

In the United States Court of Federal Claims

OFFICE OF SPECIAL MASTERS

No. 20-1340V

Filed: September 10, 2025

TERESA MAZZA,

Petitioner,

v.

SECRETARY OF HEALTH AND
HUMAN SERVICES,

Respondent.

Special Master Horner

*Leigh Finfer, Muller Brazil, LLP, Dresher, PA, for petitioner.
Ryan Daniel Pyles, U.S. Department of Justice, Washington, DC, for respondent.*

RULING ON ENTITLEMENT¹

On October 7, 2020, petitioner filed a petition under the National Childhood Vaccine Injury Act, 42 U.S.C. § 300aa, *et seq.* (2012) (“Vaccine Act”),² alleging that she suffered a right shoulder injury as a result of an influenza (“flu”) vaccination she received on October 11, 2018. (ECF No. 1.) For the reasons set forth below, I conclude that petitioner is entitled to compensation.

I. Applicable Statutory Scheme

Under the National Vaccine Injury Compensation Program, compensation awards are made to individuals who have suffered injuries after receiving vaccines. In general, to gain an award, a petitioner must make a number of factual demonstrations, including showing that an individual received a vaccination covered by the statute;

¹ Because this document contains a reasoned explanation for the action taken in this case, it must be made publicly accessible and will be posted on the United States Court of Federal Claims' website, and/or at <https://www.govinfo.gov/app/collection/uscourts/national/cofc>, in accordance with the E-Government Act of 2002. 44 U.S.C. § 3501 note (2018) (Federal Management and Promotion of Electronic Government Services). **This means the document will be available to anyone with access to the internet.** In accordance with Vaccine Rule 18(b), Petitioner has 14 days to identify and move to redact 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 redact such material from public access.

² Within this decision, all citations to § 300aa will be the relevant sections of the Vaccine Act at 42 U.S.C. § 300aa-10, *et seq.*

received it in the United States; suffered a serious, long-standing injury; and has received no previous award or settlement on account of the injury. Finally – and the key question in most cases under the Program – the petitioner must also establish a *causal link* between the vaccination and the injury. In some cases, the petitioner may simply demonstrate the occurrence of what has been called a “Table Injury.” That is, it may be shown that the vaccine recipient suffered an injury of the type enumerated in the “Vaccine Injury Table,” corresponding to the vaccination in question, within an applicable time period following the vaccination also specified in the Table. If so, the Table Injury is presumed to have been caused by the vaccination, and the petitioner is automatically entitled to compensation, unless it is affirmatively shown that the injury was caused by some factor other than the vaccination. § 300aa-13(a)(1)(A); § 300aa-11(c)(1)(C)(i); § 300aa-14(a); § 300aa-13(a)(1)(B).

As relevant here, the Vaccine Injury Table lists Shoulder Injury Related to Vaccine Administration (“SIRVA”) as a compensable injury if it occurs within ≤48 hours of administration of a flu vaccine. § 300aa-14(a), *amended by* 42 C.F.R. § 100.3. Table Injury cases are guided by a statutory “Qualifications and aids in interpretation” (“QAI”), which provide more detailed explanation of what should be considered when determining whether a petitioner has actually suffered an injury listed on the Vaccine Injury Table. § 300aa-14(a). To be considered a Table SIRVA petitioner must show that his/her injury fits within the following definition:

SIRVA manifests as shoulder pain and limited range of motion occurring after the administration of a vaccine intended for intramuscular administration in the upper arm. These symptoms are thought to occur as a result of unintended injection of vaccine antigen or trauma from the needle into and around the underlying bursa of the shoulder resulting in an inflammatory reaction. SIRVA is caused by an injury to the musculoskeletal structures of the shoulder (e.g. tendons, ligaments, bursae, etc.). SIRVA is not a neurological injury and abnormalities on neurological examination or nerve conduction studies (NCS) and/or electromyographic (EMG) studies would not support SIRVA as a diagnosis . . . A vaccine recipient shall be considered to have suffered SIRVA if such recipient manifests all of the following:

- (i) No history of pain, inflammation or dysfunction of the affected shoulder prior to intramuscular vaccine administration that would explain the alleged signs, symptoms, examination findings, and/or diagnostic studies occurring after vaccine injection;
- (ii) Pain occurs within the specified time-frame;
- (iii) Pain and reduced range of motion are limited to the shoulder in which the intramuscular vaccine was administered; and

- (iv) No other condition or abnormality is present that would explain the patient's symptoms (e.g. NCS/EMG or clinical evidence of radiculopathy, brachial neuritis, mononeuropathies, and any other neuropathy).

42 C.F.R. § 100.3(c)(10).

Alternatively, if no injury falling within the Table can be shown, a petitioner could still demonstrate entitlement to an award by instead showing that the vaccine recipient's injury or death was caused-in-fact by the vaccination in question. § 300aa-13(a)(1)(A); § 300aa-11(c)(1)(C)(ii). In particular, a petitioner must demonstrate that the vaccine was "not only [the] but-for cause of the injury but also a substantial factor in bringing about the injury." *Moberly v. Sec'y of Health & Human Servs.*, 592 F.3d 1315, 1321-22 (Fed. Cir. 2010) (quoting *Shyface v. Sec'y of Health & Human Servs.*, 165 F.3d 1344, 1352-53 (Fed. Cir. 1999)); *Pafford v. Sec'y of Health & Human Servs.*, 451 F.3d 1352, 1355 (Fed. Cir. 2006). To successfully demonstrate causation-in-fact, petitioner bears a burden to show: (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 proximate temporal relationship between vaccination and injury. *Althen v. Sec'y of Health & Human Servs.*, 418 F.3d 1274, 1278 (Fed. Cir. 2005).

For both Table and Non-Table claims, Vaccine Program petitioners bear a "preponderance of the evidence" burden of proof. § 300aa-13(1)(a). That is, a petitioner must offer evidence that leads 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." *Moberly*, 592 F.3d at 1322 n.2 (alternation in original); see also *Snowbank Enters., Inc. v. United States*, 6 Cl. Ct. 476, 486 (1984) (explaining that mere conjecture or speculation is insufficient under a preponderance standard). Proof of medical certainty is not required. *Bunting v. Sec'y of Health & Human Servs.*, 931 F.2d 867, 873 (Fed. Cir. 1991). However, a petitioner may not receive a Vaccine Program award based solely on her assertions; rather, the petition must be supported by either medical records or by the opinion of a competent physician. § 300aa-13(a)(1).

Cases in the Vaccine Program are assigned to special masters who are responsible for "conducting all proceedings, including taking such evidence as may be appropriate, making the requisite findings of fact and conclusions of law, preparing a decision, and determining the amount of compensation, if any, to be awarded." Vaccine Rule 3(b)(1). Special masters must ensure each party has had a "full and fair opportunity" to develop the record. Vaccine Rule 3(b)(2). However, special masters are empowered to determine the format for taking evidence based on the circumstances of each case. Vaccine Rule 8(a); Vaccine Rule 8(d). Special masters are not bound by common law or statutory rules of evidence but must consider all relevant and reliable evidence in keeping with fundamental fairness to both parties. Vaccine Rule 8(b)(1). The special master is required to consider "all [] relevant medical and scientific evidence

contained in the record,” including “any diagnosis, conclusion, medical judgment, or autopsy or coroner’s report which is contained in the record regarding the nature, causation, and aggravation of the petitioner’s illness, disability, injury, condition, or death,” as well as the “results of any diagnostic or evaluative test which are contained in the record and the summaries and conclusions.” § 300aa-13(b)(1)(A). The special master is required to consider all the relevant evidence of record, draw plausible inferences, and articulate a rational basis for the decision. *Winkler v. Sec’y of Health & Human Servs.*, 88 F.4th 958, 963 (Fed. Cir. 2023) (citing *Hines ex rel. Sevier v. Sec’y of Health & Human Servs.*, 940 F.2d 1518, 1528 (Fed. Cir. 1991)).

