

**IN THE UNITED STATES COURT OF FEDERAL CLAIMS
OFFICE OF SPECIAL MASTERS
No. 08-86V
Filed: September 1, 2010
Not to be Published**

GRANT HEATH, as parent and	*	Findings of Fact;
Guardian of Quinn Heath, a minor	*	Pediarix; Brain Damage;
	*	Seizures;
Petitioner,	*	Non-Accidental Trauma;
v.	*	Witness Credibility
	*	
SECRETARY OF HEALTH	*	
AND HUMAN SERVICES,	*	
	*	
Respondent.	*	
	*	

RULING ON FACTS PERTAINING TO ONSET¹

Vowell, Special Master:

On February 13, 2008, Grant Heath ["Mr. Heath" or "petitioner"] filed a petition² for compensation under the National Vaccine Injury Compensation Program, 42 U.S.C. §300aa-10, *et seq.*³ [the "Vaccine Act" or "Program"], on behalf of his daughter, Quinn Heath ["Quinn"]. The petition ["Pet."] alleged that haemophilus influenzae type b ["Hib"],

¹ Because this unpublished decision contains a reasoned explanation for the action in this case, I intend to post this decision on the United States Court of Federal Claims' website, in accordance with the E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899, 2913 (Dec. 17, 2002). In accordance with Vaccine Rule 18(b), petitioner has 14 days to identify and move to delete medical or other information, the disclosure of which would constitute an unwarranted invasion of privacy. If, upon review, I agree that the identified material fits within this definition, I will delete such material from public access.

² The petition was amended on September 2, 2008, to add Susan Heath ["Mrs. Heath"], Mr. Heath's wife and Quinn Heath's mother, as a petitioner. The petition was amended a second time on March 13, 2009, to reflect Mr. Heath as the sole petitioner as Mrs. Heath does not have legal custody of Quinn. Further information pertaining to her loss of custody is set forth below.

³ National Childhood Vaccine Injury Act of 1986, Pub. L. No. 99-660, 100 Stat. 3755. Hereinafter, for ease of citation, all "§" references to the Vaccine Act will be to the pertinent subparagraph of 42 U.S.C. § 300aa (2006).

Pprevnar,⁴ and Pediarix⁵ vaccines that Quinn received on February 15, 2005, caused her to develop brain damage, apnea, and seizures.⁶ Pet., ¶¶ 2-3.

The parties requested a fact hearing to resolve conflicts in the evidence. See Order filed Dec. 4, 2009. The hearing was conducted in Raleigh, NC, on June 10, 2010. My factual findings are set forth in Section III below.

I. Scope of This Ruling.

The record in this case consists of voluminous medical and social services records, affidavits, police reports, civil court records pertaining to custody of Quinn, and reports from the parties' designated experts, Dr. F. Edward Yazbak and Dr. Robert Block, as well as medical literature supporting their opinions. Because there are inconsistencies between the facts as relied upon by the experts and other evidence in this case, I conducted a hearing to take the testimony of Mr. and Mrs. Heath.

In this ruling I determine, to the extent possible without expert testimony, the facts of what transpired between the vaccinations that petitioner contends caused Quinn's condition and Quinn's diagnosis of injuries based on non-accidental trauma ["NAT"]. Quinn received Table vaccines⁷ on February 15, 2005, and Synagis,⁸ an injected drug sometimes referred to as a vaccine in the evidence, on February 22, 2005. The nature of the symptoms, if any, that Quinn displayed between the February 15 vaccinations and her hospitalization after she experienced cardiopulmonary arrest on February 23, 2005 is the primary matter in dispute at this point in these proceedings.

A determination of what actually caused Quinn's injuries will require the testimony of experts. Therefore, I do not draw any conclusions regarding whether the diagnosis of NAT is correct. I do not make any factual findings at this time concerning whether Quinn was battered or abused. I merely determine, by preponderant evidence, the symptoms, if any, that Quinn displayed between her vaccinations on February 15,

⁴ Pprevnar is the trademark for a preparation of the pneumococcal heptavalent conjugate vaccine. DORLAND'S ILLUSTRATED MEDICAL DICTIONARY (30th ed. 2003) ["DORLAND'S"] at 1505.

⁵ Pediarix is the trademark for a preparation combining the diphtheria, tetanus, acellular pertussis, hepatitis B, and inactivated polio vaccines. PHYSICIANS' DESK REFERENCE (64th. ed. 2010) ["PDR"] at 1606.

⁶ Petitioner's medical expert appears to focus his theory of causation on the Pediarix vaccine. See Petitioner's Exhibit ["Pet. Ex."] 19.

⁷ A Table vaccine is one listed on the Vaccine Injury Table, § 300aa-14(a); 42 C.F.R. § 100.3 (2009). Only claims pertaining to those listed vaccines are cognizable under the Vaccine Act.

⁸ Synagis is a monoclonal antibody used to protect premature and other high-risk infants against respiratory syncytial virus ["RSV"] infections. PDR at 2082.

2005, and her initial transfer to the University of North Carolina hospital on February 24, 2005, and such ancillary facts as are necessary to resolve the factual conflicts.

II. Resolving Evidentiary Conflicts.

A. The Nature of the Dispute.

The dispute between the parties centers on the circumstances leading up to Quinn's hospitalization on February 23, 2005. Petitioner relies on his testimony, his wife's testimony, and his interpretation of the medical records to demonstrate an adverse reaction to the vaccines administered February 15, 2005, leading to a gradual decline in Quinn's health, culminating in her cardiopulmonary arrest on February 23, 2005. Respondent relies on her interpretation of the medical records, as well as the local police and United States Air Force Office of Special Investigations' ["OSI"] inquiries into allegations that Quinn was the victim of child abuse, to challenge Mr. and Mrs. Heath's assertions.

B. Law Pertinent to Evidentiary Conflicts.

Conflicts between contemporaneous records and testimony given several years later at a hearing are common in Vaccine Act cases, and this case is no exception. Two general legal principles guide the resolution of conflicts between contemporaneous records and later-adduced evidence. The first is that the absence of a reference to specific symptoms in a medical record does not conclusively establish the absence of symptoms during that time frame. *See, e.g., Murphy v. Sec'y, HHS*, 23 Cl. Ct. 726, 733 (1991), *aff'd*, 968 F.2d 1226 (Fed. Cir. 1992) ("[T]he absence of a reference to a condition or circumstance is much less significant than a reference which negates the existence of the condition or circumstance." (citation omitted)).

