

IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

ANDREW L. CIBULA,)
JENNIFER CIBULA, and)
JC, their minor child,)
)
Plaintiffs,)
)
v.) CIVIL ACTION NO. 1:05-1386
)
UNITED STATES OF AMERICA,)
)
Defendant.)

FINAL JUDGMENT

THIS MATTER is before the Court on Plaintiffs Commander Andrew L. Cibula, Jennifer Cibula, and their minor son, JC's medical malpractice claim against the United States Government ("the Government") arising under the provisions of the Federal Tort Claims Act. 28 U.S.C. §§ 1346(b), 1402(b). In its previous Order of March 27, 2007, the Court granted Judgment in favor of the Plaintiffs for economic and non-economic damages totaling \$ 25,684,489. From the foregoing, it is hereby

ORDERED that JUDGMENT is ENTERED in favor of Plaintiffs Commander Andrew Cibula, Jennifer Cibula, and their minor son, JC and against Defendant the United States Government.

The Clerk is DIRECTED to ENTER JUDGMENT pursuant to Federal Rule of Civil Procedure 58.

The Clerk is directed to forward a copy of this Order to Counsel.

Entered this 27 day of March, 2007.

_____/s/
Gerald Bruce Lee
United States District Judge

Alexandria, Virginia
03/27/07

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MEMORANDUM ORDER

THIS MATTER is before the Court on Plaintiffs Commander Andrew L. Cibula, Jennifer Cibula, and their minor son, JC's medical malpractice claim against the United States Government ("the Government") arising under the provisions of the Federal Tort Claims Act. 28 U.S.C. §§ 1346(b), 1402(b). The plaintiffs allege that United States Naval physicians were negligent in their treatment of Mrs. Cibula during her pregnancy which resulted in JC suffering a substantial brain hemorrhage in utero, leading to his being born with debilitating neurological impairments. The issues before the Court are: (1) did the Naval physicians violate the appropriate standard of care in monitoring Mrs. Cibula's pregnancy; (2) if the physicians violated the standard of care, did that breach proximately cause JC's injuries; and (3) if the negligence of the physicians did proximately cause JC's neurological defects, what level of

recovery is appropriate? The Court finds that Plaintiffs have made a sufficient showing that the Naval physicians breached their duty of care in presiding over Jennifer Cibula's pregnancy, that the breach of the duty of care proximately caused Plaintiff JC's injuries, and that consequently, Plaintiffs are entitled to economic and non-economic damages totaling \$ 25,684,489.

Jurisdiction

The Court has jurisdiction over the plaintiffs' claims against the United States of America under the Federal Tort Claims Act ("FTCA") which provides for recovery for claims based upon torts of federal employees acting within the scope of their employment.¹ 28 U.S.C. § 1346(b)(1) *et seq.* ("[T]he district courts . . . shall have exclusive jurisdiction of civil actions on claims against the United States, for money damages . . . [for] personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while

¹ The Department of Defense and the Department of the Navy are agencies of the United States of America. The United States of America, through its agencies, the Department of Defense and the Department of the Navy, at all times material hereto, owned, operated and controlled the Balboa Naval Medical Center. The parties stipulated that all of the physicians and other healthcare professionals who provided the care that Plaintiffs allege was negligent to Jennifer Cibula and JC were acting within the scope of their employment with the United States of America pursuant to 28 U.S.C. §2679 at all times relevant to this lawsuit.

acting within the scope of his office or employment").
Venue in this case is proper in the United States District Court for the Eastern District of Virginia because, at the time of filing the Complaint, the Plaintiffs resided in this judicial district, specifically in Oakton, Virginia. Under the FTCA, venue is proper either where the medical care took place, or where the plaintiffs reside. 28 U.S.C. §1402(b) ("Any civil action on a tort claim against the United States under subsection (b) of section 1346 of this title may be prosecuted only in the judicial district where the plaintiff resides or wherein the act or omission complained of occurred.").

I. Findings of Fact

A. Jennifer Cibula's Pregnancy

1. Andrew Cibula ("Cmdr. Cibula") is a Commander in the United States Navy. He joined the Navy in 1987, immediately after graduating from Marquette University. He is a pilot and aerospace engineer. In 1997, when JC was born, Cmdr. Cibula was stationed at the United States Naval Base in San Diego, California. He is now stationed in the Washington, D.C. area and lives in Oakton, Virginia, with his wife, Jennifer, JC, and their second son, David.

2. Jennifer Cibula ("Mrs. Cibula") obtained a bachelor's degree from the Monterey Institute of International Studies in 1994, and is one course shy of earning a master's degree. She

was a teacher before JC was born.

3. Mrs. Cibula became pregnant with JC in early 1997, while she and her husband were stationed in San Diego. She was thirty-one years old. It was her second pregnancy, the first ending in a miscarriage after only a few weeks.

4. Mrs. Cibula received her prenatal care at Balboa Naval Medical Center ("Balboa"). Her estimated date for delivery was December 14, 1997, which corresponded to forty weeks gestation.

5. Mrs. Cibula had several medical conditions that were significant to her pregnancy. First, she had previously been diagnosed with mitral valve prolapse ("MVP"), a cardiovascular condition often characterized by heart palpitations. To treat her MVP, she took a medication called Inderal. Inderal is a "beta-blocker" that regulates the rhythm of the heart and lowers blood pressure. Second, she suffered from severe migraine headaches throughout her teenage and adult years. For this, she took a medication called Fiorinal, or Fioricet. Finally, also while a teenager, she had been diagnosed with systemic lupus erythmatosus ("SLE"), commonly known as lupus. Lupus is an autoimmune disorder which can cause problems in pregnancy. Mrs. Cibula informed her prenatal care physicians about all of these conditions.

6. By 1997, it was well known in the medical community that Inderal, like other beta-blockers, could cause complications to

the fetus in pregnancy because it slows the action of the mother's heart and reduces maternal blood pressure, among other things. Obstetricians recognized in 1997 that Inderal could reduce the amount of blood, resulting in limitations in the levels of oxygen and nutrients flowing to a fetus from the mother through her placenta. These reductions, in turn, potentially retard fetal growth, causing damage to the fetus and its organs along with a serious pregnancy complication known as intrauterine growth restriction ("IUGR"). Likewise, it was known that Fioricet or Fiorinal contained caffeine, which is a vasoconstrictor. Vasoconstrictors can also reduce blood supply to the fetus through the placenta.

7. Based on this medical history and these medications, the medical staff at Balboa determined on April 22, 1997, that Mrs. Cibula was a "moderate risk" pregnancy and required monitoring by a perinatologist. Perinatologists, also known as maternal-fetal medicine (MFM) specialists, are medical doctors who specialize in high-risk pregnancies, maternal and fetal testing, and fetal therapy.

8. Bruce Kahn, M.D., an obstetrician, became Mrs. Cibula's primary obstetrician. Dr. Kahn was not a perinatologist and at the time he cared for Mrs. Cibula, he was not board certified in obstetrics. Notwithstanding her risk factors, Mrs. Cibula was never seen by a perinatologist during her pregnancy. She also

never learned that Dr. Kahn had consulted with a perinatologist about her pregnancy, and had been given instructions for closer management of the pregnancy.

9. Mrs. Cibulas prenatal course proceeded rather uneventfully at first. In May (at eight weeks) and in July (at seventeen weeks), her physicians performed basic sonogram studies. They showed the baby progressing well. In fact, the estimated weight of Mrs. Cibula's fetus according to the seventeen week sonogram placed him above the fifty-fifth percentile by weight.

10. On August 13, 1997, approximately the twenty-second week of the pregnancy, during a scheduled prenatal visit, Mrs. Cibula told Dr. Kahn that her heart palpitations had worsened. Dr. Kahn responded by referring Mrs. Cibula to a cardiologist, for re-evaluation of her MVP. By this time, Mrs. Cibula was taking ninety milligrams of Inderal per day, a relatively high dosage.

11. Mrs. Cibula underwent a cardiology "work-up" over the next few weeks. Mrs. Cibula informed her cardiologist about her past history of lupus. Although it was well known at that time that lupus could also cause placental insufficiency and thereby restrict the growth of Mrs. Cibula's baby, neither the cardiologist nor, Dr. Kahn, reevaluated Mrs. Cibula's lupus diagnosis to determine if it, in addition to the Inderal, put her at an even higher risk of developing IUGR. In the end, the

cardiologist concluded that Mrs. Cibula did not have MVP. She had, instead, a non-threatening cardiac condition known as supraventricular tachycardia ("SVT"). The Navy cardiologist recommended that Mrs. Cibula continue taking the Inderal as it was also helpful with SVT and migraines. Dr. Kahn learned of the cardiologist's findings on September 15, 1997.

12. In the meantime, Mrs. Cibula continued her regular visits to Dr. Kahn. During a visit on September 3, 1997, she described worsening heart palpitations despite an increase in her daily prescription of Inderal to 100 milligrams. Dr. Kahn's note in the medical chart that day indicates that he intended, finally, to meet with Balboa's "perinatal staff" after completion of the cardiac work-up. He never did.

13. Mrs. Cibula's medical chart as of September 3, 1997, indicates that her fetus was doing well. Dr. Kahn consistently recorded positive fetal movement, no bleeding, and no loss of amniotic fluid. In addition, the baby appeared to be growing normally.

14. Dr. Kahn and others at Balboa monitored fetal growth by measuring the height of Mrs. Cibula's fundus during office visits in lieu of performing sonograms. The fundus is the area between the top of the mother's pubic bone and the top of her uterus. Fundal height is measured with a tape measure, and recorded in centimeters. While fundal height is a useful measurement, it

does not provide the same quality of information about the fetus as a sonogram.²

15. Generally speaking, the fundal height in centimeters should be the same as the gestational age of the fetus, measured in weeks. Thus, Mrs. Cibula's fundal height of twenty-five centimeters was considered normal at the September 3 office visit because it was her twenty-fifth week of the pregnancy.

16. Dr. Kahn never ordered a growth ultrasound study for Mrs. Cibula. Mrs. Cibula had only three limited ultrasound studies during her pregnancy (May, July 1997 and September 3, 1997), none of which assessed the growth or condition of the baby, and none done during the third trimester, when the concerns about IUGR are most likely to develop.

17. On September 4, 1997, Mrs. Cibula returned to the clinic and complained to Dr. Kahn about painful uterine contractions. On that particular day, Dr. Kahn noted that the contractions occurred every twelve minutes, and lasted between twenty to thirty seconds.

² An ultrasound or sonogram machine enables the physician to take detailed measurements of the size of the fetus' head, bones, abdomen, and other body parts, and to estimate the weight of the fetus. The physician determines whether the fetus is growing normally by comparing its estimated weight to its own weight gains, and to standard growth charts. Sonograms were widely available at Balboa in 1997, posed no risk to the mother or the baby, and were simple to perform and interpret. In pregnancies with significant risk factors, the sonogram is one of the tests that a physician must use to make decisions about how to manage the pregnancy.

18. Similar contractions continued during the entire course of Mrs. Cibula's pregnancy. Prior to November 14, however, a Balboa physician applied a fetal monitor only one time to assess the contractions and the baby's heart rate, and it was not Dr. Kahn.

19. Mrs. Cibula saw Dr. Kahn on September 25, 1997. He recorded no vaginal bleeding, no loss of amniotic fluid, and good fetal movement. The fundal height measured twenty-seven centimeters (at twenty-eight weeks), and the fetal heart rate was 140 beats per minute (110 -160 is normal). Dr. Khan ordered no additional testing. He told Mrs. Cibula to keep track of the baby's kick counts, and to return to the clinic in one month. She was about to begin her third and last trimester and by all accounts, the fetus was progressing well.

