

PROCEDURAL BACKGROUND

On October 12, 1993, respondent filed a report in this matter recommending compensation be denied. An evidentiary hearing was held on April 18, 1996, in Seattle, Washington. Petitioners presented the testimony of Ms. Danyelle R. Robinson,⁽²⁾ Jason's mother, and Mrs. Cleo Meckle, Jason's maternal grandmother. Petitioners also filed the depositions of the following: Heather Ricks,⁽³⁾ the baby sitter who was watching Jason when he died; Tracee Stout,⁽⁴⁾ a friend of Ms. Robinson's; Dr. Michael Donlan,⁽⁵⁾ Jason's treating physician; Dr. George R. Lindholm,⁽⁶⁾ the forensic pathologist who performed the autopsy on Jason; and, Dr. Graham McConnell,⁽⁷⁾ the Spokane County Coroner. In addition, petitioners filed an initial and supplemental expert report of Dr. Mark Geier, an obstetrical geneticist. Respondent filed an expert report of Dr. Mary Anne Guggenheim, a board certified pediatric neurologist.

II.

FACTUAL BACKGROUND

The following evidence is contained in the record in this matter:⁽⁸⁾

Factual Evidence

Jason was born on June 30, 1991, after an uncomplicated delivery. His APGAR scores were 9 and 10.⁽⁹⁾ P. Ex. 4 at 1. On July 15, 1991, Jason was taken to his pediatrician, Dr. Michael A. Donlan, for his 15-day check-up and was noted to be a "super baby" after a complete physical exam. P. Ex. 5 at 2; Donlan Dep. at 22-23-24.

On August 30, 1991, Jason was taken to Dr. Donlan's office for a two-month well-baby check. Ms. Robinson, Jason's mother, testified that at that time, Jason was an active two-month-old baby who seemed content, happy and playful. Tr. at 51. She stated that Jason smiled, giggled, grabbed for things, and could grasp her fingers. Tr. at 51, 59. A normal day for Jason at that time consisted of waking at 6:00 a.m., nursing, then falling back to sleep until approximately 9:00 a.m. when he again would nurse. Tr. at 53. After this feeding, Jason would "play" until 10:00 a.m. when he would go back to sleep until noon, when he would awaken, nurse, and play again. Tr. at 53-54. Jason took his afternoon nap around 1:00 or 1:30 p.m. In the evening, Jason went to sleep around 11:00 p.m. or 12:00 midnight and would wake up at 3:00 a.m. for a feeding. Tr. at 57. Ms. Robinson testified that when Jason was breast fed, he would usually nurse for approximately ten minutes on each side, and would take approximately two-ounces when given a bottle. Tr. at 58.

At the well-baby visit on August 30, 1991, Jason was determined by the doctor to be healthy and was administered his first DPT and oral polio vaccines.⁽¹⁰⁾ Donlan Dep. at 23, 24. Ms. Robinson arrived home with Jason around 4:30 p.m. Tr. at 64. According to Ms. Robinson, Jason was "extremely fussy." Tr. at 64. Ms. Robinson would carry him around until he seemed to be asleep and put him down, only to have him awaken five or ten minutes later. Tr. at 69. Ms. Robinson testified that Jason did not eat at 6:00 p.m. as he normally did but rather would only take a couple of sucks on the breast. Jason did not play that evening, but was irritable and cried continuously. Tr. at 65-66.

Ms. Robinson testified she had made plans to go out that evening with a friend, Tracee Stout. Tr. at 67. Her mother, Mrs. Cleo Meckle, was going to babysit. Ms. Robinson dropped Jason off at her mother's home between 8:30 p.m. and 9:00 p.m. that evening and told her mother that Jason had been cranky and irritable after his shot. Tr. at 13, 64, 68. Mrs. Meckle testified that before he fell asleep, Jason was fussy

and moody and it took a great deal of effort to feed him his bottle. Jason was not his usual responsive self and Mrs. Meckle could not get him to coo or smile, although he did not seem to have a fever.⁽¹¹⁾ Tr. at 16-17, 21. However, Jason did take most of his two and a half ounce bottle. Tr. at 14, 17, 20. At about 9:45 p.m., Jason fell asleep and she laid him down on the bed. Tr. at 17. Ms. Robinson arrived around 2:00 or 2:30 a.m. to pick Jason up. Tr. at 45, 70.

