

OFFICE OF THE SPECIAL MASTERS

(No. 90-0822V)

(Filed February 24, 1998)

BARBARA WILKERSON, as natural *
mother and legal representative *
of WENDY LYNN WILKERSON, *
Petitioner, *

v. *

* PUBLISH

SECRETARY OF THE DEPARTMENT *
OF HEALTH AND HUMAN SERVICES, *
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Joseph W. Elliott, St. Joseph, Missouri, for petitioner.

Michael P. Milmo, U.S. Department of Justice, Washington, D.C., for respondent.

DECISION

Wright, Special Master.

I. Procedural Background

On August, 24, 1990, petitioner filed this action seeking an award under the National Childhood Vaccine Injury Act of 1986 ("Vaccine Act" or "the Act") for a vaccine-related injury to her child,

Wendy Wilkerson. Petitioner alleged that within 72 hours of the administration of a measles-mumps-rubella ("MMR") vaccination on December 10, 1976, Wendy suffered an encephalopathy, a residual seizure disorder, or a significant aggravation of an underlying encephalopathy.

Following an evidentiary hearing on the issue of entitlement, the undersigned issued a memorandum decision on August 31, 1993, finding petitioner entitled to compensation. The parties subsequently filed life care plans for Wendy, and evidentiary hearings were held on the issue of damages on April 7, 1995, and January 19, 1996.

II. Factual Background

Wendy Wilkerson was born on November 3, 1975. P. Ex. 3B at 1. Soon after birth, doctors noted that Wendy had various congenital abnormalities, including a smallish appearing head and "the appearance of a little old man." P. Ex. 3B at 1. In October 1976, doctors evaluated Wendy for possible developmental delay. The conclusion of the evaluators at that time was that Wendy displayed "severe developmental lag in every area" and "the prognosis for future satisfactory growth and development is quite guarded, indeed rather dismal." P. Ex. 10B at 116; Tr. at 16.

Wendy received her first MMR vaccination on December 10, 1976. Tr. at 6. Mrs. Wilkerson described Wendy prior to the vaccination as being very alert. Tr. at 10. Mrs. Wilkerson testified that Wendy could grasp objects and made purposeful movements of her hands. Tr. at 15. In addition, she was transferring objects from hand to hand. Tr. at 15. Wendy exhibited no muscle stiffness or rigidity prior to the vaccination, according to Mrs. Wilkerson. Tr. at 11. Wendy was able to assist in feeding herself, although she could not hold a spoon. Tr. at 14. She would pick up pieces of food cut for her and hold a bottle by herself. Tr. at 15. Mrs. Wilkerson testified that Wendy would smile at people she knew. Tr. at 15. She would communicate using gestures and facial expressions. Tr. at 15.

On the morning of December 16, 1976, Wendy suffered her first seizure, a grand mal type seizure lasting approximately 30 minutes. Tr. at 6-7. A second seizure occurred the same day, lasting 30 minutes to an hour. Tr. at 8.

Mrs. Wilkerson testified that Wendy never fully recovered the skills that she had prior to the seizures. Tr. at 11.

After the seizure activity, for quite some time she was almost stuporous. She could not hold up her head. She could not roll over. She was not aware of anything--environment. She was tactily defensive and continues even today. She will not hold anything in her hand for more than just a second. She requires adaptive chairs and equipment in order to sit, unable to crawl, and she's now a spastic quadriplegic.

Tr. at 11. Mrs. Wilkerson described Wendy as going through periods where she would have continuous seizures for several hours. At other times, she may not have seizures for two or three weeks. Tr. at 13. At the time of the evidentiary hearing on entitlement, Wendy was averaging between two and four seizures a month. Tr. at 13.

Currently, Wendy suffers from severe spastic quadriplegia, a result of her vaccine-related injury. She is also profoundly retarded and relies completely on others for her daily care. She is unable to walk, feed herself, or communicate. She experiences grand mal seizures on a monthly basis and takes seizure medication. She wears diapers as she is not able to toilet herself. Wendy currently lives with her parents. Mr. and Mrs. Wilkerson work both full time. Tr. at 188-89. Wendy became ineligible for public schooling after May 1997. Tr. at 190. Mrs. Wilkerson projects Wendy will go into a home sometime

between now and when she is 24 years of age. Tr. at 185-191.

III. Damages in Pre-Act Cases

Wendy's vaccine-related injury occurred prior to October 1, 1988, the effective date of the Vaccine Act. This case is, therefore, governed by special damages rules applicable to pre-Act cases. In retrospective cases, (1) the Vaccine Act provides for compensation for actual and reasonable projected unreimbursable expenses incurred from the date of the judgment forward which (1) result from the vaccine-related injury; (2) have been or will be incurred by or on behalf of the injured; (3) and (3) have been or will be reasonably necessary for diagnostic and medical or other remedial care; (4) or (4) have been or will be reasonably necessary for rehabilitation, developmental evaluation, special education, vocational training and placement, case management services, counseling, emotional or behavioral therapy, residential and custodial care and service expenses, special equipment, related travel expenses and facilities. (5)

The Vaccine Act mandates that the amount of compensation for residential and custodial care should be sufficient to enable the vaccine-injured person to remain living at home, if desired. (6) Where an injury rather than death has occurred, the Vaccine Act also permits compensation for loss of earnings, and pain and suffering. (7) Finally, the Vaccine Act prohibits compensation for other than expenses reasonably related to the health, education or welfare of the vaccine-injured person. (8)

IV. Amount of Compensation

A. Apportionment of Damages

As an initial matter, it should be noted that in passing the Vaccine Act, Congress intended to create a "compensation program under which awards can be made to vaccine-injured persons quickly, easily, and with certainty and generosity." H.R.Rep. No. 908, 99th Cong., 2d Sess. 3 (1986), *reprinted in* 1986 U.S.C.C.A.N. 6287, 6344. Providing just and generous compensation for a vaccine-related injury does not, however, obligate respondent to pay for costs that cannot *reasonably* be related to the vaccine injury.

The petitioner herein, as in any claim brought before this forum, has the obligation to prove her case, and that proof includes a preponderance of evidence on the issue of reasonable damages. These simple considerations are complicated, however, when a petitioner also suffers from a pre-existing condition. Courts have developed different methods to deal with this difficult concept.

Wendy clearly suffered a presumptively vaccine-related injury, and I have addressed that issue at length in the Memorandum Decision issued on August 31, 1993. She also unquestionably suffered from significant pre-existing developmental delay. The question of how to determine what costs associated with her future care should be allocated to her vaccine-related injury is a difficult one, necessitating a review of the Vaccine Act and Congressional intent in passing it, as well as relevant case law relating to apportionment of damages.

In *McKinnon v. Kwong Wah Restaurant*, 83 F.3d 498 (1st Cir. 1996), a sexual harassment case brought under, *inter alia*, Title VII of the Civil Rights Act of 1964, the court was faced with a situation in which the plaintiffs were suffering from emotional distress caused by "sources independent from their employment at Kwong Wah." *Id.* at 506. In weighing the evidence, the trial court found it difficult to determine how much emotional distress was inflicted upon plaintiffs by the defendant and how much emotional distress was caused by prior independent sources. *Id.* at 506-07. Nonetheless, the trial court

arrived at a compensatory damage award of \$2,500 for each plaintiff. *Id.* at 507. In affirming the district court, the First Circuit found no error in such an award. The court further commented on its interpretation of the doctrine of apportionment of damages:

With respect to emotional distress, a plaintiff must demonstrate that an ordinarily sensitive person could have suffered the alleged harm. If the plaintiff meets this burden, then the defendant must "take the victim as he finds her, extraordinarily sensitive or not." The court may find, however, that some of the plaintiffs' damages stem from a prior "injury." *See Lovely v. Allstate Ins. Co.*, 658 A.2d 1091 (D. Me. 1995). The burden is on the defendant to establish a causal relationship between the prior injury and the damages claimed by the plaintiffs. If the court finds it impossible to apportion the damages, then the defendants are liable for the entire amount.

Id. at 507 (citations omitted). In *Lovely v. Allstate Ins. Co.*, 658 A.2d 1091 (D. Me. 1995), the plaintiff sued his insurance company to recover from injuries sustained to his elbow during an automobile accident. Evidence introduced at trial revealed that the plaintiff had twice before suffered accidental injuries to the same elbow. Finding no basis for determining how to apportion damages between plaintiff's various accidents, the trial court declined to award damages for plaintiff's elbow injury. On appeal, the Supreme Court of Maine determined that where it was impossible to apportion damages due to a pre-existing condition, the defendant should be held liable for the entire amount of damages. In that case, the court applied the single injury rule⁽⁹⁾ in a circumstance where "a negligent actor, by aggravating a preexisting injury, produces an aggregate injury that is incapable of apportionment." *Id.* at 1092. The court stated, "The single injury rule places any hardship resulting from the difficulty of apportionment on the proven wrongdoer and not on the innocent plaintiff." *Id.* at 1093.

