In the United States Court of Federal Claims

No. 18-361V
(Filed Under Seal: October 8, 2021)
(Reissued for Publication: October 25, 2021)[1]

MICHAEL BULL,	*	
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Petitioner,	*	
	*	Vaccine Act; Motion for Review; Influenza
v.	*	Vaccine; Nature of Injury; Brachial Neuritis;
	*	Consideration of Evidence; Causation;
SECRETARY OF HEALTH AND HUMAN SERVICES,	*	Althen Prongs Two and Three
	*	
Respondent.	*	

Mark T. Sadaka, Englewood, NJ, for petitioner.

Mollie D. Gorney, United States Department of Justice, Washington, DC, for respondent.

OPINION AND ORDER

SWEENEY, Senior Judge

Petitioner Michael Bull seeks compensation under the National Childhood Vaccine Injury Act of 1986 ("Vaccine Act"), 42 U.S.C. §§ 300aa-1 to -34 (2018), alleging that he developed brachial neuritis as a result of an influenza vaccination. In an April 20, 2021 decision, the chief special master denied petitioner's request for compensation. Before the court is petitioner's motion for review of that decision. As discussed below, the court denies petitioner's motion and sustains the decision of the chief special master.

I. BACKGROUND

Petitioner filed his petition for compensation under the Vaccine Act on March 8, 2018. After he filed his medical records and other relevant fact evidence, the chief special master held a fact hearing regarding the onset of petitioner's injury. The parties then filed expert reports and

[1] Vaccine Rule 18(b), set forth in Appendix B of the Rules of the United States Court of Federal Claims, affords each party fourteen days in which to object to the disclosure of (1) trade secrets or commercial or financial information that is privileged or confidential or (2) medical information that would constitute "a clearly unwarranted invasion of privacy." Neither party objected to the public disclosure of any information contained in this opinion.

medical literature, and respondent filed a motion for a ruling on the record. When respondent filed his motion, the record included petitioner's medical records; petitioner's sworn affidavit; sworn certifications from petitioner, petitioner's coworker, and petitioner's ex-wife; hearing testimony from petitioner and petitioner's ex-wife; two expert reports; and eleven pieces of medical literature. The court briefly summarizes the relevant facts from these sources.

A. Medical Records

Petitioner was born in 1959. On October 4, 2016, he was admitted to the hospital upon complaining of chest pain. He remained hospitalized overnight, and the following morning, he received an influenza vaccination in his left arm. He was discharged from the hospital later that day.[2] The records from the hospitalization do not reflect that petitioner suffered adverse effects from the vaccination.

On October 12, 2016, petitioner was seen by his primary care physician to follow up after his discharge from the hospital. He was treated for a rash on his left hand, which was diagnosed as ringworm. Absent from the provider's record is any reference to the influenza vaccination or any complaints concerning petitioner's left arm.

Petitioner next visited his primary care physician on December 6, 2016, complaining of numbness and tingling in his left arm that began after he received his influenza vaccination. He told his physician that he was dropping things due to the numbness and that pain radiated into his fingers and shoulder. The physician performed a physical examination and noted decreased sensation to light touch in petitioner's left arm, tenderness at the vaccination site, and generally intact grip strength. He assessed petitioner with neuropathy and prescribed a month's supply of gabapentin.

On December 30, 2016, petitioner visited an urgent care center due to pain he was experiencing in his right flank after falling from a ladder nine days previously. Although the urgent care center record indicates a past medical history of left-arm neuropathy due to the influenza vaccine, the physician who saw petitioner indicated that petitioner did not report any muscle pain or weakness, and upon examination, found that petitioner had normal strength and tone in his upper extremities.

There are no medical treatment records dated after December 30, 2016, but pharmacy records indicate that petitioner obtained three refills of his gabapentin prescription, with the last one obtained on April 9, 2017.

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[2] In his decision, the chief special master states that petitioner was hospitalized from October 4 to October 6, 2016. See Bull v. Sec'y of HHS, No. 18-361V, slip op. at 2 (Fed. Cl. Spec. Mstr. Apr. 20, 2021). However, the hospital's records reflect that petitioner was discharged on October 5, 2016. See Pet'r's Ex. 2 at 17, 53. This minor discrepancy does not affect the outcome of the case.