The second principle addresses the degree of reliance commonly accorded to contemporaneous records. Special masters frequently accord more weight to contemporaneously recorded medical symptoms than those recounted in later medical histories, affidavits, or trial testimony. "It has generally been held that oral testimony which is in conflict with contemporaneous documents is entitled to little evidentiary weight." *Murphy*, 23 Cl. Ct. at 733 (citation omitted); *see also Cucuras v. Sec'y, HHS*, 993 F.2d 1525, 1528 (Fed. Cir. 1993) (medical records are generally trustworthy evidence). Memories are generally better the closer in time to the occurrence reported and when the motivation for accurate explication of symptoms is more immediate. *Reusser v. Sec'y, HHS*, 28 Fed. Cl. 516, 523 (1993). Inconsistencies between testimony and contemporaneous records may be overcome by "clear, cogent, and consistent testimony" explaining the discrepancies. *Stevens v. Sec'y, HHS*, No. 90-221V, 1990 WL 608693, at *3 (Fed. Cl. Spec. Mstr. Dec. 21, 1990). The following medical history and the conclusions drawn therefrom are presented with these legal principles in mind.

C. Credibility Determinations.

For the most part, I did not find sufficient indicia of reliability in the testimony of either Mr. or Mrs. Heath to credit their testimony over the evidence found in the contemporaneous records. Their accounts of many of the events that transpired between February 15 and February 23, 2005, were inconsistent with their relatively contemporaneous statements, as well as inconsistent with observations and statements made by others in those records. On some points, their testimony conflicted with one another.⁹ As I elaborate below, while it is not unusual for some details to be missing from the contemporaneous records, the specific facts of this case, and the improbability of the Heaths' description of events, make it highly unlikely that their otherwise unsupported accounts are accurate. I also considered the length of time that has passed since the events of February, 2005, to be an important consideration when evaluating the accuracy of the Heaths' recollections of events.¹⁰ In evaluating the conflicting accounts of events, I found Mrs. Heath to lack credibility, based on her demeanor on the witness stand, a tendency to exaggerate or inflate,¹¹ internal

⁹ For example, Mrs. Heath testified that Quinn was wearing a "onesie" on the night of her collapse, that EMS personnel cut it off her, and that the Heaths had kept it. Tr. at 96-97. In contrast, Mr. Heath testified that he had removed the onesie when performing CPR on Quinn. Tr. at 194, 206-07. Mrs. Heath testified that even though she did not have custody of Quinn, she visited Quinn alone at the facility where she lives. Tr. at 60. Mr. Heath testified that Mrs. Heath is not permitted unsupervised visitation. Tr. at 202.

¹⁰ Indeed, Mrs. Heath agreed that her memory failed her. Respondent's counsel asked Mrs. Heath, "[d]o you recall whether or not Quinn had a problem sleeping the night before, meaning the night of February 22nd, after she got her RSV shot?" Mrs. Heath responded, "I don't remember her having—it's been six [sic] years. I can't tell you if we slept that night or not." Tr. at 87.

¹¹ For example, Mrs. Heath described having had three or four pregnancies before becoming pregnant with Quinn. Tr. at 120. "[W]ith every pregnancy it seemed to last a little longer. Many of them resulted . . . in surgeries, D&Cs." Tr. at 12; see also Tr. at 120-21. However, her medical records reflect only two early miscarriages. See Pet. Ex. 6, pp. 2, 9. *But see* Pet. Ex. 16 at 113 (psychological evaluation of Mrs. Heath, conducted Sept. 22, 2005, wherein she also reported four miscarriages prior to Quinn's birth).

Mrs. Heath testified that she developed cervical cancer while pregnant with Quinn. Tr. at 17. However, her medical records indicate that she was diagnosed with human papillomavirus ["HPV"] during her pregnancy, and at her delivery date, she had test results consistent with HPV but not cervical cancer. See Ex. 5, pp. 8-9 (Mrs. Heath's prenatal care records noting an abnormal pap smear during pregnancy and delivery showing mild dysplasia and HPV); Ex. 6, p. 2 (delivery records noting abnormal pap smear results of "LGSIL"), p. 9 (noting "[h]istory of dysplasia of low grade SIL with positive HPV effects"); see also KATHLEEN D. PAGANA & TIMOTHY J. PAGANA, *MOSBY'S MANUAL OF DIAGNOSTIC AND LABORATORY TESTS* (3d. ed. 2006) ["MOSBY'S LABS"] at 782-88 (indicating pap smear results reporting "mild dysplasia" and low-grade squamous intraepithelial lesions, for which "LGSIL" and "low grade SIL" in the records likely stand, are abnormal but not cancerous results). While HPV can cause cervical cancer (see *DORLAND'S* at 1360), it is not itself cervical cancer, and there is nothing else in the records consistent with a cervical cancer diagnosis during pregnancy. *But see* Pet. Ex. 16 at 113 (psychological evaluation of Mrs. Heath, conducted Sept. 22, 2005, wherein she also reported a diagnosis of cervical cancer).

inconsistencies in her testimony,¹² and the sheer number of conflicts between her trial testimony and that of other accounts of the events in question. After considering the testimony given by both Mr. and Mrs. Heath, I placed more weight on the contemporaneous medical records as support for the facts found herein.

III. Factual Findings.

A. Facts Not Reasonably Subject to Dispute.

1. Quinn Heath was born prematurely on December 5, 2004,¹³ after 30 weeks of gestation. She was small for her gestational age due to intrauterine growth retardation. She was treated in the pediatric intensive care unit ["PICU"] of the University of North Carolina Hospital ["UNC"] for pulmonary insufficiency, anemia, physiologic jaundice, and apnea, and discharged to her parents' care on January 16, 2005.¹⁴ See Pet. Ex. 10, pp. 18-22. Quinn and her parents lived in on-base housing at Seymour-Johnson Air Force Base, located in Goldsboro, NC, where Mr. Heath was on active duty as an avionics specialist. Tr. at 14.