II. Procedural History

This case was originally assigned to the Chief Special Master as part of the Special Processing Unit (“SPU”). (ECF Nos. 8-9.) Petitioner initially filed medical records marked as Exhibits 1-7 and an affidavit marked as Exhibit 8. (ECF No. 1.) She subsequently filed additional medical records marked as Exhibits 9-10 and her statement of completion in November of 2020. (ECF Nos. 11-12.) In June of 2021, she filed further records marked Exhibit 11, and an amended statement of completion. (ECF Nos. 20-21.)

The parties explored settlement from November of 2021 through May of 2022. (ECF Nos. 24-29.) After reaching an impasse (ECF No. 29), respondent filed his Rule 4(c) Report in June of 2022. (ECF No. 30.) Respondent argued that petitioner could not meet the second QAI criterion for a Table SIRVA (onset) or the third (pain and reduced motion limited to the affected shoulder). (*Id.* at 6.) Additionally, without an expert opinion, respondent contended that petitioner’s medical records were inadequate to meet petitioner’s burden with respect to a shoulder injury caused-in-fact by her vaccination. (*Id.* at 7.)

After briefing, the Chief Special Master issued Findings of Fact and Conclusions of Law on August 10, 2023, dismissing petitioner’s Table SIRVA claim. (ECF No. 37; *Mazza v. Sec’y of Health & Human Servs.*, No. 20-1340V, 2023 WL 5844787 (Fed. Cl. Spec. Mstr. Aug. 10, 2023).) Specifically, the Chief Special Master found that onset of petitioner’s shoulder pain occurred “not less than 72 hours after vaccination,” which is incompatible with a Table SIRVA. (ECF No. 37, p. 8; 2023 WL 5844787, at *5.) He did not reach any conclusion with respect to respondent’s argument that symptoms were not limited to the affected shoulder, noting that this issue would not necessarily be dispositive of a cause-in-fact claim. (ECF No. 37, p. 9; 2023 WL 5844787, at *6.)

After dismissal of the Table claim, the case was reassigned to the undersigned in October of 2023 for litigation of the remaining cause-in-fact claim. (ECF Nos. 39-41.) Petitioner then filed an expert report by physical medicine and rehabilitation specialist Naveed Natanzi, D.O. (ECF No. 43; Exs. 12-35.) Respondent responded with a report by orthopedic surgeon Geoffrey Abrams, M.D. (ECF No. 45; Exs. A-B.) Thereafter, the parties exchanged a second round of expert reports (ECF Nos. 47, 49; Exs. 36, C),

before confirming that the case was ripe for briefing pursuant to Vaccine Rule 8(d) (ECF No. 50).

Petitioner then filed a motion for a ruling on the written record on August 14, 2024. (ECF No. 51.) Respondent filed his response on November 1, 2024, which also included a cross-motion for a decision dismissing the petition. (ECF No. 54.) Petitioner filed a reply on November 18, 2024. (ECF No. 55.)

I have determined that the parties have had a full and fair opportunity to present their cases and that it is appropriate to resolve entitlement on the existing record. See Vaccine Rule 8(d); Vaccine Rule 3(b)(2); *see also Kreizenbeck v. Sec’y of Health & Human Servs.*, 945 F.3d 1362, 1366 (Fed. Cir. 2020) (noting that “special masters must determine that the record is comprehensive and fully developed before ruling on the record”). Accordingly, petitioner’s motion is ripe for resolution.

III. Factual History

Petitioner received the flu vaccination at issue in her right arm on October 11, 2018. (Ex. 1, p. 2.) Prior to the vaccination, she did have a history of neck pain and epicondylitis. (Ex. 2, pp. 39-45.) The factual history with respect to the initial onset of petitioner’s post-vaccination pain is explained in the prior finding of fact and will not be repeated. (ECF No. 37; 2023 WL 5844787.)

Petitioner first presented to her primary care provider, Dr. Lavender, for care of her alleged SIRVA on October 22, 2018. (Ex. 2, p. 33.) She presented with a report of right arm pain that was noted to be suspicious for neuropathic pain. (*Id.*) The pain had initially radiated to her hand, but by the time of her medical appointment was radiating only as far as the elbow. (*Id.*) On physical examination, she had normal range of motion of her right arm, active and passive, though she had reproducible lateral upper arm pain. (*Id.* at 34.) Additionally, she had tenderness over the deltoid. (*Id.*) She was assessed as having “right arm pain” and Dr. Lavender additionally noted that “I explained that pain is likely related to localized inflammation triggered by the immunization, with possible stimulation of adjacent nervous system structures resulting in pain.” (*Id.*) Dr. Lavender recommended gabapentin, but petitioner declined. She was advised to keep her right arm active and to follow up as needed. (*Id.*)

Petitioner returned to her primary care provider eight days later, on October 30, 2018, this time seeing Dr. Lineman. (Ex. 2, p. 31.) Petitioner reported having problems with her range of motion in her right shoulder, suggesting she felt “stiff.” (*Id.*) She also reported shooting pain radiating down into her bicep. (*Id.*) On physical examination, petitioner was again documented as having full range of motion, albeit with some pain with abduction. (*Id.*) However, “some mild impingement signs” were noted. (*Id.*) Petitioner’s assessment was again limited to “right arm pain/shoulder pain.” (*Id.*) Dr. Lineman indicated:

Discussed with patient that some of her symptoms may be related [to] an exaggerated immune response to the influenza vaccination, but I actually suspected that her right shoulder pain is musculoskeletal in nature. This may be related to some mild rotator cuff irritation.

(*Id.*) Dr. Lineman prescribed gabapentin and recommended shoulder exercises for rotator cuff irritation. (*Id.*)

Dr. Lineman had planned to follow up in two weeks (Ex. 2, pp. 31-32); however, petitioner presented to the emergency department the next day for severe deltoid pain (Ex. 3, pp. 17-20; see *also* Ex. 2, p. 29). She was evaluated to see if her right deltoid pain was due to an abscess. (Ex. 3, p. 17.) A targeted ultrasound of her right deltoid showed no fluid collection or mass. (*Id.* at 17-18.) An x-ray of her right shoulder showed “mild degenerative changes of the acromial clavicular joint. Opacification at the level of the tuberosities is likely secondary to calcific tendinopathy.” (*Id.* at 19.) There’s no indication that petitioner’s range of motion was evaluated. (See *id.* at 17-20.)

Petitioner returned to Dr. Lineman on November 13, 2018. (Ex. 2, p. 29.) She reported that her x-ray did show some calcified tendinitis but also noted that her range of motion was improving. (*Id.*) Dr. Lineman did not perform any physical exam of petitioner’s shoulder at this encounter (“MSK: Performed at last visit”). (*Id.*) She assessed right rotator cuff tendinitis and indicated that “I suspect that she likely had some discomfort in her right deltoid after her influenza vaccination, but it seems that her main pain has resulted from tendinitis.” (*Id.*) Petitioner was referred to physical therapy. (*Id.* at 29-30.)