B. Affidavits, Certifications, and Hearing Testimony

In written and oral testimony, petitioner and his ex-wife provided additional details regarding the vaccination, the symptoms petitioner experienced thereafter, and the reasons for the paucity of medical records addressing those symptoms.[3] With respect to the latter issue, they explained that they had a general reluctance to visit health care providers or take medicine unless there was a serious problem, that there was a lack of financial resources during periods of time when petitioner was uninsured, and that when seeing a health care provider, petitioner tended only to discuss symptoms related to the reason for the visit.

The chest pain that petitioner was experiencing in October 2016 was serious enough for petitioner to seek medical treatment. Ultimately, he was admitted to the hospital where he received the influenza vaccine. The vaccination was painful and he immediately had difficulty raising his left arm, but he did not say anything to the nurse at that time. However, at his ex-wife's urging, he later told a nurse about the pain, and the nurse advised him that the pain would go away. The day after he was discharged from the hospital, the pain evolved into a burning sensation from his shoulder to his hand. He continued to work through the pain, but was unable to perform certain tasks at his job rehabbing houses, such as hanging kitchen cabinets and drywall.

Petitioner was still experiencing pain, numbness, and tingling in his left arm when he visited his primary care physician one week after his hospitalization. He did not mention these symptoms, however, because they were not the purpose of the visit and he thought that the symptoms would go away. In fact, he did not even mention the rash on his hand. Rather, the physician noticed it himself and prescribed a treatment.

In conjunction with his left-arm symptoms, petitioner began to drop things, such as cigarettes, without realizing that he had dropped them. He also dropped paint pots he was using at work, and was unable to carry forty- or fifty-pound feed bags. The numbness and tingling were occurring every four or five minutes. By Thanksgiving, he was unable to grasp or hold heavy objects with his left hand, and was unable to help clean and set the table like he normally did. He continued to experience pain, as well as stinging and burning at the vaccination site.

When petitioner ultimately saw his primary care physician for his left-arm symptoms on December 6, 2016, the physician advised him that there was not much he could do except to prescribe gabapentin, and that the symptoms should resolve in six-to-twelve months. Petitioner's symptoms continued to affect his work, preventing him from performing certain tasks and requiring him to compensate by using his right hand as much as he could. He also continued to drop things, such as Christmas ornaments, without noticing. Eventually, the frequency of his symptoms decreased and his range of motion improved, but he continued to experience pain and to drop things.

[3] The chief special master found petitioner and petitioner's ex-wife to be honest and therefore credited their testimony regarding petitioner's postvaccination symptoms.

Since his last gabapentin refill, petitioner's pain symptoms have improved, but he still suffers from occasional numbness and tingling.

C. Expert Reports and Medical Literature

In support of his petition for compensation, petitioner submitted an expert report from an orthopedic surgeon, Paul F. Nassab, M.D.; two pieces of medical literature attached to Dr. Nassab's report (a case series and a case report); and six other pieces of medical literature (four case reports, a book chapter, and a case series). In his expert report, Dr. Nassab opined that based on his symptoms, petitioner suffered from Parsonage-Turner syndrome, which is also known as brachial plexus neuritis or just brachial neuritis. Dr. Nassab further opined that brachial neuritis can be caused by an influenza vaccination, as demonstrated by the case report he attached to his expert report; that the onset and timing of petitioner's symptoms were consistent with a postvaccination brachial neuritis; and that the prevailing cause of petitioner's injury was the influenza vaccination. The case series attached to Dr. Nassab's expert report (but not discussed by Dr. Nassab) is a retrospective review of magnetic resonance image findings and clinical information for twenty-seven patients diagnosed with Parsonage-Turner syndrome. Of the four case reports submitted by petitioner separate from Dr. Nassab's expert report, two concern brachial neuritis following an influenza vaccination, one concerns brachial neuritis following a swine flu vaccination, and one concerns brachial neuritis following rotator cuff surgery. The book chapter submitted by petitioner generally addresses brachial neuritis, and the case series submitted by petitioner focuses on the treatment of neuropathic and musculoskeletal pain with gabapentin.