Mrs. Heath also testified that she lost custody of Quinn because the Department of Social Services gave her an ultimatum that she had to leave her husband or she would lose custody. She refused and Quinn was therefore placed in the custody of the social services department on March 22, 2005. Tr. at 52. She claimed that she did not understand why she no longer had custody, testifying that: "I had to plead no contest." Tr. at 57-58. She described the court system as first requiring one set of classes to regain custody and then when she and her husband completed those classes, requiring additional ones. *Id.* Court records reflect that Mrs. Heath failed to complete all court ordered classes and had not had a psychiatric evaluation as ordered. Pet. Ex. 16 at 5. Her failure to comply was a consistent problem throughout the custody proceedings. Pet. Ex. 16 at 16, 19, 66, 88-89. She missed a court appearance and testified that the reason she missed it is that she was pregnant at the time and didn't want social services to know she was pregnant. Tr. at 59. Court records reflect that Mrs. Heath reported that she was bedridden and her immune system was failing for unknown reasons. Pet. Ex. 16 at 5. She asserted that her therapist said she didn't have anger problems and was not violent. Tr. at 59. A psychological evaluation conducted for purposes of the custody proceedings on September 22, 2005, concluded that "diagnoses of Major Depressive Disorder, Severe, Recurrent; and Personality Disorder, NOS with Schizotypal Traits are the best fit for Ms. Heath, at this time." Pet. Ex. 16 at 114.

¹² For example, Mrs. Heath testified that one of the reasons she took Quinn to the pediatrician's office on February 22, 2005, was that Quinn was not eating. Tr. at 34. After being shown evidence that Quinn had gained weight between the February 15 vaccinations and the visit on February 22 (Tr. at 70-71), the tenor of her testimony regarding Quinn's eating habits between the two visits changed. Mrs. Heath testified that Quinn began eating less and less after the February 15 vaccinations, but stopped being interested in food altogether after the February 22 Synagis injection. Tr. at 71, 82.

¹³ Mrs. Heath incorrectly testified that Quinn was born on December 5, 2003. Tr. at 18.

¹⁴ In response to a leading question from petitioner's counsel, Mrs. Heath testified that Quinn was discharged on January 17, 2005. Tr. at 19. The discharge summary (Ex. 10, p. 21) identifies the date as January 16, 2005, and this was likely an inadvertent mistake on the part of both counsel and the witness.

2. During the month between Quinn's discharge from the UNC hospital on January 16, 2005, and her February 15 vaccinations, Quinn was evaluated at Goldsboro Pediatrics for thrush,¹⁵ a rash, and a small umbilical hernia. Pet. Ex. 8, pp. 9-16.

3. Quinn grew steadily during this month, from 4 lbs., 2.2 oz. on January 18, 2005, to 5 lbs., 7.1 oz. on February 15, 2005. Pet. Ex. 8, pp. 10, 17.

4. On February 6, 2005, the Heaths took Quinn to the emergency room at Wayne Memorial Hospital after she sustained a bruise over her left ear while in the care of her father, Mr. Heath. The treating physician encouraged the Heaths to follow head injury instructions, but otherwise prescribed no treatment. Pet. Ex. 9, p. 1.

5. On February 15, 2005, Quinn visited her pediatrician for her two-month well child visit. She received Hib, Prevnar, and Pediarix vaccines at this visit. Pet. Ex. 8, pp. 17-20.

6. Quinn returned to her pediatrician's office on February 22, 2005. During that visit she received a dose of Synagis.¹⁶ Pet. Ex. 8, p. 21. After receiving Synagis, Quinn stayed with a babysitter, Mrs. Laura Hunt, for a period of one to two hours. See Pet. Ex. 15 at 60.

7. Quinn was in the sole care of her mother for most of the day on February 23, 2005, although a physical therapist visited for a short period of time in the early afternoon. See Pet. Ex. 15 at 52; Tr. at 38-40. Mr. Heath returned home from work around 9:30 PM and assumed care of Quinn after showering. Mrs. Heath left the house shortly before 10:00 PM. See Pet. Ex. 15 at 52; Tr. at 168-69, 210. Soon after 10:00 PM that evening, Mr. Heath was feeding Quinn a bottle when she stopped breathing and vomited. See Pet. Exs. 10, p. 3997; 15, p. 49. He attempted to resuscitate Quinn by blowing in her airway and performing back thrusts. Pet. Exs. 10, p. 3997; 15 at 49; Respondent Exhibit ["Res. Ex."] A¹⁷ at 112; Tr. at 211. Air Force Rescue and Security First Responders, including Chief Randy Wright, were on the scene when the Air Force ambulance arrived at 10:11 PM. Pet. Ex. 15 at 50; Res. Ex. A at 101. While Chief Wright continued resuscitation efforts, the ambulance staff (Staff Sergeant Leah Sparks and Senior Airman Elizabeth Harris) transported Quinn to Wayne Memorial Hospital, departing the scene at 10:12 PM. Resuscitation efforts in the ambulance included

¹⁵ Thrush is a fungal infection characterized by white spots inside the mouth. DORLAND'S at 1908.

¹⁶ Although witnesses sometimes referred to Synagis as a vaccine, the drug information in the PDR does not characterize it as a vaccine. In any event, it is not a vaccine covered under the Act.

¹⁷ Res. Ex. A, the OSI investigation file, and Pet. Ex. 15, the Goldsboro Police Department investigation file, contain duplicate copies of several of the interviews and investigator notes. See Tr. at 69-70.

administering oxygen, but the Air Force personnel had difficulty in obtaining a good airway. Pet. Ex. 15 at 50; Res. Ex. A at 110, 120-21.

8. En route, emergency medical service ["EMS"] personnel from Wayne Memorial Hospital intercepted the Air Force ambulance, and two Wayne EMS personnel entered the Air Force ambulance and assumed Quinn's care. They requested that the ambulance driver drive slowly so that they could intubate Quinn during the trip. A second Wayne Memorial Hospital ambulance intercepted the Air Force ambulance at 10:17 PM. The ambulance arrived at Wayne Memorial Hospital at 10:21 PM. Pet. Ex. 15 at 50; see *also id.* at 91.

