Table des matières

Cancer pain

Douleur en oncologie : évaluation de l'acupuncture

Articles connexes: - évaluation de la pharmacopée chinoise - évaluation du qigong -

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Hadoush 2025

Hadoush H, Almhasis R, Kassab M, Almasri NA, Al-Wardat M. Effectiveness of non-pharmacological interventions on pain and fatigue management in cancer survivors: a systematic review and meta-analysis study. J Bodyw Mov Ther. 2025 Oct;44:251-260. https://doi.org/10.1016/j.jbmt.2025.05.046

Background	Pain and fatigue are among the most frequent and burdensome symptoms experienced by cancer survivors. Non-pharmacological interventions such as acupuncture, reflexology, and physical activity have been increasingly used to improve quality of life, but their relative effectiveness remains unclear.
Objective	To evaluate the effectiveness of non-pharmacological interventions for the management of pain and fatigue in adult cancer survivors through a systematic review and meta-analysis.
Methods	Only randomized controlled trials (RCTs) enrolling adults aged 18–80 years with a history of any cancer type were included. Risk of bias was assessed using the Cochrane Risk of Bias tool. Meta-analyses were performed in Review Manager software using standardized mean differences (SMDs) and 95% confidence intervals (CIs) under random-effects models.
Results	Five RCTs including 283 participants demonstrated significant pain relief with acupuncture and reflexology (SMD = −0.69, 95% CI −1.29 to −0.10; Z = 2.28; p = 0.02; I^2 = 82%). In contrast, five RCTs with 370 participants (221 in intervention groups) showed only a minor effect of physical activity on pain control (SMD = −0.29, 95% CI −0.74 to 0.16; Z = 1.27; p = 0.20; I^2 = 76%). For fatigue management, four RCTs (368 participants) found minimal impact from physical activity (SMD = −0.06, 95% CI −0.46 to 0.33; Z = 0.30; p = 0.76; I^2 = 72%).
Conclusion	Non-pharmacological interventions, particularly acupuncture and reflexology, show a positive therapeutic impact on pain management among cancer survivors, whereas their effects on fatigue remain negligible. Further high-quality RCTs are needed to confirm these findings and explore mechanisms underlying differential symptom responses.

1.1.2. Li 2025

Li Y, Li B, Cui Y, Yang X, Wang S, Wang X, Li M, Tu Y, Jing A, Zhou Y, Luo M. Acupuncture for chronic

cancer pain: a systematic review and meta-analysis. Eur J Integr Med. 2025;77:102493. https://doi.org/10.1016/j.eujim.2025.102493

Introduction	Pain is highly prevalent among cancer patients. Cancer pain is classified as chronic cancer pain (MG30.10) and chronic post-cancer treatment pain (MG30.11) in the International Classification of Diseases, 11th Revision (ICD-11). This research aims to ascertain the efficacy and safety of acupuncture in treating chronic cancer pain (MG30.10).
Methods	Eight Chinese and English databases were systematically searched from their inception to December 31, 2024, to identify randomized controlled trials (RCTs) that examined the efficacy of acupuncture in combination with active treatments versus active treatment alone (identical to the treatment group), no treatment, or sham acupuncture for cancer pain management. The risk of bias was assessed using the version 2 of the Cochrane risk-of-bias tool (ROB 2.0), and data analysis was conducted utilizing RevMan 5.4 and Stata 17.0. Additionally, the quality of evidence was evaluated using the grading of recommendations assessment, development, and evaluation (GRADE) approach.
Results	A total of **21 RCTs** were included in the meta-analysis, involving **1432 patients**. The meta-analysis revealed that compared to the control group, the treatment group exhibited significantly reduced Numeric Rating Scales (NRS) scores (mean difference (MD) = -0.93, 95 % confidence interval (CI) [-1.21, -0.64], P<0.00001, low certainty), fewer burst pain events (MD = -2.13, 95 % CI [-2.86, -1.39], P < 0.00001, low certainty), reduced analgesic consumption (standard mean difference (SMD) =-0.60, 95 % CI [-0.84, -0.37], P<0.00001, moderate certainty), improved quality of life (MD =6.37, 95 % CI [3.21, 9.54], P<0.0001, low certainty), and diminished side effects of taking analgesics, with no serious adverse effects of acupuncture treatment.
Conclusion	The integration of acupuncture with analgesic drugs has demonstrated considerable potential to significantly mitigate pain and ameliorate adverse effects of analgesics in patients with chronic cancer pain (MG30.11). However, further high-quality RCTs are required to elucidate the efficacy of acupuncture in cancer pain management and optimize treatment protocols.

1.1.3. Yan 2025

Yan S, Yan F, Liangyu P, Fei X. Assessment of non-pharmacological nursing strategies for pain management in tumor patients: a systematic review and meta-analysis. Front Pain Res (Lausanne). 2025 Apr 15;6:1447075. https://doi.org/10.3389/fpain.2025.1447075

Summary background	Cancer is a multifactorial disease associated with intense pain and fatigue. Pain is the main discomfort experienced during cancer treatment, particularly as a major side effect of chemotherapy.
Objective	This study has aimed to investigate the effectiveness of non-pharmacological nursing strategies, including reflexology, aromatherapy, acupressure, massage therapy and acupuncture, in the management of cancer-associated pain. Moreover, it provides evidence-based recommendations for integrating these interventions into standard pain management protocols.
Search methodology	We gathered data from three major online databases; PubMed, the Cochrane Library and Embase. For the analysis, we exclusively targeted randomized controlled trials (RCTs) assessing the effectiveness of non-pharmacological interventions in managing cancer-related pain. No language restrictions were applied, and pain was considered the primary outcome measure.

Results	Seventeen RCTs (n = 1,070) were included in this meta-analysis from 166 eligible studies. The pooled effect size demonstrated that all evaluated non-pharmacological nursing strategies, including aromatherapy, massage, reflexology, **acupressure and acupuncture** significantly reduced cancer-related pain compared to usual care ($p < 0.001$). Moreover, the reflexology and massage showed negligible heterogeneity among other interventions.
Conclusion	This meta-analysis found the significant effectiveness of non-pharmacological nursing strategies, particularly reflexology and massage in reducing cancer-related pain. The findings support their integration into clinical practice, providing evidence-based recommendations for enhancing standard pain management protocols.

1.1.4. Faria 2024

Faria M, Teixeira M, Pinto MJ, Sargento P. Efficacy of acupuncture on cancer pain: A systematic review and meta-analysis. J Integr Med. 2024 May;22(3):235-244. https://doi.org/10.1016/j.joim.2024.03.002

Backgound	Pain associated with cancer is one of the greatest causes of reduced quality of life in patients. Acupuncture is one of the treatments used to address this issue, with the great advantage of having little or no side effects, especially when compared with pharmacological pain-killers.
Objective	The aim of this systematic review and meta-analysis was to evaluate the current evidence regarding the efficacy of acupuncture for cancer pain.
Methods	Search strategy: Six electronic databases (PubMed, EBSCO, Cochrane Library, Scielo, b-On and Scopus) were searched for relevant articles about pain relief in cancer patients from their beginning until 2022 using MeSH terms such as “acupuncture,” “electroacupuncture,” “ear acupuncture,” “acupuncture analgesia,” ''oncological pain,“ and “cancer pain.” Inclusion criteria: Studies included were randomized controlled trials (RCTs) where acupuncture was compared with no treatment, placebo acupuncture or usual care. Data extraction and analysis: Three independent reviewers participated in data extraction and evaluation of risk of bias, and a meta-analysis was conducted. The primary outcome was pain intensity, measured with the visual analog scale, numeric rating scale, or brief pain inventory. Secondary outcomes also assessed were quality of life, functionality, xerostomia, pain interference, and analgesic consumption. Results were expressed as standardized mean difference (SMD) with 95% confidence interval (CI).
Results	**Sixteen RCTs with a total of 1124 participants** were included in the meta-analysis, with the majority of the studies presenting a low or unclear risk of bias. Acupuncture was more effective in reducing pain than no treatment (SMD = -0.90, 95 % CI [-1.68, -0.12]), sham acupuncture (SMD = -1.10, 95 % CI [-1.59, -0.61]) or usual care (SMD = -1.16, 95 % CI [-1.38, -0.93]).
Conclusion	The results of this study suggest that acupuncture may be an effective intervention to reduce pain associated with cancer. Despite some limitations due to the low quality and small sample size of some included studies, as well as the different types and stages of cancer, acupuncture might provide an effective and safe treatment to reduce cancer pain.

1.1.5. Abe 2022

Abe H, Inoue R, Tsuchida R, Ando M, Saita K, Konishi M, Edamura T, Ogawa A, Matsuoka Y, Sumitani M. Efficacy of treatments for pain and numbness in cancer survivors: a systematic review and meta-analysis. Ann Palliat Med. 2022 Dec;11(12):3674-3696. https://doi.org/10.21037/apm-22-420

Background	Pain and numbness in cancer survivors frequently have negative impacts on quality of life (QoL). This meta-analysis aimed to identify the current treatment options for pain and numbness in cancer survivors and to evaluate their effects.
Methods	Cancer survivors were defined as patients diagnosed with cancer who had completed active cancer treatment, whose conditions were stable, and who had no evidence of recurrent or progressive disease. A systematic search through the PubMed, MEDLINE, Embase, Cochrane Central Register of Controlled Trials, Web of Science, PsycInfo, and CINAHL databases was conducted, which targeted randomized controlled trials (RCTs) published until April 2022 that evaluated any type of treatment for pain or numbness in cancer survivors. A meta-analysis was conducted using the random-effects model to obtain the effect sizes of 7 types of treatments: opioid therapy, nonopioid pharmacotherapy, interventional therapy, acupuncture, education/cognitive behavioral therapy (CBT), physical exercise, and alternative medicine.
Results	A total of 36 studies involving 2,870 cancer survivors were included. Among them, 35 (n=2,813) were included in the meta-analysis for pain. The analysis suggested that physical exercise [n=761; 13 studies; standardized mean difference (SMD) -0.84; 95% confidence interval (CI): -1.14 to -0.55], **acupuncture (n=409; 3 studies; SMD -0.80; 95% CI: -1.04 to -0.56)**, and alternative medicine (n=206; 6 studies; SMD -0.44; 95% CI: -0.71 to -0.16) could significantly reduce pain. Nonopioid pharmacotherapy and education/CBT did not demonstrate significant effects. No studies were identified that investigated the effects of opioid therapy or interventional therapy on pain. Regarding numbness, 5 studies (n=566) were included in the meta-analysis. Acupuncture (n=99; 2 studies) did not demonstrate significant effects on numbness, and the effects of nonopioid pharmacotherapy, education/CBT, and physical exercise could not be determined due to the small number of included studies. No studies were identified that investigated the effects of opioid therapy, interventional therapy, or alternative medicine on numbness.
Conclusions	This meta-analysis suggested that physical exercise, acupuncture, and alternative medicine may reduce pain in cancer survivors, with a very small to moderate amount of evidence. The effect of treatments for numbness could not be determined due to the limited number of included studies. Further studies are needed, particularly on widely used pharmacotherapy.

1.1.6. Yan 2022 (Bone Pain)

Yan Z, MuRong Z, Huo B, Zhong H, Yi C, Liu M, Liu M. Acupuncture as a Complementary Therapy for Cancer-Induced Bone Pain: A Systematic Review and Meta-Analysis. Front Pain Res (Lausanne). 2022 Aug 1;3:925013. https://doi.org/10.3389/fpain.2022.925013.

Background	Cancer-induced bone pain (CIBP) is a special type of cancer pain and lacks safe and effective treatments. Acupuncture is a potentially valuable treatment for CIBP, studies evaluating the effect of acupuncture on CIBP have increased significantly, but the safety and efficacy of acupuncture to control CIBP remains controversial.
Objective	To provide the first meta-analysis to evaluate the safety and efficacy of acupuncture in CIBP management.

Methods	Data sources: CNKI, CBM, Wanfang, VIP Database, PubMed, Embase, and Cochrane Library were searched from their inception until 1 June 2022. Study selection: RCTs with primary bone tumor patients or other types of primary cancer companied by bone metastases as the research subjects and to evaluate the efficacy of acupuncture treatment alone or combined with the control treatment were included. Meanwhile, RCTs should choose the pain score as the primary outcome and pain relief rate, frequency of breakthrough pain, analgesic onset time, analgesia duration, quality of life, and adverse events as reference outcomes. Data collection and analysis: We designed a data-extraction form that was used to extract key information from the articles. Data extraction study evaluation was conducted independently by two reviewers, and a third reviewer would resolve any disagreements. The risk of bias was assessed by the Cochrane Collaboration's tool for assessing the risk bias. The quality of the evidence for main outcomes was evaluated by the GRADE system. Mean differences (MD), relative risk (RR), and 95% confidence intervals (CIs) were calculated. The forest plots were performed using the Review Manager Software (5.3 version). Subgroup analysis was used to investigate the possible sources of potential heterogeneity. Descriptive analysis was performed in case of unacceptable clinical heterogeneity.
Results	**Thirteen RCTs (with 1,069 patients)** were included, and all studies were at high risk of bias owing to lack of blinding or other bias. Eleven studies evaluated the effectiveness of acupuncture as a complementary therapy, and showed that acupuncture plus control treatment (compared with control treatment) was connected with reduced pain intensity (MD = -1.34, 95% CI -1.74 to -0.94; Q < 0.1; I 2 = 98%, P < 0.01). Subgroup analyses based on acupoints type partly explain the potential heterogeneity. The results also showed that acupuncture plus control treatment (compared with control treatment) was connected with relieving pain intensity, increasing the pain relief rate, reducing the frequency of breakthrough pain, shortening analgesic onset time, extending the analgesic duration, and improving the quality of life. We have no sufficient evidence to prove the effectiveness of acupuncture alone. Four RCTs reported only adverse events related to opioids' side effects. Evidence was qualified as “very low” because of low methodological quality, considerable heterogeneity, or a low number of included studies.
Conclusion	Acupuncture has a certain effect as a complementary therapy on pain management of CIBP, which not only mitigates the pain intensity but also improves the quality of life and reduces the incidence of opioids' side effects, although the evidence level was very low. In future, a larger sample size and rigorously designed RCTs are needed to provide sufficient evidence to identify the efficacy and safety of acupuncture as a treatment for CIBP.

1.1.7. Li 2021 (Combined with Three-Step Analgesic Drug)

Li DH, Su YF, Fan HF, Guo N, Sun CX. Acupuncture Combined with Three-Step Analgesic Drug Therapy for Treatment of Cancer Pain: A Systematic Review and Meta-Analysis of Randomised Clinical Trials. Evid Based Complement Alternat Med. 2021. [220504]. doi

Objective	The purpose of this study was to systematically evaluate the efficacy and safety of acupuncture combined with the WHO three-step analgesic drug ladder for cancer pain.
Methods	The Cochrane Library, PubMed, and CNKI Database of Systematic Reviews were searched. Using the Cochrane Register for Randomized Controlled Trials, the quality of the included literature was evaluated, and the meta-analysis was carried out with RevMan 5.3 software.

Results	Compared with three-step analgesia alone, acupuncture combined with three-step analgesia for cancer pain increased pain relief response rates (RR = 1.12, 95% CI: 1.08~1.17, P < 0.00001), reduced NRS score (SMD = -1.10, 95% CI: -1.86~-0.35, P=0.004), reduced the rate of side effects (RR = 0.45, 95% CI: 0.38~0.53, P < 0.00001), including nausea (P < 0.00001), vomiting (P=0.008), constipation (P < 0.00001), and dizziness (P=0.010), reduced the burst pain rate (SMD = -1.38; 95% CI: -2.44~-0.32, P=0.01), shortened analgesia effect onset time (P=0.004), and extended the duration of response (P < 0.0001).
Conclusion	For the treatment of cancer pain, acupuncture combined with three-step analgesic drugs is better than using only three-step analgesic drugs.

