



## **Report to the Vermont General Assembly: Insurance Coverage for Acupuncture**

Section 15 of Act No. 173, 2015 (Adj. Sess.), *An act relating to combating opioid abuse in Vermont*, directs Blue Cross and Blue Shield of Vermont (BCBSVT) to:

evaluate the evidence supporting the use of acupuncture as a modality for treating and managing pain in its enrollees, including the experience of other states in which [acupuncture] is covered by health insurance plans [and report] its assessment of whether its insurance plans should provide coverage for acupuncture when used to treat or manage pain.

BCBSVT's report is to be filed with the General Assembly on or before January 15, 2017.

Part I of this report details BCBSVT's evaluation of the evidence relative to the use of acupuncture for pain management and for opioid dependence as well as a summary of the support related to that evaluation. Part II provides information concerning the laws of other states and their experiences. Part III provides BCBSVT's recommendations for the coverage of acupuncture.

### **Executive Summary**

“Acupuncture is the practice of piercing the skin with needles at specific body sites to induce anesthesia, to relieve pain, to alleviate withdrawal symptoms of substance abusers, or to treat various non-painful disorders.”<sup>1</sup> This report focuses on acupuncture's use as a modality for treating and managing pain. **The evidence review shows no benefit for low back pain, other pain related conditions or the treatment of opioid dependence. One of the systematic reviews, which focused on the reduction of opioid use in patients with non-cancer chronic pain, showed an increase in opioid use in those receiving acupuncture compared to placebo, but lower than the original baseline. Evidence does indicate a marginal benefit for episodic migraine and tension headache.**

Low Back Pain: For individuals with low back pain who receive acupuncture, the evidence includes Randomized Controlled Trials (“RCT”) and systematic reviews. Relevant outcomes include symptoms, functional outcomes, medication use, and treatment-related morbidity. The evidence is insufficient to determine the effects on health outcomes.

Other Pain-Related Conditions: Various reviews found insufficient evidence to demonstrate that acupuncture is effective for treating shoulder pain, lateral elbow pain, carpal tunnel syndrome, cancer pain in adults, chronic pain in adults

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<sup>1</sup> BCBSVT's review and evaluation of acupuncture for this report were greatly enhanced and informed by a just-completed Blue Cross Blue Shield Association (BCBSA) Medical Policy Panel review of the medical evidence and literature underlying the use of acupuncture for pain management and opioid dependence. The BCBSA review resulted in the adoption of *Acupuncture for Pain Management, Nausea and Vomiting, and Opioid Dependence* as part of the BCBSA Medical Policy Reference Manual. BCBSVT's Medical Director was an active participant and contributor in all stages and aspects of the BCBSA review.

with spinal cord injury, pain in endometriosis, or pain in rheumatoid arthritis. The evidence is insufficient to determine the effects on health outcomes.

Episodic Migraine: For individuals who have episodic migraine who receive acupuncture, the evidence includes RCTs and systematic reviews. The evidence is sufficient to determine that the use of acupuncture results in a meaningful improvement in the net health outcome.

Tension-type Headache: For individuals who have tension-type headache who receive acupuncture, the evidence includes RCTs and systematic reviews. The evidence is sufficient to determine that acupuncture results in a meaningful improvement in the net health outcome.

Opioid Dependence: For individuals with opioid dependence who receive acupuncture, the evidence includes RCTs and systematic reviews. Relevant outcomes include symptoms, functional outcomes, medication use, and treatment-related morbidity. The evidence is insufficient to determine the effects of acupuncture on health outcomes.

No state mandates coverage of acupuncture. Two states require the *offer* of coverage of acupuncture as a benefit that groups can buy. No Blue Plan Medical Directors had evidence of acupuncture's effectiveness in their covered populations.