Ms. Robinson testified that Jason did not awaken when she put on his coat or put him in the car and he slept in the car during the ride to her friend Tracee's house where they were going to spend the night. He remained asleep the rest of the night, not waking until 6:00 a.m. Tr. at 46, 70, 72, 101. When Jason awoke at 6:00 a.m. on August 31st, Ms. Robinson fed him and then he fell back to sleep with her. Tr. at 72. Jason next awoke between 9:30 and 10:00 a.m. At that time, he refused to eat, only taking a few sucks at the breast. Tr. at 72-73. Ms. Robinson testified Jason did not play as he usually did at that time, even after she attempted to stimulate him. Tr. at 73. Jason wanted to be held and would only sleep for five or ten minutes at a time and then wake up. He continued this routine for several hours. Tr. at 77. However, Ms. Robinson stated that at no time after Jason received his DPT vaccination did he exhibit any fever. P. Ex. 14 at 3.

According to Ms. Robinson, Jason did not eat again until 1:00 or 1:30 p.m. that day and then fell asleep. Tr. at 76, 78. Tr. at 78. At approximately 1:30 or 2:00 p.m., Ms. Robinson left Jason and her other children with a baby sitter, Heather Ricks, and went with her friend, Tracee Stout, to the bowling alley then to the racetrack.⁽¹²⁾ Tr. at 80. Heather had taken care of Ms. Stout's children on numerous occasions but had never met Ms. Robinson or taken care of her children. Ricks Dep. at 8. Ms. Stout had great faith in Heather's abilities as a baby sitter. Stout Dep. at 8.

Heather testified Ms. Robinson did not give her any special instructions regarding any of the children, although she told her Jason had been a little fussy. Ricks Dep. at 12, 14, 30-31. Heather testified that Jason did seem fussy to her, although not abnormally so. Ricks Dep. at 12-13, 33. According to Heather, when she tried to feed Jason his bottle, he would drink a little then stop, although he drank about a quarter of his bottle. Ricks Dep. at 12-13, 35. After each attempt to feed him, she would lay Jason down, thinking he was tired, but he would only sleep for about 10 minutes. Ricks Dep. at 35. When Heather picked him up, she testified, Jason seemed comforted and very responsive and he stopped crying, although after awhile he would get squirmy and fussy again. Heather remembered that during the evening, Jason smiled. Ricks Dep. at 37, 39-40.

Eventually, Heather laid Jason down on a water bed and placed a pillow on either side of him.⁽¹³⁾ Ricks Dep. at 14. Heather would then check on Jason every 15 minutes whether he was fussy or not. Ricks Dep. at 15. After about an hour, at around 8:00 p.m. Heather went in to check on Jason and found him in the same position as she had left him. He was not breathing and appeared pale and white.⁽¹⁴⁾ Ricks Dep. at 16, 18-19. She picked him up, found he had no pulse and started to perform cardio-pulmonary resuscitation and then called 911. Ricks Dep. at 19-21, 47. The paramedics arrived in approximately ten minutes and transported Jason to the hospital, Ricks Dep. at 21-23; P. Ex. 9 at 2. where he was pronounced dead after resuscitative efforts failed.⁽¹⁵⁾

Jason's death certificate lists Sudden Infant Death Syndrome ("SIDS") as the cause of death. P. Ex. 10. A coroner's investigative report indicates that a history of "no recent illness" was reported. P. Ex. 11. It was also noted that Jason was found on a water bed. *Id.* An autopsy was performed on September 3, 1991 by Dr. G. R. Lindholm, a forensic pathologist. In the autopsy report, Dr. Lindholm, while considering SIDS as the cause of death because of the observed petechiae, was "compelled to designate the death as asphyxia due to airway occlusion," because of the fact that Jason was found face down on a water bed. P. Ex. 12 at 1. A VAERS adverse event report noted that Jason's mother had reported Jason

did not seem to have any reaction to the childhood immunizations he received. P. Ex. 7.

Ms. Robinson testified that when an investigator questioned her about Jason's health before his death, she told the investigator that Jason had exhibited no unusual behavior and had no recent illnesses before his death. Tr. at 84. Ms. Robinson explained she thought Jason was having a normal reaction to his shot. Tr. at 84. Ms. Robinson further testified that her son, Blaine, had a similar reaction to a DPT shot, and had been irritable, sleepy, unresponsive and not feeding well. Tr. at 93, 94.