1.1.8. Lopes-Júnior 2020 ∅

Lopes-Júnior LC, Rosa GS, Pessanha RM, Schuab SIPC, Nunes KZ, Amorim MHC. Efficacy of the complementary therapies in the management of cancer pain in palliative care: A systematic review. Rev Lat Am Enfermagem. 2020. [212556]. doi

Objective	to synthesize the knowledge and to critically evaluate the evidences arising from randomized controlled trials on the efficacy of the complementary therapies in the management of cancer pain in adult patients with cancer in palliative care.
Method	a systematic review guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses. The search for articles in the MEDLINE, ISI Web of Knowledge, CENTRAL Cochrane, and PsycINFO databases, as well as the manual search, selection of studies, data extraction, and methodological assessment using the Cochrane Bias Risk tool were performed independently by two reviewers.
Results	eight hundred and fifteen (815) studies were identified, six of them being selected and analyzed, of which three used massage therapy, one study used a combination of progressive muscle relaxation and guided imaging, and another **two studies used acupuncture**. Most of the studies had an uncertain risk of bias (n=4; 67%).
Conclusion	while the evidence from the studies evaluating the use of massage therapy or the use of progressive muscle relaxation and guided imaging for the management of cancer pain in these patients demonstrated significant benefits, the other two studies that evaluated the use of acupuncture as a complementary therapy showed contradictory results, therefore, needing more research studies to elucidate such findings.

1.1.9. Wang 2020 ☆

Wang Jianfeng. [A Meta-analysis of the Efficacy and Safety of Acupuncture Combined with Three-step Analgesic Ladder on Cancer Pain]. Journal of Emergency in TCM. 2020. [212917].

Objective	To systematically evaluate the efficacy and safety of acupuncture combined with three-step analgesia ladder on cancer pain.
Methods	CNKI, CMB, VIP, Wan Fang Data, PubMed, and The Cochrane library database were searched from January 1986 to October 2019 for randomized controlled trials of acupuncture combined with three-step analgesia ladder on cancer pain. Data extraction and quality evaluation were crosschecked independently by two researchers, and meta-analysis was conducted with RevMan5. 3 software.

Results	**14 randomized controlled studies** were included, including **1 072 patients**. Meta-analysis results showed that compared with the simple three-step analgesic ladder, the acupuncture combined with it can improve the total effective rate of treatment pain [RR=1. 22, 95%CI (1. 15, 1. 28), P < 0. 0001], relieve patients' pain (lowering NRS score)[RR=-0. 68, 95%CI (-0. 92, -0. 45), P < 0. 0001], improve the quality of life in patients (elevating KPS score)[RR=4. 82, 95%CI (1. 73, 7. 91), P = 0. 02). Nausea [RR=0. 54, 95%CI (0. 39, 0. 75), P = 0. 0003], vomiting [RR=0. 60, 95%CI (0. 38, 0. 93), P = 0. 02], and constipation[RR=0. 48, 95%CI (0. 35, 0. 65), P < 0. 0001]were all statistically significant.
Conclusion	Acupuncture combined three-step analgesic ladder significantly improve the total effective rate of treatment of cancer pain, reduce the pain of patients, improve the quality of life, and reduce the occurrence of nausea, vomiting and constipation. Due to the small sample size and low quality evaluation, the conclusion needs to be further confirmed by large sample and high-quality randomized control study.

1.1.10. He 2019 ☆☆☆

He Y, Guo X, May BH, et al. Clinical Evidence for Association of Acupuncture and Acupressure With Improved Cancer Pain: A Systematic Review and Meta-Analysis. JAMA Oncol. 2019;6(2):271-8. [202656]. doi

Importance	Research into acupuncture and acupressure and their application for cancer pain has been growing, but the findings have been inconsistent.
Objective	To evaluate the existing randomized clinical trials (RCTs) for evidence of the association of acupuncture and acupressure with reduction in cancer pain.
Methods	Data sources: Three English-language databases (PubMed, Embase, and CINAHL) and 4 Chinese-language biomedical databases (Chinese Biomedical Literature Database, VIP Database for Chinese Technical Periodicals, China National Knowledge Infrastructure, and Wanfang) were searched for RCTs published from database inception through March 31, 2019. Study selection: Randomized clinical trials that compared acupuncture and acupressure with a sham control, analgesic therapy, or usual care for managing cancer pain were included. Data extraction and synthesis: Data were screened and extracted independently using predesigned forms. The quality of RCTs was appraised with the Cochrane Collaboration risk of bias tool. Random-effects modeling was used to calculate the effect sizes of included RCTs. The quality of evidence was evaluated with the Grading of Recommendations Assessment, Development and Evaluation approach. Main outcomes and measures: The primary outcome was pain intensity measured by the Brief Pain Inventory, Numerical Rating Scale, Visual Analog Scale, or Verbal Rating Scale.
Results	**A total of 17 RCTs (with 1111 patients) were included in the systematic review, and data from 14 RCTs (with 920 patients) were used in the meta-analysis**. Seven sham-controlled RCTs (35%) were notable for their high quality, being judged to have a low risk of bias for all of their domains, and showed that real (compared with sham) acupuncture was associated with reduced pain intensity (mean difference [MD], -1.38 points; 95% CI, -2.13 to -0.64 points; I2 = 81%). A favorable association was also seen when acupuncture and acupressure were combined with analgesic therapy in 6 RCTs for reducing pain intensity (MD, -1.44 points; 95% CI, -1.98 to -0.89; I2 = 92%) and in 2 RCTs for reducing opioid dose (MD, -30.00 mg morphine equivalent daily dose; 95% CI, -37.5 mg to -22.5 mg). The evidence grade was moderate because of the substantial heterogeneity among studies.

Conclusions and relevance	This systematic review and meta-analysis found that **acupuncture and/or acupressure was significantly associated with reduced cancer pain and decreased use of analgesics, although the evidence level was moderate**. This finding suggests that more rigorous trials are needed to identify the association of acupuncture and acupressure with specific types of cancer pain and to integrate such evidence into clinical care to reduce opioid use.

1.1.11. Chiu 2017 ☆☆

Chiu HY, Hsieh YJ, Tsai PS. Systematic review and meta-analysis of acupuncture to reduce cancer-related pain. Eur J Cancer Care (Engl). 2017;26(2). [182347].

Objective	We conducted a systematic review and meta-analysis to evaluate the effects of acupuncture on malignancy-related, chemotherapy (CT)- or radiation therapy (RT)-induced, surgery-induced, and hormone therapy (HT)-induced pain.
Methods	Randomised controlled trials (RCTs) examining the effects of acupuncture on cancer-related pain were reached from the EMBASE, PubMed, PsycINFO, Cochrane Central Register of Controlled Trials, CINAHL, Airiti library, Taiwan Electrical Periodical Service, Wanfang Data (a Chinese database) and China Knowledge Resource Integrated Database from inception through June 2014. Heterogeneity, moderator analysis, publication bias and risk of bias associated with the included studies were examined.
Results	A total of **29 RCTs** yielding 36 effect sizes were included. The overall effect of acupuncture on cancer-related pain was -0.45 [95% confidence interval (CI) = -0.63 to -0.26]. The subanalysis indicated that acupuncture relieved malignancy-related and surgery-induced pain [effect size (g) = -0.71, and -0.40; 95% CI = -0.94 to -0.48, and -0.69 to -0.10] but not CT- or RT-induced and HT-induced pain (g = -0.05, and -0.64, 95% CI = -0.33 to 0.24, and -1.55 to 0.27).
Conclusions	**Acupuncture is effective in relieving cancer-related pain, particularly malignancy-related and surgery-induced pain.** Our findings suggest that acupuncture can be adopted as part of a multimodal approach for reducing cancer-related pain.

1.1.12. Hu 2016 ☆

Hu C, Zhang H, Wu W et al. Acupuncture for pain management in cancer: a systematic review and meta-analysis. Evid-Based Complementary Altern Med.2016.1720239. [156969].

Objective	To evaluate the effectiveness and safety of acupuncture for cancer-related pain.
Methods	A systematic review of literatures published from database inception to February 2015 was conducted in eight databases. RCTs involving acupuncture for treatment of cancer-related pain were identified. Two researchers independently performed article selection, data extraction, and quality assessment of data.
Results	**1,639 participants in twenty RCTs** were analyzed. All selected RCTs were associated with high risk of bias. Meta-analysis indicated that acupuncture alone did not have superior pain-relieving effects as compared with conventional drug therapy. However, as compared with the drug therapy alone, acupuncture plus drug therapy resulted in increased pain remission rate, shorter onset time of pain relief, longer pain-free duration, and better quality of life without serious adverse effects. However, GRADE analysis revealed that the quality of all outcomes about acupuncture plus drug therapy was very low.

Conclusions	**Acupuncture plus drug therapy is more effective than conventional drug therapy alone for cancer-related pain.** However, multicenter high-quality RCTs with larger sample sizes are needed to provide stronger evidence for the effectiveness of acupuncture in cancer related pain due to the low data quality of the studies included in the current meta-analysis.

1.1.13. Lau 2016 ☆

Lau CH, Wu X, Chung VC, Liu X, Hui EP, Cramer H, Lauche R, Wong SY, Lau AY, Sit RS, Ziea ET, Ng BF, Wu JC. Acupuncture and related therapies for symptom management in palliative cancer care: systematic review and meta-analysis. Medicine (Baltimore). 2016;95(9):e2901. [160606].

Purpose	The aim of this systematic review and meta-analysis was to summarize current best evidence on acupuncture and related therapies for palliative cancer care.
Methods	Five international and 3 Chinese databases were searched. Randomized controlled trials (RCTs) comparing acupuncture and related thérapies with conventional or sham treatments were considered. Primary outcomes included fatigue, paresthesia and dysesthesias, chronic pain, anorexia, insomnia, limb edema, constipation, and health-related quality of life, of which effective conventional interventions are limited.
Results	Thirteen RCTs were included. Compared with conventional interventions, meta-analysis demonstrated that **acupuncture and related therapies significantly reduced pain (**2 studies, n=175**, pooled weighted mean difference: -0.76, 95% confidence interval: -0.14 to -0.39) among patients with liver or gastric cancer**. Combined use of acupuncture and related therapies and Chinese herbal medicine improved quality of life in patients with gastrointestinal cancer (2 studies, n¼111, pooled standard mean difference: 0.75, 95% confidence interval: 0.36–1.13). Acupressure showed significant efficacy in reducing fatigue in lung cancer patients when compared with sham acupressure. Adverse events for acupuncture and related therapies were infrequent and mild.
Conclusion	**Acupuncture and related therapies are effective in reducing pain**, fatigue, and in improving quality of life when compared with conventional intervention alone among cancer patients. Limitations on current evidence body imply that they should be used as a complement, rather than an alternative, to conventional care. Effectiveness of acupuncture and related therapies for managing anorexia, reducing constipation, paresthesia and dysesthesia, insomnia, and limb edema in cancer patients is uncertain, warranting future RCTs in these areas.

1.1.14. Paley 2015 Ø

Paley CA, Johnson MI, Tashani OA, Bagnall AM. Acupuncture for cancer pain in adults. Cochrane Database Syst Rev. 2015. [184147].

Background	Forty per cent of individuals with early or intermediate stage cancer and 90% with advanced cancer have moderate to severe pain and up to 70% of patients with cancer pain do not receive adequate pain relief. It has been claimed that acupuncture has a role in management of cancer pain and guidelines exist for treatment of cancer pain with acupuncture. This is an updated version of a Cochrane Review published in Issue 1, 2011, on acupuncture for cancer pain in adults.
Objectives	To evaluate efficacy of acupuncture for relief of cancer-related pain in adults.

Methods	Search methods: For this update CENTRAL, MEDLINE, EMBASE, PsycINFO, AMED, and SPORTDiscus were searched up to July 2015 including non-English language papers. Selection criteria: Randomised controlled trials (RCTs) that evaluated any type of invasive acupuncture for pain directly related to cancer in adults aged 18 years or over. Data collection and analysis: We planned to pool data to provide an overall measure of effect and to calculate the number needed to treat to benefit, but this was not possible due to heterogeneity. Two review authors (CP, OT) independently extracted data adding it to data extraction sheets. Data sheets were compared and discussed with a third review author (MJ) who acted as arbiter. Data analysis was conducted by CP, OT and MJ.
Main Results	We included **five RCTs (285 participants).** Three studies were included in the original review and two more in the update. The authors of the included studies reported benefits of acupuncture in managing pancreatic cancer pain; no difference between real and sham electroacupuncture for pain associated with ovarian cancer; benefits of acupuncture over conventional medication for late stage unspecified cancer; benefits for auricular (ear) acupuncture over placebo for chronic neuropathic pain related to cancer; and no differences between conventional analgesia and acupuncture within the first 10 days of treatment for stomach carcinoma. All studies had a high risk of bias from inadequate sample size and a low risk of bias associated with random sequence generation. Only three studies had low risk of bias associated with incomplete outcome data, while two studies had low risk of bias associated with allocation concealment and one study had low risk of bias associated with inadequate blinding. The heterogeneity of methodologies, cancer populations and techniques used in the included studies precluded pooling of data and therefore meta-analysis was not carried out. A subgroup analysis on acupuncture for cancer-induced bone pain was not conducted because none of the studies made any reference to bone pain. Studies either reported that there were no adverse events as a result of treatment, or did not report adverse events at all.
Authors' conclusions	There is **insufficient evidence to judge** whether acupuncture is effective in treating cancer pain in adults.

1.1.15. Lian 2014 ☆

Lian WL, Pan MQ, Zhou DH, Zhang ZJ. Effectiveness of acupuncture for palliative care in cancer patients: a systematic review. Chin J Integr Med. 2014.20(2):136-47. [160304].

Objective	To critically evaluate the currently available randomized clinical trials regarding the effectiveness of acupuncture in palliative care for cancer patients, hence, to provide sufficient evidences for the widespread use of acupuncture in cancer treatment.
Methods	Two independent reviewers extracted data from all of the randomized clinical trials (RCTs) that assessed the efficacy of acupuncture in palliative care for cancer patients. Seven databases were searched from their respective inception to December 2010. All eligible trials identified were evaluated by two independent reviewers using the Jadad scale, and data from the articles were validated and extracted.
Results	In total, 33 RCTs met the inclusion criteria. The effects of acupuncture on different cancer-related aspects were shown, including chemotherapy or radiotherapy-induced side effects (13/33, 39.4%), cancer pain (6/33, 18.2%), post-operative urinary retention (4/33, 12.1%), quality of life (2/33, 6.1%), vasomotor syndrome (2/33, 6.1%), post-operative gastrointestinal dysfunction (2/33, 6.1%), prevention of prolonged postoperative ileus (2/33, 6.1%), joint symptoms (1/33, 3.0%), and immunomodulation (1/33, 3.0%).

Conclusions	The result of our systematic review suggested that the **effectiveness of acupuncture in palliative care for cancer patients is promising**, especially in reducing chemotherapy or radiotherapy-induced side effects and **cancer pain**. Acupuncture may be an appropriate adjunctive treatment for palliative care.

1.1.16. Choi 2012 Ø

Choi TY, Lee MS, Kim TH, Zaslawski C, Ernst E. Acupuncture for the treatment of cancer pain: a systematic review of randomised clinical trials. Support Care Cancer. 2012. 20(6):1147-58. [159344].