BCBSVT has some large group clients that choose to provide acupuncture benefits to their employees and dependents. We will continue to support our clients who choose to provide voluntary additional acupuncture benefits to their members. Given the extremely limited evidence supporting the use of acupuncture, BCBSVT does not recommend the provision of acupuncture services as a benefit. **Developing and supporting an appropriate infrastructure to manage an acupuncture benefit would create undue administrative burden to providers and excessive costs to the health care system for a service with very limited proven benefit.**

## I. **Review of the evidence supporting acupuncture as a modality for treating and managing pain<sup>2</sup>**

### **Background**

Assessment of the efficacy of a therapeutic intervention involves a determination whether the intervention improves health outcomes compared with available alternatives. The optimal study design for this purpose is a blinded RCT that compares the therapeutic intervention with existing alternative treatments and includes clinically relevant measures of health outcomes. It is recognized that blinded RCTs are extremely important to assess treatments of pain due to the expected placebo effect and the variable natural history that often responds to conservative care.

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<sup>2</sup> The Background and summary of the evidence in Part I this report are excerpted from the BCBSA MPRM *Acupuncture for Pain Management, Nausea and Vomiting, and Opioid Dependence*, November 2016.

In addition, pain and other outcomes, e.g., drug cravings, nausea, are subjective outcomes and, thus, may be particularly susceptible to placebo effects. Because of these factors, sham-controlled trials are essential to demonstrate the clinical effectiveness of acupuncture compared with alternatives, e.g., continued medical management. Therefore, evidence considered for this review focuses on systematic reviews of RCTs. Due to their well-established methodology for systematically reviewing RCTs, the review focused on Cochrane reviews.

Acupuncture is a traditional form of Chinese medical treatment that has been practiced for over 2000 years. It involves piercing the skin with needles at specific body sites. The placement of needles into the skin is dictated by the location of meridians. These meridians, or channels, are thought to mark patterns of energy, called Qi or Chi, that flow through the human body. According to traditional Chinese philosophy, illness occurs when the energy flow is blocked or unbalanced, and acupuncture is a way to influence Chi and restore balance. Another tenet of this philosophy is that all disorders are associated with specific points on the body, on or below the skin surface.

Several physiologic explanations of acupuncture's mechanism of action have been proposed including an analgesic effect from release of endorphins or hormones, e.g., cortisol, oxytocin, a biomechanical effect, and/or an electromagnetic effect. There are 361 classical acupuncture points located along 14 meridians,<sup>3</sup> and different points are stimulated depending on the condition treated. In addition to traditional Chinese acupuncture, there are a number of modern styles of acupuncture, including Korean and Japanese acupuncture. Modern acupuncture techniques can involve stimulation of additional non-meridian acupuncture points. Acupuncture is sometimes used along with manual pressure, heat (moxibustion), or electrical stimulation (electroacupuncture). Acupuncture treatment can vary by style and by practitioner, and is generally personalized to the patient. Thus, patients with the same condition may receive stimulation of different acupuncture points.

Scientific study of acupuncture is challenging due to the multifactorial nature of the intervention, variability in practice, and individualization of treatment. There has been much discussion in the literature on the ideal control condition for studying acupuncture. Ideally, the control condition should be able to help distinguish between specific effects of the treatment and nonspecific placebo effects related to factors such as patient expectations and beliefs and the patient-provider therapeutic relationships. A complicating factor in selection of a control treatment is that it is not clear whether all four components, i.e., the acupuncture needles, the target location defined by traditional Chinese medicine, the depth of insertion, and the stimulation of the inserted needle, are necessary for efficacy. Sham acupuncture interventions vary; they can involve, e.g., superficial insertion of needles or insertion of needles at the “wrong” points. A consensus recommendation on clinical trials of acupuncture, published in 2002 by White *et al.*, recommend distinguishing between a penetrating and a non-penetrating sham control.

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<sup>3</sup> World Health Organization (WHO). A Proposed Standard International Acupuncture Nomenclature: Report of a WHO Scientific Group. 1991; <http://apps.who.int/medicinedocs/en/d/Jh2947e/4.3.html>. Accessed January 9, 2017.

