

# Health Evidence Review Commission's Chronic Pain Task Force

January 23, 2018 9:00 AM - 11:00 AM

Clackamas Community College Wilsonville Training Center, Room 112 29373 SW Town Center Loop E, Wilsonville, Oregon, 97070 Section 1.0 Call to Order

#### AGENDA Chronic Pain Task Force January 23, 2018 9 am – 11 am Wilsonville Training Center, Room 112 29353 SW Town Center Loop E Wilsonville, OR 97070 (All agenda items are subject to change and times listed are approximate)

#	Time	ltem	Presenter
1	9:00	Call to Order, Introductions	Staff
2	9:05	Purpose of Meeting	Darren Coffman
3	9:10	Overview of chronic pain on the Prioritized List and the problem to be solved	Ariel Smits Denise Taray
4	9:30	Group discussion	Staff
5	10:45	Next steps	Staff
6	10:55	Public Comment	
7	11:00	Adjournment	Staff

#### MINUTES

Chronic Pain Taskforce Wilsonville Training Center Wilsonville, OR Septmeber 26, 2017 10:00 AM – 12:00 PM

**Members Present**: Cat Buist, chair; Ben Marx, Kevin Cuccaro DO, David Eisen, Laura Ocker, Kim Jones, Tracy Muday MD, Mitch Haas, Holly Jo Hodges MD, Nora Stern (via phone), Amber Rose Dullea (via phone), David Sibell, MD (via phone)

Members Absent: Jim Shames, Andrew Gibler

**Staff Present:** Darren Coffman; Ariel Smits, MD, MPH; Denise Taray, Jason Gingerich, Cat Livingston (via phone), Nathan Roberts (via phone)

#### Also Attending:

#### 1. CALL TO ORDER

Cat Buist called the meeting to order at 10:15. Roll was called and members introduced themselves and their background.

#### 2. Background

Taray introduced terminology regarding pain, and definitions of the different types of pain. Smits reviewed the issue of how chronic/centralized pain is covered (or not) on the Prioritized List. She then reviewed the structure of the Prioritized List and gave some examples of possible solutions to allow some coverage of chronic/centralized pain.

There was discussion about how ICD-10 does not reflect the reality of pain types. Pain is an experience as well as a diagnosis. Cuccaro urged the group to focus on what treatments are missing for coverage for this group of individuals. Pain involves behavior that also need to be affected with behavioral interventions. Cuccaro continued that there is no clear difference between acute and chronic pain. The group should try to define who is at risk for pain becoming chronic, as interventions for this group would have high impact. He asked if any members new about tools that could be used to predict pain becoming chronic, similar to the StartBack tool for back pain.

Eisenadded that the group needs to address substance abuse disorder in this population. There is a public health crisis with opioids, and opioid coverage needs to be carefully considered.

Stern urged the group to move away from defining what conditions to cover, and instead focus on what treatments to cover. She agreed with Cuccaro that there is a need to treat acute pain to prevent chronicity.

Eisen noted that his organization has developed 9 clinical profiles for patients with higher risk of chronicity. His organization provides a set of services based on this tprofile. He noted that behavioral health interventions are important. He also noted that treatments might vary by urban vs rural; the access and availability of services need to be considered.

Ocker was interested in services that could be self-directed by the patient to increase patient efficacy. She suggested considering a list of possible services available, and allow the patient to decide which to engage in, with their provider's input.

Jones suggested that rather than focus on diagnosis, that there might be a focus on patients on the far end of the bell curve in the spectrum of pain. Ocker disagreed, preferring to allow everyone with pain some limited services like the limited services available for low risk back pain patients. Buist noted that the group needs a prevention model, which would go along with Ocker's idea of allowing more patients to have services.

Cuccaro noted that focusing on risk factors for chronic pain might miss patients; additionally, not everyone with the factor will end up with pain.

Buist stressed the need for interdisciplinary rehab for complex patients which included a behavior change component. There may be a need for many, many visits for some patients to get behavior change, however, which raises the concern with a numberical limit on number of services. Eisen agreed with the concern with specific limit of number of visits/treatments. Emotional issues can flare pain, and then pt needs more services. Cuccaro replied that from the payer side, treating forever is not sustainable financially. Muday reminded the group that there are other patients on the health plans and they might not get services if a lot of payer resources go the pain treatment.