20. On October 8, at 9:00 p.m., Mrs. Cibula went to the labor and delivery unit at Balboa because of her contractions. It was the thirtieth week of the pregnancy. She was in her third trimester, and at a point where the pregnancy was likely viable outside the womb. Dr. Kahn was not on duty. Cmdr. and Mrs. Cibula remember being seen only by Dr. Youngblood, a medical student or intern, and being told that the senior resident, Dr. Rodriguez, was too busy to see them.

21. A vaginal examination was done, and it showed that Mrs. Cibula's cervix was not dilating. In order to assess the well

being of the fetus, the doctors ordered that Mrs. Cibula undergo a "non-stress test." ("NST") During a NST, a strap connected to an electric fetal monitor which has two transducers or sensors is placed on the mother's abdomen. One detects uterine contractions and movements of the baby. The other senses the fetal heartbeat. Both are recorded on a fetal monitoring strip, which feeds out of the machine on a real time basis for the physician or nurse to read. The NST is one of the most reliable methods for assessing how the fetus is doing in utero. The test was widely available in 1997, takes only a short time to do, and poses absolutely no risk to the baby or the mother. In fact, one of Balboa's perinatologists, Dr. Elizabeth Tipton, testified that the fetal assessment unit - which was less than a three minute walk from Dr. Kahn's office - performed 3,000 NSTs every year.

22. On the night of October 8, Mrs. Cibula had an abnormal, or "non-reactive" NST, which indicated that the fetus' heartbeat was not increasing as much as it should have been when he moved. Standing alone, this result generally does not suggest that the pregnancy is in jeopardy, it does raise a concern that needs to be kept in mind to protect the well being of the baby as the pregnancy continues.

23. In response to the non-reactive NST, the doctors took Mrs. Cibula off of the monitor, gave her some juice to drink, told her to walk around the hospital, and asked her to return for

another test in an hour. When another NST was performed over one hour later, however, Mrs. Cibula had another non-reactive test.

24. As a result of Mrs. Cibula's second non-reactive NST, the doctors performed two additional tests -- a biophysical profile ("BPP"),³ and an amniotic fluid index ("AFI").

25. As part of the BPP, the ultrasound machine measures the amniotic fluid inside the uterus.⁴ Amniotic fluid consists mostly of fetal urine.

26. The doctors who saw Mrs. Cibula on October 8 attributed Mrs. Cibula's preterm contractions to possible cystitis (inflammation of the bladder), and dehydration. They ordered laboratory tests, prescribed an antibiotic, told Mrs. Cibula to

³ A biophysical profile uses a sonogram to assess the well being of the child, including the risk of fetal hypoxia, or lack of oxygen. Five aspects of fetal well being are examined: (1) fetal breathing movements, (2) gross body movements, (3) fetal muscle tone, (4) reactive heart rate, and (5) amniotic fluid. Each element is given a score of zero for abnormal or two for normal. Like fetal monitoring, NST and sonograms, the biophysical profile was a widely available test, both nationally and at Balboa in 1997, and it posed absolutely no risk to the mother or baby.

⁴ There is a range of normal values for the amount of amniotic fluid. A normal amount of amniotic fluid indicates that the baby's kidneys are receiving enough oxygen, driven by normal fetal blood pressure and normal heart activity, and are producing normal amounts of fetal urine. A low amount of amniotic fluid can indicate that the kidneys are not functioning properly, and are producing an insufficient amount of amniotic fluid, which is referred to as oligohydramnios. Oligohydramnios is suggestive of placental insufficiency, meaning that the baby is not urinating because the supply of oxygen and nutrients from the mother through the placenta is diminished. As noted above, placental insufficiency can result in poor fetal outcome, and is also associated with Inderal.

hydrate herself, and, most importantly, told her to see Dr. Kahn the next day for follow-up examination. Mrs. Cibula did not feel comfortable with what she was told about the test results that night. So, she asked to speak with a staff doctor. She was told that no staff doctor was available to see her, and they sent her home.

27. Mrs. Cibula followed the instructions and reported to Dr. Kahn's office the next day, October 9. She advised him about her visit to the labor and delivery unit the night before. Yet, Dr. Kahn neither reviewed nor asked to review any of the records from that visit. Dr. Kahn testified in his deposition that he did not know that Mrs. Cibula had a non-reactive NST the night before. He examined her that day, and several days later on October 17. Although he noted Mrs. Cibula's continuing preterm contractions, her worsening migraines, and that she was taking 3-4 doses of Inderal each day, he never ordered an NST, sonogram, BPP, or any other test to check on the well being of her fetus.

28. On October 21, 1997, the medical records indicate that Dr. Kahn had a telephone conversation with Dr. Elizabeth Tipton, a high risk obstetrician in Balboa's high risk pregnancy/fetal assessment unit. By then, Dr. Tipton already had some exposure to Mrs. Cibula's pregnancy since she reviewed the October 8 non-stress test strips. Dr. Tipton appropriately advised Dr. Kahn that, in light of the association between Inderal, placental

insufficiency and IUGR, Mrs. Cibula should immediately undergo a comprehensive ("Level III") ultrasound study to assess the condition and growth of her fetus, and that Dr. Kahn should repeat the growth study at least every four weeks.

29. Dr. Tipton further instructed Dr. Kahn that Mrs. Cibula needed to have an immediate NST, and that he should repeat the NST at least every week to confirm fetal well being. Inexplicably, Dr. Kahn failed to implement Dr. Tipton's suggested care plan.

30. Mrs. Cibula began to tell Dr. Kahn around the middle of October 1997, that it was taking longer each hour for her to feel the required number of kicks from the baby. Decreased fetal movement normally raises concerns that fetus is trying to conserve energy because it is not getting enough nutrients through the placenta. Dr. Kahn performed no additional tests and took no other remedial measures in response to Mrs. Cibula's complaints of reduced fetal movement.

31. Dr. Kahn did not note in Mrs. Cibula's chart any medical basis for not implementing Dr. Tipton's suggested care plan, and after October 17, Dr. Kahn did not speak to or see Mrs. Cibula again until November 14, 1997, the day that JC was born via an emergency C-section.

32. Mrs. Cibula sought medical help at Balboa on Monday, November 10, 1997. She appeared at Dr. Kahn's office that day

for what she thought was a scheduled visit. He was not there, and his office was not expecting her. She nonetheless insisted on seeing a doctor because she felt so poorly from increasingly severe contractions and migraines. She was now approximately thirty-five weeks pregnant. The fetus was still active November 10, but Mrs. Cibula noticed that the kicks were somewhat fainter in quality. The clinic staff weighed her and took her vital signs, but did not measure the fundal height or perform a sonogram. After a long wait, a nurse practitioner finally saw her. The nurse practitioner did not arrange for any testing that day and did not have Mrs. Cibula see a doctor. There is no record in her medical chart noting that Balboa staff asked Mrs. Cibula about her baby, its movement, or other signs of fetal well being. Mrs. Cibula was told to "make an appointment" with Dr. Kahn.

33. Mrs. Cibula saw Dr. Kahn on Friday, November 14, 1997, in the thirty-sixth week of her pregnancy. She complained to him about the decrease in the fetus' movement over the past four days (since November 10), and that it now (on November 14) took three hours, rather than one, for the baby to make the appropriate number of movements. Dr. Kahn noted that Mrs. Cibula's fundal height was now only thirty-three centimeters, which was three centimeters below where it should have been at thirty-six weeks. Dr. Kahn sent Mrs. Cibula immediately to the labor and delivery

unit to have a NST, AFI and an ultrasound study for growth. Still, Dr. Kahn sensed nothing ominous about Mrs. Cibula's condition and he told her to return to see him in one week. Dr. Kahn also erroneously recorded the events that transpired with Mrs. Cibula on November 14 as occurring on November 10.

34. After meeting with Dr. Khan, Mrs. Cibula proceeded directly to Balboa's labor and delivery unit. She was sent to the prep/triage room, and placed on a fetal heart monitor ("FHM"). Immediately after placement of the monitor, alarms sounded, indicating that the fetus was in distress. The fetal heart tracings ("FHT") confirmed that Mrs. Cibula was experiencing contractions. The FHT also showed that the baby's heart was experiencing "late decelerations" after contractions, no accelerations, and that there was "poor long term variability" in the heart rate. Together, these "non-reassuring" findings indicated that the fetus was not receiving enough oxygen, and had not been for some time due to the placental insufficiency. As each contraction squeezed the uterus and placenta further, the fetus received even less oxygen and nutrients. The fetal heart and contraction pattern indicated that placental insufficiency was causing fetal hypoxia and asphyxia.

35. Dr. Tipton was on duty that day, and she assumed supervisory care for Mrs. Cibula. Thus, November 14, 1997, was the first day that any perinatologist actually saw Mrs. Cibula.

Upon learning of the non-reassuring FHT and at least four days of decreased fetal movement, Dr. Tipton ordered that Mrs. Cibula be admitted to the hospital. Despite the poor condition of the child and the fact that Mrs. Cibula's cervix was not ripe for vaginal delivery, Dr. Tipton ordered that labor be induced through a dose of Pitocin - a drug which causes uterine contractions.

36. Mrs. Cibula was admitted to the hospital at approximately 3:50 p.m. At 4:40 p.m., she was given the intravenous dose of Pitocin. The moment the Pitocin was given, JC's fetal heart pattern worsened considerably.

37. By 5:00 p.m., labor had not progressed and Mrs. Cibula's cervix remained minimally dilated. The FHTs now showed recurrent late decelerations, and minimal "beat to beat variability," additional signs of fetal asphyxia. Mrs. Cibula's physicians decided to artificially rupture her uterine membranes, to enable them to screw a fetal scalp electrode ("FSE") into the baby's scalp. When they did so, no amniotic fluid came out.⁵

38. The FSE, once attached, induced no response from the fetus. This lack of response indicated that Mrs. Cibula's fetus could be dangerously acidotic - too much acid in his tissues. The high acid level suggested that the fetus was not getting

⁵ Normally when the uterine membrane is ruptured, there is a gush of fluid.

enough oxygen, and had not been for some time, which put him at risk for serious organ injury or death. At this point, 5:15 p.m., Dr. Tipton advised Mrs. Cibula that she needed an emergency cesarean section delivery to save the life of her baby.

39. The operation was uneventful, according to the operative report, and Mrs. Cibula delivered JC at approximately 5:44 p.m. on November 14, 1997.

B. JC's Newborn Course

40. At birth, JC weighed 2,242 grams - slightly more than five pounds. His head circumference was 31.5 centimeters. He was close to the tenth percentile by weight, according to Balboa's growth chart, meaning that ninety of 100 babies weighed more than him at his gestational age. His head, however, was in the fifty to fortieth percentile. JC's skin color was gray, he had poor muscle tone, and he did not cry. Soon after birth, the Balboa physicians placed him on a ventilator. Cmdr. Cibula, who was present for JC's birth, described his new son as small, skinny, tired, and looking like an old man.

41. The surgeon who performed the cesarean section noticed during the operation that Mrs. Cibula's placenta appeared to be small. She sent it to the pathology department for analysis.

42. One of the physicians who had been in the operating room visited Mrs. Cibula in the next day or so, before she was discharged on November 17. The doctor told Mrs. Cibula that it

appeared that her placenta was small, and that it may have been abrupted (prematurely separated from the uterine wall) before labor and delivery.