Following is a summary of the key published literature on the use of acupuncture for pain management and opioid dependence.

## A. Pain-Related Conditions

### 1. Episodic Migraine

A 2016 Cochrane review by Linde, *et al.*, included RCTs at least eight weeks in duration that compared acupuncture to sham acupuncture, prophylactic medication treatment, and/or no acupuncture in patients with episodic migraine.<sup>4</sup> Trials focusing on chronic migraine were excluded. The primary efficacy outcome was headache frequency and the secondary outcome was the proportion of responders (at least 50% reduction in migraine frequency).

Twenty-one RCTs met reviewers' selection criteria; all were parallel-group trials. Fifteen trials included a sham acupuncture control group, five had a prophylactic medication group, and five had a no acupuncture group (several trials had more than two arms). Acupuncture interventions were heterogeneous, e.g., number of sessions, length of sessions, standardized vs. individualized placement of needles. Risk of bias was assessed in 13 sham-controlled trials; all attempted blinding and the overall risk of bias was considered to be low. None of the three trials comparing acupuncture and prophylactic medication that were included in meta-analyses were blinded and dropout rates were high in two of them; overall, these trials were considered at considerable risk of bias. Key outcomes for the acupuncture versus sham acupuncture and acupuncture versus prophylactic medication analyses are shown in Table 1.

**Table 1. Key Outcomes 2016 Cochrane on Episodic Migraine**

Acupuncture vs Sham				
Variable	Time	No. trials	Results	p-value
Reduction in headache frequency	End of treatment	12	SMD <sup>a</sup> : -0.18, 95% CI: -0.28 to -0.08	0.0004
	End of follow-up	10	SMD: -0.19, 95% CI: -0.30 to -0.09	0.0003
Response <sup>b</sup>	End of treatment	14	RR <sup>c</sup> : 1.24, 95% CI: 1.11 to 1.36	<0.0001
	End of follow-up	11	RR: 1.25; 95% CI: 1.13 to 1.39	0.004
Acupuncture vs. prophylactic medication				
Reduction in headache frequency	End of treatment	3	SMD: -0.25, 95% CI: -0.39 to -0.10	0.001
	End of follow-up	3	SMD: -0.13, 95% CI: -0.28 to 0.01	0.08
Response	End of treatment	3	RR: 1.24, 95% CI: 1.08 to 1.44	0.003
	End of follow-up	3	RR: 1.11; 95% CI: 0.97 to 1.26	0.12

<sup>a</sup>SMD: standardized mean difference

<sup>b</sup>Response: at least 50% reduction in headache frequency

<sup>c</sup>RR: risk ratio

In pooled analysis comparing acupuncture to sham acupuncture, acupuncture had statistically significant effects on reduction of headache frequency and on response rates at both follow-ups. Reviewers considered the differences between groups to be small but

<sup>4</sup> Linde K, Allais G, Brinkhaus B, *et al.*, *Acupuncture for the prevention of episodic migraine. Cochrane Database Syst. Rev.* Jun 28 2016(6):CD001218. PMID 27351677.

clinically relevant. Fewer trials compared acupuncture and prophylactic medication. There was a significantly greater effect of acupuncture on reduction in headache frequency and response rates at the end of treatment but not at the end of follow-up.

### ***Section Summary: Episodic Migraine***

Pooled analyses of 15 sham-controlled trials on episodic migraine in a Cochrane review found significantly better outcomes with acupuncture. The magnitude of difference between acupuncture and sham acupuncture was small but considered clinically relevant. A limitation of the sham-controlled literature is the variability in intervention protocols, which makes it difficult to draw conclusions about any specific approach to acupuncture. Pooled analyses of trials on acupuncture versus medication found a significant benefit of acupuncture **at the end of treatment but not at the end of the follow-up period** (emphasis supplied).