9. Although Quinn was already intubated at the time of her arrival at the emergency room, she had poor breath sounds, and there was concern that the tube was improperly placed. Pet. Exs. 8, p. 6; 9, pp. 5-6. When the tube was removed, emergency room personnel had difficulty replacing it, but were successful on the third attempt. *Id.* While Quinn was being cared for at the hospital, Staff Sergeant Sparks and Senior Airman Harris interviewed the Heaths about what had transpired at the Heath residence. Pet. Ex. 15 at 50; Res. Ex. A at 110. Quinn had a rectal temperature of 91° Fahrenheit on arrival at the emergency room, even though warming blankets were being used. Pet. Exs. 8, p. 6; 9, pp. 5-6.

10. In the early morning hours of February 24, 2005, after receiving emergency treatment at Wayne Memorial Hospital, Quinn was transported by air ambulance to UNC for specialized care. Pet. Ex. 10, pp. 4736-41.

11. A February 24, 2005, CT¹⁸ scan revealed that Quinn had findings consistent with a small bilateral subdural hematoma up to 4 millimeters in thickness. Pet. Ex. 10, pp. 514-15. An MRI¹⁹ performed on February 25, 2005, showed the same subdural hematoma over the posterior superior convexity, and a second small subdural hematoma in the posterior fossa, posterior to the cerebellum. *Id.*, pp. 511-12. The CT scan was consistent with fresh blood. *Id.*, pp. 4733.

12. A February 24, 2005, ophthalmology exam revealed that Quinn had bilateral hemorrhages in all layers of her retinas. Pet. Ex. 10, pp. 3967-69.

¹⁸ A CT scan refers to a computed tomography scan of the brain, a test used to diagnose central nervous system disease, including tumors, aneurysms, and hemorrhages. It consists of a computerized analysis of x-rays of the brain. MOSBY'S LABS at 1095-96.

¹⁹ An MRI, or magnetic resonance imaging, is a non-invasive diagnostic procedure that is based on the behavior of hydrogen atoms in a magnetic field. It is particularly useful in evaluating head and brain injury and disease. MOSBY'S LABS at 1188-89.

13. Quinn was observed by treating doctors to be experiencing seizures on February 24, 2005. She was later diagnosed with a seizure disorder. See Pet. Ex. 10, pp. 306, 3944.

14. During an intake exam at UNC on February 24, 2005, a treating physician observed a bruise on the left side of Quinn's forehead, measuring about one centimeter, as well as two "linear diagonal bruises on [Quinn's] anterior thighs" which appeared to be symmetrical. Pet. Ex. 10, p. 3999. A nurse made similar observations on February 25, 2005. Pet. Ex. 10, p. 4008. A pediatrician specializing in abuse also observed the thigh bruising on February 25, 2005. Pet. Ex. 10, p. 4734.

15. A Skeletal Survey Abuse Scan, conducted February 25, 2005, found no evidence of a skeletal fracture. Pet. Ex. 10, pp. 509-10. However, follow-up studies to exclude fracture were recommended, and some irregularity and increased density in the right radial metaphysis were noted. *Id.*

16. A second skeletal survey, conducted March 23, 2005, showed findings "consistent with [a] healing fracture mid diaphysis right ulna." Pet. Ex 15, p. 151. The ulna is the bone in the forearm opposite the thumb. DORLAND'S at 1981.

17. Quinn's treating physicians at UNC, including a pediatric intensive care attending, an ophthalmologist, and a pediatrician specializing in cases of abuse, all concluded Quinn was the victim of non-accidental trauma. Pet. Ex. 10, pp. 302, 3969, 4735.

18. No treating doctor linked Quinn's injuries to the vaccines she received on February 15, 2005. No treating doctor linked Quinn's injuries to the dose of Synagis she received on February 22, 2005. See Pet. Exs. 9, 10.

19. Quinn suffered permanent brain damage, loss of the use of her mouth, and other sequelae from the events of February 23, 2005. See Pet. Ex. 10, p. 14.

20. Quinn is currently in the physical custody of the RHA Howell Center, a facility that cares for disabled children. Tr. at 9; see *also* Pet. Ex. 16, pp. 1-12 (court records directing Mr. Heath to not remove Quinn from the Howell Center without authorization from a medical doctor); Res. Ex. A at 11 (interview of a social worker describing the Howell Center as a nursing home for children). Quinn has global developmental delays. She cannot walk or swallow food. She breathes through a tracheostomy tube and receives her nutritional needs through a gastrostomy tube. Pet. Ex. 13, pp. 4481-83. However, she recognizes people, responds to voices and visual stimulation, and plays with toys. *Id.*

21. The Heaths lost legal custody of Quinn in the spring of 2005. See Tr. at 51; Pet. Ex. 16 at 128-30. Legal custody was returned to Mr. Heath on June 7, 2007, with

the stipulation that he cannot remove Quinn from the Howell Center without physician consent. Pet. Ex. 16 at 1-2, 10-12. Mrs. Heath has never regained legal custody of Quinn. Tr. at 56-60.

22. While under the legal custody of the Wayne County Department of Social Services, Quinn received subsequent doses of all the vaccines she received February 15, 2005. See Tr. at 198; Pet. Ex. 13, pp. 23, 4568. No adverse events were reported after administration of these subsequent doses. When Mr. Heath regained legal custody, he signed a document asserting a religious exemption against any further vaccinations. Pet. Ex. 13, p. 4508.

23. Both the local Goldsboro, NC, police department and the Air Force investigated whether Quinn was the victim of non-accidental trauma. Pet. Ex. 15; Res. Ex. A.

24. No criminal charges, in either civilian or military courts, were brought against Mr. Heath, Mrs. Heath, or anyone else for causing Quinn's injuries. Tr. at 62, 156; see *also* Pet. Ex. 15, Res. Ex. A.

B. Facts in Dispute Resolved in this Order.

The primary matters in dispute relate to Quinn's reaction to the February 15 vaccinations and the events occurring between the February 22 Synagis administration and Quinn's arrival at the UNC medical center in the early morning hours of February 24, 2005. To summarize the findings below, I reject Mr. and Mrs. Heath's testimony that Quinn had an unusual reaction to her February 15 vaccinations. I find that Quinn was somewhat more irritable than normal after receiving Synagis on February 22. I further find that Quinn was in her mother's control on February 23, 2005, from the time that her father departed for work until he returned home that evening at approximately 9:30 PM. In the early afternoon of that day, Quinn was alert and responsive to her mother. At the time Mr. Heath arrived home from work, Quinn was lethargic and uninterested in feeding. Quinn was in the sole control of her father from shortly before 10:00 PM, the time Mrs. Heath departed for an off-base restaurant, until her cardiopulmonary arrest. In order to explain why I reach these findings, I have discussed the evidentiary record and the parties' differing interpretations in more detail than I did above.