43. The medical staff drew a sample of blood from JC's umbilical cord immediately upon birth. The pH value from the cord blood was 7.12, representing mild to moderate acidemia (excess acid in the blood). This value indicated that JC did not suffer a severe acute hypoxic event at birth. Rather, it supported a more chronic deprivation.

44. At twenty minutes of life, the medical staff obtained JC's first arterial blood gas results. Among other things, they showed a pH of 7.22, a PCO₂ (pressure of carbon dioxide) of 25.1, and a base deficit of 6.0, all of which indicated that chronic or sub-acute asphyxia had taken was taking place before JC's birth.

45. After delivery, JC was taken quickly to the neonatal intensive care unit ("NICU"), where he was intubated and placed on mechanical ventilation. Over the next twenty-four to thirty-six hours, he was slowly weaned off the ventilator, and his breathing improved.

46. Over the next few days, the doctors in the NICU diagnosed JC with several other signs and problems caused by chronic or sub-acute asphyxia or hypoxia in utero.

47. During the first two days of life, the level of JC's blood platelets dropped significantly, a condition known as

thrombocytopenia. His initial platelet count was 124,000. Over the next two days, the count fell, with the nadir of 74,000 on November 16. Decreased platelets are a sign of fetal hypoxia.

48. Also on the second day of life, JC's doctors found that he had "direct hyperbilirubinemia" - too much bilirubin in his blood.⁶ Over time, JC's hyperbilirubinemia also began to resolve itself.

49. By November 17, 1997, the doctors were still concerned about JC's condition, small size, thrombocytopenia and hyperbilirubinemia. Captain Martin McCaffrey, M.D., one of the neonatologists assisting with JC's care, ordered a head ultrasound study.

50. The head ultrasound was performed on November 18 and showed that JC had suffered a Grade IV intraventricular hemorrhage ("IVH").

51. Dr. McCaffrey received the results of the head ultrasound. He also noticed possible seizure activity in JC, in the form of twitching arms. Dr. McCaffrey then ordered a CT scan of JC's head, which would provide a more detailed radiographic picture of the IVH.

52. The November 18 CT scan confirmed the head ultrasound

⁶ Bilirubin is a chemical formed from the breakdown of hemoglobin in red blood cells. Bilirubin is carried to and processed by the liver. Hyperbilirubinemia is a sign that the liver is not processing bilirubin normally, and that the liver may have been injured by a lack of oxygen.

results. JC had suffered a Grade IV IVH. More specifically, the CT scan showed a left sided intraventricular and intraparenchymal hemorrhage arising from the region of the caudate nucleus, choroid plexus, and last remnants of the germinal matrix.

53. The CT scan also suggested that the hemorrhage was reasonably fresh as of November 18, meaning that it likely occurred days, not weeks, before the images were taken. The CT images were not consistent with a hemorrhage that occurred secondary to physical trauma. The location and appearance of the hemorrhage were consistent with a bleed in an area of the brain damaged by hypoxia and asphyxia.

54. Dr. McCaffrey met with Cmdr. and Mrs. Cibula on November 18 to deliver the bad news about their son. He told them that JC's Grade IV IVH was the most serious type of bleed, that JC was critically ill, and that he might soon die. He told them that even if JC were to survive, the IVH "could portend severe neurologic complications, including mental retardation and cerebral palsy."

55. Later, after absorbing the initial news about their son, Cmdr. and Mrs. Cibula asked Dr. McCaffrey whether anything that Mrs. Cibula had done during the pregnancy, such as her medications, may have caused JC's brain to bleed. Dr. McCaffrey said no. As to the cause of the bleed, he told her, in effect, that "these things happen," "there's no rhyme or reason to it,"

and that "bad things happen to good people." He also mentioned how a small placenta may have caused JC's problems.

56. Mrs. Cibula asked Dr. McCaffrey to call her father, Dr. Charles Allen, a medical doctor, to discuss JC's condition. Dr. Allen was a pathologist, and Mrs. Cibula thought that her father would be able to help her understand what happened to JC. Dr. McCaffrey called Dr. Allen on November 18. Dr. McCaffrey told Dr. Allen that JC had suffered a Grade IV IVH, and that JC had suffered hypoxia before birth, which was likely due a placental abruption. Dr. McCaffrey said nothing to Dr. Allen to implicate medical treatment as a possible cause of JC hypoxia or bleed. Dr. McCaffrey's reference to a placental abruption suggested to Dr. Allen that medical treatment was not a cause of the bleed. Dr. Allen testified that he understood placental abruption to be a normal complication of pregnancy.⁷

57. JC remained critically ill at Balboa for another month. He had several more head ultrasounds, CT scans, and MRI studies to track the progress of the hemorrhage, and its consequences.

58. JC's doctors had two principal concerns as a result of the bleed. First, the blood in JC's ventricles and brain tissue

⁷According to the textbook, Williams Obstetrics, cited by Plaintiffs on this issue in opposition to Defendant's motion to dismiss, the causes of placental abruption are generally unknown and unrelated to medical treatment. (Pltf.'s Opp. To Def.'s Mot. to Dismiss, 15-16 (citing JACK A. PRITCHARD ET AL., WILLIAMS OBSTETRICS 397 (17th ed. 1985.))

interfered with his body's natural absorption of cerebrospinal fluid ("CSF"). As fluid continued to be produced elsewhere in the brain, and too little was absorbed by the ventricles, it caused increased pressure inside JC's skull, a condition known as hydrocephalus. To control the hydrocephalus, JC's doctors performed a series of lumbar punctures, a procedure where CSF is removed through a needle inserted at the base of his spine. Eventually, JC received a shunt, or catheter, that drains the fluid from his brain and deposits it in his abdomen, where it is absorbed naturally.

59. JC's doctors were also concerned that JC would begin to suffer seizures. To prevent this, they treated him with Phenobarbital, anti-seizure medication, during and after his hospital stay.

60. Dr. McCaffrey and the other staff neonatologists at Balboa concluded rather quickly that the cause of JC's IVH had been an in utero hypoxic insult secondary to placental insufficiency. They ruled out infection, metabolic and genetic causes as a reason for JC's poor condition and neurologic damage.

61. Debra Tucker, M.D., a neonatologist intern who worked closely with Dr. McCaffrey, wrote a note on November 17, 1997, before she was aware of the results of the head ultrasound, stating that JC's problems may be due to a small placenta, and a hypoxic intrauterine insult.

62. Dr. McCaffrey, the attending physician and a board certified neonatologist, wrote a note on November 18, 1997, stating that the thrombocytopenia and abnormal increase in some of JC's red blood cells may have been due to an "in utero insult which stressed/depressed bone marrow (low platelets)." In the same note, Dr. McCaffrey wrote as follows: "PN [prenatal] history also remarkable for [decreased] fetal movement, placenta small with infarcts. Picture c/w [consistent with] placental insufficiency and in utero insult."

63. After he was informed about the results of the head ultrasound study, Dr. McCaffrey wrote the following in the chart: "Possibly in utero compromise may have led to bleeding but consider other etiologies, including Anti-Phospholipid Antibody Syndrome, Protein C/S or AT III deficiency. APA syndrome would be consistent with placental findings in this case. Coags WNL [within normal limits] this PM."

64. In order to rule out other causes for the hemorrhage, Dr. McCaffrey ordered a panel of coagulation tests on JC's blood. More specifically, Dr. McCaffrey ordered tests on the prothrombin time ("PT"), activated partial thromboplastin time ("PTT"), and protein C and protein S levels. These tests were performed three times between November 18-19. The results were negative each time. That is, JC's tests results were always within the normal range for a child of his age. The tests did not reveal a

hematological or bleeding disorder as the cause of the brain bleed.

65. No other blood test results suggested that JC had a bleeding disorder and the Defendant admitted in responses to Plaintiffs' requests for admissions that no genetic, metabolic, or chromosomal abnormality caused JC's hemorrhage.

66. Several other medical specialists were consulted during JC's stay in the NICU to help determine the cause of JC's symptoms, including the IVH. JC's neonatologists consulted with a (a) pediatric surgeon, (b) a pediatric gastroenterologist, and (c) a pediatric neurologist. After examining JC and his medical records, each of these specialists concluded that JC's bleed was caused by an in utero hypoxic insult.

67. On the twenty-fifth day of JC's life, Drs. McCaffrey and Wagner were still treating JC based on the assumption that he had suffered an in utero insult. On December 9, they wrote as follows: "The working hypothesis for the grade IV IVH is the infant suffered a severe hypoxic insult in utero leading to his bleed and also to his microcolon seen on barium enema with his direct thrombocytopenia and his initial decreased renal function all pointing to a significant hypoxic vascular insult."

68. JC left the Balboa hospital three days later, on December 12, 1997.

69. The Cibulas continued to watch their son carefully over

the next several months. He received regular physical and occupational therapy, and early infant education. Mrs. Cibula took him for regular visits to a pediatrician at Balboa, and advised the doctors of her concerns about JC, including his lethargy, long periods of sleep, irritability, and posturing. All was normal, she was told.

70. On April 30, 1998, Mrs. Cibula was referred to a pediatric neurologist at Balboa, Dr. Mary Zahller. During this visit, Dr. Zahller initiated a discussion about caring for babies with cerebral palsy ("CP"), on the assumption that someone had already told Mrs. Cibula that JC, in fact, had CP. This, however, was the first time that anyone had conveyed to the Cibulas that JC definitively had CP.

71. The physical manifestations of JC's CP progressed over the next several months. By October 1998, close to JC's first birthday, his right arm rotated into fixed position near his body, and his right hand remained in a closed fist. His right leg became more extended, and even his left leg showed signs of extension. The Cibulas continued to watch for abnormal growth of JC's head, as that would be a sign of hydrocephalus.

73. In January of 1999, the Navy reassigned Cmdr. Cibula to the Washington, D.C. area. Shortly after settling here, JC's head started to grow rapidly. The doctors at the Walter Reed Army Medical Center diagnosed JC as suffering from hydrocephalus,

and JC had an operation on March 23, 1999, to insert a VP shunt into his brain.⁸

74. In the years that followed, JC has undergone numerous other surgical and related medical procedures due to his neurologic injuries. The CP has impaired JC's ability to eat and drink. In June 1999, JC had a tube placed directly into his stomach to assist the Cibulas in getting JC the food, liquids and medicines that he needs. Without the tube, the Cibulas often spent hours unsuccessfully trying to get JC to swallow his medicines. JC has also had surgery to decrease spasticity to his tongue to help him swallow and to his esophagus to reduce reflux. He will soon need surgery in the future for his scoliosis, a curvature of the spine caused by his CP.

C. Deviations From The Standard Of Care

75. The Court finds that the physicians at Balboa Naval Medical Center violated the standard of care by not properly monitoring Mrs. Cibula's pregnancy given its high risk status and by failing to intervene at an appropriate time when the fetus showed signs of diminishing health. The Government conceded at trial that at no time during Mrs. Cibula's pregnancy, from May through November 1997, did any of her health care providers implement the necessary program of increased fetal testing.

⁸ JC will likely have a shunt for the rest of his life and the Cibulas must constantly monitor its operation.

Every expert witness on the standard of care in this case acknowledged that such testing was necessary due to Mrs. Cibula's increased risk for placental insufficiency, IUGR and other potential adverse outcomes to the baby.

75. The Court credits the testimony of Dr. Curtis L. Cetrulo, Plaintiffs' board certified expert in the field of maternal fetal medicine (high risk pregnancies), professor of obstetrics and gynecology at the Tufts University School of Medicine, and author of innumerable publications in his fields of expertise, who testified that the Government physicians caring for Mrs. Cibula violated the standard of care in managing her pregnancy. Dr. Cetrulo has cared for women with high risk pregnancies for over 30 years, and delivered over 5,000 babies from such pregnancies.