## **2. Tension-Type Headache**

A 2016 Cochrane review by Linde *et al.*, included RCTs at least eight weeks in duration that compared acupuncture with sham acupuncture, standard care, or another comparator intervention in adults with episodic or chronic tension-type headache.<sup>5</sup> Interventions had to include at least six acupuncture sessions given at least once a week. The primary outcome measure was treatment response (at least 50% reduction in headache frequency) three to four months after randomization. Outcomes at eight weeks or less, five to six months, and more than six months after randomization were reviewed. Secondary outcomes included number of headache days, headache intensity, frequency of analgesic use, and headache scores.

Twelve RCTs met reviewers' inclusion criteria; all were parallel-group trials. Seven RCTs included a sham control group and all were blinded. Control groups in other trials were physical therapy (three studies), relaxation or massage (two studies), and delayed acupuncture treatment (similar to a no treatment group). One study had more than two arms. The trials that did not use a sham control were considered at major risk of bias. Key outcomes are shown in Table 2.

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<sup>5</sup> Linde K, Allais G, Brinkhaus B, *et al.*, Acupuncture for the prevention of tension-type headache. Cochrane Database Syst. Rev. Apr 19 2016; 4:CD007587. PMID 27092807.

**Table 2. Key Outcomes 2016 Cochrane on Tension-Type Headache**

Acupuncture vs sham				
Variable	Time	No. trials	Results	p-value
Response <sup>a</sup>	Up to 2 months after randomization	4	RR <sup>b</sup> : 1.26, 95% CI: 1.10 to 1.45	0.0008
	3-4 months after randomization	4	RR: 1.27, 95% CI: 1.00 to 1.48	0.003
	5-6 months after randomization	4	RR: 1.17, 95% CI: 1.02 to 1.35	0.02
Number of headache days	Up to 2 months after randomization	4	MD <sup>c</sup> : -1.49, 95% CI: -2.58 to -0.39	0.008
	3-4 months after randomization	4	MD: -1.62, 95% CI: -2.69 to -0.54	0.003
	5-6 months after randomization	4	MD: -1.51, 95% CI: -2.59 to -0.43	0.006

<sup>a</sup>Response: at least 50% reduction in headache frequency.

<sup>b</sup>RR: risk ratio

<sup>c</sup>MD: mean difference

In pooled analysis comparing acupuncture to sham acupuncture, acupuncture has statistically significant effects on treatment response (the primary outcome) and number of headache days at all time points for which data were available. There were insufficient data for pooling on other secondary outcome measures. Cochrane reviewers did not comment on whether the differences between groups in pooled analyses were clinically significant.

### **Section Summary: Tension-Type Headache**

Pooled analyses in a Cochrane review on acupuncture for tension-type headache consistently found statistically significant benefits of acupuncture compared with sham acupuncture. This included findings at five-to-six-months of follow-up; there were insufficient data to conduct analyses of longer term follow-up, i.e., more than six months. Reviewers did not comment on the clinical significance of the findings.

### **3. Low Back Pain**

In 2005, Furlan *et al.*, published a Cochrane review on acupuncture and dry needling for low back pain.<sup>6</sup> Reviewers included RCTs in adults with nonspecific low back pain and myofascial pain syndrome in the low back. RCTs had to report at least one of four outcome measures: pain intensity measured by a visual analog scale, global improvement measure, back-specific functional status scale, e.g., Roland-Morris Disability Scale, Oswestry Disability Index, or return to work.

Only one sham-controlled study on acupuncture for acute back pain was found and it did not find between-group differences in pain or function after one treatment session. Six RCTs compared acupuncture with sham acupuncture. Chronic pain outcomes are reported in Table 3.

<sup>6</sup> Furlan AD, van Tulder MW, Cherkin DC, *et al.*, *Acupuncture and dry-needling for low back pain*. Cochrane Database Syst. Rev. Jan 25 2005(1):CD001351. PMID 15674876.