1. Quinn did not exhibit signs of an unusual vaccine reaction after the February 15 vaccinations.

Mr. and Mrs. Heath both testified that Quinn behaved unusually after she received vaccinations on February 15, 2005. Mrs. Heath testified that during the period between February 15 and February 22, Quinn was initially fussy, then exhibited blank

stares and unresponsiveness, progressively ate less, ran a temperature,²⁰ and developed a petechial rash. Tr. at 30-34, 97-98; see *a/so* Tr. at 165-68 (consistent testimony of Mr. Heath). Both parents explained that the symptoms continued to worsen after Quinn received the Synagis shot on February 22, but Mrs. Heath noted that Quinn “was progressively getting worse before that, too.” Tr. at 133 (testimony of Mrs. Heath); Tr. at 165-68 (testimony of Mr. Heath).

I conclude that while Quinn may have exhibited some symptoms post-vaccination, she did not experience the severity of symptoms as described by the Heaths. The medical records do not reflect any reaction at all to the vaccines Quinn received on February 15. Quinn was seen by her pediatrician on February 22, 2005. Pet. Ex. 8, p. 21. Although the visit was listed as a “sick” child visit, no illness or complaint was recorded, and the medications prescribed for Quinn’s thrush were discontinued.²¹ *Id.* Quinn received her next dose of Synagis at the February 22 visit. *Id.*

Although both witnesses testified that Mrs. Heath called the UNC PICU and the pediatrician’s office to solicit advice during the time period between her vaccinations on February 15 and her collapse (Tr. at 31, 83,167),²² medical records from both facilities do not reflect any calls. See Pet. Exs. 8, 10. Records from the Heaths’ telephones obtained during the criminal investigations list calls from February 21-March 4, 2005, but do not reflect calls to either facility on February 21-23. See Pet. Ex. 15 at 8-9, 25.

The medical records from Quinn’s hospitalizations at Wayne Memorial Hospital and UNC contain no references to a decline in Quinn’s health after the February 15, 2005, vaccinations, in either the histories taken from the Heaths or in discussion of a

²⁰ Mrs. Heath explained that she took Quinn’s temperature at some time on February 15, and that thereafter she determined that Quinn had a temperature based on how warm her skin felt. Tr. at 97-98. Mr. Heath testified that he took Quinn’s temperature every day after the February 15 vaccinations. Tr. at 192. Neither witness testified as to what Quinn’s actual temperature was during this period.

²¹ Mrs. Heath testified that she reported the adverse reaction to the February 15 vaccines during this visit. Tr. at 119. Mrs. Heath also testified that she was very upset at the prospect of Quinn receiving vaccines on February 15, and concerned that Quinn might experience adverse events based on those that had occurred to her niece after vaccinations. Tr. at 73. A nurse did record Mrs. Heath’s concerns about her niece and doing the right thing for Quinn at the February 15 visit, but a concern specific to vaccinations was not mentioned. See Pet. Ex. 8, p. 19. Given Mrs. Heath’s somewhat confrontational manner (see, e.g., Tr. at 65 (describing others as sensitive to “being told like it is as far as I’m concerned”)), I think it highly likely that if she had described an adverse reaction during the February 22 visit, she would have done so in such a manner that a health care provider would have noted her concern. See *also* Tr. at 51 (Mrs. Heath describing herself as “blunt,” someone who “doesn’t hold [her] feelings back,” and someone who “say[s] what [she] think[s]”).

²² Mr. Heath, however, testified that he did not witness these calls and did not place any himself. Tr. at 205.

differential diagnosis.²³ See Ex. 9, pp. 3-6; Ex. 10, pp. 1266-87, 3945-51, 3997-4001; see also Ex. 10 in its entirety. None of the statements given by the Heaths to the hospital staff and investigators shortly after Quinn's collapse on February 23 mentions the decline that the Heaths described during their testimony.

When a vaccine is mentioned at all, the reference is to the Synagis dose Quinn received on February 22, 2005, the day before her collapse. While it is true that the absence of a reference in the medical records is less probative than the presence of a reference that conflicts with testimony (see *Murphy*, 23 Cl. Ct. at 733), another contemporaneous record provides such negating references. Senior Airman Leah Sparks, one of the emergency medical first responders to Mr. Heath's 911 call on February 23, 2005, took a detailed medical history from the Heaths. She noted that Quinn's "parents were also concerned because she had just received the RSV shot two [sic] days ago and had been acting different since then; very irritable, crying a lot, not eating well, not burping well." Pet. Ex. 15 at 50 (emphasis added). This statement undercuts Mrs. Heath's testimony that Quinn's condition after the Synagis shot was a progression of deterioration that began after the February 15 vaccinations. It also contradicts her testimony that Quinn was less responsive, was staring blankly more often, and was less fussy after the Synagis shot. Tr. at 132-33.

The medical records do not support the Heaths' description of the onset of other symptoms after February 15. The petechial rash began before Quinn was vaccinated on February 15,²⁴ suggesting it was not prompted by the vaccines. Quinn gained weight after February 15, suggesting she was not eating less. While less clearly documented by the records, the "blank staring" may also have been present prior to vaccination.

At a sick visit on January 31, 2005, Quinn had a "[r]ash along face for 3-4 days, also some spots on arms and legs." Pet. Ex. 8, p. 13. The record of this visit reflects that Quinn had diffuse petechial rash on her face, as well as on her right arm and left leg. Pet. Ex. 8, p. 14. A petechial rash over Quinn's scalp and face was also present at the February 15 visit. Pet. Ex. 8, pp. 19-20. Quinn's petechial rash had been present for more than two weeks prior to her vaccinations.