Respondent, in turn, submitted an expert report from a neurologist, Raymond S. Price, M.D., and four pieces of medical literature relied upon by Dr. Price (three case series and the same case report relied upon by Dr. Nassab). In his expert report, Dr. Price opined that petitioner's presentation of symptoms was inconsistent with a diagnosis of brachial neuritis. He explained that muscle weakness and wasting is a hallmark of brachial neuritis, but that there is no evidence that petitioner suffered from such symptoms. Rather, he elaborated, the medical records reflect that petitioner had normal strength in his left arm and an intact left grip, and petitioner's dropping of items and inability to fully raise his arm were reasonably explained by, respectively, petitioner's numbness and pain. Dr. Price further opined that the timing of the onset of petitioner's symptoms was inconsistent with brachial neuritis because brachial neuritis is presumed to be immune-mediated, and immune-mediated processes require time to activate the immune system. Indeed, Dr. Price observed, in the case report that Dr. Nassab relied upon, symptoms of brachial neuritis did not begin to occur until three days after the vaccination. Finally, Dr. Price remarked that petitioner never received a confirmed diagnosis of brachial neuritis—either through examination by a neurologist or with testing (nerve conduction studies and needle electromyography).

D. The Chief Special Master's Decision

On April 20, 2021, the chief special master decided respondent's motion for a ruling on the record. After a review of petitioner's medical history, the expert reports, and the applicable law, the chief special master concluded that petitioner had not established that he suffered from

brachial neuritis due to the lack of such a diagnosis by his treating physicians, as well as the lack of demonstrated muscle weakness and wasting. With respect to the latter reason, the chief special master was persuaded by Dr. Price's opinion that petitioner "lacked the required clinical indicia or other testing results . . . that would confirm a diagnosis of brachial neuritis." Bull, slip op. at 18. The chief special master determined, in short, that "brachial neuritis does not 'more likely than not' explain Petitioner's injury—and this could reasonably be grounds for the claim's dismissal . . . ." Id.

Nevertheless, the chief special master assumed, for the sake of argument, that petitioner suffered from brachial neuritis and thus analyzed petitioner's claim under the test for causation set forth in Althen v. Secretary of HHS:

> [Petitioner]'s burden is to show by preponderant evidence that the vaccination brought about [the] injury by providing: (1) a medical theory causally connecting the vaccination and the injury; (2) a logical sequence of cause and effect showing that the vaccination was the reason for the injury; and (3) a showing of a proximate temporal relationship between vaccination and injury.

418 F.3d 1274, 1278 (Fed. Cir. 2005). With respect to the first prong, he concluded that petitioner had submitted reliable evidence—in the form of case reports—to support his contention that the influenza vaccine can cause brachial neuritis, but that such evidence was not preponderant. Turning to the third prong, the chief special master found, based on the honest, credible testimony of petitioner and petitioner's ex-wife, that petitioner's left-arm symptoms began immediately after his vaccination. Given that finding, he determined that petitioner had not established that the onset of his injury occurred within a medically accepted period of time because—as reflected by the case report relied upon by Dr. Nassab, Dr. Price's expert report, and an article relied upon by Dr. Price—symptoms of brachial neuritis would not manifest immediately after vaccination. Next, addressing the second prong, the chief special master concluded that petitioner did not establish that the influenza vaccine did cause his injury, noting that there was no evidence that petitioner experienced an inflammatory process that would indicate an immune-mediated response to the vaccine.

As a final matter, the chief special master explained that the overall thinness of the record hampered petitioner's ability to establish a preponderance of the evidence in support of his claim. This thinness specifically affected petitioner's ability to establish that he suffered from brachial neuritis, that the influenza vaccine could cause brachial neuritis, and the severity of his injury. The chief special master ultimately granted respondent's motion and dismissed petitioner's claim.

Petitioner timely sought review of the chief special master's decision. Respondent subsequently filed his response to the motion for review, and the court heard argument on October 8, 2021. The motion is now ripe for adjudication.