76. Dr. Cetrulo testified, and Navy specialist Dr. Tipton conceded at deposition, that Mrs. Cibula's medical history, particularly her taking Inderal, put her at risk for IUGR caused by placental insufficiency. The Inderal reduced the amount of blood flowing to the placenta, and to the fetus. The effects of placental insufficiency to JC would have become most apparent in the third trimester of Mrs. Cibula's pregnancy, when reduced blood flow began severely to impair the placenta's delivery of nutrients and oxygen to JC. Dr. Cetrulo showed how JC's growth slowed down, and probably stopped, late in pregnancy, and that he

began to move less in an effort to conserve oxygen. Because Inderal's effects on fetal growth and well-being were well known in 1997 the standard of care required Dr. Kahn and the other doctors at Balboa to closely monitor the growth and well being of Mrs. Cibula's fetus, beginning no later than October 8, 1997, with serial growth ultrasound studies performed at least monthly, weekly non-stress tests, and weekly biophysical profile testing.

77. Dr. Cetrulo testified that the standard of care further required the Navy doctors to use these tests to determine when JC should be delivered, in order to avoid problems associated with placental insufficiency, one of the most serious being a brain hemorrhage. In pregnancies like Mrs. Cibula's, serious consideration should have been given to delivering JC once the pregnancy reached its thirty-fourth week. This is because the risk of mortality (death) and morbidity (sickness) to babies born at thirty-four weeks is not appreciably different than for babies born at term, meaning thirty-eight to forty-two weeks, while risk of harm from remaining in the womb increases dramatically late in pregnancy when there is placental insufficiency. Dr. Cetrulo testified that in his over thirty years of practice, he had never seen a case such as this, where a high risk patient taking Inderal who had a non-reactive NST did not thereafter have regular, serial fetal monitoring.

78. Dr. Cetrulo testified that while Dr. Kahn should have

started the increased monitoring in September during the twenty-eight week of the pregnancy, October 8 was the absolute latest date permitted under the standard of care to begin these tests because it was then that Mrs. Cibula showed the first signs of potential fetal jeopardy from placental insufficiency. By mid-October 1997, there were more ominous signs of fetal compromise, including Mrs. Cibula's reports to Dr. Kahn about decreased fetal movement. Inexplicably, Dr. Kahn did nothing about this, despite specific instructions on October 21 from Dr. Tipton, the high risk pregnancy specialist at Balboa, to begin testing.

79. The Court finds persuasive Dr. Cetrulo's testimony that if Dr. Kahn had performed the required fetal testing, then the tests would have revealed a trend, beginning in late October-early November, of increasing fetal compromise, which would have mandated delivery prior to the devastating effects of hypoxia setting in. The growth ultrasound tests would have shown that JC stopped growing in utero, and that the size of his head became disproportionately larger than the size of his torso. Dr. Cetrulo testified that this "head sparing" effect resulted from the fetus' efforts to channel the inadequate blood supply to the most critical organs, such as the head and brain, and away from less vital organs, such as the kidneys. The tests would have shown that JC's weight became abnormally low for a child of his

gestational age, even if not below the tenth percentile level on the growth chart used at Balboa. The ultrasound, biophysical profile and amniotic fluid tests would have shown an abnormal decrease in the amount of amniotic fluid, indicating that JC's kidneys had stopped producing fetal urine. This, too, would have been an indication of inadequate placental blood flow. All of these tests, if performed, would have indicated that JC needed to be delivered by November 10, 1997, at the very latest. Had Defendant adhered to the standard of care, JC would have been delivered by November 10, and today would be a normal nine year old boy.

80. The Court credits the testimony of Dr. Richard L. Stokes, III, a board certified obstetrician and gynecologist with more than thirty years of experience in Northern Virginia, who provided an even more detailed explanation of how Government physicians violated the standard of care in managing Mrs. Cibula's pregnancy. Dr. Stokes testified that Defendant violated the standard of care in several ways. First, Defendant violated the standard by failing to follow a program of regular fetal surveillance, including serial ultrasound growth studies, beginning in September 1997, due to the risk of IUGR. Second, Mrs. Cibula's attending physician failed to observe the NST and biophysical profile tests that were conducted on October 8, 1997. Third, Defendant failed to convey to Dr. Kahn the October 8 test

results. Fourth, Defendant breached the standard by not repeating the non-stress test and biophysical profile testing on October 9, 1997 after Mrs. Cibula had made a visit the night before to Balboa's labor and delivery ward. Fifth, Defendant failed to begin regular fetal testing on October 17, 1997, when Mrs. Cibula began to report decreased fetal movement to Dr. Kahn. Sixth, Defendant breached the standard of care by not following Dr. Tipton's directive on October 21 to immediately begin a program of regular growth ultrasound and weekly non-stress tests. Seventh, Defendant did not perform any fetal testing on November 10, 1997, and sent Mrs. Cibula home from the hospital without ever seeing a physician. Eighth, Defendant breached the standard of care by not delivering JC on or before November 10.

81. Dr. Stokes' testimony also rebutted the Government's proffered defense in this case that had the physicians at Balboa performed the prenatal tests required for his risk pregnancies, they would not have necessarily delivered JC on or before than November 10, 1997, prior to JC suffering any permanent damage in utero.

82. Dr. Stokes, who has delivered more than 7,000 babies, explained that ultrasound studies done between October 21 and November 10 would have shown that JC was growth restricted. For this, he relied on several facts from the medical records. The first was JC's low birth weight of 2242 grams. According to the

growth chart in Williams Obstetrics, the standard textbook in the field, JC's birth weight was below the tenth percentile, meeting the classic definition of IUGR. Dr. Stokes opined that JC likely weighed only a few hundred grams less on November 10, and thus would also have qualified as IUGR on that day, if an ultrasound study had been done. Dr. Stokes also testified that JC was growth restricted according to the Balboa growth chart, even though he may still have been slightly above the tenth percentile. Second, JC suffered a forty-five percentile weight range drop between July 8, 1997, and November 14, 1997. An ultrasound study performed between October 21 and November 10 would have identified this drop-off. Third, JC exhibited an "asymmetric" growth pattern on November 14. This means that the size of JC's head (registering at the fortieth percentile) was disproportionately larger than the rest of his body (approximately tenth percentile). Asymmetric growth is a well known sign of advanced growth restriction, and takes several weeks to develop. Thus, physicians would have taken notice had ultrasound studies had been timely done. Fourth, JC's growth restriction would have been seen by ultrasound after Mrs. Cibula's placental tissues began to deteriorate, which, according to Plaintiffs' placental pathologist, began around three or four weeks before JC's birth. Finally, an ultrasound study would have shown that Mrs. Cibula had no, or very reduced, amniotic fluid.

83. Dr. Stokes next explained why the missing NSTs, if begun on October 21, would, more likely than not, have been non-reactive during the three weeks before JC's birth. Relying in part on the report and unrebutted testimony of Cynthia Kaplan, M.D., an expert in the field of placental pathology, who brought the slides from Mrs. Cibula's placenta to Court and explained in detail how those slides showed placental insufficiency lasting for weeks before JC's birth, Dr. Stokes correlated the pathologic findings with JC's abnormally small size and asymmetric growth at birth. According to Dr. Kaplan, the placental tissues also demonstrated a low amount of amniotic fluid, which Dr. Stokes correlated to the lack of any fluid on November 14. Decreased amniotic fluid would have been evident prior to November 14.

83. Dr. Stokes also highlighted four other signs of JC's poor in utero status on November 10. First, the fetal heart tracing on November 14 exhibited flat "beat-to-beat variability" and "late decelerations." In laymen's terms, the November 14 tracing of JC's heart showed that his vital signs were in an extremely depressed state and he was inactive. Absent a uterine contraction, his heartbeat stayed at virtually the same number of beats per minute. After contractions, it slowed down dramatically. Both of these findings indicated that JC had been hypoxic, but not asphyxiated, for several days before delivery. Second, JC's heartbeat showed no reaction when the fetal

electrode was screwed into his head. Again, the absence of movement or an increased heartbeat in response to this painful stimulus was evidence of prolonged hypoxia. Third, Mrs. Cibula reported a decrease in the quality of JC's kicks starting on November 10, which by November 14 had progressed to the point where Mrs. Cibula was not getting the kick count. Mrs. Cibula's doctors would have seen evidence of hypoxia on November 10 in the form of a non-reactive heart tracing and decreased fetal movement. Fourth, Mrs. Cibula's fundal height was abnormal on November 14. The labor and delivery records reveal that Mrs. Cibula had no fluid on November 14. Thus, a biophysical profile on November 10, part of which would have involved examination of amniotic fluid, would have revealed the lack of fluid.

84. In summary, Dr. Stokes, relying on clinical and empirical data from the medical records and his thirty years of experience, demonstrated convincingly that if the testing that should have been done was, in fact, done, then JC would have been delivered prior to the hypoxia becoming so severe as to cause the bleed.

85. The Court agrees with Dr. Cetrulo and Dr. Stokes' conclusions that the appropriate fetal testing as required by the standard of care would, more likely than not, have detected JC's chronic hypoxia, and would, more likely than not, have indicated that JC had to be delivered on or before November 10, before JC

was injured.

86. The Court's finding that Defendant deviated from the standard of care is also supported by Defendant's own admissions, and the trial testimony of its fact and expert witnesses. The Government conceded in its pretrial submissions, opening statement and closing argument, that "Naval physicians deviated from the standard of care by failing to conduct growth ultrasounds during the latter part of Mrs. Cibula's pregnancy, beginning in the twenty-eighth week of her pregnancy, or approximately at the occasion of Mrs. Cibula's visit to the prenatal clinic at Balboa on September 26, 1997."

87. Dr. Tipton, the perinatologist at Balboa, was the Government's only fact witness. She testified that the NST was the most common fetal surveillance tool that she used in 1997 to determine the health of a fetus at risk for placental insufficiency and IUGR. She testified that she personally performed 8,000 of them during her nine years at Balboa, approximately 1,000 per year. She testified that Dr. Kahn called her on October 21 because he was worried about Mrs. Cibula's use of Inderal, and wanted her views about how to manage the pregnancy going forward. She advised him to immediately begin serial growth scans and weekly NSTs because he needed those tests to determine when to deliver JC. Yet, she saw no evidence in the medical records that Dr. Kahn ever followed her advice, nor did

she see any explanation for his non-compliance. She also saw no evidence that the nurse practitioner who treated Mrs. Cibula on November 10, 1997, and who had the training and authority to order fetal surveillance tests without a doctor's approval, did anything to assess the well being of the fetus. Finally, Dr. Tipton admitted that when JC was born on November 14, he showed many of the signs of IUGR and placental insufficiency that the missing tests were designed to detect.

88. On questioning by the Court, Dr. Susan Lanni, Defendant's maternal fetal medicine specialist, testified that Dr. Kahn violated the standard of care by not performing or ordering at least monthly ultrasound growth studies on Mrs. Cibula beginning in the twenty-eighth week of her pregnancy, and by not reevaluating whether Mrs. Cibula's past history of lupus, coupled with her taking Inderal, put her at an even higher risk of IUGR. The Court notes that Dr. Lanni was in her residency training in 1997 when JC was born, and that she has previously delivered only a few hundred babies, as compared to the over 12,000 deliveries between Drs. Cetrulo and Stokes.