Likewise, in *Stevens v. Bangor and Aroostook Railroad Co.*, 97 F.3d 594 (1st Cir. 1996), an employee brought an action against a railroad company under the Federal Employers' Liability Act (FELA) for back injuries allegedly sustained from an accident on the job.⁽¹⁰⁾ In *Stevens*, the plaintiff apparently suffered from an undetected pre-existing degenerative disk disease prior to his work-related accident. After the accident, he was unable to continue working at his job with the railroad and could only find limited employment with his disability. The jury was instructed that if they could not "separate the pain or disability caused by the pre-existing condition from that caused by the [accident] then the defendant is liable for all of plaintiff's injuries." *Id.* at 601. The jury found for the plaintiff and awarded him a total of \$450,000.⁽¹¹⁾ *Id.* at 596. Defendant argued on appeal that the jury instruction was improper and prejudicial and warranted a reversal of the judgment. *Id.* at 601.

In affirming the lower court's decision, the First Circuit acknowledged that as a general matter, when a plaintiff's pre-existing health condition is aggravated by defendant's negligence, the defendant is liable only for the additional increment caused by the negligence. *Id.* at 601. However, the court concluded, "particularly in light of FELA's broad remedial purposes, . . . if the fact finder cannot separate injuries caused or exacerbated by the accident from those resulting from a pre-existing condition, the defendant is liable for all such injuries." *Id.* at 603. Allowing the defendant to escape such liability because the fact finder could not apportion damages between an injury caused by the defendant and a pre-existing condition would "defeat the remedial purpose of the statute." *Id.* at 602. The court cited FELA and other federal statutes such as the Fair Labor Standards Act and the Landrum-Griffin Act which incorporate the "eggshell skull" rule that the defendant must take the plaintiff as it finds him. *Id.* at n. 8. The court further looked to the purpose of FELA, which is "to eliminate a number of traditional defenses to tort liability and to facilitate recovery in meritorious cases." *Id.* (quoting *Atchison T. & S.F. R.R. v. Buell*, 480 U.S. 557, 561 (1987)).

In seeking to ascertain the policy Congress was trying to implement in adopting the statute, the *Stevens*

court also looked to the common law and the *Restatement of Torts* for guidance. The *Restatement* explains:

Where two or more causes combine to produce such a single result, incapable of division on any logical or reasonable basis . . . the courts have refused to make an arbitrary apportionment . . . and each of the causes is charged with responsibility for the entire harm.

Restatement (Second) of Torts § 433A(2) cmt.i, at 439 (1965). The *Stevens* court explained:

Thus, a defendant gets the benefit of apportionment of harm only if "there is a reasonable basis for determining the contribution of each cause to a single harm." *Id.* § 433A(1)(b), at 434. If not, the defendant is liable for the whole. According to § 433A, both the defendant's negligence and the plaintiff's pre-existing condition are deemed the cause of the entire harm, thus imposing the burden of the whole on both. *But this tie is broken by the congressional intent to implement a policy benefitting injured railway workers.*

97 F.3d at 602 (emphasis added).

I am struck by the similarity between the purposes of FELA and the Vaccine Act. In construing the Vaccine Act, several judges have relied upon the broad remedial purposes of the Act, comparable to that in FELA. For example, in *Rooks v. Secretary of HHS*, 35 Fed. Cl. 1 (1996), Judge Tidwell looked to the dual purposes of enacting the Vaccine Act -- to offer fair compensation to victims of vaccine-related injuries and to ensure the continued supply of vaccines vital to the public health -- to support his interpretation of the Act to include an unborn child within the Act's definition of a vaccine recipient. *Id.* at 5. See also, *Brice v. Secretary of HHS*, 36 Fed. Cl. 474 (1996) (similar reasoning by Judge Andewelt used to support application of the doctrine of equitable tolling to Section 16(a)(2) of the Act); *Andrews v. Secretary of HHS*, 33 Fed. Cl. 767 (1995) (Judge Tidwell cited broad remedial purposes of the Act in upholding special master's decision to award pain and suffering to vaccine-injured person who died of nonvaccine-related causes in a pre-Act case); *Raspberry v. Secretary of HHS*, 32 Fed. Cl. 777, 782 (1995) (Judge Andewelt cited "new and generous compensation system" in explaining why equitable tolling should apply to Section 12(e)(1)).

Several special masters have addressed the issue of apportionment of damages where there is an underlying pre-existing condition. They have uniformly adopted the view that where apportionment is not possible, the Program should be responsible for the entire amount of damages.⁽¹²⁾ I can think of no better place for the application of Congress' altruistic goals in creating such a compensation program as in a case such as this, where an underlying condition is significantly aggravated by a vaccine covered under the Act. Certainly, trying to decide the level of skills Wendy would have attained absent her vaccine-related injury involves a substantial degree of prognostication. Because of the uncertainty inherent in such speculation, and in order to advance Congress' goals in creating this compensation system, for items of compensation where no reasonable apportionment can be made in this case, I will apply the rule established in the cases discussed, *supra*, that the respondent takes the petitioner as she finds her and must pay for the entire cost of the item.

B. Level of function before and after vaccination

Dr. Marcel Kinsbourne, a pediatric neurologist, testified for petitioner at two hearings in this matter. During the first hearing, Dr. Kinsbourne testified that Wendy's development since the first seizure "hasn't really budged" since her vaccine-related injury. Tr. at 104. He testified that without the vaccination, although she may have been severely retarded, she would have been able to walk, hold

things and play with them, interact with the environment and likely feed herself. Tr. at 100-01. After her vaccine-related injury, however, Wendy developed a severe level of spasticity, making it likely she will develop contractures in various joints and probably require orthopedic surgery. Further, she has a severe seizure disorder requiring constant supervision. *Id.* Dr. Kinsbourne initially testified that Wendy's level of medical care would have to be increased because of the vaccine reaction, although "the level of attendant care might be about the same if medical care is close at hand." Tr. at 112.

Dr. Kinsbourne believes Wendy cannot currently walk because of her severe spastic quadriplegia, which was caused by the vaccination in question. Tr. at 104. Dr. Kinsbourne testified that because Wendy had diminished tone even before the vaccination, she may have exhibited some level of spasticity in the absence of a vaccine reaction. However, he believes the *severe* level of her spastic quadriplegia is due to the vaccination and that Wendy would have been capable of walking and grasping objects absent the vaccination. Tr. at 108-09. He testified that there was not a gradual emergence of spastic quadriparesis. Rather, its onset was sudden. Tr. at 93.

Dr. Philip Guess, a professor of special education at the University of Kansas, testified for petitioner in this matter during the second damages hearing.⁽¹³⁾ Tr. at 279. He has extensive experience in special education and clinical psychology. Tr. at 279-82. Dr. Guess testified that Wendy currently has profound mental retardation. Tr. at 311. After reviewing the medical records in this matter and speaking with Mrs. Wilkerson and some of Wendy's care providers, he testified to a reasonable degree of medical certainty that Wendy would have been operating somewhere in the moderate range of mental retardation in the absence of any vaccine injury.⁽¹⁴⁾ Tr. at 282-85. Dr. Guess testified Wendy was showing improvement in her developmental skills prior to the inoculation and that all progress halted thereafter. Tr. at 285-87. He believes that Wendy most definitely would have progressed developmentally absent the vaccination.⁽¹⁵⁾ Tr. at 287. Dr. Guess asserted that absent her vaccine-related injury, Wendy could have lived independently in a group home with a ratio of four or six residents to one care giver. Further, he believes Wendy would not have required 24-hour supervision as she now does. Tr. at 296. He testified that even severely retarded individuals can work, based on current research, although that option is foreclosed to Wendy based on her vaccine-related injury. Tr. at 428-29.

During the third phase of the evidentiary proceedings held in this matter, Dr. Kinsbourne clarified his earlier position regarding Wendy's projected level of functioning absent a vaccine-related injury.⁽¹⁶⁾ He believes that Wendy would have been on the borderline of moderately to severely mentally retarded without the vaccination injury. Tr. at 329. However, he would have expected Wendy to continue to progress. Tr. at 331. He believes Wendy would have been capable of achieving "some basic self care skills and limited vocational skills to allow the semi-independent living such as a group home as was described by Dr. Guess." Tr. at 334. He further qualified that even though Wendy would have needed some attendant care absent the vaccination, a person who can walk and engage in self care skills "isn't going to need the same amount of attendant care as a person who is totally dependent and can't do a single thing for herself." Tr. at 364.