Petitioners filed the deposition of Dr. Michael A. Donlan, Jason's pediatrician.⁽¹⁶⁾ Donlan Dep. at 4. It is Dr. Donlan's opinion that there is no cause and effect relationship between the DPT vaccine and brain damage in children. *Id.* at 18. Dr. Donlan believed that the findings surrounding Jason's death were most compatible with SIDS. *Id.* at 27. Dr. Donlan testified that fussiness, irritability and a low grade temperature were normal reactions to the DPT vaccination. *Id.* at 11.

Petitioners filed the deposition of Dr. George R. Lindholm, the pathologist who performed the autopsy on Jason.⁽¹⁷⁾ By letter dated March 30, 1992, Dr. Lindholm wrote to the Spokane County Coroner, Dr. Graham McConnell, recommending that the cause of death be changed from SIDS to "undetermined" because of new information regarding events following the administration of the DPT vaccination in question, of which Dr. Lindholm previously had been unaware. P. Ex. 13 at 1. While this might suggest Dr. Lindholm considered the DPT vaccination may have played a role in Jason's death, to the contrary, Dr. Lindholm clarified in deposition that, while he believed the designation of SIDS was appropriate, he thought a change to "undetermined" as the cause of death might be more correct because of the possibility of asphyxia by placement on a water bed. Lindholm Dep. at 39-40. Further, Dr. Lindholm asserted it would be improbable or unlikely that DPT played a role in Jason's death.⁽¹⁸⁾ Lindholm Dep. at 28. He testified Jason did not show any evidence of cerebral edema or cerebral hemorrhages but rather evidenced typical findings consistent with a SIDS death. *Id.* at 28-29.

Petitioners also filed the deposition of Dr. Graham S. McConnell.⁽¹⁹⁾ McConnell Dep. at 4-5. Ms. Robinson contacted him numerous times after Jason's death because she wanted him to change the cause of death listed on Jason's death certificate from "SIDS" to "undetermined." *Id.* at 10-11. Dr. McConnell declined to do so. *Id.* at 11. Dr. McConnell testified that he was unsure how Jason died although he believes there is a strong possibility Jason's death may have been due to the vaccination. *Id.* at 17, 65. However, Dr. McConnell did not seem to be aware of how DPT vaccinations can cause death or of the precise circumstances surrounding Jason's death.

Expert evidence

Petitioners submitted two affidavits from Dr. Mark, R. Geier.⁽²⁰⁾ In the first affidavit, filed with the petition, Dr. Geier opined, to a reasonable degree of medical certainty, that Jason suffered an HHE after his August 30, 1991, DPT inoculation which led to his death. P. Ex. 16 at 7. Dr. Geier based his opinion on the observations that Jason "was less responsive to his environment, had prolonged sleeping, was hard to arouse and had a lessened state of consciousness." *Id.* He also noted that Jason experienced "loss of muscle tone and cardiac and respiratory arrest leading to his death." *Id.* Dr. Geier also noted that Jason's DPT vaccination was from an "exceptionally reactogenic lot of DPT and under CDC's previous designations would have been called a "hot lot." *Id.*

After reviewing the deposition testimony of Heather Ricks, Dr. Donlan, Dr. McConnell, Dr. Lindholm, and Tracee Stout, Dr. Geier prepared a supplemental affidavit in which he declared that the "new information" elicited from the deponents in no way changed his opinion as to the cause of Jason's death.

P. Ex. 17 at 7. Dr. Geier noted that Heather Ricks described "a child who was really tired, and fussy." *Id.* He added he believes "these symptoms fit the description of an HHE as described by the Vaccine Compensation Act."⁽²¹⁾ *Id.* He believes Jason was not yet dead during the resuscitation attempts. *Id.* at 9. He added, "Therefore, during this time period it is indisputable that this child had various symptoms that fit [the] Vaccine Compensation Act under the heading of HHE including loss of consciousness, turning pale or blue, lessening of awareness of the environment, etc. . . . Therefore, I think virtually all of the signs and symptoms described under the Vaccine Compensation Table, clearly were observed in this child when he was not dead." *Id.* at 9-10.

