asphyxia can occur if the chest muscles and rib cage cannot move. The only debate in this case as to positional asphyxia is whether or not this happened to Debbora Bogazis' when the Defendants got on top of her. Although the experts may differ as to the answer to this question, testimony from experts who were not present about suspicious experiments that performed on healthy subjects and under controlled settings is simply not helpful to the trier of fact.

In reality, the scientific facts are undisputed. They can be boiled down to the following maxim: the immobilization of the bellows can result in an asphyxial death. The Defendants simply disagree that Debbora Bogazis died an asphyxial death. The Defendant has the right to present expert testimony that Debbora Bogazis died as a result of a heart condition. It has the right to argue that the facts that: (1) she was struggling in the prone restraint for forty minutes prior to her arrest, and (2) that the arrest occurred shortly after she was re-restrained so that she could not move her chest are just coincidental. It does not have the right to present a straw man argument to this Court in an attempt to sabotage the Plaintiff's case, and it does not have the right to present irrelevant evidence to the jury in order to muddy the waters.

THE PLAINTIFF,

By \_\_\_\_\_  
Joseph McManus  
Trantolo & Trantolo, LLC  
Hartford, CT

### **CERTIFICATION**

This is to certify that a copy of the foregoing was delivered by hand and/or sent via U.S. mail, postage prepaid, this 26<sup>th</sup> day of June 2006 to all counsel of record and pro se parties:

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