Dr. Kinsbourne testified that much of Wendy's problems arise from her debilitating quadriplegia. He testified her limited mobility has severely impeded her ability to progress developmentally. Tr. at 342. According to Dr. Kinsbourne, one cannot tell how much the vaccination affected Wendy's mental ability. "[I]t's hard to know to what extent the mental retardation itself was . . . aggravated and to what extent it might not have been but the fact that she can't move her limbs drags her down to a lower functional level anyway." Tr. at 362. Because Wendy simply cannot move her limbs so as to convey her desires, she is a totally dependent person. *Id.*

Dr. Samuel Horwitz, a pediatric neurologist, testified on behalf of respondent.⁽¹⁷⁾ He views the process

of trying to assess the ultimate outcome of an individual from a projection in the first year of life as a "very rough" measure that is "fraught with danger." Tr. at 369. He added that the evaluation of an infant Wendy's age is not an exact science, and in Wendy's case, the indicators were inconsistent in many respects. Tr. at 386. He agrees her development stopped and regressed after the vaccination in question. Tr. at 387.

Dr. Horwitz testified Wendy was born with an underlying static encephalopathy. Tr. at 47. Dr. Horwitz testified that spastic quadriplegia, from which Wendy currently suffers, is often seen in such persons. Tr. at 44. However, Dr. Horwitz admitted there is no way to pinpoint to what degree Wendy would have developed spastic quadriplegia absent the prolonged seizures she suffered following the vaccination in question. Tr. at 81-82. Although he could not say with certainty one way or the other, Dr. Horwitz conceded Wendy's severe post-vaccinal seizures may have caused further damage to Wendy's brain because her motor skills and ability to interact were lost after the seizures. Tr. at 43-47.

In terms of Wendy's level of retardation prior to the vaccine reaction, Dr. Horwitz testified that Wendy was probably moderately to severely retarded. Tr. at 373-74. However, although she would have required adult supervision, he believes Wendy could have been placed in a group home with a ratio of one care giver to six residents. Tr. at 374, 389. "[H]er education would [have been] mainly for training for self care; things such as feeding, dressing, taking care of her personal hygiene and trying to get the communication that she could make her needs met rather than an academic education." Tr. at 375. Dr. Horwitz believes she would have been capable of attaining "some employment or achievements in a sheltered workshop." Tr. at 376.

After considering the entire record on this issue, and recognizing that speculating as to Wendy's expected condition absent a vaccine-related injury is, as Dr. Horwitz put it, "fraught with danger," I issued the following bench ruling on the matter:

[A]bsent the vaccine related injury, Wendy Wilkerson would probably, more likely than not, have been moderately to severely mentally retarded, would have required a living situation consisting of a group home with approximately six individuals and one adult supervisor at all times and would, more likely than not, have been able to participate in supported employment.

Tr. at 431. Prior to the vaccination in question, Wendy's treating physicians clearly noted that she exhibited developmental lags. However, she continued to make gradual developmental progress until her vaccination and subsequent seizures. At that point in time, her development stopped and even regressed. Absent that insult, the evidence suggests Wendy's development would have continued on a gradual upward curve, albeit stopping well short of normal mental functioning.

As to the question of the degree to which Wendy may have developed spastic quadriplegia absent the vaccination in question, both Dr. Kinsbourne and Dr. Horwitz testified that Wendy may have developed some spasticity in light of her hypotonia and mental retardation. However, even Dr. Horwitz was unwilling to state to a reasonable degree of medical certainty that Wendy's spasticity would be as severe today as it otherwise would have been absent the prolonged seizures Wendy suffered following her inoculation, which could have injured her brain further. After considering the entire record, I am convinced that the severity of Wendy's spasticity is due to her vaccine-related injury. Accordingly, I find all costs associated with Wendy's spastic quadriplegia should reasonably be borne by the Program.

C. The Life Care Plans

Petitioner filed a life care plan in this matter on December 19, 1994. P. Ex. 26. She subsequently filed

three revised plans, the latest having been filed on June 30, 1995. P. Ex. 35. Petitioner's life care planner, Ms. Sheryl Bunce,⁽¹⁸⁾ testified she prepared the life care plan based on conversations with Mrs. Wilkerson, her review of available medical records and consultation with Wendy's health care and social providers. In addition, Ms. Bunce spoke with Wendy's teachers and observed Wendy at her school. Tr. at 138-39. Respondent filed a responsive plan on March 16, 1995, prepared by Ms. Linda Cosby.⁽¹⁹⁾ Respondent's filing of March 16, 1995. Respondent subsequently filed additional information regarding life care issues and offsets. Petitioner also presented the testimony Dr. Guess. Respondent presented the testimony of Dr. Horwitz. Their testimony, where relevant, is summarized below.

D. Elements of Compensation

1. Uncontested Items

As to certain items of damages, the parties reached agreement as to the reasonable cost and necessity of the request. I find that the costs agreed upon are reasonable.

(a) *Medical Care*

(1) Neurologist

The parties agreed that Wendy would need to see the neurologist twice a year during her lifetime at an annual cost of \$104.00. Tr. at 139, 141, 143.

(2) Orthopedist

The parties agreed that Wendy will require two annual visits to the orthopedist at a cost of \$104.00 per year. Tr. at 432-33.

(b) *Medications*

(1) Mebaral

The parties agreed to an annualized lifetime cost of \$202.00 per year for life for Mebaral. Tr. at 142.

(2) Dilantin

The parties agreed to an annualized cost of \$276.00 per year for the purchase of Dilantin throughout Wendy's lifetime. Tr. at 142-43.

(c) *Lab & Diagnostic Tests*

(1) Phenobarbital & Dilantin levels

The parties agreed the annualized lifetime cost for blood work to assess Wendy's Phenobarbital levels would be \$139.00 per year. Tr. at 149. In addition, the parties agreed to the same amount for yearly testing of Wendy's Dilantin blood levels. Tr. at 149. The total annualized cost for blood level testing will be \$278.00.

(2) Electroencephalographs

The parties agreed to a cost of \$188.00 per year for Wendy's lifetime, representing the cost of one EEG per year. Tr. at 472; *see also* Tr. at 414-16 (testimony of Dr. Kinsbourne and Mrs. Wilkerson on the subject).

(3) X-ray of hips and spine

The parties agreed to a cost of \$49.00 per year for hip X-rays and \$69.00 for spine X-rays for a total cost of \$118.00 per year for X-rays throughout Wendy's life. Tr. at 473-74.

(4) CBC and Chem profile

The parties agreed to an annualized cost of \$77.00 per year for CBC and chemical profiles. Tr. at 472-73.

(d) *Corrective Devices*

(1) Long Leg Braces

Mrs. Wilkerson testified Wendy currently uses long leg braces and will continue to use the braces during her lifetime. Tr. at 181. The cost of the braces is \$2,500.00. P. Ex. 35 at 3. The parties agreed to a replacement period of 10 years, even though respondent's life care planner, Ms. Cosby, testified that the braces are ordinarily replaced every three years. Tr. at 476-77. There is no testimony in the record as to when Wendy's last set of braces was purchased. Accordingly, I will award \$2,500.00 now and then an annualized amount of \$250.00 beginning in the second year of the award for the remainder of Wendy's life.

(e) *Equipment*

(1) Lap Tray

Petitioner requested \$23.50 for the purchase of a lap tray. I find this amount is reasonable and will be included in the first year's lump sum payment. P. Ex. 35 at 7. The parties have agreed to an annualized cost of \$5.00 for replacement of the tray, assuming a replacement period of five years. Tr. at 164, 492; P. Ex. 35 at unnumbered p. 11. Thus, \$5.00 per year will be awarded beginning the second year of the award.

(2) Wheelchair Bag

Petitioner has requested \$40.00 for the purchase of a wheelchair bag. P. Ex. 35 at 7. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties have agreed to an annualized cost of \$8.00 for replacement of the wheelchair bag. Tr. at 164, 492. Thus, \$8.00 per year will be awarded annually beginning the second year of the award.

(3) Wheelchair cushion

Petitioner has requested \$250.00 for the purchase of a wheelchair cushion. P. Ex. 35 at 7. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties agreed to an annualized cost of \$83.33 for replacement of the wheelchair cushion, based on a replacement period

of three years. Tr. at 491-92. Thus, \$83.33 will be awarded annually beginning the second year of the award.