On December 12, 2018, petitioner presented for her initial evaluation for physical therapy. (Ex. 4, pp. 12-23.) At that time, she had reduced range of motion in her right shoulder, with flexion of 130 degrees and external rotation to 32 degrees. (*Id.* at 20-21.) She had internal rotation to the hip. (*Id.*) She had seven sessions of physical therapy between December of 2018 and February of 2019. (*Id.* at 137, 140.) By the end of her physical therapy, her flexion had increased to 162 degrees and her external rotation to 85 degrees. (*Id.* at 139-40.) Internal rotation was up to T8. (*Id.* at 139.)

She returned to Dr. Lineman on March 22, 2019. (Ex. 2, pp. 26-27.) Petitioner confirmed that she had improved significantly with physical therapy, but noted that she was still bothered by pain, especially with overhead lifting. (*Id.* at 27.) She reported struggling with her home exercises, indicating that they increased her pain. (*Id.*) Petitioner was given a steroid injection. (*Id.* at 26-27.) Dr. Lineman also recorded that “[a]gain I tried to stress with patient that I did not believe her symptoms are related to her previous influenza vaccination, but patient perseverates on this idea.” (*Id.* at 27.)

In April, May, and June of 2019, petitioner had unrelated primary care encounters. (Ex. 2, pp. 21-25.) On June 6, 2019, she reported to Dr. Lineman among other things that, although the steroid injection had helped “significantly,” her pain had recently started to return. (*Id.* at 18.) Having noted rotator cuff tendinitis to be a “known

diagnosis” for petitioner, there’s no indication that Dr. Lineman performed any examination of petitioner’s right shoulder. (*Id.* at 19.) She was encouraged to continue home exercises, take naproxen, and follow up in one month. (*Id.*) She returned on August 23, 2019, reporting that her arm continues to feel “achy and sore” and received a second steroid injection. (*Id.* at 15-16.) On November 19, 2019, she requested a third steroid injection, but this request was denied as premature, and she was instead referred to an orthopedist. (*Id.* at 7-8.)

Petitioner presented to an orthopedic specialist (P.A. Bradt) on December 12, 2019. (Ex. 5, pp. 33-34.) P.A. Bradt recorded petitioner’s history of a post-vaccination onset and also noted she had been diagnosed with calcific tendinitis, which had been treated conservatively up to that point. (*Id.* at 33.) On physical exam, petitioner had active forward elevation to 160 degrees and external rotation to 60 degrees. (*Id.*) Her deltoid was noted as “functional.” (*Id.*) She had reduced strength (4/5) with forward flexion as well as internal and external rotation. (*Id.*) Hawkins, Neer, and O’Brian testing was positive, and she had tenderness along the biceps tendon. (*Id.* at 33-34.) Petitioner had new x-rays and P.A. Bradt compared them against her prior x-rays, observing that the previously identified calcium deposits had resolved but that a new deposit was present in the posterior rotator cuff. (*Id.* at 34.) Petitioner was assessed as having “right shoulder calcific tendinosis, impingement, pain.” (*Id.*) However, P.A. Bradt was also “concerned for a rotator cuff tear” and therefore ordered an MRI. (*Id.*)

Petitioner underwent a right shoulder MRI on December 28, 2019. (Ex. 6, pp. 35-40.) The radiologist’s impression was (1) mild distal supraspinatus tendinopathy; (2) moderate bursal sided tearing of the distal infraspinatus tendon with a hypointense focus along the insertion, which “may represent calcific tendinopathy”; and (3) focal thinning of the inferior half of the thyroid cartilage.” (*Id.* at 38.) Petitioner then presented to an orthopedic surgeon (Dr. Voloshin) on January 7, 2020. (Ex. 5, pp. 49-55.) Based on petitioner’s history, physical exam, and MRI findings, Dr. Voloshin assessed petitioner as having “persistent calcific tendinitis, partial rotator cuff tear, and subacromial impingement syndrome.” (*Id.* at 55.) Because petitioner had failed conservative measures, an arthroscopic surgery was recommended, with specific procedures depending on the surgical findings.³ (*Id.*)

Petitioner underwent surgery on May 18, 2020. (Ex. 7, pp. 59-63.) Dr. Voloshin noted the indications for surgery to be “partial-thickness rotator cuff tear[,] subacromial impingement syndrome[,] as well as possible calcific tendonitis.” (*Id.*) During the surgery, “[t]he patient was noted to have significant subacromial bursitis” and she underwent an “extensive debridement of subacromial bursa in the subacromial space.” (*Id.* at 60.) It was also noted that “[o]n the bursal side with a spinal needle, the rotator cuff was thoroughly inspected. There was no evidence of calcium deposit. However, the patient did have a high-grade partial supraspinatus tear,” which was repaired. (*Id.*)

³ Specifically, “She was proposed to have right shoulder arthroscopic subacromial decompression, debridement of glenohumeral joint depending on the findings, debridement of the calcium deposit, possible rotator cuff repair, possible biceps tenodesis if biceps damage is found.” (Ex. 5, p. 55.)

The following surgical procedures were noted: (1) rotator cuff repair; (2) “extensive glenohumeral joint debridement with debridement of degenerative labral tearing circumferentially to stable rim with a shaver[,]” “debridement of grade 2 chondral damage in the humeral head and the glenoid[,]” “debridement of the frayed portion of the torn supraspinatus[,]” and “extensive debridement of subacromial bursa in the subacromial space for bursitis (separate compartments with debridement of the different tissue types)”; and (3) acromioplasty. (*Id.* at 59.)

Although this was not the end of petitioner’s treatment, the remaining medical records are generally not informative with respect to the issues addressed herein. However, once petitioner completed her surgery, calcific tendinitis was no longer included in her orthopedic treatment records as part of the description of the pathophysiology of her condition. (See *generally* Exs. 10-11.)

IV. Expert Opinions

a. Naveed Natanzi, D.O., for petitioner⁴

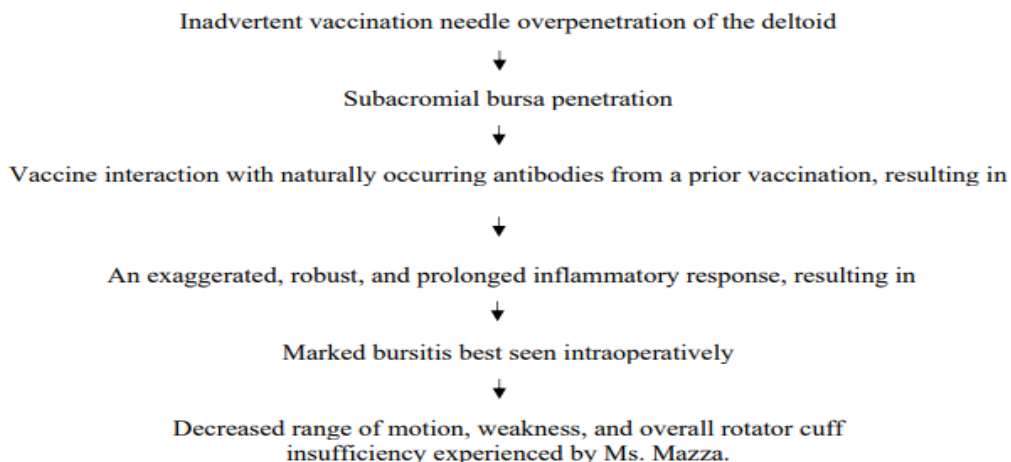
Although Dr. Natanzi acknowledged that one of petitioner’s medical treatment records indicated that onset of her condition occurred three days post-vaccination, he opines that on balance the medical records reflect that the majority of her symptoms occurred between 24 and 48 hours after her vaccination, which is consistent with the Table SIRVA requirements. (Ex. 12, p. 4 (citing Ex. 2, pp.31, 33; Ex. 4, p. 20).) However, he also observes that SIRVA is a syndrome and not a true medical diagnosis. (*Id.* at 5.) In that regard, he notes that a study by Cagle observed that among 56 patients reporting post-vaccination shoulder injuries, 16% reported onset of pain occurring after 48 hours. (*Id.* (citing Paul J. Cagle Jr., *Shoulder Injury After Vaccination: A Systematic Review*, REVISTA BRASILEIRA DE ORTOPEdia (Dec. 16, 2020) (Ex. 35)).) Thus, Dr. Natanzi confirms that he would still attribute petitioner’s condition to her vaccination even if onset occurred about 72 hours post-vaccination. (*Id.*)