Purpose	Controlling cancer-related pain is an important component in the palliative care of cancer patients. The objective of this review was to assess the effectiveness of acupuncture for treating cancer pain.
Methods	Fourteen databases were searched from their inception through April 2011. Randomised clinical trials (RCTs) were included if acupuncture was used as the sole treatment or as a part of a combination therapy for cancer pain. Studies were included if they were controlled with a placebo or controlled against a drug-therapy or no-treatment group. The Cochrane criteria were used to assess the risk of bias.
Results	A total of 15 RCTs met our inclusion criteria. All of the included RCTs were associated with a high risk of bias. The majority of acupuncture treatments or combination therapies with analgesics exhibited favourable effects compared with conventional treatments in individual studies. However, a meta-analysis suggested that acupuncture did not generate a better effect than drug therapy (n = 886; risk ratio (RR), 1.12; 95% CI 0.98 to 1.28; P = 0.09). The comparison between acupuncture plus drug therapy and drug therapy alone demonstrated a significant difference in favour of the combination therapy (n = 437; RR, 1.36; 95% CI 1.13 to 1.64; P = 0.003). The results of this systematic review provide no strong evidence for the effectiveness of acupuncture in the management of cancer pain.
Conclusion	The total number of RCTs included in the analysis and their **methodological quality were too low** to draw firm conclusions. Future rigorous RCTs will be necessary to assess the clinical efficacy of acupuncture in this area.

1.1.17. Paley 2011 Ø

Paley CA, Johnson MI, Tashani OA, Bagnall AM. Acupuncture for cancer pain in adults. Cochrane Database Syst Rev. 2011. 19. [156155].

Background	Forty percent of individuals with early or intermediate stage cancer and 90% with advanced cancer have moderate to severe pain and up to 70% of patients with cancer pain do not receive adequate pain relief. It has been claimed that acupuncture has a role in management of cancer pain and guidelines exist for treatment of cancer pain with acupuncture.
Objectives	To evaluate efficacy of acupuncture for relief of cancer-related pain in adults.

Methods	Search strategy: CENTRAL, MEDLINE, EMBASE, PsycINFO, AMED, and SPORTDiscus were searched up to November 2010 including non-English language papers. Selection criteria: Randomised controlled trials (RCTs) evaluating any type of invasive acupuncture for pain directly related to cancer in adults of 18 years or over. Data collection and analysis: It was planned to pool data to provide an overall measure of effect and to calculate the number needed to treat to benefit, but this was not possible due to heterogeneity. Two review authors (CP, OT) independently extracted data adding it to data extraction sheets. Quality scores were given to studies. Data sheets were compared and discussed with a third review author (MJ) who acted as arbiter. Data analysis was conducted by CP, OT and MJ.
Main results	Three RCTs (204 participants) were included. One high quality study investigated the effect of auricular acupuncture compared with auricular acupuncture at 'placebo' points and with non-invasive vaccaria ear seeds attached at 'placebo' points. Participants in two acupuncture groups were blinded but blinding wasn't possible in the ear seeds group because seeds were attached using tape. This may have biased results in favour of acupuncture groups. Participants in the real acupuncture group had lower pain scores at two-month follow-up than either the placebo or ear seeds group. There was high risk of bias in two studies because of low methodological quality. One study comparing acupuncture with medication concluded that both methods were effective in controlling pain, although acupuncture was the most effective. The second study compared acupuncture, point-injection and medication in participants with stomach cancer. Long-term pain relief was reported for both acupuncture and point-injection compared with medication during the last 10 days of treatment. Although both studies have positive results in favour of acupuncture they should be viewed with caution due to methodological limitations, small sample sizes, poor reporting and inadequate analysis.
Authors' conclusions	There is **insufficient evidence to judge** whether acupuncture is effective in treating cancer pain in adults.

1.1.18. Peng 2010 ☆

Peng H, Peng HD, Xu L, Lao LX.[Efficacy of acupuncture in treatment of cancer pain: a systematic review].Zhong Xi Yi Jie He Xue Bao. 2010 Jun;8(6):501-9. [160706].

Background	Although acupuncture is a well-established treatment for cancer pain and its effects have been widely reported in recent two decades, there is still controversy over whether its efficacy is better than placebo.
Objective	To evaluate the efficacy of acupuncture therapy on cancer pain.
Method	Search strategy: Cochrane Central Register of Controlled Trials (The Cochrane Library, Issue 3, 2008), EMBASE, PubMed, ScienceDirect database, Current Controlled Trials, Chongqin VIP database and CNKI database were searched, and the search date ended in June 2008. The authors also hand-searched six Chinese Journals related to the question. Inclusion criteria: All randomized controlled trials (RCTs) comparing acupuncture therapy with placebo, Western drugs, Chinese herbal medicines, or comparing acupuncture therapy plus drug treatment with drug treatment. data extraction and analysis: Two separate evaluators assessed the quality of the included reports and extracted the useful information. Disagreements were resolved through discussion. Meta-analysis of the included trials was done with RevMan 5.0, and qualitative analysis was employed when meta-analysis was not appropriate.

Results	Seven published RCTs with a total of 634 patients met the inclusion criteria, and the quality of one of the included trials was high. Due to flaws in design and reporting, meta-analysis was precluded, and only qualitative analysis was done on the majority of the reports. The high-quality trial showed that auricular acupuncture therapy was significantly superior to placebo in pain alleviation. The other six low-quality trials with non-placebo showed that acupuncture therapy had some positive effects.
Conclusion	**Acupuncture is effective for pain relief**. However, the poor quality of the majority of the trials reduces the reliability of the conclusion. More high-quality RCTs are needed to verify the effects.

1.1.19. Hopkins 2010 Ø

Hopkins Hollis AS. Acupuncture AS A Treatment Modality for the Management of Cancer Pain: the State of the Science. Oncol Nurs Forum. 2010;37(5):344-8. [159374].

Objectives	To explore the current state of the science regarding acupuncture as a treatment modality for cancer pain.
Methods	PubMed and CINAHL databases were searched, as were Web sites from the National Cancer Institute, the National Institute of Health's Complementary and Alternative Medicine Program, and the American Cancer Society.
Results	This article synthesizes nine years of published research on the use of acupuncture as an adjunct treatment for the management of cancer pain.
Conclusions	Findings suggest a **lack of level I evidence regarding the use of acupuncture as a cancer pain treatment modality**. The majority of evidence is level III or higher; therefore, causality cannot be inferred. IMPLICATIONS FOR NURSING: Future research should focus on level I and level II evidence, controlling for variables to strengthen validity, and addressing sample size to enhance the generalizability of results. Nurses should be knowledgeable about the state of the science evidence available to assist patients in making educated decisions

1.1.20. Bardia 2006 Ø

Bardia A, Barton DI, Prokop LJ, Bauer BA, Moynihan TJ. Efficacy of complementary and alternative medicine therapies in relieving cancer pain: a systematic review. J Clin Oncol. 2006. 24(34):54-57. [141519].

Purpose	Despite widespread popular use of complementary and alternative medicine (CAM) therapies, a rigorous evidence base about their efficacy for cancer-related pain is lacking. This is a systematic review of randomized controlled trials (RCTs) evaluating CAM therapies for cancer-related pain.
Methods	RCTs using CAM interventions for cancer-related pain were abstracted using Medline, EMBASE, CINAHL, AMED, and Cochrane database.

Results	Eighteen trials were identified (eight poor, three intermediate, and seven high quality based on Jadad score), with a total of 1,499 patients. Median sample size was 53 patients, and median intervention duration was 45 days. All studies were from single institutions, four had sample size justification, and none reported any adverse effects. Seven trials reported significant benefit for the following CAM therapies: acupuncture (n = 1), support groups (n = 2), hypnosis (n = 1), relaxation/imagery (n = 2), and herbal supplement/HESA-A (n = 1, but study was of low quality without control data). Seven studies reported immediate postintervention or short-term benefit of the following CAM interventions: acupuncture (n = 2), music (n = 1), herbal supplement/Ai-Tong-Ping (n = 1), massage (n = 1), and healing touch (n = 2). Four studies reported no benefit of CAM interventions (music, n = 2; massage, n = 2) in reducing cancer pain compared with a control arm.
Conclusion	There is paucity of multi-institutional RCTs evaluating CAM interventions for cancer pain with adequate power, duration, and sham control. **Hypnosis, imagery, support groups, acupuncture, and healing touch seem promising, particularly in the short term, but none can be recommended because of a paucity of rigorous trials**. Future research should focus on methodologically strong RCTs to determine potential efficacy of these CAM interventions.

1.1.21. Lee 2005 Ø

Lee H, Schmidt K, Ernst E. Acupuncture for the relief of cancer-related pain - a systematic review. Eur J Pain. 2005;9(4):437-44. [136591]

Aims	This systematic review summarises the existing evidence on acupuncture for cancer-related pain.
Methods	Literature searches were conducted in seven databases. All clinical studies of acupuncture, electroacupuncture and ear acupuncture in cancer patients with the main outcome measure of pain were included. Data were extracted according to pre-defined criteria by two independent reviewers and methodological quality was assessed using the Jadad scale.
Results	Of the seven studies included, one high quality randomised clinical trial of ear acupuncture showed statistically significant pain relief in comparison with placebo ear acupuncture. All the other studies were either non-blinded (n=2) or uncontrolled clinical trials (n=4). Most investigations suffered from methodological flaws such as inadequate study design, poor reporting of results, small sample size and overestimation of the results.
Conclusions	The notion that **acupuncture may be an effective analgesic adjunctive method for cancer patients is not supported** by the data currently available from the majority of rigorous clinical trials. Because of its widespread acceptance, appropriately powered RCTs are needed.

1.1.22. Sellick 1998 Ø

Sellick SM et al. Critical review of 5 nonpharmacologic strategies for managing cancer pain. cancer prev control. 1998. 2(1):714. [58755].

Purpose:	Health care professionals at 2 Ontario cancer centres were surveyed to determine their familiarity with, perceptions of and interest in learning more about nonpharmacologic strategies for the management of cancer pain. Evidencebased education sessions were subsequently developed for the 5 strategies in which participants were most interested. This article presents the results of critical literature reviews concerning the effectiveness of the 5 strategies: acupuncture, massage therapy, hypnosis, therapeutic touch and biofeedback.
Methods	The databases MEDLINE (1966 to June 1997), CINAHL (1982 to June 1997) and PsychoINFO Lit (1980 to June 1997) were searched systematically for randomized controlled trials (RCTs) of the 5 nonpharmacologic strategies. The authors' personal files and reference lists of relevant papers and main texts were also searched. The quality of the trials was reviewed according to established criteria.
Results	The search yielded 1 RCT of acupuncture, 1 of massage therapy and 6 of hypnosis. The studies of hypnosis suggested that there is much support for its use in the management of cancer pain. The evidence was either lacking or less clear for the other therapies examined.
Conclusion	Because patients use a wide variety of nonpharmacologic strategies regardless of their effectiveness, clinicians need to be familiar with available research and able to discuss those strategies for which the evidence is strong, weak or nonexistent. More research on the effectiveness of nonpharmacologic strategies for pain management is needed.

1.2. Special Clinical Forms

1.2.1. Aromatase inhibitor-induced arthralgia

see corresponding item

1.2.2. Breast Cancer

1.2.2.1. Behzadmehr 2020

Behzadmehr R, Dastyar N, Moghadam MP, Abavisani M, Moradi M. Effect of complementary and alternative medicine interventions on cancer related pain among breast cancer patients: A systematic review. Complement Ther Med. 2020. [205771]. doi

Objective	This systematic review aimed to evaluate the efficacy of CAM interventions for cancer-related pain in breast cancer patients.
Methods	Databases (PubMed, Scopus, Web of Science, and EMBASE) were searched from January 1, 2000, up to April 31, 2019, using the keywords: Complementary and alternative medicine therapies and cancer related pain. Standard tools were used to evaluate the quality of the studies included.
Results	Of the 3742 articles found, 46 articles comprising 3685 participants entered the final phase. Our results indicate that interventions including **acupuncture/acupressure**, tai chi/qi gong, hypnosis, meditation, music therapy, yoga, massage, reflexology, and Reiki improve cancer-related pain in breast cancer patients. However, aromatherapy had no effect on the same.
Conclusions	Despite the positive effect of various CAM interventions in reducing cancer-related pain, necessary precautions should be adopted to use them alongside other treatments to control cancer pain in the clinical setting.

1.2.3. Cervical cancer pain

1.2.3.1. Shi 2026

Shi A, Yerebake M, Du Z, Li L, Yan C, Wang J. Acupuncture as Adjunctive Therapy for Cervical Cancer Pain: A Systematic Review and Meta-Analysis. J Pain Symptom Manage. 2026;71(5):e540-e557. https://doi.org/10.1016/j.jpainsymman.2025.12.013

Objective	The current study aimed to assess the efficacy of acupuncture as an adjunctive therapy for pain management in cervical cancer patients through a systematic review and meta-analysis.
Methods	Databases including the Web of Science, Cochrane Library, PubMed, Embase, Wanfang, and China National Knowledge Infrastructure (CNKI) were searched up to January 2025. Randomized controlled trials (RCTs) investigating acupuncture combined with conventional treatment versus conventional treatment alone for cervical cancer pain were incorporated. Statistical analyses were performed using Stata 16.0 and RevMan 5.4. Standardized mean differences (SMD) and 95% confidence intervals (CI) were computed for continuous outcomes. Additionally, subgroup and sensitivity analyses were performed to investigate the stability of the results and potential sources of heterogeneity.
Results	**Eight RCTs involving 627 participants** were included in the analysis. A meta-analysis demonstrated that, compared to conventional treatment alone, acupuncture significantly enhanced pain relief as an adjunctive therapy (SMD = -1.00, 95% CI [-1.27, -0.73], $p < 0.00001$). Manual acupuncture was more effective than electroacupuncture (SMD = -1.25 vs. -0.46). Acupuncture use also significantly improved gastrointestinal function (SMD = -1.57, 95% CI [-3.10, -0.04]) and Karnofsky Performance Scale scores (SMD = 1.28, 95% CI [0.54, 2.02]). The acupoints most commonly utilized were Zusanli (ST36), Hegu (LI4), and Taichong (LR3).
Conclusion	Adjunctive acupuncture offers notable advantages in reducing pain and enhancing function in cervical cancer patients, particularly when manual techniques are applied to stimulate specific acupoints. These findings support the inclusion of acupuncture in integrated cancer pain management strategies.

1.2.4. Liver cancer

1.2.4.1. Zhang 2022

Zhang Xiao-Wen, Gu Yun-Jia, Wu Huan-Gan, Li Kun-Shan, Zhong Rui, Qi Qin, Wu Pin, Ji Jun, Liu Hui-Rong, Huang Yan, Son Chang-Gue, Wu Lu-Yi. Systematic review and meta-analysis of acupuncture for pain caused by liver cancer. World Journal of Traditional Chinese Medicine. 2002;8(3):402-12. https://www.wjtcm.net/tocd.asp?2022/8/3/402/351510/1

Objective	The objective of this study is to systematically review and analyze the efficacy of acupuncture for pain caused by primary liver cancer (PLC).