(4) Portable Ramp

Petitioner has requested \$160.00 for the purchase of a portable ramp, to be replaced every 10 years. P. Ex. 35 at 7. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties agreed to an annualized cost of \$28.00 for replacement of the portable ramp. Tr. at 164, 492. Thus, \$28.00 will be awarded annually beginning the second year of the award.

(5) Gait Trainer

Petitioner has requested \$700.00 for the purchase of a gait trainer. P. Ex. 35 at 7. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties agreed to an annualized cost of \$125.00 per year for the replacement of the gait trainer. Tr. at 166-67, 492. Thus, \$125.00 per year will be awarded annually beginning the second year of the award.

(6) Grasshopper

Petitioner has requested \$1,089.00 for the purchase of a grasshopper, an alternative seating and positioning device that Wendy uses at school but does not have at home. Tr. at 167-68, 178. P. Ex. 35 at 7. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties agreed to an annualized cost of \$100.00 for replacement of the grasshopper. Tr. at 170-72, 492. Thus, \$100.00 will be awarded annually beginning the second year of the award.

(7) Therapy Bolsters/stands

Petitioner has requested \$219.00 for the purchase of therapy bolsters and stands. P. Ex. 35 at 7. Mrs. Wilkerson testified that Wendy is currently using these items at school but does not have them at home. Tr. at 178, 182. I find this amount is reasonable and it will be included in the first year's lump sum payment. The parties agreed on an annualized cost of \$46.00, based on a replacement period of five years. Tr. at 173, 494. Thus, \$46.00 will be awarded annually beginning the second year of the award.

(8) Therapeutic Balls

Petitioner has requested \$96.00 for the purchase of therapeutic balls. P. Ex. 35 at 7. Wendy currently uses therapeutic balls in her therapy but they are available to her only in school. Tr. at 173-74, 179, 182. I find this amount is reasonable and will be included in the first year's lump sum payment. The parties agreed to an annualized cost of \$19.00 for replacement of the balls, representing a replacement period of five years. Tr. at 499-500. Thus, \$19.00 will be awarded annually beginning the second year of the award.

(9) Reclining bath seat

Petitioner has requested \$315 for the purchase of a reclining bath seat. P. Ex. 35 at 7. I find this amount is reasonable and will be included in the first year's lump sum payment. The parties agreed to a \$96.00 annualized cost for replacement of the bath seat. Tr. at 495, 502. Thus, \$96.00 will be awarded annually beginning the second year of the award.

(10) Chair Swing

Petitioner has requested \$785.00 for the purchase of a chair swing. P. Ex. 35 at 7. Respondent stipulated to this request. Tr. at 500. I find this amount is reasonable and it will be included in the first year's lump sum payment. An annualized cost of \$157.00 for replacement of the swing will be awarded based on a replacement period of five years. Thus, \$157.00 will be awarded annually beginning the second year of the award.

(11) Exercise Mats

Petitioner has requested \$160.00 for the purchase of exercise mats. P. Ex. 35 at 7. Respondent stipulated to this request. Tr. at 500. Accordingly, \$160.00 will be included in the first year's lump sum payment. An annualized cost of \$16.00 per year will be awarded beginning the second year of the award, based on a replacement period of 10 years.

(12) Airflow Mattress

The parties agreed to a one-time cost of \$200.00 for an airflow mattress. Tr. at 494-95. This will be included in the first year's lump sum payment.

(13) Pad & Pump

Petitioner requested \$35.00 for the purchase of a pad, to be replaced annually, and \$170.00 for the purchase of a pump, to be replaced every five years. P. Ex. 35 at 7. Respondent stipulated to these costs. Tr. at 501-02. Accordingly, \$205.00 will be included in the first year's lump sum payment. Beginning in the second year of the award, annual amounts of \$35.00 and \$34.00 will be included for replacement of the pad and pump.

(f) *Communication Aids*

(1) Vois 160 Hearing Aid & Service Contract

Petitioner requested \$3,595.00 for the purchase of a Vois 160 hearing aid. P. Ex. 35 at 8. The parties agreed to the need and cost of the hearing aid. Tr. at 205-06. Accordingly, I will include \$3,595.00 in the first year's lump sum payment and an annual amount of \$360.00 thereafter, based on a replacement period of 10 years. Tr. at 502. In addition, the parties agreed to the cost of a service contract for the hearing aid of \$195.00 per year. Tr. at 206, 502. Accordingly, \$195.00 will be awarded annually throughout Wendy's life.

(g) *Recreational Needs*

(1) Games, Toys & Timer Switch

The parties agreed to the cost of certain games and toys to be purchased for Wendy's benefit, along with a timer switch so that she can use them. Tr. at 505-06. Accordingly, an annual amount of \$160.00 will be awarded for games and toys. Additionally, an initial amount of \$75.00 will be awarded for the purchase of a timer switch. Thereafter, an annualized amount of \$38.00, beginning in the second year of the award, will be awarded for the replacement of the timer switch. Tr. at 217, 219-20, 505-06.

2. Contested Items

(a) *Medications*

(1) Claritin

Petitioner requested an annual amount of \$510.00 for Claritin, an antihistamine, to control Wendy's allergies. This item is necessary, according to petitioner, because Wendy weighs very little, and weight loss from allergies puts her in grave danger. Tr. at 143-44. Also, petitioner is concerned about nasal drainage causing sickness and vomiting. Tr. at 144-45. Dr. Kinsbourne testified Wendy's fragile condition due to her vaccine-related injury places her at greater risk for her allergy-related problems. Tr. at 418. Respondent argues that since the allergies were not caused by the vaccine injury, compensation cannot be awarded for medication to control them. Tr. at 146-47.

I find an award of Claritin appropriate under the circumstances. At the time of the hearing, Wendy weighed only 45 to 50 pounds. Absent the vaccine reaction, Wendy likely would not have such problems with maintaining her weight and her allergies would not likely place her in such a precarious position. Petitioner's request for Claritin is hereby awarded. Tr. at 471. An annual amount of \$510.00 for Claritin will be included in the award.

(b) *Corrective Devices*

(1) Scoliosis Brace

Petitioner requests a one-time purchase of a scoliosis brace at a cost of \$1,500.00. P. Ex. 35 at 3; Tr. at 474-75. According to Ms. Bunce, petitioner's life care planner, Wendy has scoliosis, and the brace would be used either before or after surgery to maintain posture. Tr. at 157-58.

Dr. Horwitz, respondent's expert, believes that Wendy may just as likely have developed scoliosis absent a vaccine reaction. Tr. at 377-78. Dr. Horwitz believes that scoliosis is more often caused by hypotonia than spasticity. Tr. at 378. He testified it would be entirely speculative to try and figure out whether Wendy would have had scoliosis absent the vaccination in question. Tr. at 379.

Dr. Kinsbourne testified that Wendy did not have scoliosis before her immunization. Tr. at 338. He explained:

Scoliosis, which is a twisting of the spine, occurs when the muscles pulling the spine in one direction are stronger than the muscles pulling the spine in the opposite direction. And, that is something that isn't really the case in generalized hypotonia, where the muscles are weak in all directions. However, when an individual is spastic, . . . the spasticity is more severe on one side than the other.

Id. He believes Wendy's spasticity is greater on her left side, indicating her scoliosis is "specifically attributable to her spasticity." *Id.*

Based on the testimony, I found on the record during the last hearing that Wendy more likely than not would not have developed scoliosis absent the vaccine-related injury. ⁽²⁰⁾ Tr. at 476-77. Accordingly, petitioner shall receive a one-time award of \$1,500.00, to be included in the first year's lump sum payment.

(2) Tennis Shoes

Petitioner seeks an award of \$40.00 per year for high-topped tennis shoes because Wendy needs them for additional ankle support when she is placed in a standing frame. P. Ex. 35 at 3; Tr. at 158. Ms. Cosby testified that she believes that Wendy's hypotonia or spasticity could have given rise to the need for

tennis shoes. Tr. at 476. Therefore, she would object to the item. However, Ms. Cosby agreed with petitioner's cost projection. Tr. at 477. I find it is entirely speculative to determine whether Wendy's hypotonia would have given rise to the need for the high-topped tennis shoes absent her vaccine-related injury. Because no apportionment can reasonably be made for this item, petitioner shall receive the \$40.00 per year for tennis shoes.

(c) *Supplies*

(1) Diapers & Other Supplies

Petitioner seeks an annual amount of \$1,314.00 for the cost of diapers and other supplies necessary because Wendy has not been toilet trained due to her spastic quadriplegia and resulting immobility. (21) P. Ex. 35 at 4; Tr. at 159. Ms. Bunce believes Wendy would have likely been toilet trained in the absence of a vaccine injury. Tr. at 160-61.