Further to this, Dr. Natanzi observes that petitioner had no prior documented history of right shoulder pain or dysfunction. (*Id.*) Yet, within days of her vaccination, she had restricted range of motion and signs of subacromial impingement. (*Id.* (citing Ex. 4, p. 20; Ex. 2, p. 31; Ex. 5, p. 54).) Moreover, in addition to degenerative changes,

⁴ Dr. Natanzi received his Doctor of Osteopathy in 2012 from Western University of Health Sciences in Pomona, California. (Ex. 13, p. 2.) In 2013, he completed a traditional rotating internship at Downey Regional Medical Center in Downey, California. (*Id.* at 1.) Thereafter, Dr. Natanzi completed a residency in physical medical and rehabilitation at the University of California, Irvine, serving as chief resident in his final year. (*Id.*) In 2017, he went on to complete a fellowship at the Bodor Clinic in Napa, California. (*Id.*) Dr. Natanzi is board-certified in physical medicine and rehabilitation and pain management, and he maintains his license to practice medicine in California. (*Id.* at 1, 4; Ex. 12, p. 1.) Currently, he serves as a staff physician at VA Long Beach Healthcare System and is the founder of the Regenerative Sports and Spine Institute in Sherman Oaks, California. (Ex. 13, p. 1.) Dr. Natanzi has submitted seven publications. (*Id.* at 3.)

her surgical findings confirmed “extensive subacromial bursitis.” (*Id.* (citing Ex. 5, p. 54).) Dr. Natanzi characterizes this as a “classic” SIRVA presentation. (*Id.*)

Additionally, Dr. Natanzi indicates that “the medical literature describes dozens of cases of immune-mediated inflammatory reactions as a result of vaccine administration.”⁵ (Ex. 12, p. 6.) Based on this literature, he summarizes a theory of causation as follows:



⁵ Specifically, Dr. Natanzi cites: S. Atanasoff et al., *Shoulder Injury Related to Vaccine Administration (SIRVA)*, 28 VACCINE 8049 (2010) (Ex. 14); Marko Bodor & Enoch Montalvo, *Vaccination-Related Shoulder Dysfunction*, 25 VACCINE 585 (2007) (Ex. 15); Matthew G. Barnes et al., *A “Needling” Problem: Shoulder Injury Related to Vaccine Administration*, 25 J. AM. BD. FAM. MED. 919 (2012) (Ex. 16); Ian F. Cook, *Subdeltoid/Subacromial Bursitis Associated with Influenza Vaccination*, 10 HUM. VACCINES & IMMUNOTHERAPEUTICS 605 (2014) (Ex. 17); Alexandria Wright et al., *Influenza Vaccine-Related Subacromial/Subdeltoid Bursitis: A Case Report*, 13 J RADIOLOGY CASE REPS. 24 (2019) (Ex. 18); I. Degreeef & Ph. Debeer, *Post-Vaccination Frozen Shoulder Syndrome: Report of 3 Cases*, 112 ACTA CHIRURGICA BELGICA 447 (2012) (Ex. 19); Zeina M. Saleh et al., *Onset of Frozen Shoulder Following Pneumococcal and Influenza Vaccinations*, 14 J. CHIROPRACTIC MED. 285 (2015) (Ex. 20); Brian P. McColgan & Frank Borschke, *Pseudoseptic Arthritis After Accidental Intra-Articular Deposition of the Pneumococcal Polyvalent Vaccine: A Case Report*, 25 AM. J. EMERGENCY MED. 864.e1 (2007) (Ex. 21); Gokcan Okur et al., *Magnetic Resonance Imaging of Abnormal Shoulder Pain Following Influenza Vaccination*, 43 SKELETAL RADIOLOGY 1325 (2014) (Ex. 22); C. Trollmo et al., *Intra-Articular Immunization Induces Strong Systemic Immune Response in Humans*, 82 CLINICAL & EXPERIMENTAL IMMUNOLOGY 384 (1990) (Ex. 23); Ian F. Cook, *An Evidence Based Protocol for the Prevention of Upper Arm Injury Related to Vaccine Administration (UAIRVA)*, 7 HUM. VACCINES 845 (2011) (Ex. 24); Christopher V. Macomb et al., *Treating SIRVA Early with Corticosteroid Injections: A Case Series*, MIL. MED., 2019, at 1 (Ex. 25); Soshi Uchida et al., *Subacromial Bursitis Following Human Papilloma Virus Vaccine Misinjection*, 31 VACCINE 27 (2012) (Ex. 26); L.H. Martín Arias et al., *Risk of Bursitis and Other Injuries and Dysfunctions of the Shoulder Following Vaccinations*, 35 VACCINE 4870 (2017) (Ex. 27); Alexandria Wright et al., *Influenza Vaccine-Related Subacromial/Subdeltoid Bursitis: A Case Report*, 13 J. RADIOLOGY CASE REPS. 24 (2019) (Ex. 28); Maj Sofia Szari et al., *Shoulder Injury Related to Vaccine Administration: A Rare Reaction*, 2019 FED. PRAC. 380 (Ex. 29); Michael Shahbaz et al., *Shoulder Injury Related to Vaccine Administration (SIRVA): An Occupational Case Report*, 67 WORKPLACE HEALTH & SAFETY 501 (2019) (Ex. 30); J.H. Salmon et al., *Bone Erosion and Subacromial Bursitis Caused by Diphtheria-Tetanus-Poliomyelitis Vaccine*, 33 VACCINE 6152 (2015) (Ex. 31); Naveed Natanzi et al., *Teres Minor Injury Related to Vaccine Administration*, 15 RADIOLOGY CASE REPS. 552 (2020) (Ex. 32); Gail B. Cross et al., *Don’t Aim Too High: Avoiding Shoulder Injury Related to Vaccine Administration*, 45 AUSTL. FAM. PHYSICIAN 303 (2016) (Ex. 33).