**Table 3. Key Outcomes 2005 Cochrane on Chronic Low back Pain**

Acupuncture vs sham				
Variable	Time	No. trials	Results	p-value
Pain	Immediately after treatment	5	MD <sup>a</sup> : -10.21, 95% CI: -14.99 to -5.44	<0.0001
	Up to 3 months	2	MD: -17.79, 95% CI: -25.5 to -10.07	<0.0001
	3 months-1 year	2	MD: -5.74, 95% CI: -14.72 to 3.25	0.21
Global Improvement	Immediately after treatment	3	RR <sup>b</sup> : 1.23, 95% CI: 1.04 to 1.46	0.019
	Up to 3 months	3	RR: 1.44, 95% CI: 0.92 to 2.24	0.11
Acupuncture vs Other Intervention				
Pain	Immediately after treatment	5	SMD <sup>c</sup> : 0.48, 95% CI: 0.21 to 0.75	0.0005
	Up to 3 months	2	SMD: -0.19, 95% CI: -2.74 to 2.36	0.88
	3 months-1 year	2	SMD: 2.48, 95% CI: 1.02 to 3.94	<0.0001

<sup>a</sup>MD: Mean difference

<sup>b</sup>RR: risk ratio

<sup>c</sup>SMD: standardized mean difference

Pain was significantly lower with acupuncture than with sham immediately after treatment and after short-term (up to three months) follow-up, but there was **no significant difference between groups at intermediate follow-up (three months to one year)** (emphasis supplied). Similarly, scores were significantly better in the acupuncture group than in the sham group immediately after treatment, but there was no significant between-group difference at the short-term follow-up. In pooled analyses of studies comparing acupuncture with other interventions, e.g. massage, spinal manipulation, medication, there were significant differences immediately after treatment and at intermediate follow-up, favoring the other intervention groups; reviewers did not find a significant between-group difference at short-term follow-up.

### **Section Summary: Low Back Pain**

A Cochrane review found insufficient evidence from one sham-controlled trial to assess acupuncture and acute back pain. The trial had limitations, e.g., only one session of acupuncture, and did not find significantly better outcomes with acupuncture versus sham acupuncture. Five RCTs on chronic low back pain were identified and findings were mixed. Pooled analyses of sham-controlled RCTs on chronic low back pain found improvement in pain up to three months but not in global improvement at up to three months. Sham-controlled data beyond three-month follow-up were not available. In pooled analyses of acupuncture versus other treatments, meta-analyses found no significant differences between groups at up to three months and lower pain in the group receiving other treatments at the three- to 12-month follow-ups.

## **4. Non-Cancer Pain**

In 2013, Windmill *et al.*, published a Cochrane review on interventions for reducing prescribed opioid use in patients with chronic non-cancer pain who had a treatment goal

of reduction or cessation of opioid use.<sup>7</sup> Selection criteria included RCTs comparing interventions to sham, an active control, or usual care. One RCT on acupuncture was identified. It compared six weeks of electroacupuncture (n=17) to sham electroacupuncture (n=18). At the end of treatment, 64% of the electroacupuncture group and 46% of the sham group had reduced opioid consumption; the difference between groups was **not statistically significant** (emphasis supplied). At the 20-week follow-up, **patients in the electroacupuncture group, but not the sham group, had significantly increased opioid use from their post-treatment level** (emphasis supplied).

## 5. Other Pain-Related Conditions

Various Cochrane reviews have found insufficient evidence to demonstrate that acupuncture is effective for treating shoulder pain,<sup>8</sup> lateral elbow pain,<sup>9</sup> carpal tunnel syndrome,<sup>10</sup> cancer pain in adults,<sup>11</sup> chronic pain in patients with spinal cord injury,<sup>12</sup> pain in endometriosis,<sup>13</sup> and pain in rheumatoid arthritis.<sup>14</sup> These reviews identified few RCTs, low-quality RCTs, and/or lack of significantly better outcomes with acupuncture than with control conditions.