Ms. Cosby, on the other hand, believes Wendy would have required diapers even absent her vaccine injury because of her pre-existing mental retardation. Tr. at 159. Dr. Kinsbourne believes Wendy would have been capable of toilet training in the absence of a vaccine injury. Tr. at 401. Dr. Horwitz testified that while the majority of mentally retarded individuals are toilet trained, he could not say with certainty whether Wendy would have been capable of toilet training absent her vaccine-related injury.

Based on the above, I find the evidence preponderates in favor of finding that Wendy would have been toilet trained absent her vaccine-related injury. Accordingly an annual amount of \$1,314.00 will be awarded for diapers and incontinence supplies.

(d) *Equipment*

(1) Manual Wheelchair

Petitioner has requested \$4,200.00 for the purchase of a manual wheelchair, to be replaced every three years for life. P. Ex. 35 at 7. Respondent agreed to Wendy's need for a manual wheelchair as well as the unit cost and replacement frequency. Tr. at 161, 489. However, Ms. Cosby argued Wendy may have needed wheelchair transport absent her vaccine related injury. Tr. at 489. I found on the record that there was insufficient evidence to support a finding that Wendy would have needed a wheelchair absent her vaccine-related injury. Tr. at 489. Therefore, petitioner is entitled to an award for this item.

Respondent testified that if a scoliosis brace were awarded, the cost of the wheelchair would decrease because it would not include seating material. Although she did not have an exact price, Ms. Cosby testified the cost would be closer to \$3,200.00 than the \$4,200.00 requested by petitioner. Tr. at 161-62. Ms. Bunce testified that the current cost of a wheelchair is actually closer to \$5,000.00. Tr. at 161. Because of the lack of clarity regarding the cost of a wheelchair with or without seating as well as the uncertainty as to whether Wendy will be using her scoliosis brace at all times, I find it reasonable to use petitioner's figure of \$4,200.00 for the purchase of a wheelchair. Accordingly, petitioner shall receive \$4,200.00 in year one of the award for the cost of a manual wheelchair. The cost will then be annualized at \$1,400.00, based on a replacement period of three years, beginning in the second year of the award and continuing through Wendy's life.

(2) Wheelchair Maintenance

Petitioner requests an amount of \$100.00 annually for wheel-chair maintenance beginning in the second

year of the award. P. Ex. 35 at 7; Tr. at 162. Ms. Bunce based the cost on information supplied by the manufacturer of the wheelchair. Tr. at 490. I find this cost reasonable. Accordingly, an annual amount of \$100.00 will be included beginning in year two of the award.

(3) Hoyer lift

The parties agreed that a Hoyer lift would be necessary for Wendy, but initially differed on the replacement schedule. P. Ex. 35 at 7; Tr. at 164. Petitioner ultimately accepted a one-time purchase of a Hoyer lift. Tr. at 499. Petitioner's life care plan assumes a purchase price of \$1,200.00 and indicates the source of the projected cost was obtained from the Hoyer company. P. Ex. 35 at 7. Respondent's plan uses a cost of \$1,085.00 but does not indicate the source for the cost. Respondent's life care plan, filed March 16, 1995. No testimony was elicited on the cost difference. I will award \$1,200.00 for the one-time purchase of a Hoyer lift.

(4) Prone Stander

Petitioner requests an amount of \$1,030.00 for the purchase of a prone stander with a replacement interval of five years throughout Wendy's life. The source of the cost was obtained from the Rifton company. P. Ex. 35 at 7. Respondent accepts the unit cost proposed by petitioner but Ms. Cosby testified the item should be provided by a residential facility, should Wendy be placed in a residential facility rather than in a community-based living situation. Tr. at 499, 165. Because Wendy will live in a community-based home rather than a private facility, I will award \$1,030.00 now as part of the first year's lump sum. Beginning in year two of the award, an amount of \$206.00 will be provided, based on a replacement period of five years.

(5) Electric Bed

Petitioner requests an amount of \$1,400.00 for an electric bed, to be replaced every five years. P. Ex. 35 at 7. Mrs. Wilkerson testified that Wendy currently has only a manually-adjustable bed. Tr. at 180. Ms. Bunce hopes that Wendy will eventually be able to assist in the operation of her own bed. Tr. at 198, 200.

Ms. Cosby recommends a semi-electric bed with a cost of \$1,178.75, plus an additional \$150.00 for the mattress and \$150.00 for full side rails. Tr. at 199. Ms. Cosby suggested this alternative because she believes Wendy will not be capable of operating the controls, and she may actually harm herself in trying to operate the bed. Tr. at 199.

I find that the Wilkersons will need this item in the home even after Wendy moves to a community-based independent supported living facility during Wendy's visits home. Tr. at 501. Further, I find it reasonable to provide funds for an electric rather than a semi-electric, bed in the hopes that one of the goals for Wendy would be to assist in the operation of her bed. Therefore, petitioner shall receive an up-front award of \$1,400.00 for the purchase of an electric bed. Beginning in the second year of the award, petitioner will receive an annualized amount of \$280.00, representing a replacement period of five years.

(e) *Communication Aids*

(1) Personal Computer & Unicorn Package

Currently, Wendy's communication is limited to facial gestures. Tr. at 208. Ms. Bunce testified that, "[H]er physical limitations prevent her from utilizing a lot of communications that other children may be able to use." Tr. at 209. Wendy has access to a computer at school, equipped with a Unicorn package. Tr. at 206. According to Ms. Bunce, Wendy's use of the computer is geared towards teaching her how to communicate, giving her a means of exerting some control over her life. Tr. at 207.

Petitioner requests an amount of \$1,200.00 for the purchase of a computer and an annualized amount of \$240.00 thereafter, representing a replacement period of five years. Petitioner also requests a Unicorn package with a purchase price of \$660.00 and an annualized amount of \$220.00 for replacement of the package every three years. Ms. Cosby believes that Wendy's communication problems arise from her mental retardation and not her quadriplegia. Tr. at 209-10. Ms. Bunce testified that Wendy's inability to communicate results from her spastic quadriplegia and not her mental retardation. Tr. at 208.

It is certainly the case that many mentally retarded individuals can communicate effectively. Because it cannot be said with certainty what level of communication Wendy would have achieved absent her vaccine-related injury, it is reasonable to award funds for a communication device, based on the doctrine of apportionment of damages. Therefore, the request will be allowed.

Respondent suggests that Wendy could communicate with something less expensive than a \$1,200 computer, because of her limited mental abilities. Ms. Cosby suggests the use of a more primitive device, a portable augmentative communication device. Tr. at 212-14. Ms. Bunce sees the computer as more valuable than just as a communication device. She sees it as also having recreational value, improving Wendy's coordination, and providing Wendy with her only means of effectively interacting with her environment. Tr. at 214, 504-05.

I find Ms. Bunce's argument compelling and petitioner's request reasonable. Petitioner shall receive \$1,200.00 in the initial lump sum and then, beginning in the second year of the award, an annualized amount of \$240.00. In addition, I find reasonable the request for the Unicorn Package at a unit cost of \$660.00, to be awarded with the initial lump sum, and an annualized cost thereafter of \$220.00, based on a replacement period of three years.

(f) *Transportation Needs*

(1) Wheelchair Van & Maintenance Contract

Petitioner requests \$21,000.00 for the purchase of a wheelchair van with a replacement period of six years. P. Ex. 35 at 8; Tr. at 506. Petitioner also requests an annual amount of \$100.00 for a maintenance contract for the van. Mrs. Wilkerson testified that she currently transports Wendy in the family car, which is not wheelchair equipped. Tr. at 188. In addition, Mrs. Wilkerson has to lift Wendy to put her in the wheelchair. Tr. at 188.

I find petitioner's request reasonable. Petitioner shall receive the purchase price of a new van, \$21,000.00. However, because Wendy will no longer be living at home within the next year or two, replacement of the van should not be necessary at the frequency petitioner requests. I find that 10 years is a reasonable replacement frequency throughout Wendy's life (assuming living in a community-based situation). Accordingly, beginning in the second year of the award, petitioner shall receive an annual amount of \$210.00. In addition, petitioner shall receive an annual amount of \$100.00, beginning in the first year of the award, for a maintenance contract for the van.

(g) Alternative Living Arrangements

The question of costs for Wendy's future living arrangements provides perhaps the thorniest issue in this case because it involves an apportionment of damages between Wendy's pre-vaccination condition and her current condition. As noted above, during the evidentiary proceedings in this matter, I concluded, after hearing the evidence about what condition Wendy would currently be in absent her vaccine-related injury, that Wendy would likely have been moderately to severely retarded and would likely have required a living situation consisting of a group home with approximately six individuals and one supervisor. Tr. at 431. By order dated January 23, 1996, I asked the parties to file documentation comparing the cost of a group home as just described, which would have accommodated Wendy absent her vaccine-related injury, to the cost of a residential facility that would accommodate Wendy in her current condition. Order of January 23, 1996, at ¶ 1(a)-(b).