In his second report, Dr. Natanzi addresses Dr. Abrams's suggestion that petitioner's correct diagnosis is calcific tendinitis (referred to by Dr. Natanzi as calcific tendinopathy). (Ex. 36.) Dr. Natanzi acknowledges that the radiologist interpreted both petitioner's October 31, 2018 x-ray and December 28, 2019 MRI as potentially indicating calcific tendinitis. (*Id.* at 1 (citing Ex. 3, p. 19; Ex. 6, p. 39).) However, he stresses that during petitioner's subsequent surgery it was explicitly confirmed that "there was no evidence of calcium deposit." (*Id.* (citing Ex. 7, p. 59).) Dr. Natanzi contends that the surgical findings should be viewed as more reliable than the radiology reports. (*Id.*) Moreover, even if petitioner did have calcific tendinitis that resolved (*i.e.* the calcium deposits self-reabsorbed) prior to her surgery, the fact that she nonetheless remained symptomatic and required surgery would suggest that any calcific tendinitis that was present was not the source of her pain. (*Id.*)

b. Geoffrey Abrams, M.D., for respondent⁶

Dr. Abrams opines that petitioner's shoulder pain cannot be attributed to her vaccination for two primary reasons. (Ex. A, p. 6.) First, petitioner did not demonstrate limited range of motion on physical exam until nearly two months post-vaccination, which would be "highly unusual" for SIRVA. (*Id.*) At a minimum, petitioner's clinical course confirms that she had normal range of motion for nearly three weeks post-vaccination. (*Id.* (citing Ex. 2, pp. 31, 33; Ex. 4, p. 20).) However, Dr. Abrams stresses that within the literature cited by Dr. Natanzi, "loss of range of motion is almost always immediately documented following vaccination." (*Id.* at 6-7 (citing Atanasoff et al., *supra*, at Ex. 14; Bodor & Montalvo, *supra*, at Ex. 15; Cook, *supra*, at Ex. 17; Wright et al., *supra*, at Ex. 18; Saleh et al., *supra*, at Ex. 20; Macomb et al., *supra*, at Ex. 25; Uchida et al., *supra*, at Ex. 26; Szari et al., *supra*, at Ex. 29; Shahbaz et al., *supra*, at Ex. 30; Cross et al., *supra*, at Ex. 33; Cagle, *supra*, at Ex. 35).)

Second, he opines that petitioner's symptoms are explained by documented calcific tendinitis. (Ex. A, pp. 7-8.) Dr. Abrams notes that petitioner's imaging indicates she had calcific tendinitis. (*Id.* at 7 (citing Ex. 3, p. 19; Ex. 6, p. 35).) He explains that this condition is a frequent cause of shoulder pain and also appears in only 2.7% of non-painful shoulders, meaning it is unlikely to be an incidental finding. (*Id.* at 7-8 (citing Christelle Darrieutort-Laffite et al., *Calcific Tendinitis of the Rotator Cuff: From Formation to Resorption*, 85 JOINT BONE SPINE 687 (2018) (Ex. A, Tab 1); Harrison L. McLaughlin, *Lesions of the Musculotendinous Cuff of the Shoulder: III. Observations on*

⁶ Dr. Abrams received his medical degree from the University of California, San Diego in 2007. (Ex. B, p. 1.) He completed an internship in general surgery and a residency in orthopedic surgery at Stanford University Hospital and Clinics in 2008 and 2012 respectively. (*Id.*) Thereafter, Dr. Abrams went on to complete a fellowship in orthopedic sports medicine at Rush University Medical Center, where he also worked as a clinical instructor, in 2013. (*Id.*) After finishing his fellowship, Dr. Abrams returned to Stanford University School of Medicine where he is currently an Assistant Professor and Director of the Lacob Sports Medicine Clinic. (*Id.*) Additionally, he also serves as an attending physician at the Veterans Administration Hospital in Palo Alto, California. (*Id.*) He is board-certified in orthopedic surgery, and he maintains an active medical license in California. Throughout his career, Dr. Abrams has authored over 150 peer-reviewed publications and abstracts, 28 podium and poster presentations, 5 commentaries, and 26 book chapters. (*Id.* at 2-22.)

the Pathology, Course and Treatment of Calcific Deposits, 124 ANNALS SURGERY 354 (1946) (Ex. A, Tab 2)).) Dr. Abrams contends that, whereas SIRVA generally involves an abrupt onset of reduced range of motion, calcific tendinitis typically results in a more gradual loss of motion. (*Id.* at 8.) Thus, he opines that petitioner's clinical presentation is more consistent with calcific tendinitis than SIRVA. (*Id.*)

Regarding the noted lack of calcium deposits during petitioner's surgery, Dr. Abrams notes two points. (Ex. C, pp. 1-2.) First, calcium deposits often are not seen on the visible surface of the tendon, requiring needle insertion into the tendon during surgery. (*Id.* at 1.) Second, even accounting for the fact that this may have been done in petitioner's own surgery, "it is easy to miss small to medium size lesions." (*Id.*) Dr. Abrams further stresses that the most painful stage of calcific tendinitis is the resorptive phase, wherein calcium deposits are removed by a localized inflammatory process. (*Id.* at 2.) Because petitioner had a course of shoulder pain prior to surgery, it would be reasonable to conclude that she was already in the resorptive phase prior to surgery. (*Id.*) Dr. Abrams concludes that petitioner's surgical finds "in no way exclude" calcific tendinitis as the source of petitioner's pain. (*Id.*)

V. Party Contentions

Petitioner argues that Dr. Natanzi's expert report supports a cause-in-fact claim for the condition of post-vaccination subacromial bursitis. (ECF No. 51, p. 7 (citing Ex. 12, p. 5; Ex. 7, p. 49).) Although Dr. Abrams opined that the correct diagnosis was calcific tendinitis, petitioner argues that this condition was never definitively diagnosed by her treaters and was ruled out by her surgical findings. (*Id.* at 8.)

Regarding *Althen* prong one, petitioner argues that it is well established by prior program cases that shoulder injuries can be caused-in-fact by vaccination, and stresses that Dr. Abrams did not challenge Dr. Natanzi's theory that needle penetration into the subacromial bursa can cause bursitis. (ECF No. 51, pp. 8-9.) Moreover, Dr. Natanzi's theory is supported by medical literature. (*Id.* at 9 (citing Atanasoff et al., *supra*, at Ex. 14; Cook, *supra*, at Ex. 17; Wright et al., *supra*, at Ex. 18; Bodor & Montalvo, *supra*, at Ex. 15).)

Regarding *Althen* prong two, petitioner argues that, in addition to Dr. Natanzi's supporting expert opinion, two of her treating physicians likewise attributed her condition to her vaccination. (ECF No. 51, p. 10.) Specifically, Dr. Lavender recorded that petitioner's shoulder pain was "likely related to localized inflammation triggered by the immunization." (*Id.* (quoting Ex. 2, p. 34).) Additionally, Dr. Lineman indicated that petitioner's symptoms "may be related from an exaggerated immune response to the influenza vaccination." (*Id.* (quoting Ex. 2, p. 31).)

Regarding *Althen* prong three, petitioner first suggests that the Chief Special Master's fact finding is not binding, implicitly arguing that onset should be found to have been within 48 hours of vaccination. (ECF No. 51, p. 11.) However, discussing Dr. Natanzi's expert opinion and citing the literature he referenced, petitioner also argues

that the 48-hour onset period should not be treated as an “absolute.” (*Id.* at 12 (citing Cagle, *supra*, at Ex. 35, p. 3).) Petitioner argues that a 72-hour onset is also medically reasonable. (*Id.* at 13 (citing *Murray v. Sec’y of Health & Human Servs.*, No. 17-1357V, 2022 WL 17829797 (Fed. Cl. Spec. Mstr. Oct. 27, 2022); *Pitts v. Sec’y of Health & Human Servs.*, No. 18-1512V, 2023 WL 2770943 (Fed. Cl. Spec. Mstr. Apr. 4, 2023)).) Further, she contends that respondent has not rebutted this point. (*Id.* at 12-13.)

Although respondent acknowledges that Dr. Natanzi opined that petitioner suffered subacromial bursitis, he stresses that this opinion stems from petitioner’s May 18, 2020 surgery, which is remote to the initial onset of her condition. (ECF No. 54, pp. 7-10.) He argues that the diagnosis of calcific tendinitis is more reliably reached and that, absent the ability to rely on bursitis, petitioner has not demonstrated a defined and recognized injury that could support an *Althen* analysis. (*Id.* (citing *Broekelschen v. Sec’y of Health & Human Servs.*, 618 F.3d 1339, 1349 (Fed. Cir. 2010) (indicating a claim must be based on “more than just a symptom or manifestation of an unknown injury”); *Grant v. Sec’y of Health & Human Servs.*, 956 F.2d 1144, 1147-48 (Fed. Cir. 1992) (indicating that similarity to a Table injury is insufficient)).)