Materials and Methods	We searched databases, including PubMed, Medline, Embase, Cochrane Library, Web of Science, China National Knowledge Infrastructure, Chinese Science and Technology Periodicals Database (VIP), Wanfang, and SinoMed/Chinese Biomedical Database (CBM), and retrieved randomized controlled trials (RCTs) that used acupuncture as the primary intervention to treat pain caused by PLC. Two investigators then screened the articles, extracted and pooled data, and evaluated the risk of bias of the included articles according to the Cochrane Handbook. RevMan5.3 was used for the meta-analysis of eligible RCTs.
Results	A total of 145 articles were retrieved; after screening, **8 RCTs involving 496 patients** were eventually included in this meta-analysis. The results showed that acupuncture effectively improved cancer pain and was superior to Western medicine. Moreover, acupuncture was fast-acting for pain relief, prolonged the relief, and prevented relapse. Its adverse reaction rate was also significantly lower than that of Western medicine. No significant difference was observed in Visual Analog Scale score between acupuncture and Western medicine.
Conclusion	Acupuncture relieves pain caused by liver cancer and can be used as an adjunct and alternative therapy for drug treatment. The existing research evidence is not yet objective or comprehensive, and more rigorous clinical trials are needed to validate the results.

1.2.5. Lung Cancer

1.2.5.1. Jia 2024

Jia L, Wang K, Chen S. Acupuncture combined with opioid for treatment of lung cancer-related pain: A systematic review and meta-analysis. Medicine (Baltimore). 2024 Oct 18;103(42):e40158. https://doi.org/10.1097/MD.0000000000040158.

Backgound	Many individuals diagnosed with lung cancer suffer from tremendous pain, and it is crucial to implement more effective measures to assist these patients in alleviating their pain. The present study utilizes a meta-analysis to evaluate the safety and efficacy of acupuncture combined with opioids for treating lung cancer-related pain in patients.
Methods	We have searched 8 electronic databases: The Cochrane Library, PubMed, Embase, Web of Science, China National Knowledge Infrastructure, China Science and Technology Journal Database, Wanfang Database, and SinoMed. We included all randomized controlled trials of acupuncture combined with opioids for lung cancer-related pain in adults. We observed the main outcome indicators, including pain relief rates, numeric rating scale scores, and adverse events. Two researchers independently conducted literature screening, literature data extraction, and assessment of bias risk in the literature quality. Any disagreements were resolved through discussions between the 2 researchers or consultations with a third researcher. The risk of bias in the included studies was assessed using the revised risk of bias assessment tool. The overall quality of evidence for each outcome was evaluated using Grading of Recommendations, Assessment, Development and Evaluations.
Results	We retrieved **812 lung cancer patients from 11 trials**. The study showed that compared to opioids alone, the combination of acupuncture and opioids significantly reduced numeric rating scale scores, increased pain relief rates, and decreased the occurrence of side effects.
Conclusion	The current evidence indicates that combining acupuncture with opioid analgesics is superior to using opioid analgesics alone for managing lung cancer-related pain. Additionally, this combination therapy has fewer adverse reactions.

1.2.5.2. Bian 2020

Bian Shuanglin. [Meta-analysis of Acupuncture Combined with Three-step Analgesic in The Treatment of Lung Cancer Pain]. Chinese Journal of Basic Medicine in TCM. 2020. [212902].

Objective	To systematically evaluate the clinical efficacy and safety of acupuncture combined with three-step analgesics in the treatment of lung cancer pain.
Method	The clinical randomized controlled study of acupuncture combined with three-step analgesics in the treatment of lung cancer pain was retrieved by computer from China Journal Full-text Database (CNKI), VIP Journal Database (VIP), Wanfang Data Resources, PubMed, and Cochrane Library Database (since beginning to May 2018), and the meta-analysis was performed with Revman 5. 3 software.
Results	**9 articles including 531 patients** were included. Meta-analysis showed that acupuncture combined with three-step analgesics was more effective in analgesia than single-step analgesics alone, the degree of pain improvement was greater. It can also reduce the incidence of nausea and vomiting, reduce the occurrence of constipation reaction.
Conclusion	Acupuncture combined with three-step analgesic is effective and safe in the treatment of lung cancer pain, but it still needs more and higher quality literature to verificate and support.

1.2.6. Cancer-Induced Bone Pain

1.2.6.1. Wang 2025

Wang X, Shen Q, Hu X, Yu X, Erasmus SR, Gong L, Liu J, Fan W, Liang Y. Efficacy and Safety of Acupuncture Combined with Conventional Drug Therapy for the Treatment of Cancer-Induced Bone Pain: A Network Meta-Analysis of Randomized Controlled Trials. J Pain Res. 2025 Dec 17;18:6807-6826. https://doi.org/10.2147/JPR.S550454

Background	Cancer-induced bone pain (CIBP) involves both nociceptive and neuropathic components, causing significant suffering in cancer patients. Acupuncture has shown beneficial effects on CIBP. However, given the diversity of acupuncture techniques, their therapeutic efficacy may vary.
Objective	To evaluate the efficacy and safety of various acupuncture modalities integrated with conventional drug therapy for CIBP.
Methods	Randomized controlled trials of acupuncture combined with conventional analgesics for CIBP were searched across eight Chinese and English databases and clinical trial registries up to September 2024. Two researchers independently performed study selection, data extraction, and risk-of-bias assessment. Network meta-analysis was conducted using Stata 14.0 and R 4.2.3.
Results	**Twenty-two RCTs involving 1,738 patients** were included, assessing manual acupuncture, electroacupuncture, moxibustion, acupoint injection, acupoint catgut embedding, auricular-plaster therapy, thumbtack needle, and transcutaneous electrical acupoint stimulation. For pain relief measured by clinical effective rate, thumbtack needle showed the highest probability of being the most effective technique (SUCRA 75.2%). For opioid-related adverse effects, acupoint catgut embedding was most effective for reducing nausea and vomiting (SUCRA 87.7%), while electroacupuncture combined with auricular-plaster therapy was optimal for alleviating constipation (SUCRA 93.5%). Manual acupuncture combined with moxibustion achieved the best overall balance between analgesic efficacy and adverse event reduction.

Conclusion	Acupuncture combined with conventional drug therapy improves pain relief in cancer-induced bone pain and reduces opioid-related side effects. However, methodological limitations and modest sample sizes of the included trials limit the certainty of the evidence, and high-quality, large-scale, multicenter randomized trials are required to confirm these findings.

1.2.7. Palliative Care

1.2.7.1. Yang 2021

Yang J, Wahner-Roedler DL, Zhou X, Johnson LA, Do A, Pachman DR, Chon TY, Salinas M, Millstine D, Bauer BA. Acupuncture for palliative cancer pain management: systematic review. BMJ Support Palliat Care. 2021;11(3):264-270. [221319]. https://doi.org/10.1136/bmjspcare-2020-002638

Background	Pain is one of the most common and problematic symptoms encountered by patients with cancer. Due to the multifactorial aetiology, pain management of these patients frequently requires multidisciplinary interventions including conventional support and specialty palliative care. Acupuncture has been identified as a possible adjunctive therapy for symptom management in cancer pain, and there is currently no systematic review focused solely on the evidence of acupuncture on cancer pain in palliative care.
Objective	To critically analyse currently available publications regarding the use of acupuncture for pain management among patients with cancer in palliative care settings.
Methods	Multiple academic databases were searched from inception to 29 October 2020. Randomised controlled trials involving acupuncture in palliative care for treatment of cancer-related pain were synthesised. Data were extracted by two independent reviewers, and methodological quality of each included study was assessed using the Oxford Centre for Evidence-Based Medicine (OCEBM) 2011 Levels of Evidence.
Results	**Five studies (n=189)** were included in this systematic review. Results indicated a favourable effect of acupuncture on pain relief in palliative care for patients with cancer. According to OCEBM 2011 Levels of Evidence, they were level 2 in one case (20%), level 3 in two cases (40%) and level 4 in the remaining (40%). Low-level evidence adversely affects the reliability of findings.
Conclusions	Acupuncture may be an effective and safe treatment associated with pain reduction in the palliative care of patients with cancer. Further high-quality, adequately powered studies are needed in the future.

1.2.8. Stomach cancer

1.2.8.1. Zhou 2024

Zhou X, Zhang J, Jiang L, Zhang S, Gu Y, Tang J, Pu T, Quan X, Chi H, Huang S. Therapeutic efficacy of acupuncture point stimulation for stomach cancer pain: a systematic review and meta-analysis. Front Neurol. 2024 Apr 4;15:1334657. https://doi.org/10.3389/fneur.2024.1334657

Purpose	In recent years, traditional Chinese medicine has received widespread attention in the field of cancer pain treatment. This meta-analysis is the first to evaluate the effectiveness and safety of acupuncture point stimulation in the treatment of stomach cancer pain.

Methods	For this systematic review and meta-analysis, we searched PubMed, Web of Science, Cochrane Library, Embase, WANFANG, China National Knowledge Infrastructure (CNKI), and Chinese Journal of Science and Technology (VIP) databases as well as forward and backward citations to studies published between database creation to July 27, 2023. All randomized controlled trials (RCTs) on acupuncture point stimulation for the treatment of patients with stomach cancer pain were included without language restrictions. We assessed all outcome indicators of the included trials. The evidence from the randomized controlled trials was synthesized as the standardized mean difference (SMD) of symptom change. The quality of the evidence was assessed using the Cochrane Risk of Bias tool. This study is registered on PROSPERO under the number CRD42023457341.
Results	**Eleven RCTs** were included. The study included 768 patients, split into 2 groups: acupuncture point stimulation treatment group (n = 406), medication control group (n = 372). The results showed that treatment was more effective in the acupuncture point stimulation treatment group than in the medication control group (efficacy rate, RR = 1.63, 95% CI 1.37 to 1.94, p < 0.00001), decreasing in NRS score was greater in acupuncture point stimulation treatment group than in the medication control group (SMD = -1.30, 95% CI -1.96 to -0.63, p < 0.001).

1.3. Special Acupuncture Techniques

1.3.1. Comparison of Acupuncture techniques

1.3.1.1. Wei 2025

Wei W, Yao B, Sun X, Xing S, Wang K, He F, Xu Q, Ren C. Invasive or noninvasive? A systematic review and network meta-analysis of acupuncture and acupressure to treat cancer pain. Support Care Cancer. 2025 Oct 31;33(11):997. https://doi.org/10.1007/s00520-025-10068-w

Background	Both acupressure and acupuncture effectively alleviate pain in cancer patients. Acupuncture requires specialized practitioners and is invasive, while acupressure is noninvasive and can be self-administered. Current comparative evidence remains insufficient for clear clinical recommendations.
Aims	To investigate the relative efficacy of acupuncture versus acupressure in alleviating pain among cancer patients.
Methods	This systematic review and network meta-analysis employed a Bayesian framework. Eight major Chinese and English databases were searched from inception to March 1, 2025. Two independent reviewers screened literature, extracted data, and assessed bias in selected studies using the Risk of Bias 2 tool. Network meta-analysis was conducted using R software version 4.4.1.
Results	Thirty-seven RCTs including 3066 patients were analyzed to compare eight treatments: manual acupuncture, transcutaneous electrical acupoint stimulation, auricular acupressure, electro-acupuncture, acupoint massage, auricular acupuncture, moxibustion, and placebo. Network meta-analysis revealed auricular acupuncture provided the greatest pain score improvement compared to placebo, followed by auricular acupressure and acupoint massage.
Conclusion	Based on our analysis, we recommend auricular acupuncture, auricular acupressure, and acupoint massage for managing cancer pain. While current studies demonstrate potential benefits, limitations include concurrent pain medication use and methodological inconsistencies. Future research should include more robust, single-intervention clinical trials to definitively evaluate efficacy for oncology patients.

1.3.1.2. Xie 2025

Xie T, Liu C, Wu Y, Li X, Yang Q, Tan J. Efficacy and Safety of Different Acupuncture Treatments for Cancer-Related Pain: A Systematic Review and Network Meta-Analysis. Integr Cancer Ther. 2025 Jan-Dec;24:15347354251314500. https://doi.org/10.1177/15347354251314500

Backgound	Cancer pain is a prevalent and persistent issue, and while there have been some observations of the possible benefits of acupuncture in managing cancer pain, there is still debate regarding its safety and effectiveness. This study aims to compare the efficacy and safety of different acupuncture modalities in the treatment of cancer pain through a network meta-analysis.
Methods	Between the time each database was created and June 3, 2024, eight databases were queried: PubMed, Cochrane, Embase, Web of Science, CNKI, Wanfang, VIP, and China Biomedicine. Randomized controlled trials investigating the use of various acupuncture and moxibustion techniques in the treatment of cancer pain were identified. Publication bias and quality of randomized controlled trials were assessed using the Cochrane Risk of Bias tool and the Jadad scale, and network meta-analyses were performed using Stata 15 and R 4.3.2.
Results	We incorporated **111 studies encompassing 9549 individuals** diagnosed with cancer, examining 29 distinct therapies. Network meta-analysis showed that, compared to Usual Medicine, Acupuncture + Usual Medicine + Traditional Chinese medicine (MD = -1.83, 95% CI: -2.86 to -0.80) could reduce NRS scores, Acupuncture + Traditional Chinese medicine (OR = 30.86, 95% CI: 3.75-254.20) could improve cancer pain relief, Moxibustion + Usual Medicine (MD = 2.12, 95% CI: 0.43-3.80) could effectively improve KPS score, Acupuncture + Application of Chinese medicine (OR = 0.16, 95% CI: 0.04-0.66) is associated with a lower incidence of constipation, Electro-Acupuncture + Usual Medicine (OR = 0.11, 95% CI: 0.03-0.45) shows a lower incidence of nausea and vomiting, Acupuncture + Moxibustion + Usual Medicine (OR = 0.29, 95% CI: 0.09-0.90) is associated with a lower incidence of dizziness.
Conclusion	Acupuncture + Traditional Chinese medicine is the best intervention for different acupuncture methods in the treatment of cancer pain, and Moxibustion + Usual Medicine is the best intervention to improve the quality of life of patients.

1.3.1.3. Jin 2024

Jin H, Liang J, Zhang S, Ma S, Qin H, Zhang D, Pang X, Zhang M. External treatment of traditional Chinese medicine for cancer pain: A systematic review and network meta-analysis. Medicine (Baltimore). 2024 Feb 23;103(8):e37024. https://doi.org/10.1097/MD.0000000000037024. PMID: 38394488.

Backgound	Cancer pain is one of the most intolerable and frightening symptoms of cancer patients. However, the clinical effect of the three-step analgesic ladder method (TSAL) is not satisfactory. The combination of external treatment of traditional Chinese medicine (TCM) can improve the clinical effect.
Objective	This study used network meta-analysis to compare the effects of different external treatment methods of TCM combined with TSAL on cancer pain.

Methods	Databases searched by our team included Google Scholar, Web of Science, Scopus, Embase, PubMed, and Cochrane Library. Randomized controlled trials related to the external treatment of TCM combined with TSAL for cancer pain were screened from the establishment of the database till now. The above literature extracted clinical efficacy, NRS score, KPS score, analgesic onset time, and duration as the main results after the screening. The 95% confidence interval (95% CI) of OR value and SMD value was used as the effect index to compare the difference in efficacy of different interventions, and the ranking was conducted. STATA 17.0 software was used for the statistical analysis of the above data.
Results	A total of 78 studies were included, including 8 interventions and 5742 participants. Based on ranking probability, the clinical effective rate of manual acupuncture combined with TSAL was the best when the intervention time was set at 4 weeks [OR = 5.42, 95% CI (1.99,14.81)], and the improvement effect on KPS score was also the best [SMD = 0.97, 95% CI (0.61, 1.33)]. Acupoint external application was the best intervention in reducing NRS score [SMD = -1.14, 95% CI (-1.90, -0.93)]. Acupoint moxibustion combined with TSAL was considered to be the most effective intervention to prolong the duration of analgesia [SMD = 1.69, 95% CI (0.84, 2.54)] and shortening the onset time of analgesia [SMD = -3.00, 95% CI (-4.54, -1.47)].
Conclusions	TSAL combined with manual acupuncture is the best in terms of clinical efficacy and improvement of patients' functional activity status. With the extension of treatment time, the intervention of this kind of treatment on the clinical effect is more pronounced. Acupoint external application also has a unique advantage in reducing the pain level of patients. From the point of view of analgesic duration and duration of analgesia, combined acupoint moxibustion has the best effect.