In spite of the Heaths' testimony that Quinn progressively stopped eating between February 15 and February 22, Quinn's weight increased by five ounces, a significant increase over seven days for a baby weighing less than six pounds. See Pet. Ex. 8, pp. 17, 21. This is also consistent with her weight gain prior to that week. In the two-week period between her January 18, 2005, visit and her January 31, 2005,

²³ Mrs. Heath testified that she mentioned her theory regarding vaccine causation to the pediatrician specializing in child abuse, but, per Mrs. Heath, the doctor did not credit this theory. Tr. at 109.

²⁴ Mrs. Heath later agreed that Quinn had petechiae at the February 15, 2005, visit to the pediatrician. Tr. at 128.

visit, Quinn gained six ounces. See Pet. Ex. 8, pp. 9, 13. Two weeks later, she had gained almost one pound. See Pet. Ex. 8, pp. 13, 17. If Quinn was eating less after the vaccinations than she was before them, her gain of slightly more than five ounces in one week cannot be explained.

While blank staring is not reported explicitly in the records, Mrs. Heath told a nurse practitioner at the February 15 visit that “sometimes [Quinn] doesn[']t appear to startle to noises.” Pet. Ex. 8, p. 19. The nurse practitioner recorded what she told Mrs. Heath about Quinn’s behavior, explaining that premature babies “can shut down to avoid excessive stimulation.” *Id.* This exchange suggests behavior similar to what the Heaths described as blank stares.²⁵

Mrs. Heath’s statement to investigators²⁶ on February 25, 2005, less than two days after Quinn’s collapse, did not mention any concern about the February 15 vaccinations. Instead, Mrs. Heath told Investigator Horstmann from the Goldsboro, NC, police department and Angela Barnes from the Department of Social Services that Quinn’s behavior changed after she received Synagis on February 22.²⁷ Pet. Ex. 15 at 44, 51-57. This statement did not mention the February 15 vaccinations and did not mention any period of decline prior to February 22.

Mrs. Heath testified that on February 23, Quinn’s deterioration had become so bad that the Heaths intended to take her to the doctor the next day, but Quinn collapsed before they could act on that intention. Tr. at 101. However, in several statements to

²⁵ See, e.g., Tr. at 30, 32. Mrs. Heath testified that during the time after the February 15 visit, she called the nurse practitioner at the pediatrician’s office who told her that the moments of blank stares were “probably just exhaustion from crying.” Tr. at 32; see also Pet. Ex. 10, p. 25 (ophthalmology examination on Feb. 8, 2005, noting Mrs. Heath’s concern that Quinn might not be able to hear).

²⁶ Mr. Heath did not talk to investigators. Mr. Heath’s statements to his unit First Sergeant regarding what happened are described below. However, Mr. Heath also talked with another noncommissioned officer from his unit while at the UNC hospital at an unspecified time. In statements provided on June 10 and July 12, 2005, Ronald Carlson described Mr. Heath as very upset about Quinn’s condition. Mr. Heath provided a timeline of what happened after his return home from work on February 23, 2005, to the arrival of the ambulance. He did not mention anything about Quinn being ill for an extended period of time, only that Mrs. Heath reported the baby was fussy and didn’t seem to feel well. Mr. Heath described the baby as sleepy and unresponsive and noted she would not take her bottle. He also expressed concern that he had not performed CPR properly on Quinn. Res. Ex. A at 15-16, 38-40.

²⁷ Specifically, Mrs. Heath reported that, after her Synagis shot on February 22, Quinn cried all day and night and didn’t want to eat. See Pet. Ex. 15 at 53-54. Mrs. Laura Hunt, who watched Quinn from 3:00 PM-5:00 PM on February 22, told Investigator Horstmann that Quinn had a fever and would not eat, but that she slept in her car seat for an hour while at the Hunt’s home. Pet. Ex. 15 at 45. She woke up “fussy,” but Quinn went back to sleep after about five minutes of cuddling. The baby was asleep when Mrs. Heath picked her up. Quinn wasn’t abnormally fussy. *Id.* Mr. Hunt reported that the baby slept for about 45 minutes of the time his wife cared for her, and confirmed that Quinn appeared “very hot and fevered” and that she was more “fussy” during this period than she had been when Mrs. Hunt babysat previously. Pet. Ex. 15 at 47.

investigators on February 25, 2005, Mrs. Heath did not mention this decline. Her statements contemporaneous to Quinn's collapse are noticeably lacking a concern that Quinn had been ill for seven days. The concern Mrs. Heath expressed on February 25, 2005 for Quinn's change of behavior after the Synagis shot suggests that Quinn's behavior had not changed before that shot.

Given the absence of documentation for an adverse reaction after her February 15 vaccinations, the presence of some of Quinn's symptoms prior to February 15, and the Heaths' documented concerns at the time of Quinn's collapse that her behavior changed after the Synagis shot, the medical records do not support the Heaths' testimony. Weighing the different explanations of events, I find that the Heaths' hearing testimony is insufficient to establish that Quinn suffered an unusual reaction to her February 15 vaccinations.

2. Quinn was irritable, not lethargic, after she received the Synagis shot on February 22, 2005. She was consolable and responded to caregivers on the day she received the shot. She remained irritable the following day, after sleeping poorly the evening of February 22. She did not feed as well on either February 22 or 23, 2005 as she had previously.

At the hearing, Mrs. Heath described Quinn's behavior after the Synagis shot as a continuation of the nonresponsiveness that had been gradually worsening since February 15, 2005.²⁸ Tr. at 133. This contradicts Mrs. Heath's statements made to investigators on February 25, 2005, that Quinn was upset and cranky after the Synagis shot, then fussy and up all night on February 22, and then fussy again on February 23. Pet. Ex. 15 at 51-52; Res. Ex. A at 7.²⁹ Mr. Heath testified at the hearing that on February 22, Quinn was "more lethargic....she wasn't even so much cranky anymore." Tr. at 168. However Staff Sergeant Leah Sparks noted that the Heaths had told her that after getting the Synagis shot, Quinn had been "acting different[,]...very irritable, crying a lot." Pet. Ex. 15 at 50.