Regarding *Althen* prong one, respondent acknowledges that “the Court has accepted the hypothesis of inflammation caused by vaccine overpenetration into the synovial space of the shoulder as a theory for SIRVA,” but contends that “the current record does not support an injury for which a generic theory of ‘inflammation’ is applicable.” (ECF No. 54, p. 13.) Regarding *Althen* prong two, even if petitioner had succeeded in presenting a defined injury and a theory of causation, respondent contends that the record evidence still favors calcific tendinitis as the sole source of petitioner’s shoulder pain, preventing any demonstration of a logical sequence of cause and effect implicating her vaccination. (*Id.* at 14-16 (citing *Molina v. Sec’y of Health & Human Servs.*, No. 20-845V, 2024 WL 4223393, at *11-12 (Fed. Cl. Spec. Mstr. Aug. 15, 2024)).) Respondent interprets the medical records as showing that petitioner’s treating physicians were skeptical that her vaccination was a cause of her condition. (*Id.* at 16.) Regarding *Althen* prong three, respondent argues there is no basis for revisiting the Chief Special Master’s finding of fact and contends that Dr. Natanzi did not adequately address the facts as found by the finding of fact. (*Id.* at 16-17.)

In reply, petitioner stresses that there were no findings consistent with calcific tendinitis during petitioner’s surgery and contends that respondent’s own literature indicates that, if petitioner did experience resorption prior to surgery, there still should have been evidence of tendon repair, which was not noted. (ECF No. 55, pp. 2-3 (citing Darrieurtort-Laffite et al., *supra*, at Ex. A, Tab 1).) Petitioner refutes the notion that Dr. Natanzi’s theory is too generic, stressing that he presented a theory specific to subacromial bursitis, which was supported by relevant medical literature. (*Id.* at 4-5.) Petitioner stresses that her clinical presentation is more consistent with an acute post-vaccination process, noting especially the post-vaccination onset of symptoms and the finding of bursal dysfunction upon surgery. (*Id.* at 5.) She reiterates that a strict 48-hour onset is not required in a cause-in-fact context and that special masters are

discouraged from setting “hard and fast” deadlines for onset. (*Id.* at 6 (citing *Paluck v. Sec’y of Health & Human Servs.*, 786 F.3d 1373, 1384 (Fed. Cir. 2015).)

VI. Analysis

a. *Althen* prong one

Under *Althen* prong one, petitioners must provide a “reputable medical theory,” demonstrating that the vaccine received can cause the type of injury alleged. *Pafford*, 451 F.3d at 1355-56 (quoting *Pafford v. Sec’y of Health & Human Servs.*, No. 01-0165V, 2004 WL 1717359, at *4 (Fed. Cl. Spec. Mstr. July 16, 2004)). Such a theory must only be “legally probable, not medically or scientifically certain.” *Knudsen v. Sec’y of Health & Human Servs.*, 35 F.3d 543, 548-49 (Fed. Cir. 1994). Petitioner may satisfy the first *Althen* prong without resort to medical literature, epidemiological studies, demonstration of a specific mechanism, or a generally accepted medical theory. See *Andreu v. Sec’y of Health & Human Servs.*, 569 F.3d 1367, 1378 (Fed. Cir. 2009) (citing *Capizzano v. Sec’y of Health & Human Servs.*, 440 F.3d 1317, 1325-26 (Fed. Cir. 2006)). However, “[a] petitioner must provide a ‘reputable medical or scientific explanation’ for [their] theory.” *Boatmon v. Sec’y of Health & Human Servs.*, 941 F.3d 1351, 1359 (Fed. Cir. 2019) (quoting *Moberly*, 592 F.3d at 1322). “While it does not require medical or scientific certainty, it must still be ‘sound and reliable.’” *Id.* (quoting *Knudsen*, 35 F.3d at 548-49).

In this case, as illustrated by the flow chart depicted above, Dr. Natanzi has offered a theory of causation whereby needle overpenetration can result in an inflammatory response within the bursa, leading to subacromial bursitis and attendant symptoms of shoulder pain and dysfunction. (Ex. 12, p. 6.) And, as petitioner stresses in her motion (ECF No. 51, pp. 9-10), this theory is also supported by relevant medical literature, particularly medical articles by: Martín Arias et al., *supra*, at Ex. 27; Atanasoff et al., *supra*, at Ex. 14; Cook, *supra*, at Ex. 17; Wright et al., *supra*, at Ex. 18; and Bodor & Montalvo, *supra*, at Ex. 15. Respondent does not dispute Dr. Natanzi’s hypothesis, acknowledging it has been accepted in prior cases. (ECF No. 54, p. 13 (citing *A.P. v. Sec’y of Health & Human Servs.*, No. 17-784V, 2022 WL 275785, at *25-27 (Fed. Cl. Spec. Mstr. Jan. 31, 2022).) Instead, respondent argues that this theory is “too generic” to satisfy petitioner’s burden of proof under *Althen* prong one given the record of this particular case. (*Id.* at 13-14.)

Respondent’s argument with respect to *Althen* prong one is not persuasive. Contrary to respondent’s assertion, Dr. Natanzi has demonstrated a theory of causation relative to a specific condition, namely bursitis. Moreover, this specific condition is relevant to petitioner’s own case, because the surgery she underwent in treatment of her condition revealed bursitis. (Ex. 7, p. 60.) Respondent contends that petitioner cannot reasonably associate her bursitis to her vaccination because (1) he argues it is merely a symptom of calcific tendinitis rather than a distinct condition and (2) it was not confirmed by her earlier, pre-surgery MRI. (ECF No. 54, pp. 8-9, 13-14.) However, these are considerations relative to *Althen* prong two. Neither of these points raise a

question as to whether a vaccination can cause bursitis or whether bursitis can support a vaccine injury claim under appropriate circumstances.

For all of these reasons, I find that petitioner has met her preponderant burden of proof with respect to *Althen* prong one relative to post-vaccination bursitis. Notably, however, petitioner has not asserted, nor would the record support, that calcific tendinitis can be caused by vaccination.

b. *Althen* prong three

The third *Althen* prong requires establishing a “proximate temporal relationship” between the vaccination and the injury alleged. *Althen*, 418 F.3d at 1278. A petitioner must offer “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 Health & Human Servs.*, 539 F.3d 1347, 1352 (Fed. Cir. 2008). The explanation for what is a medically acceptable timeframe must coincide with the theory of how the relevant vaccine can cause an injury (*Althen* prong one's requirement). *Id.*; *Shapiro v. Sec’y of Health & Human Servs.*, 101 Fed. Cl. 532, 542 (2011), *mot. for recons. denied after remand*, 105 Fed. Cl. 353 (2012), *aff’d*, 503 F. App’x. 952 (Fed. Cir. 2013); *Koehn v. Sec’y of Health & Human Servs.*, No. 11-355V, 2013 WL 3214877, at *26 (Fed. Cl. Spec. Mstr. May 30, 2013), *aff’d*, 773 F.3d 1239 (Fed. Cir. 2014).