Eisen suggested that the group consider health coaches, as his experience with these coaches are that they are very beneficial. Jones added that group based visits are very helpful, and that there is a growing body of literature in that area. Dullea spoke up that in her area (Lincoln County), access to group visits is not feasible due to the rural nature of the area. There were other comments that groups not done well can be harmful. Buist recommended that the group consider team based care. Marx noted that any treatment plan considered should include an element of patient impowerment, patient choice of services. Stern noted that shared decision making is important as well. Services such as naturopathy and pain education were suggested for coverage.

The group then moved on to discussing the evidence for treatment of chronic/centralized pain. What level of evidence should be considered—Cochrane review, meta-analysis? The group noted that it's hard to find studys on all types of treatment for all types of pain and the evidence base for many may be weak.

The group discussed the possibility of finding other evidence-based guidelines for treatment of chronic pain and using these as a base for their work. Sibell noted that CMS Noridian has guidelins for neck and back pain treatment that are specific; however, he was unsure if CMS and private payers had guidelines for other types of chronic pain due to the lower cost issue of these conditions. In general, the group was very supportive of the idea of looking for other evidence-based guidelines, so as to "not re-invent the wheel."

The group discussed including non-typical services such as exercise classes. Staff noted the difficulty in trying to implement yoga for back pain and how specifying coverage created a lot of unintended consequences.

Muday suggested that the group should focus on what works to treat chronic/centralized pain and let staff figure out how to make the group's intent work for the Prioritized List. However, she cautioned that there needs to be evidence to support that the group suggests for coverage. This led to a discussion of how to define what works—should the outcome that is affected be reduced pain, increased functionality or another outcome? There is also the issue of how to define pain.

Gingerich cautioned that implementation is important. The OHP CMS waiver has language about community benefit services and services outside of medical services. Roberts cautioned that CMS is negotiating some changes to what is now flex services, and the work group should keep an eye on what these changes turn out to be.

In terms of practical considerations for possible strategies, Roberts cautioned that a SOI is difficult for the claims processing side, as it involves laborious manual review, or HSD will be required to do a lot of work that the HERC did not do to identify ICD10 and CPT codes to make an autoreview.

The group wanted data on the size of the OHP population with chronic pain. This might be difficult to determine. The group felt a good starting place might be to find the highest utilizers and identify their diagnosis codes. Muday offered to use her CCO database in their small CCO that can find out what diagnoses patients have that are at highest risk of cost (avoidable hospitalization, ER visits, etc.). It was noted by many that the group of highest utilizers would be expected to have co-occurant issues such as anxiety, depression or a history of abuse. It was also noted that many patients with centralized pain also have back/neck pain and so might now be getting services with the back line changes.

The group also discussed how to measure success, what metrics to use to determine if any changes in coverage of chronic pain are successful.

The group decided that the vision of the taskforce will be to develop a coverage plan for OHP members to give effective treatments to improve outcomes (decreased cost, increased functionality, improved health) for patients with chronic/centralized pain, as well as decrease the utilization of negative, ineffectiveness treatments.

#### Next steps:

- 1) Set up a taskforce meeting in January or early February
- 2) HERC staff will work with HSD and the CCOs to query data on high utilizers for:
  - a. Diagnoses
  - b. Services being utilized (prescriptions, ER, primary care, specialty)
- 3) Gingerich will look at past work of the Policy Board on similar question of high utilizer
- 4) HERC staff with survey the medical literature to see what has evidence of effectiveness for chronic/complex pain
- 5) HERC staff with look at other payers for programs/coverage.
- 6) HERC staff will ask the MED project for policies for treatment of chronic pain among other participating state Medicaid programs
- 7) HERC staff and members will look at services for less high utilizers to prevent chronic pain

8) Members will send staff best practices, medical literature and other payer guidelines as they are able

#### 4. ADJOURNMENT

The meeting was adjourned at 12:00 PM.

# Section 2.0 Chronic Pain Task Force January 2018

Chronic Pain Taskforce January 2018

Summary of charge from the Fall 2017 Taskforce meeting: HERC staff was to research the medication literature for evidence of effective treatments for chronic/complex pain, look at other payer programs/coverage, review MED project reports, and look for other best practices for treatment of pain.