II. DISCUSSION

In his motion for review, petitioner enumerates, pursuant to Vaccine Rule 24, two objections to the chief special master's decision.[4] First, petitioner avers that the chief special master did not consider medical facts and medical literature supporting a diagnosis of brachial neuritis. Second, petitioner asserts that the chief special master did not consider facts and peer-reviewed medical literature relating to the onset and causation of his injury.[5] As a consequence of these purported errors, petitioner contends, the chief special master improperly raised his burden of proof such that he was required to establish with certainty that the influenza vaccine caused his injury. Petitioner further contends that the chief special master's fact findings were arbitrary and capricious. Petitioner accordingly requests that the court set aside the chief special master's findings of fact and conclusions of law, and either (1) issue its own findings and conclusions, and determine that he is entitled to compensation, or (2) remand the case to the chief special master for further proceedings.

A. Standard of Review

The United States Court of Federal Claims has jurisdiction to review the record of the proceedings before a special master, and upon such review, may:

> (A) uphold the findings of fact and conclusions of law of the special master and sustain the special master's decision,
>
> (B) set aside any findings of fact or conclusion of law of the special master found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law and issue its own findings of fact and conclusions of law, or
>
> (C) remand the petition to the special master for further action in accordance with the court's direction.

42 U.S.C. § 300aa-12(e)(2). The standards set forth in section 12(e)(2)(B) "vary in application as well as degree of deference. . . . Fact findings are reviewed . . . under the arbitrary and capricious standard; legal questions under the 'not in accordance with law' standard; and discretionary rulings under the abuse of discretion standard." Munn v. Sec'y of HHS, 970 F.2d 863, 870 n.10 (Fed. Cir. 1992). Specifically, with respect to the special master's fact findings,

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[4] Petitioner numbered his objections differently in his memorandum in support of his motion for review. Objections "1" and "2" in the motion for review are numbered "1.1" and "1.2" in the supporting memorandum. Objections "1" and "2" in the memorandum set forth petitioner's arguments regarding the legal consequences of the purported deficiencies described in objections "1.1" and "1.2." The court addresses petitioner's arguments regarding the legal consequences in conjunction with the purported deficiencies.

[5] Petitioner characterizes this objection as relating only to the onset of his injury (Althen prong 3), but two of the arguments he advances relate to whether his injury was caused by the influenza vaccine (Althen prong 2).

the court does "not reweigh the factual evidence, assess whether the special master correctly evaluated the evidence, or examine the probative value of the evidence or the credibility of the witnesses—these are all matters within the purview of the fact finder." Porter v. Sec'y of HHS, 663 F.3d 1242, 1249 (Fed. Cir. 2011); see also Hodges v. Sec'y of HHS, 9 F.3d 958, 961 (Fed. Cir. 1993) ("[O]n review, the Court of Federal Claims is not to second guess the Special Master[']s fact-intensive conclusions; the standard of review is uniquely deferential for what is essentially a judicial process."). "Rather, as long as a special master's finding of fact is 'based on evidence in the record that [is] not wholly implausible, [the court is] compelled to uphold that finding as not being arbitrary or capricious.'" Porter, 663 F.3d at 1249 (first alteration in the original) (quoting Cedillo v. Sec'y of HHS, 617 F.3d 1328, 1338 (Fed. Cir. 2010)).

B. Legal Standard

The objections set forth in petitioner's motion for review relate to the chief special master's determination that petitioner did not meet his burden of proving that the influenza vaccine caused his injury, which he identifies as brachial neuritis. As an initial matter, because injuries may have significantly different causes and pathologies, "identifying the injury is a prerequisite to the analysis" of causation. Broekelschen v. Sec'y of HHS, 618 F.3d 1339, 1346 (Fed. Cir. 2010). Indeed, "if the existence and nature of the injury itself is in dispute, it is the special master's duty to first determine which injury was best supported by the evidence presented in the record before applying the Althen test to determine causation of that injury." Lombardi v. Sec'y of HHS, 656 F.3d 1343, 1352 (Fed. Cir. 2011); accord Hibbard v. Sec'y of HHS, 698 F.3d 1355, 1365 (Fed. Cir. 2012) ("If a special master can determine that a petitioner did not suffer the injury that she claims was caused by the vaccine, there is no reason why the special master should be required to undertake and answer the separate (and frequently more difficult) question whether there is a medical theory, supported by 'reputable medical or scientific explanation,' by which a vaccine can cause the kind of injury that the petitioner claims to have suffered." (quoting Althen, 418 F.3d at 1278)).