1.3.1.4. Zhang 2023

Zhang Q, Yuan Y, Zhang M, Qiao B, Cui Y, Wang Y, Feng L. Efficacy and safety of acupuncture-point stimulation combined with opioids for the treatment of moderate to severe cancer pain: a network meta-analysis of randomized controlled trials. Front Oncol. 2023 Jun 2;13:1166580. https://doi.org/10.3389/fonc.2023.1166580

Background	Pain is one of the most common and troublesome symptoms of cancer. Although potential positive effects of acupuncture-point stimulation (APS) on cancer pain have been observed, knowledge regarding the selection of the optimal APS remains unclear because of a lack of evidence from head-to-head randomized controlled trials (RCTs).
Objective	This study aimed to carry out a network meta-analysis to compare the efficacy and safety of different APS combined with opioids in treating moderate to severe cancer pain and rank these methods for practical consideration.
Methods	A comprehensive search of eight electronic databases was conducted to obtain RCTs involving different APS combined with opioids for moderate to severe cancer pain. Data were screened and extracted independently using predesigned forms. The quality of RCTs was appraised with the Cochrane Collaboration risk-of-bias tool. The primary outcome was the total pain relief rate. Secondary outcomes were the total incidence of adverse reactions, the incidence of nausea and vomiting, and the incidence of constipation. We applied a frequentist, fixed-effect network meta-analysis model to pool effect sizes across trials using rate ratios (RR) with their 95% confidence intervals (CI). Network meta-analysis was performed using Stata/SE 16.0.

Results	We included **48 RCTs, which consisted of 4,026 patients**, and investigated nine interventions. A network meta-analysis showed that a combination of APS and opioids was superior in relieving moderate to severe cancer pain and reducing the incidence of adverse reactions such as nausea, vomiting, and constipation compared to opioids alone. The ranking of total pain relief rates was as follows: fire needle (surface under the cumulative ranking curve (SUCRA) = 91.1%), body acupuncture (SUCRA = 85.0%), point embedding (SUCRA = 67.7%), auricular acupuncture (SUCRA = 53.8%), moxibustion (SUCRA = 41.9%), transcutaneous electrical acupoint stimulation (TEAS) (SUCRA = 39.0%), electroacupuncture (SUCRA = 37.4%), and wrist-ankle acupuncture (SUCRA = 34.1%). The ranking of total incidence of adverse reactions was as follows: auricular acupuncture (SUCRA = 23.3%), electroacupuncture (SUCRA = 25.1%), fire needle (SUCRA = 27.2%), point embedding (SUCRA = 42.6%), moxibustion (SUCRA = 48.2%), body acupuncture (SUCRA = 49.8%), wrist-ankle acupuncture (SUCRA = 57.8%), TEAS (SUCRA = 76.3%), and opioids alone (SUCRA = 99.7%).
Conclusions	APS seemed to be effective in relieving cancer pain and reducing opioid-related adverse reactions. Fire needle combined with opioids may be a promising intervention to reduce moderate to severe cancer pain as well as reduce opioid-related adverse reactions. However, the evidence was not conclusive. More high-quality trials investigating the stability of evidence levels of different interventions on cancer pain must be conducted.

1.3.2. Sham acupuncture

1.3.2.1. Lee 2023

Lee B, Kwon CY, Lee HW, Nielsen A, Wieland LS, Kim TH, Birch S, Alraek T, Lee MS. Different Outcomes According to Needling Point Location Used in Sham Acupuncture for Cancer-Related Pain: A Systematic Review and Network Meta-Analysis. Cancers (Basel). 2023 Dec 17;15(24):5875. https://doi.org/10.3390/cancers15245875

Backgound	Numerous acupuncture studies have been conducted on cancer-related pain; however, its efficacy compared to sham acupuncture remains controversial. We confirmed whether the outcome of acupuncture differs according to the needling points of sham acupuncture for cancer-related pain.
Methods	We searched 10 databases on 23 May 2023 to screen acupuncture trials using sham acupuncture or waiting list as controls for cancer-related pain. Sham acupuncture was classified into two types, depending on whether the needling was applied at the same locations as verum acupuncture (SATV) or not (SATS). A network meta-analysis (NMA) was performed on the basis of a frequentist approach to assess pain severity.
Results	Eight studies (n = 574 participants) were included in the review, seven of which (n = 527 participants) were included in the NMA. The pain severity was not significantly different between SATV and verum acupuncture, but verum acupuncture significantly improved pain severity compared to SATS. The risk of bias affecting the comparisons between the verum and sham acupuncture was generally low. Previous acupuncture trials for cancer-related pain showed differing outcomes of sham and verum acupuncture, depending on the needling points of sham acupuncture.
Conclusions	The application of SATV cannot be considered a true placebo, which leads to an underestimation of the efficacy of verum acupuncture.

1.3.3. Moxibustion

1.3.3.1. Li 2023

Li Y, Hong E, Ye W, You J. Moxibustion as an Adjuvant Therapy for Cancer Pain: A Systematic Review and Meta-Analysis. J Pain Res. 2023 Feb 17;16:515-525. https://doi.org/10.2147/JPR.S396696

Purpose	Pain is one of the most common and feared symptoms among cancer patients. Unrelieved pain denies patients comfort and greatly affects their overall quality of life. Moxibustion is commonly used to manage chronic pain. However, its efficacy on cancer pain remains inconclusive. This study aimed to evaluate the efficacy of moxibustion for cancer pain.
Methods	We searched seven databases to obtain articles about moxibustion combined with pharmacotherapy for cancer pain published before November 2022. All data extraction was carried out independently by two investigators. RevMan 5.4 software was used for data analysis.
Results	A total of **ten trials involving 999 cases** were included. The results of the meta-analysis revealed that moxibustion combined with pharmacotherapy was significantly better than drug therapy alone in improving pain relief rate (RR =1.16, 95% CI = [1.04, 1.30], P = 0.01), reducing pain scores (SMD = -1.43, 95% CI = [-2.09, -0.77], P < 0.0001), Shortening the onset of analgesia (MD = -12.07, 95% CI = [-12.91, -11.22], P < 0.00001), prolonging the duration of analgesia (MD = 3.69, 95% CI = [3.21, 4.18], P < 0.00001), and improving quality of life (SMD = 2.48, 95% CI = [0.67, 4.29], P = 0.007). In addition, moxibustion combined with pharmacotherapy can effectively reduce adverse reactions of drugs (RR =0.35, 95% CI = [0.21, 0.57], P < 0.0001).
Conclusion	The evidence in this review supports moxibustion as an effective adjuvant therapy for cancer pain management. However, high-quality RCTs are needed to further confirm these findings.

1.3.4. Auricular Acupuncture

1.3.4.1. Yang 2020

Yang Y, Wen J, Hong J. The Effects of Auricular Therapy for Cancer Pain: A Systematic Review and Meta-Analysis. Evid Based Complement Alternat Med. 2020. [210343]. doi

Objective	This study aims to systematically assess the efficacy and safety of auricular therapy for cancer pain.
Methods	A systematic search was conducted using PubMed, EMBASE, Cochrane library databases, CNKI, VIP, WanFang Data, and CBM for randomized controlled trials (RCTs). Review Manager 5.3 was used for meta-analysis.
Results	Of the 275 screened studies, nine RCTs involving 783 patients with cancer pain were systematically reviewed. Compared with drug therapy, auricular therapy plus drug therapy has significant advantages both in the effective rate for pain relief (RR = 1.40; 95% CI 1.22, 1.60; P < 0.00001) and adverse effects rate (RR = 0.46; 95% CI 0.37, 0.58; P < 0.00001). And the result revealed that auricular acupuncture had superior pain-relieving effects as compared with sham auricular acupuncture (SMD = -1.45; 95% CI -2.80, -0.09; P=0.04). However, the analysis indicated no difference on the effective rate for pain relief between auricular therapy and drug therapy (RR = 1.24; 95% CI 0.71, 2.16; P=0.46).

Conclusion	Our meta-analysis indicated that auricular therapy is effective and safe for the treatment of cancer pain, and auricular therapy plus drug therapy is more effective than drug therapy alone, whether in terms of pain relief or adverse reactions. However, the included RCTs had some methodological limitations; future large, rigor, and high-quality RCTs are still needed to confirm the benefits of auricular therapy on cancer pain.

1.3.4.2. Gong 2018

Gong Wenhua, Zou Yu, Wang Jing, Liu Ruihan, Wang Fang. [Meta-analysis of treating cancer pain using ear acupuncture therapy based on GRADE system]. Chinese Medical Digest Nursing. 2018;1:5-11. [201801].

Objective	To evaluate the clinical efficacy of ear acupuncture therapy in the treatment of cancer pain.
Methods	Related randomized controlled trials(RCTs)were searched in large databases at home and abroad and screened rigorously, followed by meta-analysis using the Revman 5.3 software. The GRADE profiler 3.6 software was also used to rate the quality of the evidence.
Results	Eventually, **11 articles were included, involving a total of 1 243 patients**. It had been found that ear acupuncture combined with drugs was superior to simple drugs in lowering the incidence of nausea and vomiting [RR=0.50,95%CI(0.39,0.63)], constipation[RR=0.53,95%CI(0.44,0.65)], pain[SMD=-0.52,95%CI(-0.74,-0.30)], drug dosage[WMD=-12.03,95%CI(-20.64,-3.41)]. However, there were no significant differences in the pain relief rate [RD=0.12,95%CI(0.07,0.17)] and Karnofsky performance status(KPS)score[WMD=0.98,95%CI(-0.46,2.42)].The evidence level was very low for pain relief and 7-day medication rating, and low for the incidence of nausea and vomiting, constipation and KPS rating.
Conclusion	Ear acupuncture therapy combined with drugs is superior to simple drugs in the treatment of cancer pain. The evidence quality level of the conclusion is not high and needs large-sample, high-quality clinical trials to further confirm.

1.3.4.3. Zhou 2014 ☆

Zhou Jie, Liang Yi, Chen Qin, Fang Jianqiao. [Meta-analysis on randomized controlled clinical trials of auricular acupuncture on cancer pain]. Chinese Archives of Traditional Chinese Medicine. 2014;10:2326-233. [186935].

Objectives	To assess the efficacy and security of auricular acupuncture for cancer pain with evidence-based medicine method.
Methods	A retrieval on literatures concerning treatment of cancer pain with auricular acupuncture was carried out in databases of Cochrane Library, EMBASE, Pubmed, CMB, CNKI, VIP and WANFANG. And Meta- analyses were conducted on randomized controlled trials (RCT) which met the enrolling requirements.
Results	A total number of 8 papers involving 853 patients were included. The result indicated that auricular acupuncture plus routine medication treatment showed no effect on curative rate (95% Cl 1. 0 ~ 1. 25, P = 0. 05). Pain scores were lower in the auricular acupuncture plus medication group than in routine medicine group (95% Cl- 3. 08 ~- 0. 17, P = 0. 03). In the comparison of side effect of opium, statistical significance cannot be found on nausea and vomiting occurrence rate (95% Cl 0. 17 ~1. 16, P = 0. 1). And auricular acupuncture plus medication treatment was better than routine medication on constipation occurrence rate (95% Cl 0. 12 ~ 0. 93, P = 0. 04).

Conclusions	Auricular acupuncture plus medication is effective to treat cancer pain. It has **advantage on alleviate pain level and reduce the occurrence of constipation when compared with routine medication treatment**. Auricular acupuncture cannot reduce the occurrence of nausea and vomiting. However, since the number of RCT literatures was less, especially high- quality, large samples and multi- center reports were not enough. Further studies are still necessary for approving the conclusions.

1.3.5. Wrist-Ankle Acupuncture

1.3.5.1. Dong 2021 ☆☆

Dong B, Lin L, Chen Q, Qi Y, Wang F, Qian K, Tian L. Wrist-ankle acupuncture has a positive effect on cancer pain: a meta-analysis. BMC Complement Med Ther. 2021;21(1):24. [216259]. doi

Background	Wrist-ankle acupuncture (WAA) as a kind of micro acupuncture therapy has been used to management cancer pain, however, the effects of WAA on cancer pain were controversial in the current studies. Therefore, the purpose of this meta-analysis was to critically evaluate the effect of wrist-ankle acupuncture (WAA) on cancer pain.
Methods	Seven digital databases were searched from the inception of databases to July 2020, including CNKI, Wanfang, VIP, CBM, Cochrane Library, PubMed and Embase. Randomized controlled trials conforming to the inclusion and exclusion criteria were screened and extracted; the risk of bias was evaluated using the Cochrane Collaboration criteria. The primary outcome indicators included pain relief rate and pain score, and the secondary outcome was adverse reaction incidence. All analyses were performed with Review Manager 5.3.
Results	A total of **13 studies** with **1005 cancer patients** (intervention group: 568, control group: 437) were included in this meta-analysis. The results demonstrated that the pain relief rate of experimental group (WAA / WAA + drug intervention) was better than that of control group (analgesic drug intervention), and the difference was statistically significant [RR = 1.31, 95%CI: 1.15 ~ 1.49, P < 0.01].
Conclusions	WAA has certain effect on cancer pain, and the effect of WAA combined with pharmacological intervention is better than that of drug therapy alone.

1.3.5.2. Zheng 2014 Ø

Zheng Yi, Yu Yonghui, Fang Fanfu. [Meta-analysis on wrist-ankle acupuncture of cancerous pain]. Journal of Liaoning College of Traditional Chinese Medicine. 2014;1:152-155. [187005].

Objectives	To assess the effectiveness of the wrist-ankle acupuncture therapy for cancerous pain.
Methods	Through retrieval of authoritative medical journals of full-text database at home and abroad, randomized and quasi-randomized controlled clinical trials on treatment of cancerous pain with control study between wrist-ankle acupuncture therapy and western medicine or between wristankle acupuncture combined with western medicine and western medicine alone were included. The test in quality assessment of each experiment was carried out by two researchers who abstracted date independently and checked over mutually, in accordance with the Cochrane Handbook 5. 1. 0 standard. And RevMan 5. 1. 6 software was adopted for the Meta-analysis.

Results	Five researches were included with a total of 395 patients. Meta-analysis showed that there was **no significant difference between the effect of the wrist-ankle acupuncture or the wrist-ankle acupuncture combined with western medicine and western medication treatment alone in cancerous pain**.
Conclusions	The effectiveness of the wristankle acupuncture therapy for cancerous pain need more randomized controlled trials with large sample and high quality to confirm.

1.3.6. TENS

1.3.6.1. Hurlow 2012 Ø

Hurlow A, Bennett MI, Robb KA, Johnson MI, Simpson KH, Oxberry SG. Transcutaneous electric nerve stimulation (tens) for cancer pain in adults. Cochrane Database Syst Rev. 2012. CD006276.:. [159383].