89. Dr. Raymond McCue, Defendant's expert obstetrician, also testified that the standard of care required that Mrs. Cibula undergo the plan of fetal surveillance laid out by Dr. Tipton beginning on October 21 - monthly ultrasounds for growth and weekly NSTs - and that the failure to do so was malpractice.

Dr. McCue candidly testified on cross-examination that the Government doctors taking care of Mrs. Cibula committed no less than six violations of the standard of care in not performing the required testing, all of which would have provided critical information about the health and well being of her baby. The Court notes that Dr. McCue had treated only a "handful" of patients taking Inderal.

D. Causation

90. The Court finds that Defendant's failure to properly monitor the health of Mrs. Cibula's fetus, as required by the standard of care, caused Defendant to wait until November 14, 1997, to deliver JC, by which time he had already suffered the irreversible effects of asphyxia and the brain bleed. If Defendant had complied with the standard of care and timely performed all of the required fetal monitoring, then JC would have been delivered on or before November 10, and he would not have suffered the IVH or any brain damage at all. It is again important to note that the Government's only causation witness, Dr. Barks, agreed with the Plaintiffs that JC would be normal if delivered either before November 10, or sometime between November 10 and November 14.

90. The Court's findings on causation originate with the testimony of Dr. Marcus Hermansen, a board certified pediatrician and neonatologist. During Dr. Hermansen's twenty-four year

career, he has not only cared for thousands of neonates, but has also trained medical students, published articles on fetal hypoxia, CP, and brain injury, and written books and book chapters in the field of neonatal medicine. (He has previously testified as a neonatologist for both plaintiffs and defendants.) As Dr. Hermansen testified in this case, JC was in jeopardy, or stress, for several weeks before birth because he was not getting enough oxygen from Mrs. Cibula's placenta. The non-reactive non-stress test on October 8, 1997, was the first sign of JC's stress. As JC's stress continued, it devolved into a state of "distress," meaning that his body lost its ability to cope with the lack of oxygen. JC stopped growing normally, he began to move less, and his organs began to shut down. We know this because of JC's "asymmetrical" growth pattern at birth. While JC's head was almost a normal size, his birth weight was small. This means that the growth of JC's body for several weeks did not keep pace with the growth of his head. Then, beginning on November 10, 1997, JC fell into a state of "subacute asphyxia," meaning a prolonged period of deprivation of oxygen that was troubling, but not yet damaging to the baby. At this point, JC's brain, body and other organs were not receiving enough blood or oxygen. JC's own blood, drawn immediately at birth, proves that prolonged asphyxia began a few days before birth. One test calculated the amount of platelets in JC's blood. When a newborn

has suffered "acute asphyxia" during the birth process, the number of blood platelets in the first blood sample is normal, but fall one or two days later, and reach their low point after three or four days. JC's platelets, however, were already low at birth. This showed that JC had suffered asphyxia several days before birth. The other lab test related to JC's nucleated red blood cells. When a fetus suffers in utero asphyxia, it releases immature, or "nucleated," red blood cells into circulation, in an effort to get more oxygen carrying cells into the bloodstream. The longer the asphyxia is present, the higher the number of nucleated red blood cells. JC had a very high count of nucleated red blood cells at birth. This means that JC's asphyxia lasted a long time. As each day passed, JC's brain became more fragile, and it eventually hemorrhaged before birth on November 14. As Dr. Hermansen testified, JC would not have suffered the IVH, and he would be a normal child today, if the Navy doctors had delivered him on November 10 or 11, instead of November 14, because JC's bleed occurred towards the end of the period of asphyxia, not the beginning.

91. The Court also credits the causation testimony of Dr. M. Elizabeth Latimer, a preeminent, board certified pediatric neurologist who testified on Plaintiffs' behalf. Dr. Latimer was the only pediatric neurologist to testify at trial. She was formerly the Chief of Pediatric Neurology at Georgetown

University, and the staff child neurologist at the INOVA Fairfax Hospital for Children. She trained at the Walter Reed Army Medical Center, and for ten years served as the neurologist who, on behalf of the United States Government, advised new parents such as the Cibulas about neurologic injuries to newborn children, and what caused those injuries. She examined JC on two occasions and was the only expert in this trial who personally examined him.

92. Relying on Dr. Latimer, the Court finds that JC was in an unfavorable uterine environment beginning on the thirty-first week of the pregnancy, during which he suffered "global asphyxia." This means that JC's brain was not getting enough oxygen through the placenta. The lack of oxygen, due to the Inderal and placental insufficiency, set up JC's bleed. Dr. Latimer testified that both the hemorrhage and the prolonged lack of oxygen caused JC's significant brain injuries, and those injuries would not have occurred if JC had been delivered on or before November 10, 1997. Finally, the Court credits Dr. Latimer's testimony that there is no evidence that JC's injury was caused by anything other than placental insufficiency, hypoxia and asphyxia. More specifically, there was no metabolic, infectious, genetic, or clotting disorder that caused JC's injuries.

93. The Court credits the testimony of Plaintiffs' expert

Dr. Cynthia G. Kaplan, who is board certified in the fields of anatomic, clinical and pediatric pathology (the subspecialty in pathology that studies placentas). She microscopically analyzed three slides containing tissue from Mrs. Cibula's placenta. Dr. Kaplan testified that the slides showed that there was inadequate uteroplacental blood flow, which prevented the placenta from growing normally in the third trimester of the pregnancy. The placenta weighed only 300 grams, which was small for JC's gestational age. It was small because it was chronically undernourished. Based on the histological appearance of the placental tissue, the abnormal growth of Mrs. Cibula's placenta was caused by hypoxia and ischemia, which lasted for at least two to three weeks before JC's birth, and likely began even earlier. This meant that JC did not get the nutrients and oxygen that he needed during the last few weeks of the pregnancy. As Dr. Kaplan testified, the placental tissue showed that there had been a decreased amount of amniotic fluid for weeks before November 14. Finally, Dr. Kaplan testified that there was no pathologic evidence that Mrs. Cibula ever suffered an abrupted placenta, nor was there any evidence of blood clots in the placenta which she testified would likely be present if the child had a clotting disorder that could have caused the bleed in JC's brain.

94. Defendant's causation expert, Dr. John Barks, agreed with Drs. Hermansen, Latimer, Cetrulo, and Stokes on the key

causation points. Dr. Barks testified that JC's brain bleed caused his cerebral palsy, and that JC would be normal absent the bleed.

95. The Court discredits Dr. Barks's causation testimony, which is contrary to the opinions of not only all of Plaintiffs' expert witnesses but also JC's treating physicians at Balboa in 1997. Dr. Barks testified that the bleed in JC's brain resulted from either a blood clot that may have formed in a vein, or a "compression" of a vein in the brain, either of which may have blocked the drainage of blood from JC's head. When the pressure in the blocked blood vessel became too great, it burst open. Dr. Barks, however, offered no forensic support for his clotting theory. In contrast, Dr. Kaplan testified that the placental tissue showed no evidence of a blood clot. Dr. Barks testified that his theory about a venous "compression" was brand new, revealed for the first time at trial. Dr. Barks also conceded that he could not say, to a reasonable degree of medical certainty, whether the bleed was caused by the clot or the compression. Dr. Barks' opinions were not supported by any other experts and he testified that in his own practice, when he needs advice about the cause of a newborn's neurologic problems, he consults with a pediatric neurologist, such as Dr. Latimer. Similarly, if he wants to know whether a newborn has a blood disorder, he consults with a pediatric hematologist.

96. Plaintiff also offered a report authored by Dr. Guy Young, a board certified pediatric hematologist from California which analyzed and refuted Dr. Barks' clotting theory. The parties stipulated to the admission of Dr. Young's report in lieu of his testifying at trial. Dr. Young stated in his report that JC's physicians in the NICU considered whether a clotting disorder may have caused the bleed. For that very reason, they ordered a panel of tests on JC's blood. The lab at Balboa ran the tests on three different occasions in the first week of JC's life. The results were negative each time. The Court credits Dr. Young's conclusion that there is no evidence that JC had a clotting disorder that caused the brain hemorrhage.

E. Injury

97. Based on the testimony of Dr. Latimer, the Court finds that JC has suffered severe neurologic injuries that are permanent, and all of them are attributable to the process of sub-acute asphyxia, followed by the IVH.

98. JC's neurologic deficits include CP, right hemiparesis and left lower leg weakness. CP is a neuromuscular disability characterized by abnormal control of movement or posture. Right hemiparesis means that the right side of JC's body, including his right arm and leg, are weak and partially paralyzed.

99. JC's IVH also caused his hydrocephalus, a condition in which there is excessive cerebrospinal fluid in the ventricles of

the brain. To control the pressure caused by this increased fluid, JC has a ventriculoperitoneal shunt - a catheter and tube apparatus that drains fluid from the ventricle and deposits it into the abdomen, where it gets absorbed naturally.

100. JC has endured numerous surgical procedures as a result of his brain injuries. He had surgery in early 1999 to place the VP shunt. He had surgery later in 1999 in order to insert gastrointestinal tube ("g-tube") in his stomach so that he could receive medications, food, and fluids. Without the g-tube, JC is unable to ingest sufficient nutrition, liquids, and medicines. Prior to the g-tube, he had frequent bouts of vomiting during and after eating. He underwent another procedure known as fundoplication in order to control aspiration and vomiting. He has had a hernia operation. He also has severe scoliosis, for which future surgery is planned.

101. JC has staring seizures caused by his brain damage. Mrs. Cibula testified that this condition presents symptoms of sudden and unpredictable muscle failure that overcome JC when he is otherwise moving well with his walker, causing him to fall limp to the ground. The Cibulas have been trained to monitor and deal with JC's seizures, as well as the complications with his g-tube.

102. Dr. Raphael Minsky, a licensed rehabilitation psychologist, evaluated and tested JC on multiple occasions, and

rendered detailed testimony about the extent of JC injuries, his developmental status, and his future life care needs. During his thirty-five year career in the field of rehabilitation psychology, he has held positions at the Junior Village International Institute of Mental Health, the State of Maryland Board of Mental Health and Hygiene, the Montgomery County, Maryland Public School system, and the Division of Vocational Rehabilitation in Montgomery County and Prince George's County, Maryland. Dr. Minsky reviewed all of JC's medical records; he interviewed the Cibulas on multiple occasions about JC's needs; and, he conducted extensive testing on JC in order to develop a comprehensive plan for JC's future needs. Dr. Latimer fully supported the treatment needs and services as outlined by Dr. Minsky, as do Cmdr. and Mrs. Cibula. The Court credits in part Dr. Minsky's findings and recommendations, including his estimates of the current costs of the items in his recommendations.

103. As explained by Dr. Minsky, JC has severe developmental problems. He meets the DSM-IV diagnosis of mental retardation.⁹

104. JC's IQ is measured at forty-eight, putting him in the

⁹ The essential feature of mental retardation, according to the DSM IV, is sub-average general intellectual functions, accompanied by significant limitations in adaptive functioning in at least two skill areas: communications, self-care, home living, social and interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health and safety.

"Extremely Low" classification of intelligence (.01 percentile of the population), according to the Wechsler Intelligence Scale for Children. JC was almost nine years old at the time of trial, but his adaptive behavior is consistent with a two year, eight month old child, according to the Vineland Adaptive Behavior Composite test.

105. JC will never attain the intellectual potential that he would have reached absent his brain injuries. Both of his parents graduated from college with a Bachelor's degree, his father earned a Master's degree, and his mother is only one course short of earning that degree as well. Mrs. Cibula's father is a physician. The Court finds that it is more likely than not that, absent his brain injury, JC would have attained at least a Bachelor's degree.