As noted above, to prove causation under the Vaccine Act, a petitioner must

> show by preponderant evidence that the vaccination brought about [his] injury by providing (1) a medical theory causally connecting the vaccination and the injury; (2) a logical sequence of cause and effect showing that the vaccination was the reason for the injury; and (3) a showing of a proximate temporal relationship between vaccination and injury.

Althen, 418 F.3d at 1278; see also Boatmon v. Sec'y of HHS, 941 F.3d 1351, 1355 (Fed. Cir. 2019) (noting that a petitioner must "prove[] all three Althen prongs by a preponderance of the evidence"). Under the first prong, a petitioner must demonstrate that the vaccine at issue can cause the injury alleged. Pafford v. Sec'y of HHS, 451 F.3d 1352, 1355-56 (Fed. Cir. 2006). To make this showing, "a petitioner must provide a reputable medical or scientific explanation that pertains specifically to the petitioner's case, although the explanation need only be 'legally probable, not medically or scientifically certain.'" Broekelschen, 618 F.3d at 1345 (quoting Knudsen v. Sec'y of HHS, 35 F.3d 543, 548-49 (Fed. Cir. 1994)). The second prong requires a petitioner to show "that the vaccine was the 'but for' cause of the harm," Pafford, 451 F.3d at

1356, or, in other words, "'that the vaccine actually caused the alleged symptoms in [the] particular case,'" id. (quoting the decision of the special master as recited by the trial court). Establishing the third prong "requires preponderant proof that the onset of symptoms occurred within a timeframe for which, given the medical understanding of the disorder's etiology, it is medically acceptable to infer causation-in-fact." de Bazan v. Sec'y of HHS, 539 F.3d 1347, 1352 (Fed. Cir. 2008); accord Althen, 418 F.3d at 1281 (describing the requirement as "a medically-acceptable temporal relationship between the vaccination and the onset of the alleged injury"). In short, a petitioner is required "to prove, by a preponderance of the evidence, that the vaccine was not only a but-for cause of the injury but also a substantial factor in bringing about the injury." Shyface v. Sec'y of HHS, 165 F.3d 1344, 1352 (Fed. Cir. 1999); see also Moberly v. Sec'y of HHS, 592 F.3d 1315, 1322 n.2 (Fed. Cir. 2010) ("The burden of showing something by a 'preponderance of the evidence,' the most common standard in the civil law, simply requires the trier of fact to believe that the existence of a fact is more probable than its nonexistence before [he] may find in favor of the party who has the burden to persuade the [judge] of the fact's existence." (quoting Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pension Tr. for S. Cal., 508 U.S. 602, 622 (1993))).

Generally, "[t]he determination of causation in fact under the Vaccine Act involves ascertaining whether a sequence of cause and effect is 'logical' and legally probable, not medically or scientifically certain." Knudsen, 35 F.3d at 548-49. Thus, causation can be established with circumstantial evidence—in other words, with medical records or medical opinion. Althen, 418 F.3d at 1279-80 (citing 42 U.S.C. § 300aa-13(a)(1)); see also Knudsen, 35 F.3d at 548 (observing that the "'logical sequence of cause and effect' must be supported by a sound and reliable medical or scientific explanation" (citing Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993); Jay v. Sec'y of HHS, 998 F.2d 979, 984 (Fed. Cir. 1993))). A petitioner "need not produce medical literature or epidemiological evidence to establish causation," but "where such evidence is submitted, the special master can consider it in reaching an informed judgment as to whether a particular vaccination likely caused a particular injury." Andreu v. Sec'y of HHS, 569 F.3d 1367, 1379 (Fed. Cir. 2009). But see LaLonde v. Sec'y of HHS, 746 F.3d 1334, 1341 (Fed. Cir. 2014) ("In Vaccine Act cases, petitioners must proffer trustworthy testimony from experts who can find support for their theories in medical literature in order to show causation under the preponderance of the evidence standard. The level of specificity of such support may vary from circumstance to circumstance.").