Background	Cancer-related pain is complex and multi-dimensional but the mainstay of cancer pain management has predominantly used a biomedical approach. There is a need for non-pharmacological and innovative approaches. Transcutaneous Electric Nerve Stimulation (TENS) may have a role in pain management but the effectiveness of TENS is currently unknown. This is an update of the original review published in Issue 3, 2008.
Objectives	The aim of this systematic review was to determine the effectiveness of TENS for cancer-related pain in adults.
Methods	Search methods: The initial review searched The Cochrane Library, MEDLINE, EMBASE, CINAHL, PsychINFO, AMED and PEDRO databases in April 2008. We performed an updated search of CENTRAL, MEDLINE, EMBASE, CINAHL and PEDRO databases in November 2011. Selection criteria: We included only randomised controlled trials (RCTS) investigating the use of TENS for the management of cancer-related pain in adults. Data collection and analysis: The search strategy identified a further two studies for possible inclusion. One of the review authors screened each abstract using a study eligibility tool. Where eligibility could not be determined, a second author assessed the full paper. One author used a standardised data extraction sheet to collect information on the studies and independently assess the quality of the studies using the validated five-point Oxford Quality Scale. The small sample sizes and differences in patient study populations of the three included studies (two from the original review and a third included in this update) prevented meta-analysis. For the original review the search strategy identified 37 possible published studies; we divided these between two pairs of review authors who decided on study selection; all four review authors discussed and agreed final scores.
Main results	Only one additional RCT met the eligibility criteria (24 participants) for this updated review. Although this was a feasibility study, not designed to investigate intervention effect, it suggested that TENS may improve bone pain on movement in a cancer population. The initial review identified two RCTs (64 participants) therefore this review now includes a total of three RCTs (88 participants). These studies were heterogenous with respect to study population, sample size, study design, methodological quality, mode of TENS, treatment duration, method of administration and outcome measures used. In one RCT, there were no significant differences between TENS and placebo in women with chronic pain secondary to breast cancer treatment. In the other RCT, there were no significant differences between acupuncture-type TENS and sham in palliative care patients; this study was underpowered.

Authors' conclusions	Despite the one additional RCT, **the results of this updated systematic review remain inconclusive due to a lack of suitable RCTs**. Large multi-centre RCTs are required to assess the value of TENS in the management of cancer-related pain in adults.

1.3.6.2. Robb 2009 Ø

Robb K, Oxberry SG, Bennett MI, Johnson MI, Simpson KH, Searle RD. A cochrane systematic review of transcutaneous electrical nerve stimulation for cancer pain. J Pain Symptom Manage. 2009. 37(4):746-53. [150366].

Background	Cancer-related pain is complex and multi-dimensional; yet, the mainstay of cancer pain management has been the biomedical approach. There is a need for nonpharmacological and innovative pain management strategies. Transcutaneous electrical nerve stimulation (TENS) may have a role.
Objective	The aim of this systematic review was to determine the effectiveness of TENS for cancer-related pain in adults.
Methods	The Cochrane Library, MEDLINE, EMBASE, CINAHL, PsychINFO, AMED, and PEDro databases were searched for randomized controlled trials (RCTs) investigating the use of TENS for the management of cancer-related pain in adults. Once relevant studies were identified, two pairs of reviewers assessed eligibility for inclusion in the review based on a study eligibility form and using the 5-point Oxford Quality Scale. Two RCTs met the study eligibility criteria (these involved 64 patients). These studies were heterogeneous with respect to study population, methodology, and outcome measures. This prevented meta-analysis.
Results	In one RCT, there were no significant differences between TENS and placebo in women with chronic pain secondary to breast cancer treatment. In the other RCT, there were no significant differences between acupuncture-like TENS (AL-TENS) and sham in palliative care patients; this study was significantly underpowered.
Conclusions	There is **insufficient available evidence to determine the effectiveness of TENS in treating cancer-related pain**. Further research is needed to help guide clinical practice, and large multi-center RCTs are required to assess the value of TENS in the management of cancer-related pain in adults.

1.3.6.3. Robb 2008 Ø

Robb KA, Bennett MI, Johnson MI, Simpson KJ, Oxberry SG.. Transcutaneous electric nerve stimulation (TENS) for cancer pain in adults. Cochrane Database Syst Rev. 2008;CD006276 . [59896].

Objectives	Cancer-related pain is complex and multi-dimensional but the mainstay of cancer pain management has predominately used a biomedical approach. There is a need for non-pharmacological and innovative approaches. Transcutaneous Electric Nerve Stimulation (TENS) may have a role for a significant number of patients but the effectiveness of TENS is currently unknown. OBJECTIVES: The aim of this systematic review was to determine the effectiveness of TENS for cancer-related pain in adults.

Methods	SEARCH STRATEGY: We searched The Cochrane Library, MEDLINE, EMBASE, CINAHL, PsychINFO, AMED and PEDRO databases (11/04/08). SELECTION CRITERIA: Only randomised controlled trials (RCTS) investigating the use of TENS for the management of cancer-related pain in adults were included. DATA COLLECTION AND ANALYSIS: The search strategy identified 37 possible published studies which were divided between two pairs of review authors that decided on study selection. A study eligibility form was used to screen each abstract and where study eligibility could not be determined from the abstract, the full paper was obtained and assessed by one pair of review authors. A standardised data extraction sheet was used to collect information on the studies and the quality of the studies was assessed independently by two review authors using the validated five-point Oxford Quality Scale. Final scores were discussed and agreed between all four review authors. The small sample sizes and differences in patient study populations of the two included studies prevented meta-analysis.
Results	Only two RCTs met the eligibility criteria (64 participants). These studies were heterogenous with respect to study population, sample size, study design, methodological quality, mode of TENS, treatment duration, method of administration and outcome measures used. In one RCT, there were no significant differences between TENS and placebo in women with chronic pain secondary to breast cancer treatment. In the other RCT, there were no significant differences between acupuncture-type TENS and sham in palliative care patients; this study was underpowered.
Conclusions	The results of this systematic review are **inconclusive due to a lack of suitable RCTs**. Large multi-centre RCTs are required to assess the value of TENS in the management of cancer-related pain in adults

2. Overviews of Systematic Reviews

2.1. Zhang D 2023

Zhang D, Ji Y, Lv L, Zhou Q, Liu Z, Zhang C, Chen S. An Overview of Systematic Reviews and Meta-Analyses of Clinical Studies of Acupuncture for Cancer Pain. Integr Cancer Ther. 2023 Jan-Dec;22:15347354231210288. https://doi.org/10.1177/15347354231210288

Background	Systematic reviews (SRs) and meta-analyses (MAs) for the use of acupuncture for cancer pain have been increasing, but the evidence has not been systematically and comprehensively assessed. We aimed to perform an overview of the evidence quality of SRs/MAs of acupuncture for improving cancer pain.
Methods	8 databases were systematically searched to identify SRs/MAs of acupuncture for improving cancer pain. The A Measurement Tool to Assess Systematic Reviews 2 (AMSTAR-2), Risk of Bias in Systematic Reviews (ROBIS), Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), and Grades of Recommendations, Assessment, Development, and Evaluation (GRADE), respectively, were applied by 2 independent reviewers to evaluate the methodological quality, risk of bias, reporting quality, and evidence quality.

Results	A total of **14 SRs/Mas** were included in the present study. By AMSTAR-2, two reviews were rated as having high methodological quality, while 12 were given a critically low rating. All SRs/MAs in Phase 1, Domain 1, and Domain 4, according to ROBIS, were at low risk. Furthermore, 4 reviews in Domain 2, twelve reviews in Domain 3, and ten SRs/MAs in Phase 3, were rated as having low risk of bias. With reporting quality, some reporting flaws were identified in the topic of protocol and registration, additional analyses, and search strategy. According to GRADE, the level of evidence quality was “critically low” to “moderate,” and risk of bias was the most common downgraded factor.
Conclusion	Acupuncture may be beneficial in improving cancer pain. However, due to the identified limitations and inconsistent findings, we recommend further rigorous, and more standardized SRs/MAs to provide strong evidence for definitive conclusions.

2.2. Zhang Y 2023

Zhang Y, Zhang Y, Liu S, Li B, Song Z, Han Q, Wang C, Wang Y, Yu Y, Xia H, Wang C, Li J. Acupuncture for cancer pain: a scoping review of systematic reviews and meta-analyses. Front Oncol. 2023 May 15;13:1169458. https://doi.org/10.3389/fonc.2023.1169458

Background	Due to the effectiveness and safety, acupuncture, one of the traditional therapies of Chinese medicine, has been widely used in clinical practice globally. A few systematic review or meta-analyses have proved its effectiveness and safety towards patients with cancer pain, while there are no syntheses among those evidence. The aim of this scoping review is to summarize the evidence from systematic reviews of acupuncture for the treatment of cancer pain and evaluate the breadth and methodological quality of these evidence as well.
Methods	The scoping review process was guided by the methodology framework of Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews (PRISMA ScR) and “Arkseyand O'Malley six-stage framework”. Electronic searches were carried out in several online databases from inception to Jan 2022. Systematic reviews and meta-analyses that involve any type of acupuncture for patients with cancer pain will be included. A pair of reviewers independently screened full texts. Moreover, review characteristics were extracted, and methodological quality was assessed using the AMSTAR 2 tool.
Results	**Twenty-five systematic reviews and meta-analyses** were included. Manual acupuncture is the most frequently included types of test group intervention (48%), followed by acupuncture + medicine (28%), and auricular acupuncture (12%). All the reviews have declared that acupuncture is an effective method for cancer pain treatment. Eleven reviews (44%) aiming at evaluating the safety also have confirmed that acupuncture is safe for treating cancer pain. However, most included studies were conducted in China. With certain geographical limitations, the findings were not representative within the region. The results of our review may owe to the synthesis of all kinds of cancer pain, and only 2 reviews described the type of cancer pain in detail.
Conclusions	This scoping review synthesizes and evaluates existing evidence of acupuncture for cancer pain. From this scoping review of systematic reviews and meta-analyses, there are clear recommendations for future studies: expanding the region of research in the world and trying to conduct the study of different types of cancer pain in details as much as possible. Evidences of acupuncture for cancer pain can inform clinical decision-making.

2.3. Sasaki 2019 (Breast Cancer)

Sasaki Y, Cheon C, Motoo Y, Jang S, Park S, Ko SG, Jang BH, Hwang DS. [Complementary and

Alternative Medicine for Breast Cancer Patients: An Overview of Systematic Reviews]. Yakugaku Zasshi. 2019;139(7):1027-1046. [199186].

Objectives	The application of systematic review (SR) has been increased rapidly in the field of cancer treatment. Complementary and alternative medicine (CAM) for cancer is no exception. The aim of this review is to evaluate and summarize systematic reviews on the CAM use in breast cancer patients.
Methods	Search sources were Centre for Reviews and Dissemination (CRD), Cochrane Database of Systematic Reviews (CDSR), and PubMed. In addition, we assessed the quality of SR with the Assessing the Methodological Quality of Systematic Reviews (AMSTAR). This review did not consider control groups and outcomes.
Results	Thirty-four SRs met a set of criteria. According to interventions, there were twenty SRs which included yoga, acupuncture, and herbal medicines. Meta-analysis of 19 out of 34 reviews showed the followings: (1) **acupuncture had a beneficial effect on the frequency of hot flushes**, (2) yoga had a beneficial effect on depression and health-related QOL, (3) mindfulness-based stress reduction (MBSR) had a beneficial effect on anxiety and depression, (4) combination of herbal medicine and chemotherapy synergistically improved clinical outcomes, (5) **acupuncture did not show significant effect on the severity of hot flushes and cancer-related pain**, (6) yoga was unable to be confirmed as having an effect on cancer-related pain and physical well-being. Given the results of AMSTAR, 9 out of 34 reviews were of high quality and 3 reviews were deemed to be of low quality. In conclusion, since most SRs were at moderate or high-quality levels, CAM could be helpful for treating specific symptoms related to breast cancer.

2.4. Bao 2014

Yanju Bao, Xiangying Kong, Liping Yang, Rui Liu, Zhan Shi, Weidong Li, Baojin Hua, and Wei Hou. Complementary and Alternative Medicine for Cancer Pain: An Overview of Systematic Reviews. Evid Based Complement Alternat Med. 2014;:17039. [173276].

Background and Objective	Now with more and more published systematic reviews of Complementary and Alternative Medicine (CAM) on adult cancer pain, it is necessary to use the methods of overview of systematic review to summarize available evidence, appraise the evidence level, and give suggestions to future research and practice.
Methods	A comprehensive search (the Cochrane Library, PubMed, Embase, and ISI Web of Knowledge) was conducted to identify all systematic reviews or meta-analyses of CAM on adult cancer pain. And the evidence levels were evaluated using GRADE approach.
Results	27 systematic reviews were included. Based on available evidence, we could find that psychoeducational interventions, music interventions, **acupuncture plus drug therapy**, Chinese herbal medicine plus cancer therapy, compound kushen injection, reflexology, lycopene, TENS, qigong, cupping, cannabis, Reiki, homeopathy (Traumeel), and creative arts therapies might have beneficial effects on adult cancer pain. No benefits were found for acupuncture (versus drug therapy or shame acupuncture), and the results were inconsistent for massage therapy, transcutaneous electric nerve stimulation (TENS), and Viscum album L plus cancer treatment. However, the evidence levels for these interventions were low or moderate due to high risk of bias and/or small sample size of primary studies.
Conclusion	CAM may be beneficial for alleviating cancer pain, but the evidence levels were found to be low or moderate. Future large and rigor randomized controlled studies are needed to confirm the benefits of CAM on adult cancer pain.

3. Clinical Practice Guidelines

⊕ positive recommendation (regardless of the level of evidence reported)
Ø negative recommendation (or lack of evidence)

3.1. China Anti-Cancer Association 2025 ⊕

Cancer Pain Integration Therapy Professional Committee of the China Anti-Cancer Association. [Chinese guidelines for cancer pain management in adults (2025 edition)]. Zhonghua Yi Xue Za Zhi. 2025 Sep 23;105(36):3148-3174. https://doi.org/10.3760/cma.j.cn112137-20250515-01191

Modern TCM treatment of cancer pain can be divided into four aspects: TCM internal treatment, TCM external treatment, acupuncture analgesia and intravenous administration [129 , 130 , 131] . They can be used alone or in combination with opioids to achieve the effect of enhancing efficacy and reducing toxicity

3.2. Malaysia Health Technology Assessment Section (MaHTAS), Ministry of Health Malaysia 2023 ⊕

Management of Cancer Pain (Second Edition). Putrajaya: Ministry of Health Malaysia; 2023. https://www.acadmed.org.my/CPGdl/CPG%20Management%20of%20Cancer%20Pain%20(2nd%20Edition)%2020241219.pdf

Physical and complementary therapies [**acupuncture**] can be useful as an adjunct in cancer pain management.