Respondent filed the report of Dr. Mary Anne Guggenheim.⁽²²⁾ Respondent's June 20, 1996, Notice of Filing, Exhibit A (hereafter "Guggenheim Report"). Dr. Guggenheim opined, based upon her review of the medical records, affidavits, and depositions in this matter, that Jason died of SIDS. Guggenheim Report at 1.

III.

DISCUSSION

Causation in Vaccine Act cases can be established in one of two ways: either through the statutorily prescribed presumption of causation, or by proving causation in fact. Petitioners must prove one or the other in order to recover under the Act.⁽²³⁾ The Vaccine Injury Table lists certain injuries and conditions which, if found to occur within a prescribed time period, create a rebuttable presumption that the vaccine caused the injury or condition.⁽²⁴⁾ The Table lists hypotonic-hyporesponsive collapse (HHE) as a compensable injury which creates such a presumption if the onset occurs within 72 hours of the administration of the vaccine in question.⁽²⁵⁾ The presumption may be overcome by an affirmative showing that the injury was caused by a factor unrelated to the administration of the vaccine.⁽²⁶⁾

Hypotonic-hyporesponsive collapse ("HHE")

As noted, the Vaccine Injury Table lists HHE as a compensable injury if its onset occurs within three days of the administration of a DPT vaccination. Section 14(a)(I)(C). The Act's aids to interpretation describe HHE as follows:

A shock-collapse or a hypotonic-hyporesponsive collapse may be evidenced by indicia or symptoms such as decrease or loss of muscle tone, paralysis (partial or complete), hemiplegia or hemiparesis, loss of color or turning pale white or blue, unresponsiveness to environmental stimuli, depression of consciousness, loss of consciousness, prolonged sleeping with difficulty arousing, or cardiovascular or respiratory arrest.

Section 14(b)(1).

In his initial report, Dr. Geier based his opinion that Jason suffered an HHE and died as a result of the fact that Jason was less responsive to his environment, exhibited prolonged sleeping, was difficult to arouse, had a lessened state of consciousness, and experienced loss of muscle tone and cardiac and respiratory arrest.⁽²⁷⁾ The facts as elicited in the depositions, however, did not support Dr. Geier's scenario. There was clearly not the downward spiral that Dr. Geier first described. After reviewing the depositions, Dr. Geier held to his opinion that Jason's death was due to a vaccine-related HHE, although he changed the basis for that view. In his second report, he noted that Heather Ricks described Jason as "really tired, and fussy." P. Ex. 17 at 7. These symptoms, he noted, "fit the description of an HHE as

described by the Vaccine Compensation Act." *Id.* In addition, he believes Jason was not yet dead during the paramedics' resuscitation efforts. Accordingly, he believes Jason indisputably turned pale or blue, lost consciousness and suffered virtually all the signs and symptoms listed in the Act's definition of HHE.

As an initial matter, it is well settled that in a death case, the signs and symptoms of a Table injury must be proved to have occurred prior to the agonal event itself. Petitioners must show that Jason's death was the sequela of an otherwise compensable Table injury the symptoms of which preceded the immediate dying process. *Hellebrand v. Secretary of HHS*, 999 F.2d 1565 (Fed. Cir. 1993). *Hodges v. Secretary of HHS*, 9 F.3d 958 (Fed. Cir. 1993). Obviously any death is accompanied by change in color, loss of consciousness and cardiovascular and respiratory arrest. The Act is intended to reimburse only those deaths in which it has been shown, by a preponderance, that a listed Table injury occurred and death was a sequela of that injury or condition. *Id.*

On the other hand, it has been held that there is "nothing in the Vaccine Act which precludes death from being used as evidence of a Table injury. . . ." *Jay v. Secretary of HHS*, 998 F.2d 979 (Fed. Cir. 1993). However, in the *Jay* case, the child died within 18 hours of receiving a vaccine after experiencing symptoms of over six hours of unconsolable screaming alternating with periods of crying and sleep in a limp condition. *Id.* at 980. There is no indication that the child was responsive and smiling within an hour or two of death, as Jason was here. Moreover, respondent did not present any expert evidence at hearing in *Jay*, thus leaving un rebutted petitioner's expert's testimony. Here, although no hearing was held on medical issues, respondent filed a lengthy expert report analyzing the evidence in detail.