### B. Opioid Dependence

#### 1. Opiate Addiction

Other than the Windmill *et al.*, review<sup>15</sup> (discussed above), no Cochrane reviews were identified on acupuncture in opioid users. A 2012 systematic review by Lin *et al.*, addressed acupuncture for treating opiate addiction.<sup>16</sup> Reviewers searched for RCTs of individuals who met criteria for opiate or heroin addiction; trials could be blinded or unblinded. Ten trials met these inclusion criteria. None mentioned blinding. Four studies used acupuncture with manual stimulation, four used auricular acupuncture, one used

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<sup>7</sup>Windmill J, Fisher E, Eccleston C, *et al.*, *Interventions for the reduction of prescribed opioid use in chronic non-cancer pain*. Cochrane Database Syst. Rev. Sep 01 2013(9):CD010323. PMID 23996347.

<sup>8</sup> Green S, Buchbinder R, Hetrick S., *Acupuncture for shoulder pain*. Cochrane Database Syst. Rev. Apr 18 2005(2):CD005319. PMID 15846753.

<sup>9</sup> Green S, Buchbinder R, Barnsley L, *et al.*, *Acupuncture for lateral elbow pain*. Cochrane Database Syst. Rev. 2002(1):CD003527. PMID 11869671.

<sup>10</sup> O'Connor D, Marshall S, Massy-Westropp N. *Non-surgical treatment (other than steroid injection) for carpal tunnel syndrome*. Cochrane Database Syst. Rev. 2003(1):CD003219. PMID 12535461.

<sup>11</sup> Paley CA, Johnson MI, Tashani OA, *et al.*, *Acupuncture for cancer pain in adults*. Cochrane Database Syst Rev. Oct 15 2015(10):CD007753. PMID 26468973.

<sup>12</sup> Boldt I, Eriks-Hoogland I, Brinkhof MW, *et al.* *Non-pharmacological interventions for chronic pain in people with spinal cord injury*. Cochrane Database Syst. Rev. Nov 28 2014(11):CD009177. PMID 25432061.

<sup>13</sup> Zhu X, Hamilton KD, McNicol ED. *Acupuncture for pain in endometriosis*. Cochrane Database Syst. Rev. Sep 07 2011(9):CD007864. PMID 21901713.

<sup>14</sup> Casimiro L, Barnsley L, Brosseau L, *et al.*, *Acupuncture and electroacupuncture for the treatment of rheumatoid arthritis*. Cochrane Database Syst. Rev. Oct 19 2005(4):CD003788. PMID 16235342

<sup>15</sup> See footnote 7 above.

<sup>16</sup> Lin JG, Chan YY, Chen YH. *Acupuncture for the treatment of opiate addiction*. Evid Based Complement Alternat Med. 2012;2012:739045. PMID 22474521.



electroacupuncture, and one used a Chinese acupoint stimulating device. Reviewers rated eight trials as low quality and two as higher quality. The two studies rated higher quality both examined auricular acupuncture and both reported that this treatment did not have a significant effect on outcomes when used as an adjunct to standard methadone treatment services. Reviewers did not pool study findings. **They concluded that there was insufficient evidence to draw conclusions on the efficacy of acupuncture for treating opiate addiction** (emphasis supplied).

### **Section Summary: Opioid Dependence**

A Cochrane review identified one RCT that did not find a significant benefit from acupuncture in reducing opioid consumption in patients with chronic non-cancer-related pain. A narrative systematic review concluded that there was insufficient evidence from high-quality RCTs to draw conclusions on the efficacy of acupuncture in the treatment of opiate addiction.