Laura Hunt, who babysat for Quinn on February 22, provided a statement to Investigator Horstmann and Special Agent Clark on February 26, 2005. Pet. Ex. 15 at 60-65. She told them that the baby had a fever that day³⁰ and wouldn't eat. Pet. Ex. 15

²⁸ I note that the medical records and the Heaths' testimony do not support the description of the events of February 22, 2005 set forth in Dr. Yazbak's report, Pet. Ex. 19 at 25. He relies on prolonged "high-pitched cries" and "vomit-projectile" that are not mentioned in either the testimony or the records.

²⁹ I note, however, that Laura Hunt, who watched Quinn after she received Synagis on February 22, 2005, observed that Quinn was not abnormally fussy that day, simply fussy in a way that she would expect from an infant who had received vaccinations. Pet. Ex. 15 at 63.

³⁰ This reference to fever appears in the investigator's notes. It is not clear whether Mrs. Hunt knew that because Mrs. Heath told her, or because she independently observed it, or because she inferred it from the fact that Mrs. Heath had given Quinn Tylenol. In her signed statement, Mrs. Hunt recalls telling Mrs.

at 45. She said that when Mrs. Heath dropped Quinn off, she told Mrs. Hunt that the baby had received a shot, had received Tylenol, and would be sleepy. Pet. Ex. 15 at 60. Mrs. Hunt told the investigators that Quinn slept “more than usual” based on her other experiences babysitting for Quinn. Pet. Ex. 15 at 65. She also told them that when Quinn woke up, she cried in her normal way, and was receptive to Mrs. Hunt’s efforts to put her back to sleep. Pet. Ex. 15 at 61.

Phillip Hunt, Laura Hunt’s husband, was home during the time that Mrs. Hunt was babysitting for Quinn. He explained that he was playing a computer game while Mrs. Hunt babysat Quinn and did not recall all the details of the day. Pet. Ex. 15 at 70. His statement to investigators, recorded February 26, 2005, differed from his wife’s as to the time when Quinn was dropped off and when during the visit Mrs. Hunt attempted to feed Quinn. See Pet. Ex. 15 at 66-73. His statement was consistent with his wife’s regarding Quinn’s behavior that day. He told investigators that Mrs. Heath had described the baby as “irritable” after her Synagis shot. Pet. Ex. 15 at 66. He noted that Quinn did not take much of her formula, slept for short periods, and woke up fussing. Pet. Ex. 15 at 67. He noted that his wife told him Quinn felt hot and had a fever. Pet. Ex. 15 at 68.

On February 23, 2005, early intervention service coordinator Donna Page Harrison visited Mrs. Heath and Quinn for a therapy session. Pet. Ex. 15 at 80, 82-85. In a February 28, 2005, statement given by Ms. Harrison to Investigator Horstmann, Ms. Harrison explained that Quinn was fussy, and Mrs. Heath “said that the baby wasn’t usually this fussy but had immunizations [sic] the day before, and that the baby hadn’t slept all night so mom hadn’t slept all night and they were both tired.” Pet. Ex. 15 at 82. Ms. Harrison also said that she asked Mrs. Heath if Quinn was running a fever, and Mrs. Heath said that Quinn was not. Ex. 15 at 84.

These statements, along with Staff Sergeant Sparks’ report of what the Heaths told her when she responded to the 911 call, indicate that Quinn was alternately sleeping and fussing during the day of February 22. She slept poorly that evening, and was again fussy on February 23, 2005. These accounts are consistent with the ones Mrs. Heath made to investigators on February 25, 2005. None of the three witnesses who gave statements regarding their interaction with Quinn those two days said she was unresponsive or exhibiting blank stares. Contrary to Mrs. Heath’s testimony at the hearing, these witnesses were consistent in describing Quinn as “fussy” or “irritable” after Quinn’s Synagis shot on February 22. I accept the statements made in the relatively contemporaneous accounts, rather than Mrs. Heath’s testimony at the hearing. The statements of Mr. and Mrs. Hunt, Ms. Harrison, and the accounts Mrs. Heath provided to others around the time of the events in question are consistent with each other and were made at a point in time when accurate reporting of Quinn’s

Heath when Mrs. Heath returned that “Quinn was feverish and I said that I thought the shot was getting the best of her.” Pet. Ex. 15 at 64-65.

symptoms would aid her treatment. I conclude that Quinn was fussy or irritable after receiving the Synagis shot, not lethargic or blankly staring.

3. Quinn was responsive to her mother and following her with her eyes on the afternoon of February 23, 2005. She was less responsive than usual and was not interested in feeding at the time her father assumed care of her between 9:30 and 10:00 PM on the evening of February 23, 2005. Within 10-15 minutes of Mrs. Heath's departure that evening, Quinn vomited, ceased breathing, and became unresponsive. Mr. Heath attempted CPR, called 911, called Mrs. Heath, and sought assistance from a neighbor after Quinn's collapse. Emergency personnel arrived at the Heath quarters within 1-2 minutes of receiving the 911 call, followed very quickly by an Air Force ambulance team's arrival.

Ms. Harrison observed Quinn follow her mother's movements with her eyes during her visit to the Heath quarters and observed the baby respond to efforts to console her. Pet. Ex. 15 at 82-84. After the visit by Ms. Harrison, Mrs. Heath's statements indicate that she met Mrs. Katie Waters, who was then a friend of Mrs. Heath's, at about 3:00 PM. Pet. Ex. 15 at 52; Res. Ex. A at 7 (summaries of interview of Mrs. Heath on February 25, 2005). Mrs. Waters apparently returned home at some point that day, because Mrs. Heath indicated that she picked Mrs. Waters up on the way to the Huddle House to eat that evening. Pet. Ex. 15 at 52; see *also* Tr. at 41. Although Mrs. Waters was interviewed at least two times and executed two sworn, written statements, apparently she was not asked about Quinn's appearance or behavior during the afternoon of February 23, 2005. See Res. Ex. A at 21-25; 32-34, 196-99. Mrs. Heath testified that she and Katie had a falling out after Quinn's hospitalization, and that this disagreement accounted for statements from Mrs. Waters and others that the Heaths had exhibited poor parenting skills, as well as for observations that the Heaths had handled Quinn roughly, including swinging her around by her legs in what the Heaths called "flying baby."³¹ Tr. at 78-81, 186-91; see *also* Res. Ex. A at 26-37 (statements concerning the Heaths' treatment of Quinn).