Dr. Donlan, Jason's treating pediatrician, testified that irritability and fussiness were normal reactions to the DPT vaccine. The coroner's investigative report notes that Jason had had no recent illnesses. The VAERS report indicated Jason did not seem to have any reaction to the vaccinations he received. In fact, even Ms. Robinson and Ms. Stout testified they believed at the time Jason was having a normal reaction to the DPT. These observations are buttressed by the fact that Ms. Robinson left Jason in the care of her mother on the night of the vaccination, and in the care of a 16 year old baby sitter, whom she had never met before, on the following afternoon. Further, there is no indication Ms. Robinson was especially concerned when she left Jason with Heather Ricks on the evening of his death, nor did she give her any special instructions. She merely mentioned Jason had been fussy. Indeed, Heather also observed that Jason was fussy and seemed to want attention. Heather further reported, however, that Jason took at least some of his bottle, and was very responsive and stopped crying when she picked him up. She also reported she got him to smile.

Dr. Guggenheim stated in her report:

As best as I can reconcile the testimony of the four adults who were with Jason in the 28 hours preceding his death it appears that he was more fussy than usual, and had deviated from his usual eating/sleeping routine. The latter must be put in the context of his being moved first to his grandmother's house and then to Tracee's house during this time period. The grandmother describes "swelling" and diminished responsiveness ("couldn't get him to smile"; she "just thought he was tired"). No other observers mention any swelling and no evidence of abnormal fluid retention was found on autopsy. None of the four observers describe anything more than an irritable and fussy child who was not on his regular schedule. He was never unconscious. He continued to take feedings. None of the caretakers had concerns that caused them to seek medical help and no special concerns were voiced by the mother when she left him with the baby-sitter. Although Dr. Geier has interpreted the situation as diagnostic of HHE, the descriptions given by the four caretakers are not at all like what has been described in the medical literature about this condition.

Guggenheim Report at 3. Dr. Guggenheim described what is usually present during an HHE:

A hypotonic hyporesponsive episode (HHE) in an infant (also sometimes called shock-collapse) is a dramatic event characterized by lack of responsiveness (to the point of an unconscious state), pallor, hypotonia, and, often, fever. It usually occurs within 12 hours after an immunization. No such event is described in the mother's testimony.

Guggenheim Report at 2.

Dr. Guggenheim is a board certified pediatrician as well as a board certified pediatric neurologist. Dr. Geier is a board certified geneticist with a specialty in obstetrical genetics. Both physicians have testified before me in other cases. Although Dr. Geier is undoubtedly knowledgeable in the area of the toxins present in pertussis vaccine and in the literature written about vaccine reactions, when it comes to actually diagnosing whether a particular injury occurred, I simply credit the opinion of Dr. Guggenheim over that of Dr. Geier.

Tragically, Jason died. His death was preceded by fussiness, sleeping more than usual and eating less than usual. However, the person who was with him in the several hours before his death, Heather Ricks, described a child who responded when picked up, drank from his bottle and smiled. I find convincing Dr. Guggenheim's opinion that Jason's symptoms simply are not consistent with the symptoms of HHE. Accordingly, petitioners have not met their burden that Jason suffered a vaccine-related injury and died as a result.

Decision on written information and fact testimony.

Finally, I note here that in this case I have diverged from my usual pattern of holding an evidentiary hearing on factual issues and then, once I have determined the facts warrant it, holding a second hearing to elicit testimony from medical experts. This is an unusual case in that, while there are certain discrepancies between witnesses, the totality of the testimony, taken at face value, does not, in my view, warrant the further expenditure of court resources in holding an evidentiary hearing on medical issues. I have given the parties the opportunity to present detailed written expert reports. Indeed, because Dr. Geier did not have the benefit, when he submitted his initial report, of reading the factual affidavits of Heather Ricks, Tracee Stout, Dr. Donlan, Dr. Lindholm or Dr. McConnell, I gave petitioners an opportunity to submit a supplemental affidavit from Dr. Geier. He continued to maintain his position that Jason suffered an HHE and died as a result after reviewing the factual testimony elicited in depositions. In addition, the parties were given the opportunity to submit written closing arguments addressing the issues presented.