## **Supplemental Information**

### **Veteran's Administration and Department of Defense**

The 2014 guidelines on nonsurgical management of knee and hip osteoarthritis from the Veteran's Administration and Department of Defense state the following on acupuncture: "In patients with hip and/or knee osteoarthritis, there is insufficient evidence to recommend for or against referral for short term trial of needle acupuncture or chiropractic therapy for relief of pain and improved function."<sup>17</sup>

### **U.S. Preventive Services Task Force Recommendations**

No U.S. Preventive Services Task Force recommendations on acupuncture have been identified.

### **Medicare National Coverage**

A national coverage determination states the following on acupuncture:<sup>18</sup>

Although acupuncture has been used for thousands of years in China and for decades in parts of Europe, it is a new agent of unknown use and efficacy in the United States. Even in those areas of the world where it has been widely used, its mechanism is not known. Three units of the National Institutes of Health, the National Institute of General Medical Sciences, National Institute of Neurological Diseases and Stroke, and Fogarty International Center have been designed to assess and identify specific opportunities and needs for research attending the use of acupuncture for surgical anesthesia and relief of chronic pain. Until the

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<sup>17</sup> Veteran's Administration/Department of Defense. *VA/DoD clinical practice guideline for the non-surgical management of hip and knee osteoarthritis*. 2014; <https://www.guideline.gov/summaries/summary/48530/vadod-clinical-practice-guideline-for-the-nonsurgical-management-of-hip-and-knee-osteoarthritis?q=acupuncture>. Accessed January 9, 2017.

<sup>18</sup> Center for Medicare and Medicaid Services (CMS). *National Coverage Determination (NCD) for Acupuncture (30.3)*. <https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=11&ncdver=1&CoverageSelection=National&KeyWord=acupuncture&KeyWordLookUp=Title&KeywordSearchType=And&clickon=search&bc=gAAACAAAAAAAA%3d%3d&>. Accessed January 9, 2017.

pending scientific assessment of the technique has been completed and its efficacy has been established, Medicare reimbursement for acupuncture, as an anesthetic or as an analgesic or for other therapeutic purposes, may not be made. Accordingly, acupuncture is not considered reasonable and necessary within the meaning of §1862(a)(1) of the Act.

In addition, Centers for Medicare and Medicaid Services issued a 2003 national coverage analysis on acupuncture for fibromyalgia<sup>19</sup> and a 2003 decision analysis on acupuncture for osteoarthritis,<sup>20</sup> both indicating noncoverage of the service.

### Ongoing and Unpublished Clinical Trials

Some currently unpublished trials that might influence this review are listed in Table 4.

**Table 4. Summary of Key Trials**

NCT No.	Trial Name	Planned Enrollment	Completion Date
<b>Ongoing</b>			
<b>NCT02047851</b>	Randomized, Blinded, Sham-controlled Trial of Acupuncture for the Management of Joint Pain in Patients With Psoriasis	30	Jul 2017
<b>NCT02770963</b>	Efficacy of Acupuncture for Discogenic Sciatica	60	Jun 2018
<b>NCT02834702</b>	Sinew Acupuncture for Neck Pain: Randomized Controlled Trial	130	Jun 2020

NCT: national clinical trial.

## II. Other States Health Plan Coverage of Acupuncture

No state mandates coverage of acupuncture.

Two states, California and Rhode Island, require health plans to *offer* the opportunity to buy acupuncture coverage. California requires the offer be made to groups that are non-HMO and non-government employee plans.<sup>21</sup> Rhode Island requires the offer of an optional rider covering acupuncture in the group health plan market.<sup>22</sup>

<sup>19</sup> Centers for Medicare and Medicaid Services (CMS). *National Coverage Analysis (NCA) for Acupuncture for Fibromyalgia* (CAG-00174N). <https://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=83&CoverageSelection=National&Keyword=acupuncture&KeywordLookup=Title&KeywordSearchType=And&clickon=search&bc=gAAACAAACAAAA%3d%3d&>. Accessed January 9, 2017.