In her motion, petitioner suggests that the Chief Special Master’s finding of fact be revisited with respect to the onset of her shoulder pain. (ECF No. 51, pp. 11-12.) Generally, special masters may change or revisit any ruling until judgment enters, even if the case has been transferred. *See McGowan v. Sec’y of Health & Human Servs.*, 31 Fed. Cl. 734, 737-38 (1994). In most cases, however, a judicial officer such as a special master departs from previously decided issues only in the event of “new evidence, supervening law, or a clearly erroneous decision.” *Id.* at 737; *see also Sullivan v. Sec’y of Health & Human Servs.*, No. 10-398V, 2015 WL 1404957, at *20 n.36 (Fed. Cl. Spec. Mstr. Feb. 13, 2015). After review of petitioner’s arguments as well as the expert reports filed subsequent to the fact finding, I am not persuaded that the prior finding of fact should be revisited. In particular, although Dr. Natanzi provided his own review of the relevant record notations, his reanalysis of the issue did not bring any new medical knowledge to bear on the issue. (Ex. 12, pp. 4-5.) Accordingly, I am not convinced that the finding of fact was clearly erroneous or that new evidence warrants a reevaluation. Petitioner has not suggested any change in the law.

However, although the Chief Special Master’s finding of fact will not be revisited, that fact finding does not entirely resolve the factual question of onset as it relates to *Althen* prong three. Because the Chief Special Master was addressing petitioner’s Table SIRVA allegation, which has a specific onset period of 48-hours, his analysis was limited to finding that onset of petitioner’s shoulder pain was no less than three days (or 72 hours) post-vaccination. (ECF No. 37, p. 8; 2023 WL 5844787, at *5.) In light of the record as a whole, and having considered the parties’ arguments, I further conclude that

the evidence preponderates in favor of finding that the onset of petitioner's shoulder pain occurred approximately 72 hours post-vaccination. In particular, while I agree with the Chief Special Master that the record notation of a three-day post-vaccination onset (Ex. 2, p. 33) is entitled to greater weight than those notations placing onset at earlier times, there is a complete absence of any record notation placing onset any later than three days post-vaccination.

As petitioner observes, the Federal Circuit has counseled that special masters should not set "hard and fast deadlines" when evaluating the appropriate timeframe for onset after vaccination. *Paluck*, 786 F.3d at 1384. Thus, although onset within 48 hours is required by the Vaccine Injury Table, onset in a cause-in-fact claim does not need to occur precisely within 48 hours. *Jewell v. Sec'y of Health & Human Servs.*, No. 16-0670V, 2017 WL 7259139, at *3 (Fed. Cl. Spec. Mstr. Aug. 4, 2017); *Murray*, 2022 WL 17829797, at *17; see also *Pitts*, 2023 WL 2770943, at *13-14. As I explained in *Murray* and *Pitts*, the medical literature underlying SIRVA, though it does not necessarily support a post-vaccination onset as far out as a week, does reveal that a minority of cases of post-vaccination shoulder pain do arise beyond 48 hours. *Murray*, 2022 WL 17829797, at *16 (discussing articles by Martín Arias et al. & Atanasoff et al.); *Pitts*, 2023 WL 2770943, at *13 (same). The same literature that was discussed in these prior cases was also filed in this case and the record of this case does not contain any other literature casting doubt on this conclusion.

For all of these reasons, I find that petitioner has met her preponderant burden of proof with respect to *Althen* prong three, establishing that onset of symptoms of bursitis occurring three days post-vaccination can support a causal inference of vaccination causation.

c. *Althen* prong two

The second *Althen* prong requires proof of a logical sequence of cause and effect, usually supported by facts derived from a petitioner's medical records. *Althen*, 418 F.3d at 1278; *Andreu*, 569 F.3d at 1375-77; *Capizzano*, 440 F.3d at 1326-27; *Grant*, 956 F.2d at 1147-48. Medical records are generally viewed as particularly trustworthy evidence. *Cucuras v. Sec'y of Health & Human Servs.*, 993 F.2d 1525, 1528 (Fed. Cir. 1993). However, medical records and/or statements of a treating physician's views do not *per se* bind the special master. See § 300aa-13(b)(1) (providing that "[a]ny such diagnosis, conclusion, judgment, test result, report, or summary shall not be binding on the special master or court"); *Snyder v. Sec'y of Health & Human Servs.*, 88 Fed. Cl. 706, 745 n.67 (2009) ("[T]here is nothing . . . that mandates that the testimony of a treating physician is sacrosanct—that it must be accepted in its entirety and cannot be rebutted."). The special master is required to consider all the relevant evidence of record, draw plausible inferences, and articulate a rational basis for the decision. *Winkler*, 88 F.4th at 963 (citing *Hines*, 940 F.2d at 1528).

There is no dispute that petitioner experienced a new onset of shoulder pain shortly after her vaccination. Additionally, there is no dispute that petitioner's surgical

findings ultimately included a finding of bursitis, potentially consistent with petitioner's preponderantly supported theory of causation under *Althen* prong one. Furthermore, I have concluded under *Althen* prong three that the timing of onset is appropriate to infer vaccine causation. While not dispositive, petitioner's satisfaction of *Althen* prongs one and three is probative with respect to *Althen* prong two. *Capizzano*, 440 F.3d at 1326-27 (explaining that the second *Althen* prong "is not without meaning," but finding that evidence pertaining to *Althen* prongs one and three can be considered under *Althen* prong two). The parties present three issues with respect to *Althen* prong two: (1) whether the treating physician's notations support or reject the causal relationship proposed by petitioner; (2) whether calcific tendinitis is a more likely explanation for petitioner's symptoms; and (3) whether Dr. Natanzi's identification of post-vaccination bursitis was reliably reached.

As the parties' briefing makes clear, both parties can cite to treating physician statements that seem to support their respective positions. Both Dr. Lavender and Dr. Lineman initially supported the thinking that petitioner's pain complaints were causally related to her flu vaccination. (Ex. 2, pp. 31, 34.) However, as petitioner's pain failed to resolve over time, Dr. Lineman instead treated vaccine causation as mutually exclusive of a musculoskeletal etiology. (*Id.* at 27, 29, 31.) Because petitioner had a longstanding treatment history with her primary care providers, Drs. Lavender and Lineman were well positioned to initially recognize the fact that petitioner's post-vaccination complaints were new complaints that could be associated with the vaccination. *E.g.*, *Nuttall v. Sec'y of Health & Human Servs.*, 122 Fed. Cl. 821, 832 (2015) (explaining that the weight accorded to treating physician opinions is due to the fact that they "observed the patient as the condition unfolded"), *aff'd* 640 F. App'x. 996 (Fed. Cir. 2016). Nonetheless, the views of treating physicians must be weighed against other evidence in the record and their conclusions are "only as trustworthy as the reasonableness of their suppositions or bases." *E.g.*, *Garner v. Sec'y of Health & Human Servs.*, No. 15-063V, 2017 WL 1713184, at *11 (Fed. Cl. Spec. Mstr. Mar. 24, 2017), *mot. rev. denied*, 133 Fed. Cl. 140 (2017). In that regard, Dr. Lineman's later expressed skepticism is based on an assumption that is inconsistent with petitioner's preponderant showing under *Althen* prong one. That is, contrary to what Dr. Lineman assumed, petitioner has demonstrated that musculoskeletal shoulder pain can be causally related to vaccination. Accordingly, I conclude that this aspect of Dr. Lineman's view is entitled to less weight. But in any event, a treating physician's opinions are not dispositive. Ultimately, a petitioner may support a cause-in-fact claim through either medical records or expert medical opinion. § 300aa-13(a).