Thus, the only direct evidence of what transpired on February 23, 2005, between the conclusion of Ms. Harrison's visit and the arrival of the Heaths' neighbors after Quinn's collapse comes from the Heaths themselves. Their accounts vary.

³¹ Petitioner objected to my consideration of these statements on hearsay grounds. Tr. at 68-69. As I reminded petitioner's counsel, the rules of evidence do not apply to admission of evidence in Vaccine Act proceedings. § 300aa-12(d)(2); Tr. at 69. However, the rationale behind those evidentiary strictures does bear on the weight to be accorded to statements of witnesses who do not testify in person, and thus whose demeanor cannot be assessed. I have accorded little weight to the statements describing anything other than the events occurring during the period between Quinn's vaccination and her collapse, and have not considered the statements regarding the Heaths' parenting skills or the "flying baby" allegations in arriving at these factual conclusions.

The accounts made relatively contemporaneous to the events in question reflect that Mr. Heath returned home at about 9:30 PM that evening. Pet. Ex. 15 at 52; Res. Ex. A at 7 (investigator notes of an interview with Mrs. Heath). He showered, and then began attempting to feed Quinn as Mrs. Heath left to pick up Katie Waters en route to the Huddle House. *Id.*

While Mr. Heath fed and burped Quinn after his wife's departure, Quinn vomited and stopped breathing. I base this finding on Mr. Heath's statement on February 24, 2005, to his unit First Sergeant, Antonio Lugo.³² Res. Ex. A. at 106.

Mr. Heath called Mrs. Heath between 10:07 and 10:09 PM to report Quinn's collapse.³³ Mrs. Heath indicated to investigators that she received Mr. Heath's call about 10 minutes after she left for the Huddle House, placing her departure from the Heath quarters at just before 10:00 PM. Res. Ex. A at 7. According to an Air Force investigator who drove the route between the Heath family quarters to the Huddle House restaurant, the drive took about six minutes. Res. Ex. A at 47.

After calling 911,³⁴ Mr. Heath ran to his neighbors' home, and both Senior Airman Kiel Nichols and his wife Rebecca Nichols returned to the Heaths' quarters with Mr. Heath. Res. Ex. A at 9-10; 114-15, 117-18. Senior Airman Nichols observed Quinn on the couch with fluid exuding from her mouth and nose. Two bottles were on an end table near the couch, one empty, and one with a small amount of formula in it. As he checked for a pulse, fire department personnel arrived on the scene. Res. Ex. A at 9, 114-15. Mrs. Nichols also observed Quinn on her side, spitting up. She moved Quinn, prompting her to expel more fluid from her mouth and nose. She observed a cloth with a little blood, mucus, and formula on it. Res. Ex. A at 9, 117-18; see *also* Res. Ex. A at

³² When interviewed on March 1, 2005, First Sergeant Antonio Lugo indicated that Mr. Heath told him that he had been feeding Quinn the evening she collapsed, but that she was not eating as aggressively as usual. He continued to feed and burp Quinn, and she eventually vomited and stopped breathing. Mr. Heath panicked and tried to get her to breathe, screaming at her and performing CPR. Mr. Heath also called 911. Res. Ex. A at 9-10, 105-06. Although Mr. Heath also reported that the fire department arrived about 15 minutes later (Res. Ex. A at 106), the time line compiled from the telephone calls to Mrs. Heath and emergency services suggest that Mr. Heath's sense of time was inaccurate. Mr. Heath told Mr. Farwell, one of the emergency services personnel who arrived on the scene, that Quinn had been "down" about five minutes. Res. Ex. A. at 10; see *also* Tr. at 210-11. The fire department personnel actually arrived less than four minutes after being called.

³³ The Heaths' home telephone records reflect an out-going call to Mrs. Heath's cell phone at 10:08:59. Pet. Ex. 15 at 25. Mrs. Heath's cell phone records reflect an incoming call from the home number at 10:07 PM. *Id.* at 9; see *also* Res. Ex. A at 17 (description of sequence of calls between Mr. and Mrs. Heath on the evening of February 23, 2005).

³⁴ The investigator notes after reviewing the 911 call reflect that the call was placed at about 10:09 PM, and lasted 57 seconds. The caller described a two-month-old infant who was eating, breathing, and content, and then went limp and vomited, and that she might have vomit in her airway. A unit was dispatched at 10:09:36, and arrived on the scene at 10:10:03. Res. Ex. A at 19.

124 (statement of first responder Mark Farwell). Mr. Heath told Mrs. Nichols that he was feeding Quinn, but he “wasn’t doing it right.” Res. Ex. A. at 118.

According to notes attributed to Staff Sergeant Sparks, Mr. Heath told her he gave Quinn two chest thrusts as part of the resuscitative efforts, causing her to throw up out of her mouth and nose. He also gave the baby back blows and was nervous about that. Res. Ex. A at 112.

Mrs. Heath returned to the quarters with Katie Waters at the time Quinn was being taken to the ambulance for transport to the hospital. Pet. Ex. 15 at 52 (notes of interview with Mrs. Heath). According to Mrs. Waters, Mrs. Heath was hostile to the ambulance personnel. Res. Ex. A at 197. Emergency personnel on the scene indicated that Mrs. Heath had to be restrained by the security police. Pet. Ex. 15 at 81 (statement of Randy Wright), 59 (statement of Mark Farwell).

What happened during Quinn’s transport to the hospital and thereafter does not appear to be disputed, and my factual findings regarding those events are set forth in Section III.A., above. Disputes remain about the medical import of the testing performed on Quinn and the conclusions the treating providers drew therefrom. Conclusions regarding these matters will be addressed after hearing the testimony of the expert witnesses. Further factual findings may be necessary, based on the expert testimony.

IV. Orders to the Parties.

A hearing to take testimony from the parties’ medical experts is scheduled for December 1, 2010. The parties are directed to provide a copy of these factual findings to their respective experts, and the experts shall conform their expert opinions to these factual findings. Should an expert disagree with any factual finding herein, that expert shall clearly state in a supplemental report: (1) the finding involved; (2) the reasons for the expert’s disagreement; and (3) the impact, if any, of my contrary finding on the expert’s conclusions regarding causation.

IT IS SO ORDERED.

s/Denise K. Vowell
Denise K. Vowell
Special Master