C. The Chief Special Master's Consideration of Evidence Related to the Diagnosis of Petitioner's Injury Was Not Arbitrary and Capricious

Petitioner's first enumerated objection is that the chief special master did not consider all of the evidence in the record supporting a diagnosis of brachial neuritis, and therefore improperly raised his burden of proof. In particular, petitioner contends that the chief special master "overemphasized and/or misapprehended the role of 'muscle weakness and wasting'";[6] failed "to

[6] Petitioner contends that "both experts agree that [muscle weakness and wasting] can sometimes only be seen by expensive testing," Pet'r's Mem. 4, but Dr. Nassab's report does not mention testing at all, and Dr. Price merely states that electromyography testing "is frequently

consider that only 30% of the people who develop brachial neuritis have muscle wasting,"[7] failed "to consider testimony that [petitioner] had documented weakness and was unable to lift bags of feed"; failed to consider "direct evidence that petitioner was suffering from brachial neuritis"—the tingling and numbness petitioner reported to his primary care physician on December 6, 2016—despite the "classical presentation of brachial neuritis [being] the sudden onset of intense shoulder pain any time after the triggering event followed by localized weakness or hypothesia/paresthesia";[8] and did not recognize that "the presence of weakness is not required for a diagnosis of brachial neuritis."[9] Pet'r's Mem. 4-5. Respondent counters that the chief special master properly concluded that the record did not support a diagnosis of brachial neuritis, remarking that none of petitioner's treating physicians diagnosed petitioner with brachial neuritis; that the contemporaneous medical records lack any evidence of muscle weakness or wasting; that medical literature submitted by petitioner confirms that muscle weakness is a main characteristic of brachial neuritis; that petitioner's inability to lift feed bags was never attributed to muscle weakness (rather than pain or numbness); and that the chief special master's decision to credit Dr. Price's opinion was proper, especially given Dr. Nassab's failure to explain why petitioner's symptoms supported a diagnosis of brachial neuritis.

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helpful in distinguishing neuromuscular weakness from weakness secondary to pain," Resp't's Ex. A at 3.

[7] In support of this contention, petitioner relies on a case series of twenty-seven patients diagnosed with Parsonage-Turner syndrome in which all of the "patients either reported having shoulder weakness or were found to have shoulder weakness," Pet'r's Ex. 13 at 3, and "[n]ine (30%) shoulders were noted at [magnetic resonance] imaging to have muscular atrophy," id. at 4.

[8] The case report from which petitioner derives this classical presentation provides:

> [Parsonage-Turner syndrome] usually occurs after an inciting event . . . .
>
> > Historically, the classical form of this syndrome presents with excruciating pain, anytime up to a few weeks following an inciting event, with subsequent localized weakness or hypothesia/paresthesia in certain areas innervated by the affected nerves. However, motor deficits are more common than sensory involvement.

Pet'r's Ex. 19 at 1; accord id. at 4 ("The classical presentation typically manifests within the first few weeks of inciting events and is characterized by pain and motor weakness."). The onset of the "right upper extremity weakness" in the patient described in the case report occurred ten weeks after rotator cuff surgery. Id. at 1.

[9] The authors of the case report on which petitioner relies for this proposition do not state that muscle weakness is not required for a brachial neuritis diagnosis. See generally Pet'r's Ex. 16. Moreover, they describe a patient who had "mild, but detectable, left deltoid weakness." Id. at 3.

Petitioner primarily focuses on the chief special master's findings pertaining to muscle weakness and wasting, challenging the chief special master's statement that these two symptoms were important features of brachial neuritis. Petitioner's argument is not persuasive because the chief special master's statement is amply supported by the evidence in the record, including Dr. Price's expert report and every piece of medical literature submitted by the parties that addresses brachial neuritis.[10] Furthermore, it was reasonable for the chief special master to rely on Dr. Price's opinion that there is a lack of clinical evidence of brachial neuritis in the record. Dr. Price explained that petitioner's medical records from December 2016 indicate that petitioner had normal strength in his left arm, and lack any indication that he lost muscle bulk in his left arm. Consequently, Dr. Price concluded and the chief special master agreed that the most reasonable explanations for petitioner's dropping of objects and inability to lift his left arm was numbness and pain, respectively, and not muscle weakness.