Petitioner has proposed two alternative living arrangements for Wendy. P. Ex. 35 at 1; Tr. at 445-456; P. Ex. 38. One, called "Natural Supported Living" ("NSL"), would involve allowing Wendy to remain at home with her parents and bringing staff in to the home to support her throughout the week and on weekends. The annual cost of this option, excluding day programming, is \$53,827.00 P. Ex. 38 at 2. Option two, called "Independent Supported Living" ("ISL") would involve placing Wendy in an apartment with one other impaired individual with round-the-clock staffing. *Id.* Costs would be evenly divided between the two residents. Wendy's share would cost \$72,483.00 annually, exclusive of day programming. *Id.* Day programming, for both options, would cost \$23,474.00 per year. P. Ex. 35 at 1; Tr. at 445-446.

Petitioner filed the affidavit of Amy Bradshaw Vasquez, Executive Director of Progressive Community Services in St. Joseph, Missouri. P. Ex. 38 at 1. Ms. Vasquez has worked closely with the Wilkersons and is personally acquainted with Wendy's condition and needs because her agency has provided the Wilkersons with attendant and respite services. *Id.* Ms. Vasquez feels strongly that Wendy should not be placed in a group home or residential treatment facility. She states:

It is my understanding that an option of congregate, or group, care has been discussed for Wendy, and I must caution against this. This type of arrangement is being used less and less for persons with developmental delays, due to the fact that it is difficult if not impossible for the staff to give each patient the care needed to meet their constant needs. The stressful work environment created by this type of situation has made retaining qualified staff impossible. Without trained, consistent staff, the quality of care is compromised, and patients are at enormous risk for abuse and neglect. This risk is increased when the environment supports persons like Wendy, who have limited abilities to communicate and are medically fragile. I recommend a home-based, individualized, supported living arrangement for Wendy.

P. Ex. 38 at 102. Ms. Vasquez suggests that for the first few years of the award, Wendy be provided funds to stay in the family home and allow care providers to come into the home to provide the necessary level of care (option 1). *Id.* Thereafter, Ms. Vasquez suggests Wendy be placed in a fully independent supported living arrangement (option 2). P. Ex. 38 at 2.

Ms. Bunce, petitioner's life care planner, states that the cost of a group home in petitioner's area with a ratio of one supervisor to six residents with moderate to severe mental retardation and no severe physical handicaps (Wendy's pre-vaccine requirement) is \$21,240 per year. P. Ex. 39 at 2. Respondent submitted a letter from Ms. Vasquez describing two women with moderate mental retardation and no ambulation or speech problems who are currently supported in an ISL situation at a cost of \$23,331. (22) R. Ex. E. Ms. Cosby submitted figures of \$82,454.40 and \$99,979.68 as annual costs of providing an ISL living arrangement to Wendy in her pre- and post-vaccine condition, respectively. R. Ex. A at unnumbered p.

2, ¶ 9; R Ex. D.

Ms. Cosby spoke with Mr. Jeff Conkle, a Missouri state employee who administers residential programming in the region in which the Wilkersons reside. He believes Wendy would have been eligible for Type II residential placement through the state absent her vaccine-related injury, at a cost of \$21,170.00.⁽²³⁾ R. Ex. A at unnumbered p. 2, ¶ 6. Considering Wendy's post-vaccination condition, Ms. Cosby relates that Mr. Conkle believes Wendy would require Type III residential placement, at a cost of \$27,856.80. *Id.*

During the last damages hearing, respondent proposed that Wendy should be placed at the Harry S. Truman Center, located 45 minutes to an hour and a half from where the Wilkersons currently reside. Tr. at 450-454. This residential placement, according to Ms. Cosby, would cost \$44,796.45 per year, exclusive of day programming costs, which would cost \$10,641.96 annually. Tr. at 451. Ms. Cosby stated the cost of the Truman Center would be the same whether Wendy suffered from a vaccine injury or not. Tr. at 451-52; R. Ex. A at unnumbered p. 3, ¶ 12.

Respondent objected to petitioner's use of the cost of a group home as a pre-injury expense and then the more expensive ISL in their post-injury cost analysis, suggesting that petitioner has compared "apples to oranges." Tr. at 532. Ms. Cosby states that ISLs are always more costly because they are tailored to the individual needs of the disabled person and also require overhead costs that would otherwise not be necessary in a group home or other residential placement. R. Ex. A at unnumbered p. 2, ¶ 8. Respondent suggests that *two group homes* or *two residential facilities* must be compared to arrive at a reasonable cost analysis. *Id.* I disagree. Indeed, although I did require the parties to submit documentation regarding the cost of a group home that would have accommodated Wendy absent her vaccine-related injury and the cost of a residential facility that would accommodate Wendy in her post-vaccination condition, the fact that the petitioner has proposed other alternatives does not mean that I must be rigid in my consideration of an appropriate placement for Wendy.

The important point to keep in mind is that the MMR vaccine Wendy received on December 10, 1976, is what caused her *current condition*. Given the broad remedial purpose of the Vaccine Act and expressed Congressional intent to provide awards with "generosity," I conclude that the doctrine of apportionment does not require that the least costly alternative must be provided where an underlying injury is significantly aggravated to produce a much more severe and potentially life-threatening condition.

I find particularly persuasive Ms. Vasquez's urging that Wendy be provided funds for an individualized supported living arrangement because persons with Wendy's level of physical and mental impairments, plus her inability to communicate, are at greatly increased risk for abuse and neglect in a congregate living situation. While a supported living arrangement would indeed cost substantially more than a group home, it would provide more personalized care to Wendy, something I believe she needs based on the nature of her *current injury*. These extra costs, I conclude, should reasonably be borne by the Program. Accordingly, for years one through three of the award, \$32,587.00 will be awarded to petitioner for a natural supported living arrangement.⁽²⁴⁾ Thereafter, for the remainder of Wendy's life, an annual amount of \$51,243.00, will be awarded.⁽²⁵⁾

Absent the vaccine injury, Wendy would have participated in a sheltered workshop provided free by the state. Tr. at 448. If petitioner accepts this award she will not be eligible for this program because of a means test. Tr. at 449. Therefore, the award for day programming will not be reduced. Accordingly, an annual amount for day programming at the rate petitioner requested, \$23,474.00, will be awarded to begin now and continue through Wendy's life.

(h) *Nursing Care*

(1) Respite/Nursing care

Petitioner seeks various costs of nursing and respite care for Wendy. This request is now moot because I have awarded funds for the immediate institution of in-home care through a natural supported living program.

(i) *Therapy*

Wendy's school provided her with physical therapy, speech therapy, occupational therapy, and adaptive PE classes. Tr. at 193. With this therapy, Mrs. Wilkerson says that she saw slow but definite progress in Wendy. Tr. at 196. Wendy became ineligible for further services through the school in May 1997. Tr. at 461-46. Petitioner has requested that Wendy be provided funds to continue the various therapies. I will address each of these therapies separately.

(1) Speech Therapy

At school, Wendy received four speech therapy sessions each week. Tr. at 460. This therapy helped Wendy with oral muscle control and learning alternative methods of communication. Tr. at 460-61. Petitioner requests compensation for weekly speech therapy sessions for the remainder of Wendy's life. P. Ex. 35 at 2.

Dr. Horwitz testified that speech therapy would have been discontinued by adolescence absent the vaccine injury because "there is little, if any, benefit, after that time." Tr. at 382. He further testified that speech therapy at this point would be of no benefit. Tr. at 383. Dr. Kinsbourne testified that there would have been grounds to continue speech therapy absent the vaccine injury, "although it most likely would have been fairly unsuccessful" Tr. at 401-02. Dr. Kinsbourne further testified that providing two sessions of speech therapy per week for a period of five years would be reasonable at this point. Tr. at 411.

While it is clear that Wendy will never speak, based on the record, it seems some benefit would be gained by continuing speech therapy, I find it reasonable to award an amount to cover the cost of one speech therapy session per week, at \$55 per session, (\$2,860.00 per year) for the first five years of the award.

(2) Physical Therapy

Wendy was provided physical therapy in school through May 1997. Tr. at 461-46. Petitioner proposes that she receive compensation for physical therapy twice weekly for the remainder of Wendy's life at a cost of \$75.00 per session. P. Ex. 35 at 2; Tr. at 459. This frequency was proposed by Wendy's current physical therapist and was the frequency of her therapy at the time of the last evidentiary hearing. Tr. at 459. Ms. Bunce asserts Wendy's need for physical therapy arises from her spastic quadriplegia rather than her pre-existing mental retardation and is, therefore, compensable under the Program. Tr. at 469.