However, as respondent notes, I have previously addressed at greater length how the condition of calcific tendinitis, which is not a vaccine caused condition, can result in a clinical presentation that resembles SIRVA. *Molina*, 2024 WL 4223393, at *11-12. Thus, this condition warrants careful consideration as a potential alternative cause of injury. *E.g.*, *Winkler*, 88 F.4th at 963. In this case, the issue represents a close call. Respondent is correct to observe that calcific tendinitis was a diagnostic consideration throughout much of petitioner's treatment history from the time of her very first x-ray. (*E.g.*, Ex. 3, p. 19; Ex. 2, pp. 29-30.) Indeed, calcific tendinitis was her initial

diagnosis when she eventually sought orthopedic care. (Ex. 5, p. 34.) Yet, respondent has not adequately grappled with the significance of petitioner's ultimate surgical findings.

The specific calcium deposits initially suspected based on petitioner's initial x-ray imaging were not later confirmed by her subsequent imaging. (Ex. 5, p. 34.) However, when petitioner eventually underwent MRI imaging on December 28, 2019, her findings included bursal sided tearing of the distal infraspinatus tendon which included a newly detected hypointense focus along the insertion that "may represent a focus of calcific tendinopathy." (Ex. 6, p. 35 (emphasis added).) As a result, Dr. Voloshin included calcific tendinitis among the surgical indications (Ex. 7, p. 59), and explicitly included "debridement of the calcium deposit" among the recommended surgical procedures (*Id.*). Given this, it is highly significant that Dr. Voloshin's description of petitioner's surgery states that "[o]n the bursal side with a spinal needle, the rotator cuff was thoroughly inspected. There was no evidence of calcium deposit." (*Id.* at 60.) After petitioner's surgery, her orthopedic follow up encounters make no mention of calcific tendinitis. (See Exs. 10-11.)

Dr. Abrams suggests the surgical findings are not dispositive for two reasons. (Ex. C, pp. 1-2.) First, the deposits may have been resorpted prior to the surgery. (*Id.* at 2.) Second, the deposits should not necessarily be expected to be visible at the surface. (*Id.* at 1.) Regarding the first point, petitioner reasonably suggests that even if the deposit(s) had resorpted, one would still expect to see residual effects. (ECF No. 55, p. 3.) While the literature filed by Dr. Abrams indicates that resorpted calcium deposits do not result in tendon sequela, it indicates that the process does result in either granulation or scarring of the tissue. (Darrietort-Laffite et al., *supra*, at Ex. A, Tab 1, p. 5.) In that regard, Dr. Voloshin did not simply identify an absence of calcium deposits but noted "no evidence of" calcium deposits. (Ex. 7, p. 60.) Regarding the second point, Dr. Abrams ultimately admitted that Dr. Voloshin's report does indicate that the "inside" of the tendon was accessed to inspect for calcium deposits. (Ex. C, p. 1.) This leaves Dr. Abrams with only the potential explanation that "it is easy to miss small to medium size lesions." (*Id.*) However, Dr. Voloshin included possible calcific tendinitis in the indications for surgery and as a result documented that "the rotator cuff was thoroughly inspected" for calcium deposits. (Ex. 7, p. 60.) Absent a more concrete reason for suspecting a lesion may have been missed, Dr. Voloshin's in-person inspection of the rotator cuff is the best evidence of what shoulder pathology was actually present. *Accord Lang v. Sec'y of Health & Human Servs.*, No. 17-995V, 2020 WL 7873272, at *14 (Fed. Cl. Spec. Mstr. Dec. 11, 2020) (crediting surgical findings based on in person observation from the treating orthopedic surgeon over the competing assessment of respondent's expert).

Therefore, considering the record as a whole, I find that the evidence does not preponderate in favor of a finding that calcific tendinitis explains petitioner's condition. Even if calcium deposits were present on earlier imaging, Dr. Abrams does not dispute that asymptomatic calcium deposits may exist. (Ex. A, p. 8.) Dr. Abrams doubts the likelihood of asymptomatic deposits, specifically placing the incidences of asymptomatic

calcific tendinitis at merely 2.7% (*Id.*); however, this figure understates the potential for incidental calcium deposits based on the literature accompanying Dr. Abrams's report. While Kim et al. includes the 2.7% figure cited by Dr. Abrams as a lower threshold, that article states that up to 20% of patients with calcific tendinitis are asymptomatic. (Min-Su Kim et al., *Diagnosis and Treatment of Calcific Tendinitis of the Shoulder*, 23 CLINICS SHOULDER & ELBOW 210 (2020) (Ex. A, Tab 3, p. 2).) Moreover, only 35-45% of patients with inadvertently discovered calcium deposits go on to develop symptoms. (*Id.* at 2-3.) An article by McLaughlin states that calcium deposits detected by radiology are asymptomatic "almost as frequently" as they are accompanied by symptoms. (McLaughlin, *supra*, at Ex. A, Tab 2, p. 4.)

Having concluded that calcific tendinitis does not preponderantly explain petitioner's symptoms, there is little basis to favor Dr. Abrams's opinion over that of Dr. Natanzi. Respondent is especially critical of Dr. Natanzi for relying on the presence of bursitis during petitioner's surgery, stressing that the surgery was nearly two years after vaccination. (ECF No. 54, pp. 8-9, 14-15.) However, respondent's criticism is based at least in part on his assertion that the bursitis is otherwise explained by a prior history of calcific tendinitis. (*Id.* at 9.) While petitioner did have a long clinical course leading up to her surgery, Dr. Natanzi observed that petitioner had no prior documented history of shoulder pain or dysfunction prior to vaccination and initially developed signs of subacromial impingement shortly after vaccination. (Ex. 12, p. 4 (citing Ex. 4, p. 20; Ex. 2, p. 31; Ex. 5, p. 54).) Respondent finds it significant that petitioner's earlier December 28, 2019 MRI had no documented finding of bursitis (ECF No. 54, p. 9 (citing Ex. 6, p. 35), and I agree this point appears concerning; however, respondent's argument that this rebuts Dr. Natanzi's opinion is not ultimately supported by any medical opinion. Although this observation is potentially consistent with Dr. Abrams's opinion that calcific tendinitis is the best explanation for petitioner's clinical presentation, Dr. Abrams did not specifically opine on the significance (if any) of petitioner's prior MRI. (See Exs. A, C.) Absent the presence of calcific tendinitis as an explanation for a later development of bursitis, respondent has not otherwise explained why petitioner's undisputed bursitis, as uncovered as a result of her surgery, should not be correlated to her clinical presentation, which places the onset of her shoulder pain and dysfunction in the immediate post-vaccination period. Although prior experience with SIRVA indicates that petitioner's often have MRI evidence of bursitis, neither party has pointed to any evidence indicating the sensitivity of MRI for bursitis.

For all of these reasons, I find that petitioner has met her preponderant burden of proof with respect to *Althen* prong two.

d. Factor unrelated to vaccination

Once a petitioner has met her initial burden of proof, respondent may still demonstrate that the injury was nonetheless caused by a factor unrelated to vaccination. § 300aa-13(a)(1)(B); *Deribeaux v. Sec'y of Health & Human Servs.*, 717 F.3d 1363, 1367 (Fed. Cir. 2013). Here, respondent asserts that petitioner's condition is explained by calcific tendinitis. While calcific tendinitis can cause symptoms consistent

with petitioner's presentation, it is not a more likely than not cause of petitioner's condition for the reasons discussed above.

VII. Conclusion

After weighing the evidence of record within the context of this program, I find by preponderant evidence that petitioner suffered bursitis and related shoulder dysfunction caused-in-fact by the flu vaccination she received on October 11, 2018. Accordingly, petitioner is entitled to compensation. A separate damages order will be issued.

IT IS SO ORDERED.

s/Daniel T. Horner

Daniel T. Horner
Special Master