106. JC is hampered by developmental and emotional problems. His experiences at school have created great stress for him. He has trouble concentrating and listening, and anticipates loud noises, which is a distracting behavioral issue.

107. JC's social interactions are limited. According to both Dr. Latimer and Dr. Minsky, JC requires special education placement and related services until he reaches adulthood. He requires a great deal of structure, clear instructions, and support in order to accomplish any educational task assigned to him. He needs an educational environment that provides maximum

sensory input and intensive application of special education resources in a quiet, structured, and verbally rewarding manner in order for him to reach his maximum potential.

108. JC has dyspraxia, which is the partial loss of the ability to perform coordinated movements. For example, in order to walk, he needs braces on his legs and feet, and a walker. The Court observed JC's difficulties with mobility during the trial. Without support, JC ambulates on his knees, or uses a wheelchair, which he cannot operate on his own. He cannot get into or out of bed, a chair, a bathtub, or a car without assistance. The Cibulas, mostly Mrs. Cibula, must physically lift JC to perform all of these daily activities.

109. JC has dysphasia - a speech impairment consisting of difficulty in arranging words in their proper sequence. He also has dysarthria - impairment of speech articulation. The dysphasia and dysarthria are both caused by damage to JC's central nervous system. To date, he has received intensive speech therapy.

110. Because of his multiple disabilities, JC needs the intensive physical, occupational, speech and language, and other types of therapy outlined by Dr. Minsky for the rest of his life. For example, JC has been engaged in adaptive aquatics and horseback riding therapy. Both types of therapies, though somewhat unconventional, have greatly assisted in JC's

development, and will continue to do so in the future.

111. JC requires ongoing medical attention and lifelong monitoring by a neurologist, neurosurgeon, gastroenterologist, ophthalmologist, developmental pediatrician, and dentist. JC will also need to take the following medications, or a close variation, for the rest of his life, all due to his brain injury: Prozac, Risperdal, Zantac, Trileptal, Mirolax, Periactin, Motrin, and Ducolax suppositories. Many of these medicines are needed because JC's bowels do not function properly resulting in chronic constipation. The Mirolax medicine helps with this problem, but makes JC unable to control his bowels. Thus, JC is forced to wear diapers, day and night. When JC's bowels become obstructed, he must be hospitalized for several days, and must stop eating until the condition resolves. After any sickness, it takes several weeks for JC to resume taking food through his mouth.

112. Because of his neurological deficits, JC will need the following special equipment and supplies to manage the activities of daily living for the rest of his life: electric wheelchair, a walker, a lightweight wheelchair, an activity/feeding chair, diapers, bed pads, MICI buttons, kangaroo pump (with all accompanying supplies), a computer, monitor, printer (including supplies and special educational supplies), a slant table, modified bed, gastroenterological tubes, bath/shower chair, toileting chair, desitin, periwash, IV pole, syringes, Vaseline,

Kenalog cream, cotton pads, peroxide, and pedialyte.

113. Finally, JC will never live independently, and is unemployable. As testified to by Dr. Latimer, Dr. Minsky and Mr. Lester, JC is totally dependent on others for all aspects of his care. JC cannot be left alone. He needs full time care - twenty-four hours per day, 365 days per year - now, and for the rest of his life. That level of care has been provided to date by Cmdr. and Mrs. Cibula with the assistance of JC's grandparents, one of whom is a medical doctor.

114. JC's parents testified that their current home is not handicapped accessible and is currently not configured to permit JC easy access to the bathrooms and showers. Additionally, the Cibulas testified that the hallways of their home are not wide enough for JC's walker and wheelchair. JC also requires a modified van for transportation outside the home, that can accommodate his wheelchair.

115. The Government's expert on JC's future care needs, Mr. Lester, testified that JC needs full-time care from an LPN, and Plaintiffs agree.

116. Although disabled, JC is expected to live a normal life expectancy of approximately 72.8 years. Dr. Latimer gave the basis for this opinion, and the Government offered no evidence in opposition.

117. Mrs. Cibula has suffered severe emotional and physical

injuries as a result of Defendant's negligence. She has been JC's primary care giver since birth - nursing him to health, feeding him, carrying him, and accompanying him to every doctor appointment. Both her mental and physical health have suffered from having to provide JC's extensive needs. Due to JC's physical and emotional disabilities, Mrs. Cibula has spent a great portion of her life physically carrying, lifting and supporting JC through all of his activities of daily living. This has caused significant injuries to her back, for which, over the past several years, she has taken numerous and increasingly potent prescription pain medications including Fentanyl, Percocet, Oxycontin, and now methadone. Absent these medications, Mrs. Cibula's back pain is debilitating.

118. JC is aware of his limitations, despite his mental retardation. As Cmdr. Cibula testified, and as stipulated by the Government, JC is often angry, acts out, becomes depressed and is anxious. As he grows older, these emotional problems will continue.

II. Conclusions of law

1. Under the FTCA, the United States is liable "in the same manner and to the same extent as a private individual under like circumstances" 28 U.S.C. § 2674.

2. The Court finds that all Plaintiffs timely asserted their claims within two years after they accrued in June 2000. To the

extent Defendant renewed its motion for dismissal on statute of limitations grounds at closing argument, the Court denies it for the reasons previously stated, based on the evidence adduced at trial. See Order Denying Defendant's Partial Motion Dismiss Plaintiffs' Claims for Lack of Subject Matter Jurisdiction, November 02, 2006.

3. Under *United States v. Kubrick*, 444 U.S. 111, 120 (1979), the accrual of a medical malpractice claim under the FTCA does not occur until "the plaintiff became aware - or would have become aware through the exercise of due diligence - both of the existence of injury and of its cause." While there is no dispute that Plaintiffs knew of JC's IVH beginning on November 18, 1997, the evidence shows that Cmdr. and Mrs. Cibula did not know, or have reason to know, that the cause of JC's IVH was improper medical treatment until June 2000. Prior to that time, the Cibulas believed, based on statements from Government doctors, that the cause of the bleed was either unknown, unknowable, or the result of a placental abruption, which did not happen in this case. In *Kerstetter v. United States*, the Fourth Circuit defined the awareness of cause triggering the statutory time period to be knowledge of "who has inflicted the injury," and not the knowledge of the precise medical diagnosis or knowledge of the existence of some harm to the patient. 57 F.3d at 365. In this case, the Cibulas, both personally and through Dr. Allen, Mrs.

Cibula's father, sought to find out the exact cause of JC's medical problems and Balboa physicians gave no indication that negligent prenatal care could have been a cause. With that, the Court finds that there was no way for the Cibulas to have known that negligent prenatal care could have been a cause of JC's injuries until the subsequent review of Mrs. Cibula's prenatal medical records in June of 2002. Therefore, the claims of JC and Mrs. Cibula did not accrue until June 2000. See *Otto v. NIH*, 815 F.2d 985, 989 (4th Cir. 1987) (holding that the statute of limitations period tolled in a FTCA malpractice suit when physicians gave "reasonable and credible explanations for the procedure and for the complications that ensued").

4. The evidence at trial showed that the Cibulas, especially Mrs. Cibula, inquired of the doctors at Balboa about the cause of JC's IVH. Mrs. Cibula even asked Dr. McCaffrey to speak with her father, Dr. Charles Allen, about what had happened to JC, so that he could explain things to her later. Thus, the Court concludes that Plaintiffs conducted a reasonable investigation into the cause of their son's injury. On June 5, 2000, Mrs. Cibula subsequently met with two Government doctors at the Bethesda Naval Medical Center to discuss whether another pregnancy would be safe. Mrs. Cibula gave those doctors a history of her pregnancy at Balboa, and related her understanding of the cause of JC's IVH. During the meeting, the two doctors described a

litany of prophylactic measures that would be taken with Mrs. Cibula during a future pregnancy in order to prevent a bleed such as the one that JC suffered, including serial ultrasound growth studies and NSTs. The doctors stated that the planned tests were standard procedure given Mrs. Cibulas medical history. They asked what these tests showed during her pregnancy with JC, and were shocked when Mrs. Cibula told them that none of those tests had been performed. This meeting was the first occasion on which Mrs. Cibula received information from anyone that JC's IVH was preventable - that it may have been caused by negligent medical treatment she received at Balboa, as opposed to an abrupted placenta, or an act of God. Within two years of the June 5, 2000, meeting, the Cibulas timely filed the appropriate SF-95 forms with the United States Navy. For that reason, all Plaintiffs' claims are timely.

5. The FTCA provides that the Government's liability is determined "in accordance with the law of the place where the act or omission occurred." 28 U.S.C. § 1346(b). In this case, the parties do not dispute that the events giving rise to the allegations in the Complaint occurred in the State of California. Therefore, the substantive law of California applies, including the measures of damages to be awarded. *See, e.g., United States v. Muniz*, 374 U.S. 150, 153 (1963); *Richards v. United States*, 369 U.S. 1 (1962); 28 U.S.C. § 1346(b) and § 2674.

6. Under California law, a *prima facie* case of medical malpractice requires that the plaintiff establish the following: "(a) a legal duty to use due care; (b) a breach of such legal duty; [and] (c) the breach as the proximate or legal cause of the resulting injury." *Ladd v. County of San Mateo*, 12 Cal. 4th 913, 917-18, 911 P.2d 496 (1996) (citations omitted).

7. The question of whether the defendant was negligent is answered by determining whether he/she failed to comply with the applicable standard of care, which is defined as the "level of skill, knowledge, and care in diagnosis and treatment possessed by other reasonably careful physicians under the same or similar circumstances." *Landeros v. Flood*, 17 Cal. 3d 399, 408, 551 P.2d 389 (1976). Specialists, such as obstetricians and perinatologists, are held to that standard of learning and skill normally possessed by such a specialist in the same or a similar locality, and under the same or similar circumstances. *Neel v. Magana, Olney, Levy, Cathcart & Gelfand*, 6 Cal. 3d 176, 188 n.22, 491 P.2d 421 (1971). The applicable standard of care is established by expert testimony. *Alef v. Alta Bates Hospital*, 5 Cal. App. 4th 208, 215 (1992).

A. Standard of Care

8. In the instant case, the Court finds that based on expert testimony, the standard of care required the Defendant to begin a regular program of fetal surveillance during the twenty-eighth

week of Mrs. Cibula's pregnancy, and in no event later than October 8, 1997; that the program had to include at least monthly comprehensive ultrasound growth studies, weekly non-stress tests, and weekly biophysical profile tests; that despite the regular regime, such testing should also have been performed whenever Mrs. Cibula notified a healthcare provider of preterm contractions and decreased fetal movement, including during Mrs. Cibula's visits to Balboa on October 9, October 17, and November 10; and, that the standard of care did not allow Mrs. Cibula's pregnancy to go beyond November 10, 1997.