Dr. Horwitz suggests continuing Wendy's physical and occupational therapy for periodic evaluation and supervision but not on a regular basis because of its minimal benefit. Further, he asserts, Wendy's care givers will be trained to perform the necessary physical therapy. Tr. at 383-84. Dr. Horwitz believes

Wendy's physical therapy would have been discontinued by now had Wendy not suffered a vaccine injury. Tr. at 382. Ms. Cosby testified residential personnel, whether the parents or the custodians, will provide the necessary therapy. Tr. at 463. Ms. Cosby suggests one hour on a quarterly basis for nursing supervision of physical therapy that is provided by Wendy's care givers. Tr. at 464.

Dr. Kinsbourne testified that Wendy is in need of physical therapy because of her spasticity, which was caused by the vaccine injury. Tr. at 401-02. Absent the vaccine injury, he believes there would have been minimal need for such therapy. Tr. at 401-02. Dr. Kinsbourne suggests that physical therapy should be continued because of Wendy's severe spasticity to ensure her joints remain pliable and flexible. Tr. at 402. Dr. Kinsbourne testified, however, that personnel in an institution normally perform the necessary physical therapy. Tr. at 407-08.

Dr. Kinsbourne recommended weekly visits by a physical therapist for the rest of Wendy's life to provide professional care and to supervise the daily therapy sessions of care givers. Tr. at 411-12. Dr. Guess suggested a twice-weekly schedule for physical therapy. Tr. at 460.

Based on the testimony I find it reasonable to award compensation for once weekly physical therapy sessions for the remainder of Wendy's life at a cost of \$75 per session, or \$3,900.00 per year.

(3) Occupational Therapy

As with the other forms of therapy mentioned above, occupational therapy was provided free through Wendy's school. Tr. at 461. Petitioner requests compensation for two sessions per week of occupational therapy for the remainder of Wendy's life. P. Ex. 35 at 2. The cost of these sessions is \$70.00 per visit. *Id.*

Ms. Bunce testified that Wendy's current therapists emphasized the importance of continued occupational therapy. "All of the therapists, as well as teachers, indicated to me that if you don't do it, you lose it. So, to even just to maintain her skills that she currently has, ongoing therapy is just essential." Tr. at 460. Ms. Bunce and Dr. Kinsbourne both testified that they believe Wendy's need for occupational therapy arises from her spasticity, which was caused by the vaccine injury. Tr. at 401-02, 469. Dr. Kinsbourne testified Wendy should be seen once or twice a week by an occupational therapist for a period of five years. Tr. at 407, 411.

Ms. Cosby testified that the cost of occupational therapy should be included in any day programming which is awarded. Tr. at 464. She suggests an award of three hours a year to look at new techniques. Tr. at 464. Dr. Horwitz recommended occupational therapy visits on a periodic basis to evaluate Wendy's needs, but testified that there would be limited utility to regular visits. Tr. at 384.

Wendy's need for occupational therapy clearly arises from her vaccine injury. Other than Ms. Cosby's statement, I found no evidence in the record to suggest whether or not day programming would include occupational therapy. Based on the record, I find it reasonable to award compensation for one weekly occupational therapy session, at a cost of \$70.00 per session (\$3,640.00 per year) for the first five years of the award. Thereafter, for the remainder of Wendy's life, an amount to cover quarterly visits (\$280.00) will be allowed.

(j) *Acute Hospitalizations*

Petitioner requests an award of \$14,296.00 per year for "acute hospitalizations." P. Ex. 35 at 4. To arrive at this number, petitioner used the National Spinal Cord Injury Association ("NSCIA") statistics. These

statistics show that individuals with high levels of quadriplegia typically incur \$14,296.00 annually for hospitalization charges. Tr. at 478. Following the evidentiary proceedings in this matter, petitioner filed the affidavit of Dr. F. Gregg Thompson, a board certified pediatrician who has treated Wendy since birth. P. Ex. 37. Dr. Thompson states in his affidavit that, to a reasonable degree of medical certainty, "Wendy's seizure disorder and spastic quadriparesis clearly subject her to an increased likelihood of illnesses, including, but not necessarily limited to, fevers, vomiting, gastroenteritis, upper respiratory infections and pneumonia. These illnesses can, and often do, result in hospitalizations of varying duration." P. Ex. 37 at ¶ 4. Dr. Thompson attributes Wendy's relatively few past hospitalizations to the devoted care and attention of her parents. He anticipates that as she ages, however, she will need more hospitalizations. P. Ex. 37 at ¶ 5-6. He believes the figure cited by NSCIA is a reasonable one to adopt here, *although minimally so*, since he believes Wendy's condition is directly analogous to those persons with spinal cord injuries. *Id.*

Dr. Kinsbourne sees some acute hospitalizations in Wendy's future for pneumonia. He believes these hospitalizations are made likely due to her structural immobility. Tr. at 344. Dr. Kinsbourne believes Wendy will require approximately two hospitalizations for pneumonia. Tr. at 344. In addition, Dr. Kinsbourne believes Wendy will require an unspecified number of hospitalizations for her seizure disorder. Tr. at 344-45.

Respondent objects to the use of the NSCIA statistics because Wendy's injuries are too dissimilar to the injuries at issue in the NSCIA study. Tr. at 481. According to Dr. Horwitz, spinal cord injured patients have a variety of neurologic, dermatologic and urinary tract infections that are not germane to the injuries of someone like Wendy. Respondent's filing of April 15, 1996, Exhibit B. Dr. Horwitz recommends compensation for hospitalizations (other than surgeries) as follows: (1) one admission every five years for seizure flare-ups consisting of two to three days for each hospitalization; (2) three to four days of hospitalization every five years for pneumonia plus the cost of five days of home care after each hospitalization. *Id.*

This indeed is a very difficult area in which to assess a reasonable award. Without question, the probabilities are that someone in Wendy's condition will have severe medical problems in her lifetime, and funds should be available to pay for those hospitalizations. Although there is no way to predict with certainty when Wendy will be hospitalized and for what reason, I find it reasonable to award compensation for hospitalizations at an amount to cover *seven* days of hospitalization (\$6,440.00) every five years for the rest of Wendy's life.⁽²⁶⁾ This amount will be awarded in the initial lump sum and every five years thereafter.

(k) Surgeries

Petitioner requests an award for the cost of various surgeries, which Wendy will need during her lifetime. P. Ex. 35 at 5. Petitioner requests compensation for three surgeries to release tendon contractures of the hips, knees and ankles, as well as a surgery for scoliosis correction. P. Ex. 35 at 5.

Dr. Kinsbourne sees a need for future tendon release operations because of Wendy's spasticity. Tr. at 340-42. Dr. Kinsbourne believes that Wendy is at greater risk of hip dislocation because of the spasticity she acquired after the vaccination than she was before the vaccination. Tr. at 337. Dr. Kinsbourne does not believe that Wendy would have been put at risk of bone fractures, as she is now, in the absence of the vaccination reaction. Tr. at 335.

Dr. Horwitz believes that the tendon releases would be a by-product of the spasticity of cerebral palsy. Tr. at 378. He believes to a reasonable degree of medical certainty that the bone fractures would have

occurred even absent the vaccination in question. Tr. at 379. However, he believes tendon release surgery is necessitated by her spasticity. Tr. at 379-80. Dr. Horwitz states the most likely cause of the hip displacement would be the spastic quadriplegia. Tr. at 390. Dr. Horwitz did note that Wendy's immobility, compounded by her failure to thrive, has compromised her greatly, increasing the likelihood of bone fractures. Tr. at 395. He recommends: (1) two hospital admissions during Wendy's life for tendon lengthening and (2) a hospitalization for scoliosis surgery. Respondent's filing of April 15, 1996, Exhibit B.

I stated on the record during the last damages hearing that I found it reasonable to provide for surgeries at the amount requested by petitioner for each operation.⁽²⁷⁾ Tr. at 488. I note here again that petitioner's request is reasonable. After considering all of the expert testimony on the subject, I do not find that Wendy would have been in need of these operations in the absence of the vaccine injury. In addition, Ms. Cosby agreed that petitioner's projected costs are reasonable.

A total amount to cover all surgeries, \$78,221.00, (including (\$9,826.00 to cover tendon release surgery, \$10,275.00 for tendon release at the knees, \$10,749.00 for tendon release surgery at the ankles, and \$47,371.00 for scoliosis surgery) will be awarded in the first year's lump sum award.