References cited:

- 101. Behzadmehr R, Dastyar N, Moghadam MP, et al. Effect of complementary and alternative medicine interventions on cancer related pain among breast cancer patients: A systematic review. Complement Ther Med. 2020;49:102318.
- 108. . Paley CA, Johnson MI, Tashani OA, et al. Acupuncture for cancer pain in adults. Cochrane Database Syst Rev. 2015;2015(10):CD007753
- 109. Yang J, Wahner-Roedler DL, Zhou X, et al. Acupuncture for palliative cancer pain management: systematic review. BMJ Support Palliat Care. 2021;11(3):264-270.
- 110. Anshasi HA, Ahmad M. An assessment of methodological quality of systematic reviews of acupuncture and related therapies for cancer-related pain. Complement Ther Clin Pract. 2018;32:163-168

3.3. American Society of Clinical Oncology / Society for Integrative Oncology (ASCO/SIO, USA 2022) ⊕

Mao JJ, Ismaila N, Bao T, Barton D, Ben-Arye E, Garland EL, Greenlee H, Leblanc T, Lee RT, Lopez AM, Loprinzi C, Lyman GH, MacLeod J, Master VA, Ramchandran K, Wagner LI, Walker EM, Bruner DW, Witt CM, Bruera E. Integrative Medicine for Pain Management in Oncology: Society for Integrative Oncology-ASCO Guideline. J Clin Oncol. 2022 Sep 19:JCO2201357. https://doi.org/10.1200/JCO.22.01357

Aromatase inhibitor–related joint pain.
Recommendation 1.1. Acupuncture should be offered to patients experiencing AI-related joint pain in breast cancer (Type: Evidence based, benefits outweigh harms; Evidence quality: Intermediate; Strength of recommendation: Moderate).
General cancer pain or musculoskeletal pain.
Recommendation 1.3. Acupuncture may be offered to patients experiencing general pain or musculoskeletal pain from cancer (Type: Evidence based, benefits outweigh harms; Evidence quality: Intermediate; Strength of recommendations: Moderate).
Recommendation 1.4.Reflexology or acupressure may be offered to patients experiencing pain during systemic therapy for cancer treatment (Type: Evidence based, benefits outweigh harms; Evidence quality: Intermediate; Strength of recommendation: Moderate).
Chemotherapy-induced peripheral neuropath.
Recommendation 1.8. Acupuncture may be offered to patients experiencing chemotherapy-induced peripheral neuropathy from cancer treatment (Type: Evidence based-informal consensus, benefits outweigh harms; Evidence quality: Low; Strength of recommendation: Weak).
Recommendation 1.9.Reflexology or acupressure may be offered to patients experiencing chemotherapy-induced peripheral neuropathy from cancer treatment (Type: Evidence based, benefits outweigh harms; Evidence quality: Low; Strength of recommendation: Weak).
Procedural or surgical pain.
Recommendation 1.11. Acupuncture or acupressure may be offered to patients undergoing cancer surgery or other cancer-related procedures such as bone marrow biopsy (Type: Evidence based-informal consensus, benefits outweigh harms; Evidence quality of: Low; Strength of recommendation: Weak).

3.4. International Trustworthy traditional Chinese Medicine Recommendations (TCM Recs) Working Group (2022) ⊕

Ge L, Wang Q, He Y, Wu D, Zhou Q, Xu N, Yang K, Chen Y, Zhang AL, Hua H, Huang J, Hui KK, Liang F, Wang L, Xu B, Yang Y, Zhang W, Zhao B, Zhu B, Guo X, Xue CC, Zhang H. Acupuncture for cancer pain: an evidence-based clinical practice guideline. Chin Med. 2022;17(1):8. [219467]. doi

Recommendation 1. We recommend the treatment of acupuncture rather than no treatment to relieve pain in patients with moderate to severe cancer pain (strong recommendation, moderate certainty evidence).
Recommendation 2. We suggest a combination treatment with acupuncture acupressure to reduce pain intensity, decrease opioid dose, and alleviate opioid-related side effects in moderate to severe cancer pain patients who are using analgesics (weak recommendation, low certainty evidence).
Recommendation 3. We recommend the treatment of acupuncture rather than no treatment to relieve pain in breast cancer patients with aromatase inhibitor-induced arthralgia (strong recommendation, low certainty evidence).

3.5. National Cancer Comprehensive Network (NCCN, USA) 2022 ⊕

- NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Adult Cancer Pain Version 1.2022. National Cancer Comprehensive Network. 2022. 104P. [223543]. https://www.nccn.org/professionals/physician_gls/pdf/pain.pdf

Adult Cancer Pain: acupuncture, electro-acupuncture or acupressure

- NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Survivorship Version 1.2022. National Cancer Comprehensive Network. 2022. 285P. [170072]. https://www.nccn.org/professionals/physician_gls/pdf/survivorship.pdf

Myalgias, arthralgias: acupuncture (category 1 for AI-induced arthralgia).
Neuropathic pain: Paresthesias (tingling or prickling), Shooting, “electrical”, Numbnes, Allodynia (pain with non-painful stimulus) : acupuncture.
Myofascial pain: acupuncture or acupressure.

3.6. Association of the Scientific Medical Societies, German Cancer Society, German Cancer Aid, (AWMF, DKG, DK, Germany) 2021 ⊕

S3-Leitlinie Komplementärmedizin in der Behandlung von onkologischen PatientInnen. September 2021. https://www.leitlinienprogramm-onkologie.de/leitlinien/komplementaermedizin/

11.3.1.10. *Pain*.
Acupuncture. Recommendation strength: Should. Patient context: Breast cancer Patients. Note: (Joint pain from aromatase inhibitors.
Acupuncture. Recommendation strength: Should. Patient context: Oncological Patients. Note: (tumor) pain.
Acupressure. Recommendation strength: Can. Patient context: Patients with cancer pain. Note: (Tumor) pain intervention: ear acupressure.
Acupuncture. Recommendation strength: Can. Patient context: Patients with chemotherapy-induced peripheral neuropathic pain. Note: Neuropathic pain.
Acupuncture. Recommendation strength: Can. Patient context: Patients who have undergone a prostatectomy. Note: Postoperative pain intervention: electroacupuncture.
Acupuncture. Recommendation strength: Can. Patient context: Patients during brain tumor surgery. Note: Postoperative pain intervention: electroacupuncture.

3.7. National Cancer Comprehensive Network (NCCN, USA) 2020 ⊕

NCCN Guidelines for Supportive Care : Adult Cancer Pain. National Cancer Comprehensive Network. Version 1.2020.99P. doi

Pain likely to be relieved or function improved by cognitive, physical, or interventional modalities: Physical interventions include, but aren't limited to, therapeutic or conditioning exercise, physical or occupational therapy, massage, use of heat and/or cold, **acupuncture, and acupressure.**

3.8. Arbeitsgemeinschaft Gynäkologische Onkologie (AGO, Germany) 2018 ⊕

Diagnosis and Treatment of Patients with Primary and Metastatic Breast Cancer. Complementary Therapy Survivorship. Arbeitsgemeinschaft Gynäkologische Onkologie (AGO). 2018;:35P. [182073].

Acupuncture in order to improve *Cancer pain.* Level of evidence 1b (individual RCT), grade of evidence (B), AGO recommendation grade (+) This examination or therapeutic intervention is for the patient of limited benefit and can be performed. *Aromatase-inhibitor— induced athralgia* : Level of evidence 1b (individual RCT), grade of evidence (B), AGO recommendation grade (+) This examination or therapeutic intervention is for the patient of limited benefit and can be performed.

3.9. National Cancer Institute at the National Institutes of Health (NIH, USA) 2018 ⊕

Cancer Pain (PDQ®)–Health Professional Version. 2018. [99964] www.cancer.gov

There were brief positive effects in favor of CAM for acupuncture, support groups, hypnosis, and herbal supplements

3.10. Alberta Health Services (AHS, Canada) 2018 Ø

Cancer pain. Clinical Practice Guideline. Alberta Health Services. 2018. 15P. [176323].

Complementary therapies, including massage, aromatherapy, music therapy, **acupuncture**, reflexology, reiki, hypnotherapy, and transcutaneous electrical nerve stimulation (TENS) are increasing in popularity but lack supporting evidence in reducing long-term cancer pain.

3.11. American Cancer Society / American Society of Clinical Oncology (ASCO, USA) 2017 ⊕

Lyman GH, Greenlee H, Bohlke K, Bao T, DeMichele AM, Deng GE, Fouladbakhsh JM, Gil B, Hershman DL, Mansfield S, Mussallem DM, Mustian KM, Price E, Rafte S, Cohen L. Integrative Therapies During and After Breast Cancer Treatment: ASCO Endorsement of the SIO Clinical Practice Guideline. J Clin Oncol. 2018;Jun 11. [155475].

Pain. Recommendations: Acupuncture, healing touch, hypnosis, and music therapy can be considered for the management of pain. (Grade C)

3.12. British Columbia Cancer Agency (BCCA, Canada) 2017 ⊕

Palliative Care for the Patient with Incurable Cancer or Advanced Disease Part 2: Pain and Symptom Management . Clinical Practice Guidelines and Protocols in British Columbia. 2017:47P. [197157].

Cancer pain management: consider non-pharmacological therapies (e,g, massages, relaxation, **acupuncture**, TENS),

B.C. Inter-Professional Palliative Symptom Management Guidelines. BC Centre for Palliative Care. 2017:304P. [219379]. URL

Pain: Interventions requiring additional equipment or transfer to acute care Transcutaneous Electrical Nerve Stimulation (TENS), acupuncture, acupressure.

3.13. American Society of Clinical Oncology (ASCO, USA) 2016 ⊕

Paice JA, Portenoy R, Lacchetti C, Campbell T, Cheville A, Citron M, Constine LS, Cooper A, Glare P, Keefe F, Koyyalagunta L, Levy M, Miaskowski C, Otis-Green S, Sloan P, Bruera E. Management of Chronic Pain in Survivors of Adult Cancers: American Society of Clinical Oncology Clinical Practice Guideline. J Clin Oncol. 2016;34(27):3325-45. [198220].

Three systematic reviews,42-44 two with meta-analyses,43,44 confirmed that **acupuncture** and massage were effective in improving pain. Massage, **acupuncture**, music Evidence-based; benefits outweigh harms; evidence quality: low; strength of recommendation: weak.

3.14. American Cancer Society/American Society of Clinical Oncology (ACS/ASCO, USA) 2016 ⊕

Runowicz CD, Leach CR, Henry NL, Henry KS, Mackey HT, Cowens-Alvarado RL, Cannady RS, Pratt-Chapman ML, Edge SB, Jacobs LA, Hurria A, Marks LB, LaMonte SJ, Warner E, Lyman GH, Ganz PA.

American Cancer Society/American Society of Clinical Oncology Breast Cancer SurvivorshipCare Guideline. J Clin Oncol. 2016;34(6):611-35. [198256].

Musculoskeletal health Recommendation 3.8: It is recommended that primary care clinicians (a) should assess for musculoskeletal symptoms, including pain, by asking patients about their symptoms at each clinical encounter (LOE 5 0); and (b) should offer one or more of the following interventions based on clinical indication: **acupuncture**, physical activity, and referral for physical therapy or rehabilitation (LOE 5 III).
Pain and neuropathy Recommendation 3.9: It is recommended that primary care clinicians : (b) should offer interventions, such as acetaminophen, nonsteroidal anti-inflammatory drugs, physical activity, and/or **acupuncture**, for pain (LOE 5 I).

3.15. Berkshire Healthcare (BH, GB) 2015 ⊕

Adult palliative care guidelines. Berkshire Healthcare. 2015. [175857].

3.1.4 Non-drug approaches (TENS, acupuncture). Non-drug approaches are useful options in those intolerant of, or averse to taking, oral medication. Physiotherapists will usually show patients or carers how to use TENS, and some are trained acupuncturists.

3.16. Society for Integrative Oncology (SIO, USA) 2014 ⊕

Greenlee H, Balneaves LG, Carlson LE, Cohen M, Deng G, Hershman D, Mumber M, Perlmutter J, Seely D, Sen A, Zick SM, Tripathy D; Society for Integrative Oncology. Clinical practice guidelines on the use of integrative therapies as supportive care in patients treated for breast cancer. J Natl Cancer Inst Monogr. 2014;50:346-58. [167074].

Pain. Recommendations: Acupuncture can be considered as a nonpharmacologic approach to the short-term treatment of AIMSS (aromatase inhibitor-associated musculoskeletal symptoms). Electroacupuncture can be considered as a nonpharmacologic approach to the short-term treatment of AIMSS (aromatase inhibitor-associated musculoskeletal symptoms). Strength of evidence: C

3.17. British Columbia Cancer (BCA, Canada) 2014 ⊕

Symptom Management Guidelines: pain. BC Cancer Agency. 2014. 7P. [176727].

Grade 1, non-urgent, *Non-parmacological Management*, **Acupuncture**, therapeutic touch, reiki, massage, Transcutaneous electrical nerve stimulation (TENS), ultrasound. *Possible Referrals:* Patient Support Centre, Telephone Care for follow-up, Massage therapist, **Acupuncturist**, Physiotherapist.

3.18. Société Française d'Oto-Rhino-Laryngologie et de Chirurgie de la Face et du Cou (SFORL, France) 2014 ⊕

Prise en charge des douleurs somatiques induites par les traitements des cancers des VADS. Société Française d'Oto-Rhino-Laryngologie et de Chirurgie de la Face et du Cou. 2014. 57P. [165228].

Recommandation 12, Le groupe de travail recommande d'envisager l'acupuncture par un praticien expérimenté dans la prise en charge des douleurs cervicales séquellaires d'un curage ganglionnaire et dans la xérostomie après radiothérapie (Grade B).
Recommandation 18. Douleurs séquellaires de la chirurgie ganglionnaire. Il est recommandé de préserver les structures nerveuses et musculaires, lorsque les règles carcinologiques le permettent, pour limiter les séquelles douloureuses des curages ganglionnaires (Grade B). L'utilisation de la physiothérapie est controversée (Accord professionnel). L'utilisation de l'acupuncture et de la toxine botulique sont en cours d'évaluation (Grade C).

3.19. European Partnership for Action Against Cancer (EPAA, Europe) 2014 ⊕

Complementary and alternative medicine (CAM) in cancer care. Development and opportunities of Integrative Oncology. European Partnership for Action Against Cancer (EPAAC). 2014;:339P. [186081].

As to the use of acupuncture and TCM in the treatment of symptoms correlated to anti-cancer therapy, the literature has demonstrated a good level of evidence in the following cases: nausea and vomiting, **pain**, hotflashes and xerostomia, taking also in account the absence of relevant adverse effects and interactions.

3.20. American College of Chest Physicians (ACCP, USA) 2013 ⊕

Deng GE, Rausch SM, JoneS LW, Gulati A, Kumar NB, GreenleE H, Pietanza MC, Cassileth BR. Complementary therapies and integrative medicine in lung cancer: diagnosis and management of lung cancer, 3rd ed: American College Of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest. 2013;143(5 Suppl):420-36. [159371].

Recommendation 2.5.3.2. In patients with cancer related pain and peripheral neuropathy, acupuncture is suggested as an adjunct treatment in patients with inadequate control of symptoms (Grade 2C).

3.21. Guidelines and Audit implantation Network (GAIN, UK) 2011 ⊕

General Palliative Care Guidelines for the Management of Pain at the End of Life in Adult Patients. Guidelines and Audit implantation Network (GAIN). 2011. [197429].

There is inconclusive evidence that acupuncture is more effective than placebo for chronic pain. though there may be some benefit in cancer related pain.

3.22. Malaysia Health Technology Assessment Section (MaHTAS, Malaysia) 2010 ⊕

Malaysia Health Technology Assessment Section (MaHTAS). Management of cancer pain. Ministry of Health (MoH). 2010:89P. [172207]. doi

Physical and complementary treatment [acupuncture] can be used as an adjunctive therapy for patients with cancer pain. (Grade A)

3.23. American College of Chest Physicians (ACCP, USA) 2007 ⊕

Cassileth BR, Deng GE, Gomez JE, Johnstone PA, Kumar N, Vickers AJ; American College of Chest Physicians. Complementary therapies and integrative oncology in lung cancer: Accp Evidence-Based Clinical Practice Guidelines (2nd Edition). Chest. 2007;132(3sup:340s-54s. [146961]

Recommendation 7. Acupuncture is recommended as a complementary therapy when pain is poorly controlled or when side effects such as neuropathy or xerostomia from other modalities are clinically significant. Grade of recommendation, 1A
Recommendation 11. In patients with lung cancer with symptoms such as dyspnea, fatigue, chemotherapyinduced neuropathy, or postthoracotomy pain, a trial of acupuncture is recommended. Grade of recommendation, 2C

3.24. National Institute for Health and Clinical Excellence (NICE, UK) 2004 ⊕

Guidance on Cancer Services Improving Supportive and Palliative Care for Adults with Cancer. National Institute for Health and Clinical Excellence - Clinical Guidelines. 2004:209P. [197445].