9. The Court concludes that Plaintiffs have met the burden of proving that the Defendant healthcare providers breached the applicable standard of care by not performing any fetal surveillance testing after October 8, 1997, despite numerous opportunities and directives to do so, and by not delivering JC on or before November 10, 1997.¹⁰

¹⁰ The Government raised the defense of contributory/comparative negligence for the first time in its Proposed Findings, filed on the first day of trial and later in its post trial Findings of Fact and Conclusions of Law. *Li v. Yellow Cab Co.*, 13 Cal. 3d 804, 532 P.2d 1226, 1230 (1975) ("As we have indicated . . . the 'all-or-nothing' rule of contributory negligence can be and ought to be superseded by a rule which assesses liability in proportion to fault."). The factual basis for this defense is that Mrs. Cibula failed to respond to a purported October 21, 1997, telephone message from Dr. Kahn to "schedule fetal surveillance ultrasounds." Though the defendant failed to introduce any evidence to support this contention at trial and Mrs. Cibula testified that she did not receive this message on her home answering machine, the Court need not address the merits as under the Federal Rules of Civil Procedure,

B. Proximate Causation

10. In a medical negligence action, the plaintiff bears the burden of proving by a preponderance of the evidence that the defendant's breach proximately caused the injury for which damages are sought. "In California, the causation element of negligence is satisfied when the plaintiff establishes (1) that the defendant's breach of duty (his negligent act or omission) was a substantial factor in bringing about the plaintiff's harm and (2) that there is no rule of law relieving the defendant of liability." *Leslie G. v. Perry Assoc.*, 50 Cal. Rptr. 2d 785, 790 (Cal. Ct. App. 1996). The Court finds that the plaintiffs have met that burden.

11. In this case, the plaintiffs have established that performance of the prenatal fetal surveillance testing required by the standard of care would, more likely than not, have alerted Mrs. Cibula's physicians that JC was suffering the adverse effects of uteroplacental insufficiency and was growth restricted in the last few weeks of the pregnancy. This information would, in turn, have caused them to deliver JC on or before November 10, 1997, before he suffered the IVH. Had this happened, JC would be

affirmative defenses like contributory negligence must be plead. FED. R. CIV. PRO. 8(c). Assuming, *arguendo*, that the defendant's defense of comparative negligence was properly raised, the Court finds that any failure by Mr. Cibula to respond to Dr. Kahn's alleged phone call would be insufficient to establish any portion of the blame on her part for JC's injuries.

normal and would live to a normal life expectancy.

12. The Court rejects the Government's contention that Plaintiffs' experts were "speculating" when they testified that the missing tests would have shown JC to be hypoxic and growth restricted between October 21-November 10, 1997, and would have mandated an earlier delivery for JC. The opinions of Dr. Cetrulo and Dr. Stokes on this point were well supported by the clinical and empirical evidence from the medical records. The evidence that JC began to suffer the effects of growth restriction beginning in mid-October 1997 included: (a) growth data from the July 1997 sonogram, (b) the results of the October 8, 1997, NSTs and BPP, (c) Mrs. Cibula's reports of decreased fetal movement beginning in mid-October 1997, and worsening between November 10-14, 1997, (d) the fetal monitoring strips from November 14, 1997, (e) the lack of amniotic fluid on November 14, 1997, (f) the lack of fetal response to implantation of the FSE, (g) JC's low birth weight and head circumference, (h) the growth restriction data from the Williams Obstetrics textbook, (i) JC's asymmetrical growth pattern, (j) the results of tests on JC's blood shortly after birth, (k) his appearance at birth (looking tired and droopy, with sagging skin), and, finally, (l) the opinions of JC's treating physicians that his injury was caused by a prolonged period of in utero hypoxia. These facts provided a reliable basis for Plaintiffs' experts to opine that JC

suffered the effects of placental insufficiency in utero, including growth restriction, and that the missing tests, had they been performed, would have revealed JC's condition, as they are designed to do, and would have mandated delivery by November 10, 1997.

13. The Court discredits the testimony of Dr. Lanni, who opined that it was somehow improper to draw conclusions about JC's in utero status between October 21 and November 10 based on data gathered at other times. She suggested that proximate causation could never be proven because the required tests were never performed.

14. The Fourth Circuit has held in a FTCA wrongful death case based on medical malpractice, where the defendant failed to perform diagnostic tests that would have revealed a condition that required immediate surgery, that the defendant could not suggest at trial that it was too speculative for the plaintiff to assert that the omission proximately caused the harm. *Hicks v. United States*, 368 F.2d 626 (4th Cir. 1966). The Fourth Circuit reasoned:

When a defendant's negligent action or inaction has effectively terminated a person's chance of survival, it does not lie in the defendant's mouth to raise conjectures as to the measure of the chances that he has put beyond the possibility of realization. If there was any substantial possibility of survival and the defendant has destroyed it, he is answerable. Rarely is it possible to demonstrate to an absolute certainty what would have happened in circumstances that the wrongdoer did not allow to come to pass. The

law does not in the existing circumstances require the plaintiff to show to a certainty that the patient would have lived had she been hospitalized and operated on promptly.

Hicks, 368 F.2d at 632.

C. Damages

15. In cases arising under the FTCA, the law of the state where the misconduct occurred governs substantive tort liability, including the nature and amounts of damages to be awarded.

Richards v. United States, 369 U.S. 1, 11 (1962) (holding that "we conclude that a reading of the statute as a whole, with due regard to its purpose, requires application of the whole law of the State where the act or omission occurred"). As all of the events relevant to this litigation took place in California, that is the law to be applied in this claim.

D. Economic Damages

16. Damages for past and future medical care are fully recoverable under California law. *Niles v. City of San Rafael*, 42 Cal. App. 3d 230, 241-44, 116 Cal. Rptr. 733 (1974). An item of future medical expense is recoverable if it is reasonably certain that the expense will be incurred. *Mendoza v. Rudolf*, 140 Cal. App. 2d 633, 637, 295 P.2d 445 (1956). In cases involving expenses to care for an injured minor, California law allows either the parent or the child to recover future medical expenses. See e.g., *Laughner v. Bryne*, 18 Cal. App. 4th, 904,

909-912, 22 Cal. Rptr. 2d 671 (1993).

17. Plaintiffs are entitled to recover the fair value of all past care provided to JC by his parents. Until now, Plaintiffs, primarily Mrs. Cibula, have provided the constant care that JC has needed, with little outside assistance. The type of care that Mrs. Cibula has provided over the past several years, is substantially the same as the type of care that a medical attendant would provide to JC. Thus, Plaintiffs are entitled to recover the fair value of those past services, calculated on a twenty-four hours per day, 365 days per year basis, using the same hourly cost for future LPN care as estimated by Dr. Minsky (\$35/hour). *Bradford v. Edmands*, 215 Cal. App. 2d 159, 168, 30 Cal. Rptr. 185 (1963) (holding that cost of nursing care provided by mother who was a professional nurse is recoverable); *Hanif v. Housing Auth.*, 200 Cal. App. 3d 635, 644-45, 246 Cal. Rptr. 192 (1988) (stating that the child may recover reasonable value of twenty-four hour attendant care provided by parents). For the more than eight years and ten months that JC's parents have cared for him out of the hospital, the amount of past attendant care to which Cmdr. and Mrs. Cibula are entitled, calculated from January 1, 1998, to October 31, 2006, is \$2,704,800.

18. Relying on the findings of fact set forth above, this Court also holds that the future medical and related expenses projected by the Plaintiffs' expert Dr. Minsky, and reduced to

present value by Plaintiff's expert economist Dr. Lurito, are recoverable because they are fair, reasonable, and likely to be incurred. These needs include quarterly visits by JC to a neurologist and developmental pediatrician, semi-annual visits to an orthopedist, gastroenterologist, and dentist, and annual visits to an ophthalmologist and neurosurgeon, plus allowances for surgical procedures to replace JC's VP shunt every five (5) years, and a one time ophthalmologic procedure to correct JC's vision. Though the Cibula family is entitled to receive their health care free of cost through the United States Navy, the collateral source rule as applied in the state of California does not permit the tortfeasor to deduct from a damages award an amount for expenses that would normally be covered by insurance. *Smalley v. Baty*, 128 Cal. App. 4th 977, 985 (Cal. Ct. App. 2005); see also RESTATEMENT (SECOND) OF TORTS §920A(2) ("[B]enefits conferred on the injured party from other sources are not credited against the tortfeasor's liability, although they cover all or part of the harm for which the tortfeasor is liable.").

19. In addition, the Court finds that Plaintiffs are entitled to recover the cost of future attendant care by a licensed practical nurse ("LPN") on a 24-hour/day, 365 days/year basis, except when JC is being cared for at school, as outlined by Dr. Minsky, and agreed to in principal by Mr. Lester. Defendant does not dispute that JC needs to be cared for by a

LPN, due to the fact that he has a g-tube, through which he receives food and all of his medications. The Court also finds that care from a LPN is reasonable because of JC's seizures, behavioral problems, feeding problems, need for physical and occupational therapy, and the need to monitor his g-tube, seizures, and brain shunt.

20. The Court also finds that Plaintiffs have shown that JC needs various forms of therapy. Therefore, this Court approves Plaintiffs' requests for physical, occupational, speech/language, adaptive aquatics, and horseback riding therapy, as well as individual psychotherapy. As a matter of law, this Court finds that these expenses, which are supported in the findings of fact, are necessary and recoverable.

21. Plaintiffs are entitled to recover for certain medications, supplies, and diagnostic tests. These include Prozac, Risperdal, Zantac, Trileptal, Mirolax, Periactin, Motrin, Ducolax suppositories (constipation relief), and orthotics (walking assistance).

22. The Court also finds that Plaintiffs have proven the need for the assistance of certain equipment and supplies. Plaintiffs request, and the Court finds that they are entitled to: an electric wheelchair, a walker, a lightweight wheelchair, an activity/feeding chair, diapers, bed pads, MICI buttons, kangaroo pump (with all accompanying supplies), a computer,

monitor, printer (including supplies and special educational supplies), a slant table, modified bed, gastroenterological tubes, bath/shower chair, toileting chair, desitin, periwash, IV pole, syringes, Vaseline, Kenalog cream, cotton pads, peroxide, and pedialyte. Plaintiffs are also entitled to the cost of purchasing and replacing a modified van for transporting their son outside the home for the duration of his life expectancy. The Court finds that in light of the damages award, that an additional recovery for costs to remodel the Cibulas' home would be a windfall. Plaintiffs may, with the advice and consent of JC's appointed advocate, see *infra* Part II, ¶ 30, purchase a new home that can accommodate all of JC's medical needs. The Court also finds that an award for tuition for private school for the Cibulas is unwarranted. Pursuant to Va. Code § 22.1-214 (A), the Commonwealth and the County of Fairfax are required to provide JC with a "free and appropriate education" and Plaintiffs cannot seek any redress from the United States for any perceived shortcomings with JC's education.

23. Plaintiffs are also entitled to recover for all future medical expenses they are reasonably certain to incur as a result of the Defendant's negligence. Only one economist testified during the trial, Plaintiffs' expert Dr. Richard Lurito. The Court admitted into evidence, with the parties' agreement, Dr. Lurito's written reports. Having read Dr. Lurito's reports and

listened to his trial testimony, the Court finds that Dr. Lurito's approach to the economic issues in this case was sound and reasonable, and the Court bases its conclusions about the quantum of Plaintiff's future damages on his approach.

24. Dr. Lurito testified that, based on the Table of Life Expectancy of the Virginia Code, JC can expect to live a normal life expectancy of another 64.8 years. In order to arrive at the present value of JC's future care needs, as determined by Dr. Minsky, Dr. Lurito first independently analyzed the cost for each item on Dr. Minsky's summary of JC's yearly needs, and found that the listed costs were reasonable. Included on this list was full-time care by a LPN at the cost of \$306,000 per year. While this is certainly a significant yearly cost, Drs. Minsky and Lurito adequately explained the medical and economic basis for this item, and the Government did not oppose it. Indeed, the Government's life care planner, Mr. Lester, agreed that JC will live a normal life expectancy, and needs full time care from an LPN because only an LPN is allowed by Virginia law to administer JC's medications through the g-tube.

25. Dr. Lurito next examined the Consumer Price Index for medical expenses, in order to determine how much the costs on Dr. Minsky's list will rise each year. He found that they have historically escalated at between three and five percent per year, depending on the particular service or equipment involved.