There is no requirement that a special master discuss every piece of evidence in the record when making a factual finding. See, e.g., Snyder v. Sec'y of HHS, 36 Fed. Cl. 461, 466 (1996) ("The special master need not discuss every item of evidence in the record so long as the decision makes clear that the special master fully considered a party's position and arguments on point."), aff'd, 117 F.3d 545 (Fed. Cir. 1997); see also Hazlehurst v. Sec'y of HHS, 604 F.3d 1343, 1352 (Fed. Cir. 2010) (noting that a reviewing court presumes that the fact finder has considered all of the material in the record, regardless of whether it is mentioned in his or her decision). In this case, it is readily apparent from the extensive factual recitation in his decision that the chief special master considered all of the evidence in the record, even if he did not specifically mention each potentially relevant fact. Further, his factual findings were supported by that record: brachial neuritis is characterized by muscle weakness and there is limited evidence in the record that petitioner suffered from muscle weakness. Petitioner had the burden of establishing that he suffered from brachial neuritis by preponderant evidence, and the chief special master did not heighten that burden by seeking objective evidence that petitioner experienced a key symptom of that injury.

In short, it was not arbitrary or capricious for the chief special master to conclude that petitioner had not established by a preponderance of evidence that he suffered from brachial neuritis. Because petitioner's theory of causation depends upon a diagnosis of brachial neuritis, this conclusion alone requires the court to deny petitioner's motion for review. Nevertheless, the court will address petitioner's other objection to the chief special master's decision.

D. The Chief Special Master's Consideration of Evidence Related to the Onset and Causation of Petitioner's Injury Was Not Arbitrary and Capricious

In his second enumerated objection, petitioner asserts that the chief special master did not consider facts and medical literature related to the onset and causation of his injury, specifically identifying four purported deficiencies. First, petitioner contends that the chief special master ignored the book chapter on brachial neuritis, which supports the possibility of a one-day onset of brachial neuritis after the triggering event. Second, in apparent contradiction to his first

[10] Only one article does not concern brachial neuritis: the case series concerning the treatment of neuropathic and musculoskeletal pain with gabapentin.

argument, his own testimony (which the special master found to be credible), and his own expert's report, petitioner contends that the onset of his injury was not immediate because no symptoms related to his left arm are mentioned in the record of his visit with his primary care physician on October 16, 2016. Third, petitioner maintains that the record includes evidence that the influenza vaccination caused an inflammatory response (indicating an immune-mediated reaction that is generally understood to be the cause of brachial neuritis)[11]—the tenderness on his left arm at the vaccination site noted by his primary care physician on December 6, 2016—and that the chief special master improperly required him to provide evidence of an inflammatory process when such evidence does not exist due to the cost of obtaining the necessary medical treatment and testing. Fourth, petitioner asserts that the chief special master did not consider the causal link purportedly drawn by his primary care physician between the influenza vaccination and his injury. In response, respondent contends that there is no indication that the chief special master disregarded evidence in the record concerning the onset of petitioner's injury, that the evidence in the record supports the chief special master's finding that the onset of whatever injury petitioner sustained from the vaccination was immediate rather than between one and twenty-eight days, that the evidence in the record supports the chief special master's finding that the onset of brachial neuritis could not occur immediately after an influenza vaccination, and that Dr. Nassab did not explain how the tenderness petitioner exhibited on December 6, 2016, was evidence of an inflammatory response to the October 5, 2016 influenza vaccination.