There is some indication that therapies [acupuncture] might have the ability to improve patients' general sense of well-being and quality of life through, for instance, reductions in distress, anxiety, **pain** and nausea [B].

4. Randomized Controlled Trials

4.1. Sources

1. **He 2019**:He Y, Guo X, May BH, et al. Clinical Evidence for Association of Acupuncture and Acupressure With Improved Cancer Pain: A Systematic Review and Meta-Analysis. JAMA Oncol. 2019;6(2):271-8. [202656]. (n=17).
2. **Chiu 2017**: Chiu HY, Hsieh YJ, Tsai PS. Systematic review and meta-analysis of acupuncture to reduce cancer-related pain. Eur J Cancer Care (Engl). 2017;26(2). [182347]. (n=29).
3. **Hu 2016**: Dan Yu, Liang Yabing, Tao Ye. [Clinical study of acupuncture on cancer pain and analgesia]. Chinese Acupuncture and Moxibustion. 1998;18(1):17. [67258]. (n=20)
4. **Paley 2015**: Paley CA, Johnson MI, Tashani OA, Bagnall AM. Acupuncture for cancer pain in adults. Cochrane Database Syst Rev. 2015. [184147]. (n=5)

4.2. List

2018	Hershman DL, Unger JM, Greenlee H, Capodice JL, Lew DL, Darke AK, Kengla AT, Melnik MK, Jorgensen CW, Kreisle WH, Minasian LM, Fisch MJ, Henry NL, Crew KD. Effect of Acupuncture vs Sham Acupuncture or Waitlist Control on Joint Pain Related to Aromatase Inhibitors Among Women With Early-Stage Breast Cancer: A Randomized Clinical Trial. JAMA. 2018;320(2):167-176. [168690].	He 2019
	Kim K, Lee S. Intradermal Acupuncture Along with Analgesics for Pain Control in Advanced Cancer Cases: A Pilot, Randomized, Patient-Assessor-Blinded, Controlled Trial. Integr Cancer Ther. 2018;17(4):1137-1143. [197280]	He 2019
	Ruela LO, Iunes DH, Nogueira DA, Stefanello J, Gradim CVC. Effectiveness of auricular acupuncture in the treatment of cancer pain: randomized clinical trial. Rev Esc Enferm USP. 2018;52:e03402. [189826].	He 2019
2017	Wang Ying, Wang Xiaoyan, Wang Hui, Zhang Yaping, Fang Hongming. [Clinical study of electro-acupuncture combined with hydroxycodone sustained-release tablets for cancer pain in advanced non-small cell lung cancer], Zhejiang Journal of TCM. 2017;9:684-5. [111934].	He 2019
2016	Shen LF, Chen WY, Luv XD, et al. [Effects of electro-acupuncture on improving sleep quality for patients with lung cancer pain], Journal of Medical Research. 2016;6:87-90. [113481].	He 2019
	Guo Zongbing, Guo Guanghong, Yang Jiping, Shao Ying. [Effects of acupuncture on pain and quality of life for patients with advanced gastric cancer]. International Journal of TCM. 2015;37(4):371-3. [114066].	He 2019
2015	Wang Jing, Lu Rong temple, Bi Ran, Shu Xiaoning. [Clinical Observation on 30 Cases of Intermediate and Severe Cancer Pain due to Bone Metastasis], Yunnan Journal of TCM and Materia Medica. 2015;2:43-5. [114544].	He 2019

2014	Mao JJ, Xie SX, Farrar JT, Stricker CT, Bowman MA, Bruner D, Demichele A.. A randomised trial of electro-acupuncture for arthralgia related to aromatase inhibitor use. Eur J Cancer. 2014;50(2):267-76. [160399].	He 2019, Chiu 2017
	Wang Yanchun, Chen Xinwang, Wei Zheng, Wang Xuemei. [Treatment of 38 Cases of Cancer Pain with Low Frequency Electroacupuncture and Three-step Analgesic Drugs]. Traditional Chinese Medicinal Research. 2014;5:55-7. [196001].	Hu 2016
	Zeng K, Dong HJ, Chen HY, Chen Z, Li B, Zhou QH. Wrist-ankle acupuncture for pain after transcatheter arterial chemoembolization in patients with liver cancer: a randomized controlled trial. American Journal of Chinese Medicine. 2014;42(2):289-302. [171950].	Chiu 2017
	Zhang JW. [Acupuncture combined with level three ladder analgesic clinical study in the treatment of severe cancer pain], Nanjing: [Masters Degree], Nanjing University of Chinese Medicine. 2014. [201498].	Hu 2016
2013	Bao T, Cai L, Giles JT, Gould J, Tarpinian K, Betts K, Medeiros M, Jeter S, Tait N, Chumsri S, Armstrong DK, Tan M, Folkerd E, Dowsett M, Singh H, Tkaczuk K, Stearns V. A dual-center randomized controlled double blind trial assessing the effect of acupuncture in reducing musculoskeletal symptoms in breast cancer patients taking aromatase inhibitors. Breast Cancer Res Treat. 2013;138(1):167-74. [161505].	He 2019, Chiu 2017
	Chen H, Liu TY, Kuai L, Zhu J, Wu CJ, Liu LM. Electroacupuncture treatment for pancreatic cancer pain: a randomized controlled trial. Pancreatology. 2013;13(6):594-7. [160245].	He 2019, Chiu 2017, Hu 2016, Paley 2015
	Cui Baoshuan. [Study on the application of acupuncture and Chinese medicine in the treatment of cancer pain and analgesia]. For all Health. 2013;7(13):5-6. [184309].	Chiu 2017, Hu 2016
	Oh B, Kimble B, Costa DS, Davis E, Mclean A, Orme K, Beith J.. Acupuncture for treatment of arthralgia secondary to aromatase inhibitor therapy in women with early breast cancer: pilot study. Acupuncture in Medicine. 2013;31(3):264-71. [161176].	He 2019
	Shen Jianmei, Zhang Wentao,Wu Qianying, Wang Dongsheng. [Clinical study of electroacupuncture for cancer pain of hepatoma]. Journal of Liaoning University of TCM. 2013;15(9):189-91. [196172].	Hu 2016
	Zhu LN,Wang RL, Zong H, Fan QX. [Effects of auricular acupressure combined with oxycontin for malignant neuropathic pain], Chinese Journal of Physical Medicine and Rehabilitation. 2013;35(7):579-1. [167924].	He 2019
2012	Enblom A, Johnsson A, Hammar M, Onelöv E, Steineck G, Börjeson S. Acupuncture compared with placebo acupuncture in radiotherapy-induced nausea, a randomized controlled study, Annals OF Oncology. 2012;23(5):1353-61. [160110].	Chiu 2017
	Han Gao, Chen Yanjuan. [Observation on Therapeutic Effect of 25 Cases of Hepatocellular Carcinoma Pain Treated with Wrist and Ankle Needles]. Chinese Community Doctors. 2012;29:176-7. [196722].	Hu 2016
	Huang XJ, Zhang LR. [Clinical observation on acupuncture plus drug therapy of late cancer pain]. World Health Digest Medical Periodical. 2012;9(24):244-5. [203421].	Hu 2016
	Lu W, Matulonis UA, Dunn JE, Lee H, Doherty-Gilman A, Dean-Clower E, Goodman A, Davis RB, Buring J, Wayne P, Rosenthal DS, Penson RT. The feasibility and effects of acupuncture on quality of life scores during chemotherapy in ovarian cancer: results from a pilot, randomized sham-controlled trial. Medical Acupuncture. 2012;24(4):233-240. [168870]	Chiu 2017, Paley 2015
	Peng Jie, Wang Wen-Hai, Zhou Rong-Yao. [Clinical study on integrated acupuncture and medication in treating moderate and severe cancer pain]. Shanghai Journal of Acupuncture and Moxibustion. 2012;31(4):236. [175516].	Hu 2016

	Tan Guang-Sheng, Lin Zhi-Tong, Wang Qin, Liao Han-Bo, Lu Ji-Sen, Wang Tian, Song Feng-Qi. [Clinical Observation on Analgesia Effect in Cancer Pain Treated with Acupuncture and Western Medicine], World Journal of Integrated Traditional and Western Medicine. 2012;2:147-9. [204506].	Hu 2016
2011	Jiang Kunrong. [Clinical Research on Acupuncture on Siguan Points Combined with Auricular Acupressure for Cancer Pain Doctoral thesis: Guangzhou University of Chinese Medicine. 2011. [168051].	He 2019, Hu 2016
	Liu J. [Clinic research on hepatic carcinoma pain relived by needling with eight methods of intelligent turtle and western medicine], Guangzhou: [M.S. thesis], Guangzhou University of Traditional Chinese Medicine,. 2011. [196068].	Hu 2016
	Yang FI, Liu SY. [Clinical investigation on acupuncture combined with NSAIDs for cancer pain]. China Medical Engineering. 2011;19:112. [174249].	Chiu 2017
2010	Crew KD, Capodice JL, Greenlee H, Brafman L, Fuentes D, Awad D, Yann Tsai W, Hershman DL. Randomized, blinded, sham-controlled trial of acupuncture for the management of aromatase inhibitor-associated joint symptoms in women with early-stage breast cancer. Clin Oncol. 2010;28(7):1154-60. [155321]	He 2019, Chiu 2017
	Mi Jianping, Deng Tewei, Zhou Dajun. [Observation on clinical curative effect of fire acupuncture combined with three-step analgesia on gastric cancer pain]. Liaoning Journal of TCM. 2010;10:2018-9. [185341].	Chiu 2017, Hu 2016
	Pfister DG, Cassileth BR, Deng GE, Yeung KS, Lee JS, Garrity D, Cronin A, Lee N, Kraus D, Shaha AR, Shah J, Vickers AJ. Acupuncture for pain and dysfunction after neck dissection: Results of a randomized controlled trial. J Clin Oncol. 2010;28(15):2565-70. [155389].	He 2019, Chiu 2017
	Wang Sheng-Chun,Yin Hong-Bo,Li Wei-Feng. [Acupuncture combined with point injection of chinese angelica injection for pain of advanced stomach carcinoma], Chinese Journal of Cancer Prevention and Treatment. 2010;17(18):1487-8+90. [181330]. T	Chiu 2017
	Yu JM, Qu PS, Fan H, Wang Z, Jin YB, Tao F.. [Observation on the analgesic effect of transcutaneous electrical acupoint stimulation for breast radical carcinoma operation]. Acupuncture Research. 2010;35(1):43-6. [161504].	Chiu 2017
2009	Peng H. [Systematic evaluation of the effect of acupuncture therapy on cancer pain and pilot clinical trial], Shanghai: [M.S. thesis] Second Military Medical University. 2009. [198500].	Hu 2016
2008	Cassiletha B.. Randomized controlled trial of a special acupuncture technique for pain after thoracotomy. J Thorac Cardiovasc Surg. 2008;136(6):1464-9. [152493].	Chiu 2017
	Chen Zhong-Jie, Guo Yu-Peng, Director; Wu Zhong-Chuo. [observation on the therapeutic effect of acupuncture at pain points on cancer pain). Chinese Acupuncture and Moxibustion. 2008;28(4):251. [149052].	Chiu 2017, Paley 2015
	Qiao DP, Liu L, Liang YT. [Efficacy of acupuncture combined with drug treatment for cancer pain]. Journal of Practical Oncology. 2008;5:446-8. [204509].	Hu 2016
2007	Crew KD, Capodice JL, Greenlee H, Apollo A, Jacobson JS, Raptis G, Blozie K, Sierra A, Hershman DL.. Pilot study of acupuncture for the treatment of joint symptoms related to adjuvant aromatase inhibitor therapy in postmenopausal breast cancer patients. J Cancer Surviv. 2007;1(4):283-91. [161507].	He 2019
	He BM, Li WS, Li WY. [Effect of previous analgesia of scalp acupuncture on post-operative epidural morphine analgesia in the patient of intestinal cancer]. Chinese Acupuncture and Moxibustion. 2007;27(5):369-71. [146522].	Chiu 2017
	Zhou Yi, Zhong Yi, Huang Qin-feng. Acupuncture plus Three-step Analgesic Ladder Principle for Cancer Pain Relief: Clinical Observation on 24 Cases. Journal of Acupuncture and Tuina Science. 2007;5(3):162. [59142].	Chiu 2017

2006	Wong RH, Lee TW, Sihoe AD, Wan IY, Ng CS, Chan SK, Wong WW, Liang YM, Yim AP. Analgesic effect of electroacupuncture in postthoracotomy pain: a prospective randomized trial. Ann Thorac Surg. 2006;81(6):2031-6. [141289].	Chiu 2017
2005	Hu Xia,Gu Wei,Zhou Qing-Hui,et aL. [Analgesic efficacy and mechanism of wrist-ankle acupuncture on pain caused by liver cancer], Chinese Journal of Integrated Traditional and Western Medicine on Liver Diseases. 2005;15(3):131-3. [161508].	Chiu 2017, Hu 2016
2004	Hu Xia, Lina Chang-Quan, Zhou Qing-Hui . [Clinical observation on wrist ankle acupuncture for treatment of pain of middle-late liver cancer]. Chinese Acupuncture and Moxibustion. 2004;24(3):149. [130049]	Chiu 2017, Hu 2016
2003	Alimi D, Rubino C, Pichard-Léandri E, Fermand-Brulé S, Dubreuil-Lemaire ML, Hill C. Analgesic effect of auricular acupuncture for cancer pain: a randomized, blinded, controlled trial. J Clin Oncol. 2003;21(22):4120-6.. [117516]	He 2019, Chiu 2017, Hu 2016, Paley 2015
2002	Hsiao AW. [Observation of electroacupuncture for treating cancer pain]. Today Nurse. 2002;9:57-8. [189466].	Chiu 2017
2001	Liu J, Yu RC, Rao XQ. [Study on effect of moxibustion and Guben Yiliu 111 combined with chemotherapy in treating middle-late stage malignant tumor]. Chinese Journal Medicine. 2001;21:262-4. [185552].	Chiu 2017
2000	Sun Yalin et al. [Observation on therapeutic effect of needle-retaining method of triple puncture in 80 cases of pain due to hepatic cancer]. Chinese Acupuncture and Moxibustion. 2000;20(4):211. [77601].	Chiu 2017, Hu 2016
	Zhang Mei et al. [Analgesic effect of chinese herbs and acupuncture on cancer patients]. Acupuncture Research. 2000;25(1):64. [77634].	Chiu 2017, Hu 2016
1999	Bian RH. [Observation on analgestic effect of chronic pain acupuncture on cancer patients]. Journal of Practical TCM. 1999;15:28. [194849].	Chiu 2017, Hu 2016
1998	Dan Yu, Liang Yabing, Tao Ye. [Clinical study of acupuncture on cancer pain and analgesia]. Chinese Acupuncture and Moxibustion. 1998;18(1):17. [67258].	Hu 2016
1995	Dang Wen. [Clincal Investigation on Acupuncture Treatment of Pain Induced by Cancer of Stomach], journal of TCM (Zhongyi Zazhi). 1995;36(:17-18. [196045]. Dang Wen. Pain of gastric carcinoma treated by acupuncture. International Journal of Clinical Acupuncture. 1997;8(3):241-48. [87084]. Dang Wen et al. Clinical study on acupuncture treatment of stomach carcinoma pain. Journal of TCM. 1998;18(1):31-8. [57846].	Chiu 2017, Hu 2016, Paley 2015