He used a conservative estimate in that range for each item.

26. Next, Dr. Lurito calculated the present value of JC's total future care needs. That is, Dr. Lurito calculated the amount of money that is needed today, if invested prudently for the rest of JC's life, to pay for the care that JC will need each year, such that no money will be left at the end of his normal life expectancy. Dr. Lurito found that investing an award of damages in this case in a portfolio of investments that includes government, municipal and high grade corporate bonds, certificates of deposits and treasury bills, would earn investment returns ranging from 7.69 % per year for U.S. Government bonds to 8.63% for Aaa corporate bonds. Although these figures could justify a higher rate of return, Dr. Lurito used a more conservative after tax discount rate of 4.25% per year. To finish his calculation, Dr. Lurito escalated each category of the yearly costs for each year of need, as indicated by Dr. Minsky's report, and then discounted the cost of each item to its present value using the 4.25% discount rate. The Court credits Dr. Lurito's computation method as acceptable. *See Jones & Laughlin Steel Corp. v. Pfeifer*, 462 U.S. 523, 547-48 (1983).

27. After reviewing the extensive testimony regarding Plaintiffs' life care plan, the Court concludes that most of the items in the Plaintiffs' life care plan are medically reasonable and necessary for the future treatment of JC's injuries, all of

which were caused by Defendant's negligence. While Plaintiffs' life care plan presents a range of cost estimates, the Court concludes that Plaintiffs need not accept the less costly form of care, i.e., putting JC in a nursing home or similar facility upon his eighteenth (18) birthday. The Cibulas testified that they prefer to care for JC at home for as long as possible, and they are entitled to do so. As testified to by Dr. Latimer, the Cibulas have provided excellent care to JC at home. Continuing his care in that setting for as long as possible, with the full-time assistance of at least one LPN, is in JC's best interests. This Court is satisfied that JC's substantial medical and related care needs will best be met through the implementation of Plaintiffs' life care plan that calls for lifelong care at home. Therefore, the Court concludes that the present discounted value of JC's future care costs is \$22,823,718.

28. The Government contends that it is entitled, under a California statute, to pay this component of the Court's damages award through periodic payments into a reversionary trust (where the Government retains the reversion interest), rather than in a lump sum payment. (Proposed Findings at 49; California Code of Civil Procedure § 677.7). The "periodic payment" provision of California law on which the Government relies for this argument is a post-judgment, remedial statute. It is not part of

California's substantive law on medical negligence.

Post-judgment, remedial matters such as this are governed by federal law, and if no federal rule exists, then by the law of the forum state. *Arno v. Club Med Boutique, Inc.*, 134 F.3d 1424 (9th Cir. 1998) (under California's choice-of-law rules, remedial issues are governed by the law of the forum) (citing *World Wide Imports, Inc. v. Bartel*, 145 Cal. App. 3d 1006 (Cal. Ct. App. 1983)). The forum in this case is the Eastern District of Virginia, Alexandria Division. *Walters v. Rockwell Int'l Corp.*, 559 F. Supp. 47, 48 (E.D. Va. 1983) ("It is well settled that conflict of law rules to be applied by federal courts must conform to those prevailing in the State courts of the forum."). Under the choice of law rules of the Commonwealth, as neither federal nor Virginia law provide for periodic payments, the Government is not entitled to this remedy. *See Spring v. United States*, 833 F. Supp. 575 (E.D. Va. 1993) (holding that while "questions of substantive law are governed by the law of the place of the transaction or the place where the right is acquired . . . questions of procedure and remedy are governed by the law of the place where the action is brought"); *see also Walters*, 559 F. Supp. at 49-50 (stating that "the right to recovery and the limits on recovery are substantive law, the distribution of the recovery is remedial law").

29. Courts have not imposed a Government issued

reversionary trust to pay for plaintiff's future medical expenses unless the trust is (a) in the plaintiff's best interests (see *Calva-Cerqueira v. United States*, 281 F. Supp. 2d 279, 300-301 (D.D.C. 2003)), (b) the plaintiff consents to the trust (see *Duplan v. Harper*, 188 F.3d 1195, 1202 (10th Cir. 1999)), or (c) there is substantial doubt about the plaintiff's life expectancy (see *Nemmers v. United States*, 795 F.2d 628, 636 n.4 (7th Cir. 1986)). The Government had the burden of proof on these issues, and it did not attempt to make the necessary showing on any of them at trial. Thus, the Court declines to impose any form of United States issued reversionary trust for JC's future medical expenses where, as here, the Plaintiffs do not consent to such an instrument and the Court finds it to be otherwise unnecessary.

30. Plaintiffs are directed to create a trust for JC's benefit, with the *corpus* being the sum of the damages award for JC's future medical expenses and future earnings, see *infra* Part II, ¶ 34, subject to the approval of this Court. The Court further orders the appointment of Kelly Thompson, Esq. to act as guardian ad litem, establish the trust, and to report back to the Court its implementation and management. Pursuant to Va. Code § 26-12 (B), the guardian ad litem shall report to the Fairfax County Commissioner of Accounts within four months of this order and make all necessary continuing disclosures in administering the trust.

31. The Court now turns its attention to JC's loss of future earnings as a result of the brain damage he sustained. In California, an injured plaintiff, including an infant minor, may recover damages for loss of earning capacity that may reasonably be expected in the future as an element of general economic damages. *Rodriguez v. McDonnell Douglas Corp.*, 87 Cal. App. 3d 626, 656, 151 Cal. Rptr. 399 (1978). The recovery of lost earning capacity is not measured by what a person was actually earning at the time of the injury, but what he or she was capable of earning. *Neumann v. Bishop*, 59 Cal. App. 3d 451, 462-64, 130 Cal. Rptr. 786 (1976). Thus, a plaintiff can recover loss of earning capacity without proof of any actual earnings before or after the injury. *Handelman v. Victor Equip. Corp.*, 21 Cal. App. 3d 902, 906, 99 Cal. Rptr. 90 (1971).

32. The Court credits Dr. Lurito's assumption, based on the recommendation of Dr. Minsky, that JC would have attained a Bachelor's. The Court finds this to be a reasonable assumption in light of the educational level of JC's parents, their testimony about the importance of education for their child, and their demonstrated efforts to have JC attain a high level of education despite his disability. Dr. Lurito further assumed, based on U.S. Department of Labor statistics, that JC would have earned a yearly income in his first year of work (\$23,674) that is equivalent to the typical male in the United States who had

completed a Bachelor's degree, and would have worked until age sixty-two (62). This was another conservative assumption by Dr. Lurito, because current workplace statistics show that the retirement age for JC would likely be almost sixty-eight (68). Dr. Lurito next adjusted JC's annual income for increases due to the rate of inflation and productivity growth. Dr. Lurito applied a conservative annual income growth rate of 4.5%, rounding down from the sum of his wage inflation estimate of 4.73% per year and average productivity increase of 2.08% per year over the 1970 to 2005 time period. Based on these computations, Dr. Lurito calculated that JC would earn over his lifetime a total of \$6,875,903 if he obtained a Bachelor's degree.

33. Then, as he did when calculating the discounted present value of JC's life care needs, Dr. Lurito calculated the discounted present value of JC future income stream - the sum of money that is needed today, if invested prudently, to generate the same annual income that JC would have earned during his life if had he not been injured. Using the same rate that he used in calculating JC's future life care needs (4.25%), and then deducting the appropriate amount for state and federal taxes, Dr. Lurito calculated JC's lost earnings as \$2,360,771, had he obtained a Bachelor's degree.

34. The Court finds that it is more likely than not that JC

would have attained a Bachelor's degree, and would have earned a future income stream at that level of education, as estimated by Dr. Lurito. Thus, the Court concludes that Plaintiffs are entitled to economic damages for lost future earning capacity in the following amount: \$2,360,771.

E. Non-Economic Damages

35. The Court finds that the Plaintiffs are also entitled to non-economic damages. Damages for pain and suffering are general damages, and may be recovered under a general allegation of damages. *Beeman v. Burling*, 216 Cal. App. 3d 1586, 1600, 265 Cal. Rptr. 719 (1990). They include future pain and suffering as well as that incurred up to the time of trial. *Mendoza v. Rudolf*, 140 Cal. App. 2d 633, 636-37, 295 P.2d 445 (1956). The terms pain and suffering are not distinguished, but constitute a single concept under which a plaintiff may recover for physical pain, mental suffering, and include fright, nervousness, grief, anxiety, worry, humiliation, indignity, and embarrassment. *Huff v. Tracy*, 57 Cal. App. 3d 939, 943, 129 Cal Rptr. 551 (1976). They may also include compensation for plaintiffs loss of enjoyment of life. *Loth v. Truck-A-Way Corp.*, 60 Cal. App. 4th 757, 763, 70 Cal. Rptr. 2d 571 (1998).

36. California law expressly permits a mother to recover for the emotional distress caused by medical negligence committed against her and her fetus. *Burgess v. Superior Court*, 2 Cal. 4th

1064, 1084-85, 831 P.2d 1197 (1992). This is because a physician owes a duty of care to both the fetus and the mother, and any negligence during the delivery which causes injury to the fetus and resultant emotional anguish to the mother breaches the duty owed directly to the mother. *Burgess*, 2 Cal. 4th at 1076. The mother's emotional distress damages include the typical reactions to this type of tragic outcome: "fright, nervousness, grief, anxiety, worry, mortification, shock, humiliation and indignity, physical pain, and other similar distress." *Id.* at 1085.

37. California law caps awards for non-economic damages at \$250,000 for each plaintiff entitled to recover. Calif. Civ. Code § 3333.2.

38. The Court concludes that JC's physical and neurologic disabilities caused by Defendant's negligence are severe, are lifelong, that he has suffered extraordinary pain, suffering and emotional distress since birth, and that he is entitled to an award of non-economic damages in the full amount permitted under California law: \$250,000.

39. Similarly, the Court concludes that Mrs. Cibula has suffered physical pain and emotional distress as a result of the negligence of the Naval physicians in monitoring her pregnancy and that she is likewise entitled to recover for non-economic damages. Mrs. Cibula convincingly testified about the fear, uncertainty and emotional distress she endured when her pregnancy

with JC deteriorated in the days before his birth, when JC was subsequently diagnosed with cerebral palsy, when she and her husband struggled to address JC's considerable health concerns, and when she navigated JC through the mundane details of everyday life. She has also suffered through severe physical pain as a result of the Government's negligence. Cmdr. Cibula testified that Mrs. Cibula has developed a degenerative back and hip condition acting as JC's primary care provider and having to lift and move him due to his limited mobility. This condition is chronic and Mrs. Cibula has been prescribed a number of medications in order to manage the pain. For these reasons, the Court finds that Mrs. Cibula is likewise entitled to an award of non-economic damages in the full amount permitted under California law: \$250,000.

40. Based on the foregoing findings of fact and conclusions of law, the Court will, by separate order, enter judgment for the Plaintiffs as follows:

Past Care Costs:	\$ 2,704,800
Future Care Costs:	\$ 22,823,718
Lost Future Earnings:	\$ 2,360,771
JC's Pain and Suffering:	\$ 250,000
Jennifer Cibula's Pain and Suffering	\$ 250,000
TOTAL AMOUNT	\$ 25,684,489

The Clerk is directed to forward a copy of this Order to counsel of record.

ENTERED this__27__day of March, 2007.

_____/s/_____
Gerald Bruce Lee
United States District Judge

Alexandria, Virginia
03/27/07