As Senior Judge Harkins as stated:

In the Program, a special master is not required to allow every proposed witness to testify. The statute obligates a special master to "afford all interested persons an opportunity to submit written relevant information." Section 12(d)(3)(B)(iv). The statute directs that the Vaccine Rules shall "include the opportunity for parties to submit arguments and evidence on the record without requiring routine use of oral presentations, cross-examinations, or hearings." Section 12(d)(2)(D). The Vaccine Rules accord the special master wide latitude in the receipt of evidence, governed by principles of fundamental fairness to both parties. In receiving evidence, the special master will not be bound by common law or statutory rules of evidence. The special master will consider all relevant, reliable evidence. Evidence may be taken in the form of documents, affidavits, oral testimony at a hearing in person or via telephone; or even, in appropriate circumstances, video tape. Sworn written testimony may be submitted in lieu of oral

testimony. Vaccine Rule 8(b). A case may be decided on the basis of written filings without an evidentiary hearing. Vaccine Rule 8(d).

Skinner v. Secretary of HHS, 30 Fed.Cl. 402, 409-10 (1994). *See also, Burns v. Secretary of HHS*, 3 F.3d 415 (Fed. Cir 1993); *Snyder v. Secretary of HHS*, 36 Fed.Cl. 461 (1996). In keeping, I have attempted to adhere strictly to the principles of fundamental fairness in conducting the proceedings as described. I simply feel that the medical issues in this case are so clear as not to warrant further elucidation on the record.

Indeed, the case of Jason Anderson is a tragic one, and due to the temporal association between Jason's immunization and his death, reasonable minds might conclude that there may have been some association between the vaccination and his death. However, in cases in which a death is claimed to be vaccine-related, the Vaccine Act only compensates those petitioners who are able to prove, by a preponderance, that an individual suffered a Table injury and that his or her death was a sequela of that injury. Without the underlying injury, the death is not compensable. In this case, petitioners were simply unable to prove that Jason suffered an HHE within the meaning of the Vaccine Act before he died.

IV.

FINDINGS OF FACT

1. Petitioners have not previously collected an award or settlement of a civil action in connection with Jason's death due to the administration of the DPT vaccine in question. Section 11(c)(1)(E); Petition at unnumbered p. 4
2. Jason was administered a vaccine listed in the Vaccine Injury Table. Section 11(c)(1)(B)(i)(I); P. Ex. 5 at 2.
3. Said vaccine was administered in the United States, in Spokane, Washington. Section 11(c)(1)(B)(i)(I); P. Ex. 5
4. There is not a preponderance of the evidence that Jason suffered an HHE as defined by the Vaccine Injury Table with onset within 72 hours of the administration of the DPT vaccination on August 30, 1991.

V.

CONCLUSION

Based on the foregoing, the undersigned finds, after considering the entire record in this case, that petitioners are not entitled to compensation in this case under the Vaccine Act. In the absence of a motion for review filed pursuant to RCFC Appendix J, the clerk of the court is directed to enter judgement in accordance herewith.

IT IS SO ORDERED.

Elizabeth E. Wright

Special Master

1. The National Vaccine Injury Compensation Program comprises Part 2 of the National Childhood Vaccine Injury Act of 1986, Pub. L. No. 99-660, 100 Stat. 3755 (codified as amended at 42 U.S.C.A. §§ 300aa-1 through -34 (West 1991 & Supp. 1995)). References shall be to the relevant subsection of 42 U.S.C.A. § 300aa.
2. Although the caption in this matter has never been changed, Danyelle R. Carraggio, one of the petitioners herein, now goes by the name of Danyelle Robinson.
3. *See* Petitioners' August 15, 1994, Notice of Filing (hereafter, "Ricks Dep.").
4. *See* Petitioners' January 26, 1995, Notice of Filing (hereafter "Stout Dep.").
5. *See* Petitioners' January 26, 1995, Notice of Filing (hereafter "Donlan Dep.").
6. *See* Petitioners' January 26, 1995, Notice of Filing (hereafter "Lindholm Dep.").
7. *See* Petitioners' January 26, 1995, Notice of Filing (hereafter "McConnell Dep.").
8. The evidence in the record consists primarily of exhibits submitted as part of the petition filed in this case ("P. Ex. ____"), respondent's exhibits filed in this matter ("R. Ex. ____"), plus evidence taken at the evidentiary hearing in this matter ("Tr. at ____").
9. A delivery room report indicated that the pregnancy was complicated by a previous cesarean section and an active herpes lesion. P. Ex. 4 at 1.
10. Dr. Donlan testified that he advised Ms. Robinson to give Jason some Tylenol after the vaccination because he may experience fussiness, fever and irritability from the inoculation. P. Ex. 5 at 2; Donlan Dep. at 24, 30.
11. Mrs. Meckle also thought Jason appeared to be somewhat bloated. Tr. at 15, 20, 24.
12. Ms. Stout testified that prior to leaving, she thought Jason seemed a little fussy and listless. Stout Dep. at 13, 65. According to Ms. Stout, Ms. Robinson had informed her that Jason had gotten a DPT shot, so Ms. Stout dismissed Jason's behavior as similar to how her own children had acted after receiving their shots. Stout Dep. at 13.