In his first two contentions, petitioner complains that the chief special master did not consider evidence in the record (a book chapter and a medical record) related to the timing of the onset of brachial neuritis postvaccination. He argues that this evidence, which pertains to the third Althen prong, demonstrates that his injury did not manifest until at least eleven days after his influenza vaccination and, to the extent the weight of the evidence instead reflects a one-day onset, that brachial neuritis can occur between one and twenty-eight days postvaccination. Petitioner's argument fails for two reasons. First, there is no indication that the chief special master failed to consider the book chapter or medical record identified by petitioner. In his decision, the chief special master described the contents of the medical record and quoted the portion of petitioner's response brief for which petitioner relied on the book chapter.[12] Second, the chief special master reasonably found that petitioner's injury manifested before the one-to-twenty-eight-day time frame petitioner urges. Petitioner and his ex-wife testified that petitioner experienced pain and was unable to fully lift his arm immediately after he received the influenza vaccination. Because the chief special master regarded petitioner and his ex-wife to be honest, he credited this testimony and found that the onset of petitioner's injury was immediate (in other words, before the one-day minimum petitioner espouses). Further, to the extent that petitioner's failure to mention his left-arm symptoms to his primary care physician on October 16, 2016, constitutes evidence of a later onset date, the chief special master was entitled to give little weight to that evidence, especially since petitioner explained that he was in fact experiencing

[11] Petitioner avers that "both experts agree that brachial neuritis is caused by an inflammatory process," Pet'r's Mem. 6, but Dr. Nassab does not make such a statement in his expert report.

[12] The chief special master refers to this portion of petitioner's response brief as "Pet. Reply at 12" rather than "Pet. Resp. at 12."

symptoms at that time. See, e.g., Koehn v. Sec'y of HHS, 773 F.3d 1239, 1244 (Fed. Cir. 2014) (remarking "that it is within the Special Master's discretion to weigh the relevant evidence").

In his remaining two contentions, petitioner asserts that the chief special master disregarded evidence in the record indicating that the influenza vaccine did, in fact, cause his injury—the third prong of Althen. He specifically identifies this evidence as vaccination-site tenderness that his primary care physician observed in December 2016 and his primary care physician's purported linking of his injury to his vaccination. With respect to the former, petitioner does not identify any evidence in the record supporting the proposition that vaccination-site tenderness two months postvaccination indicates an inflammatory response to the vaccine. With respect to the latter, the record lacks any evidence that petitioner's primary care physician ever linked petitioner's left-arm symptoms to his vaccination. There is, however, an urgent care center record on which it is noted that petitioner had a history of left-arm neuropathy due to the influenza vaccine. But there is no indication that this notation reflects the treating physician's determination that petitioner's injury was caused by the vaccine.[13]

More generally, petitioner claims that by requiring him to produce "evidence, direct or indirect, of an inflammatory process that could be attributed to an immune reaction," Bull, slip op. at 21, the chief special master was penalizing him for lacking the financial resources to visit a medical provider more frequently or undergo testing that could confirm his diagnosis. While the court is sympathetic to petitioner's situation, the Vaccine Act provides no mechanism for the special masters or the court to take into account a petitioner's financial circumstances when ascertaining whether he or she has provided a preponderance of evidence that a vaccine caused the complained-of injury. Moreover, it does not heighten petitioner's burden to require him to provide such evidence.

In sum, it was not arbitrary or capricious for the chief special master to conclude that petitioner did not establish by a preponderance of evidence that his injury manifested within a medically acceptable time frame postvaccination and that his injury was actually caused by the influenza vaccine.

III. CONCLUSION

As the chief special master found, the evidence in the record reflects that petitioner experienced a painful, debilitating injury to his left arm that manifested when he received an influenza vaccination on October 5, 2016, and that he continues to suffer residual effects from that injury. And it very well may be that the vaccine caused that injury. But, given petitioner's insistence that his injury was brachial neuritis, the chief special master could not reach that conclusion in the absence of preponderant evidence that petitioner actually suffered from brachial neuritis and that the influenza vaccine caused that brachial neuritis. The chief special master reasonably concluded that petitioner had not satisfied his burden on either point.

[13] Indeed, petitioner testified that he "might have" given that history to the providers at the urgent care center. Hr'g Tr. 64.

Accordingly, the court **DENIES** petitioner's motion for review and **SUSTAINS** the decision of the chief special master. The clerk is directed to enter judgment accordingly.

IT IS SO ORDERED.

s/ Margaret M. Sweeney
MARGARET M. SWEENEY
Senior Judge