(1) *Withdrawn Items of Compensation*

Petitioner withdrew her request for CT scans, MRIs, shuntograms, echoencephalography, and the shunt series and related surgery costs. Tr. at 472.

D. Offsets

The Vaccine Act provides for compensation only for expenses that are "unreimbursable."⁽²⁸⁾ The award shall not include costs "for any item or service" to the extent that payment or reimbursement reasonably can be expected from an insurance policy or under a state or federal compensation program (other than Title XIX of the Social Security Act).⁽²⁹⁾ After determining the appropriate levels of care that a vaccine-injured person requires, the next step is to determine whether any of the costs associated with payment for the items of care determined to be reasonable will be "reimbursable" to the petitioner by sources other than the Program -- for example whether the items will be covered by health insurance or any other federal or state compensation programs. Because the Program is intended as a "secondary payor" to such insurance or benefit programs (with the exception of Title XIX of the Social Security Act), I must exclude from the Program award any amount for services which can "reasonably be expected" to be otherwise paid. Section 15(g).

(a) Insurance

The parties expended considerable effort to determine whether Wendy could be covered by either Mr. or Mrs. Wilkerson's respective health insurance plans. The undersigned is satisfied that insurance coverage for Wendy is not available under either policy.

(b) Medicare

Beginning in year 2008, when Wendy's father reaches the age of 67, Medicare will cover, to some extent, many of the medically-related expenses Wendy will incur in the future. Respondent's filing of May 23, 1996. Medicare Part B, which provides for medical expenses and durable medical equipment, has a yearly premium of \$510.00 and an annual deductible of \$100.00. *Id.* For Medicare Part A, covering hospitalizations, the deductible per 60 day period is \$736.00. Therefore, I find it appropriate to

discount the award herein based on expected Medicare benefits. Accordingly, beginning in the 12th year of the award, an annual amount of \$610.00 shall be awarded for Medicare premiums and deductible. Additionally, \$736.00 shall be awarded annually beginning in the 12th year of the award for any hospitalizations that may become necessary during the calendar year of the award.

V. Form of the Award

The undersigned has determined that the amounts set forth in Appendix A (attached to this decision and which was prepared by respondent at the undersigned's direction) represents the appropriate amount of funds required for Wendy Wilkerson's future care. The parties have agreed that the form of compensation shall be a reversionary trust. A copy of the reversionary trust agreement is attached hereto as Appendix B. All amounts shall be made payable to the Trustee of the grantor reversionary trust which shall be established for the benefit of Wendy Wilkerson.

Amounts allowed for the first three years shall be awarded in an immediate lump sum payable to said Trustee. Remaining amounts shall be made payable to said trust beginning on the third anniversary of the date of judgment, through an annuity or annuities to be purchased by the government. Such amounts shall be calculated on the basis of a growth rate of 5% compounded annually for all items of compensation. The growth rates shall be applied immediately to all future items of care. The insurance company providing the annuity contract or contracts shall meet the following criteria *as of the date of the purchase* of the annuity:

(1) a minimum of \$100,000,000 of capital and surplus, exclusive of any mandatory security valuation reserve; and

(2) one of the following ratings from two of the following rating organizations:⁽³⁰⁾

(a) A.M. Best Company: A+, A+g, A+p, A+r, or A+s;

(b) Moody's Investors Service Claims Paying Ratings: Aa3, Aa2, Aa1, or Aaa;

(c) Standard and Poor's Corporation Insurer Claims -Paying Ability Rating: AA-, AA, AA+, or AAA;

(d) Duff & Phelps Credit Rating Company Insurance - Company Claims Paying Ability Rating: AA-, AA, AA+, or AAA.

Respondent is directed to purchase the annuity or annuities as soon as is practicable after entry of judgment and to issue the initial lump sum immediately to the Peoples Bank, a Codorus Valley Company, the Trustee. In the event that payment is not received, petitioner may seek relief from the court. See 42 U.S.C.A. §300aa-12(a)(West 1996).

The Clerk of the court is directed to enter judgment in accordance with this Decision.⁽³¹⁾

IT IS SO ORDERED.

Elizabeth E. Wright

Special Master

1. Retrospective cases are those in which the vaccine was administered prior to October 1, 1988, the effective date of the Act.
2. Section 15(a)(1)(A)(i).
3. Section 15(a)(1)(A)(ii).
4. Section 15(a)(1)(A)(iii)(I).
5. Section 15(a)(1)(A)(iii)(II).
6. Section 15(c).
7. Sections 15(a)(3) and (4). However, since compensation for these items in retrospective cases is limited by the \$30,000 cap imposed on the aggregate of attorneys' fees and costs, pain and suffering and lost wages, such determination must be deferred until the attorneys' fee decision is rendered. See Section 15(b) and Vaccine Rules 10(b) and 13.
8. Section 15(d)(2).
9. The single injury rule is applied "[i]n the case of joint tortfeasors whose separate negligent acts have caused a single injury that is incapable of apportionment." *Id.* at 1092. In that case, each defendant is liable for the entire amount of damages. *Id.*
10. FELA was passed by Congress in 1908 "to provide railroad workers with a federal remedy for personal injuries suffered as a result of the negligence of their employers or fellow workers." 97 F.3d at 597.
11. The jury found defendant liable for 90% of Stevens' injuries and found Stevens liable for 10% of his injuries. 97 F.3d at 596, n. 1.
12. *See, Khalsa v. Secretary of HHS*, No. 90-1523V, 1992 WL 158595 (Fed. Cl. Spec. Mstr. June 18, 1992); *Costa v. Secretary of HHS*, No. 90-1476V, 1992 WL 47334 (Fed. Cl. Spec. Mstr. Feb. 26, 1992), *vacated and remanded on other grounds*, 26 Cl.Ct. 866 (1992); *Steffy v. Secretary of HHS*, No. 90-261V, 1991 WL 86404 (Fed. Cl. Spec. Mstr. May 8, 1991).
13. Dr. Guess is a certified clinical psychologist who has a doctorate in special education. He has published numerous articles on mental retardation, education for the mentally retarded and rehabilitation. P. Ex. 31.
14. Later, Dr. Guess opined Wendy's functioning may possibly have been in the low mild to moderate level of mental retardation absent her vaccine-related injury. Tr. at 290.
15. Dr. Guess testified that Wendy's developmental skills were far better prior to the vaccination than many of the patients he currently sees. Tr. at 307.
16. He testified that at the first hearing, he was not focusing specifically on the apportionment of damages but rather on Wendy's actual state, not her projected state absent her vaccine-related injury. Tr. at 331.

17. Dr. Horwitz is acting Chairman of the Department of Pediatrics at Case Western Reserve University School of Medicine.

18. Ms. Bunce is a registered nurse and a professional life care planner.

19. Ms. Cosby is a registered nurse and professional life care planner who has worked extensively under the Program for respondent. In preparing her plan, Ms. Cosby did not speak to any of Wendy's care providers. Tr. at 468.

20. Moreover, even if it were impossible to separate out the degree to which Wendy would have developed scoliosis absent her vaccine-related injury, based on the cases discussed, *supra*, involving apportionment of damages, I would find an award for this item is reasonable.

21. Ms. Bunce testified that the supplies requested are based on current use. Tr. at 159.

22. Although this cost would also presumably be the equivalent of Wendy's pre-vaccination costs in an ISL setting, Ms. Cosby asserts that \$25,579.20 should be added to this amount because Ms. Vasquez did not include in the budget provision for the costs of a sleep-in provider, bringing the annual total to \$48,910.20 for Wendy's pre-injury condition. R. Ex. A at unnumbered p. 3, ¶10.

23. While Ms. Cosby did not specify in her letter the type of residential facility Mr. Conkle was referring to, the undersigned presumes the facilities he costed out were group homes or other residential facilities and not ISLs.

24. This figure is derived from subtracting \$21,240.00, the cost of a group home that would have accommodated Wendy's needs absent her vaccine-related injury, from \$53,827.00, the cost of the NSL.

25. This figure is derived from subtracting \$21,240.00, the cost of a group home that would have accommodated Wendy's needs absent her vaccine-related injury, from \$72,483.00, the cost of an ISL.

26. This amount is derived by multiplying the number of days of hospitalization by \$920.00 per day, the figure Ms. Cosby states is the average hospitalization cost per day.

27. This amount excludes costs requested for a VP shunt, which petitioner subsequently withdrew. Tr. at 472.

28. Section 15(a).

29. Section 15(g).

30. These criteria were taken from the December 1991, draft of the Uniform Periodic Payment of Judgments Act.

31. Pursuant to Vaccine Rule 11(a), the parties may expedite entry of judgment by each party filing a notice renouncing the right to seek review.