13. Heather testified that the water bed was firm. Ricks Dep. at 38.
14. While Heather testified she went to check on Jason the last time around 8:30 or 9:00, records indicate a call was made to LifeFleet at 8:07 p.m. P. Ex. 8 at 1.
15. Ricks Dep. at 21-23; P. Ex. 10 at 2. Ms. Robinson testified that while they were out, Ms. Stout called Heather to check on the children and Heather told her that everything was fine. Tr. at 110. According to Ms. Robinson, at about 4:30 or 5:00 p.m., Ms. Robinson telephoned Heather to again check on the children and Heather informed her that Jason had awakened and was eating. Tr. at 80. Ms. Robinson testified that Ms. Stout then called Heather again at 7:30 p.m. but the phone was busy. Tr. at 111. When Ms. Stout tried calling again at 8:00 p.m., according to Ms. Robinson, she discovered something was wrong and they immediately drove to Ms. Stout's house. Tr. at 81, 114. When they arrived, the paramedics were already there. Tr. at 115. The paramedics took Jason to the hospital and Ms. Robinson followed. Jason's father, Mark Anderson, was also at the hospital when Ms. Robinson arrived. Tr. at 90. Tr. at 117. Once at the hospital, Ms. Robinson was informed that Jason was dead. Tr. at 118.
16. Dr. Donlan is board certified in medical genetics and practices pediatric endocrinology as a subspecialty. Donlan Dep. at 9.
17. Dr. Lindholm has practiced forensic anatomic and clinical pathology since 1981 and is a board certified pathologist. Lindholm Dep. at 6-7.
18. Dr. Lindholm cited an article in the Journal of the American Medical Association indicating that studies had failed to show a causal connection between DPT immunizations and SIDS. *Id.* at 32-33.
19. Dr. McConnell was a general practitioner who was born in 1915 and was the elected county coroner at the time of Jason's death. McConnell Dep. at 4-5.
20. Dr. Geier is certified by the American Board of Medical Genetics and is a specialist in the field of obstetrical genetics. P. Ex. 15 at 1-2.
21. Dr. Geier also noted that Dr. McConnell expressed the view, in his deposition, that there was a strong possibility Jason's death was caused by the DPT vaccination in question. P. Ex. 17 at 9.
22. Dr. Guggenheim is a board certified pediatric neuro- logist. Respondent's June 20, 1996, Notice of filing, Exhibit B.
23. Petitioners must prove their case by a preponderance of the evidence, which requires that the trier of fact "believe that the existence of a fact is more probable than its nonexistence before [the special master] may find in favor of the party who has the burden to persuade the [special master] of the fact's existence." *In re Winship*, 397 U.S. 358, 372-73 (1970) (Harlan, J., concurring) *quoting* F. James, Civil Procedure 250-51 (1965). Mere conjecture or speculation will not establish a probability. *Snowbank Enter. v. United States*, 6 Cl.Ct. 476, 486 (Cl. Ct. 1984).
24. Section 14(a).
25. Section 14(a)(I)(C).
26. ²⁶ Section 13(a)(1)(B). Other prerequisites to compensation include: (1) that the vaccine was administered in the United States. Section 11(c)(1)(B)(i)(I); (2) that the petitioners did not previously

collect a judgment or settlement in a prior civil action. Section 11(c)(1)(E); and (3) that the action be brought by the injured person's legal representative. Section 11(b)(1)(A).

27. He also believes the vaccine lot from which Jason's DPT inoculation was taken was a "hot lot."