<sup>20</sup> Center for Medicare and Medicaid Services (CMS). *Decision Memo for Acupuncture for Osteoarthritis* (CAG-00175N). <https://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=84&CoverageSelection=National&Keyword=acupuncture&KeywordLookup=Title&KeywordSearchType=And&clickon=search&bc=gAAACAAACAAAA%3d%3d&>. Accessed January 9, 2017.

<sup>21</sup> Cal. Health & Safety Code, § 1373.10 (2016).

<sup>22</sup> R.I. Gen. Laws §§ 27-18-55, 27-19-47, 27-20-42 and 27-41-57 (2015) (group)

Several states require that, when acupuncture benefits are *already* covered by a health plan, those benefits also be covered when delivered by a licensed or certified acupuncturist.<sup>23</sup>

Although not a mandated benefit under state law, the “Essential Health Benefit” benchmark plan in several states require qualified health plans to cover acupuncture (the inclusion of acupuncture in these benchmark plans is likely the result of acupuncture being a part of the benefit package that was selected by those states, Alaska, California, New Mexico, Maryland and Washington, for their benchmark plans). Several state benchmark plans specifically exclude acupuncture from Essential Health Benefits (those states are Georgia, Indiana, Kentucky, Maine, New Hampshire, New Jersey and Ohio). Finally, two states with high risk pool laws exclude acupuncture except when it is used as an anesthetic for covered surgery (Arkansas and Illinois).

Queries of Medical Directors of other Blue Cross/Blue Shield plans nationally were made through the Medical Policy Panel of the Blue Cross Blue Shield Association (of which BCBSVT is an independent licensee). No Medical Directors were able to provide evidence of acupuncture’s effectiveness in their member populations. No plans were identified that provided coverage of acupuncture for their entire population. Coverage was either provided through state benchmark plans as an essential health benefit for a subset of the population as above or were provided by specific client choice as an optional additional benefit (through a rider).

### III. Blue Cross and Blue Shield of Vermont Recommendations

BCBSVT has some large group clients that choose to provide acupuncture benefits to their employees and dependents. We will continue to support our clients who choose to provide voluntary acupuncture benefits to their members. Given the limited evidence and narrow appropriate uses for acupuncture, BCBSVT does not recommend the provision of acupuncture services as a benefit. Providing health coverage for such benefits would create undue administrative burdens on providers and increase costs to the health care system through the creation of management processes required to ensure that benefits being provided are medically necessary.

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<sup>23</sup> Alaska-A.S. § 21.42.353 (2015)-(group and nongroup); Colorado- Colo.Rev.Stat. § 10-16-104 (7)(a)(l)-(group and nongroup); Florida-Fla.Stat. Ann. §§ 627.6618 (2015) and 627-6403(2015)-(group and nongroup), Maine-Me.Rev.Stat. T.24A §§ 2837-B, T.24-A § 2745-B, and T. 24 § 2320-B-(group and nongroup); Maryland- Md. Code Ann., Ins. § 15-701 (2016) -(group and nongroup); Nevada Nev. Rev. Stat. §§ 689A.0475, .380 (2015), § 689B.049 (2015), § 695B.196 (2015) and § 695C.1765 (2015); (group, nongroup, service corporation and HMO); New Mexico- N.M. Stat. § 59A-22-32 (2015) (group or nongroup); Oregon-Or. Rev. Stat. § 743A.020 (2015) and Or. Rev. Stat. § 750.055 (2015) (group and nongroup), Minnesota-Minn. Stat. § 62A.15 (2015) and § 62D.107 (2015) (group, nongroup, HMO); Texas-Tex. Ins. Code §§ 1451.104, .105 (2015) and § 843.3041, § 1301.0515 (2015) (group, nongroup, HMO, PPO); Virginia-Va. Code Ann. §§ 38.2-3408, -4221 (2016) (group, nongroup); Washington-Wash. Rev. Code § 48.43.045 (2015)(amended by 2015 Wash. Laws ch. 237) (part of Essential Health Benefit benchmark plan).