Several MED reports were found examining various treatments for chronic/complex pain. Additional resources include an evidence based guideline from SIGN (Scottish Intercollegiate Guidelines Network) and a specialty guideline from the American Academy of Pain Medicine. These and other resources are summarized below.

#### Evidence for effective treatment for chronic/complex pain

Most literature focused on a single condition and/or a single treatment modality. For example, many systematic reviews were found focused on back pain treatment. Studies summarized below examined more conditions than back pain.

#### MacPherson 2016, meta-analysis of acupuncture for chronic pain

- 1) N=29 trials (17,922 patients); for longer follow up N=2- trials (6276 patients)
- 2) The chronic pain conditions included musculoskeletal pain (low back, neck, and shoulder), osteoarthritis of the knee, and headache/migraine.
- 3) In trials comparing acupuncture to no acupuncture control (wait-list, usual care, etc), effect sizes diminished by a nonsignificant 0.011 SD per 3 months (95% confidence interval: -0.014 to 0.037, P = 0.4) after treatment ended. The central estimate suggests that approximately 90% of the benefit of acupuncture relative to controls would be sustained at 12 months. For trials comparing acupuncture to sham, we observed a reduction in effect size of 0.025 SD per 3 months (95% confidence interval: 0.000-0.050, P = 0.050), suggesting approximately a 50% diminution at 12 months.
- 4) The effects of acupuncture compared with no acupuncture for chronic pain do not seem to decrease importantly over a projected 12-month period.

#### Chen 2017, review of CAM for chronic pain

- 1) Acupuncture
  - a. Although several studies described above have indicated a positive role for acupuncture in the treatment of rheumatoid arthritis, other studies have failed to show positive outcomes. The discrepancy among studies may be related to methodological factors such as the type of acupuncture (acupuncture v electroacupuncture), site of intervention, and sample size differences.
  - b. Current evidence, including recent data from the metaanalyses, reviews, and RCTs described above, suggests that acupuncture may be a good option for treatment of chronic back pain
  - c. 2 small RCTs found improvement in chronic neck and shoulder pain with acupuncture

- 2) Yoga
  - a. strong evidence exists that yoga significantly reduces pain and improves back related disability, with effect sizes mostly varying from 0.4 to 0.7 in the short term but only moderate evidence for long term effects
  - b. Two small studies of yoga for rheumatoid arthritis with high risk of bias find weak evidence to support yoga for this diagnosis

MED 2014, review of multidisciplinary chronic pain programs

- Defined multidisciplinary chronic pain programs (MPPs) as programs that provide interdisciplinary care to individuals with chronic non-cancer pain by incorporating medial/pharmaceutical approaches with psychological, physical, and education components
- 2) Findings:
  - a. Multidisciplinary chronic pain programs are likely to be more effective than usual care at reducing pain intensity, disability, and number of sick days, and increasing quality of life and return-to-work likelihood compared to usual care. The majority of studies evaluating multidisciplinary chronic pain programs focus on, or include a high proportion of, individuals with low back pain.
  - b. There is scant evidence on how multidisciplinary pain program characteristics (e.g., treatment intensity, staffing, use of treatment modalities) relate to the effectiveness of these programs. Studies varied significantly in structure, staffing, and intensity of services.
  - c. A limited body of evidence suggests that multidisciplinary pain programs may be costeffective at reducing sick absences and increasing return-to-work status for individuals with chronic non-cancer pain. There is insufficient evidence to determine the costeffectiveness of multidisciplinary pain programs for other outcomes.

MED 2015, review of topical analgesics for treatment of chronic pain

- United States (U.S.) Food and Drug Administration (FDA) approved topical medications for the treatment of pain include diclofenac, lidocaine, capsaicin, thermal agents, and salicylates. However, there is minimal published evidence on the use of compounded topical analgesics for chronic pain.
- Topical nonsteroidal anti-inflammatory drugs (NSAIDs) have demonstrated similar effectiveness to oral NSAIDs in the treatment of knee and hand arthritis with a reduction in gastrointestinal symptoms.
- Lidocaine and capsaicin may be beneficial in the treatment of neuropathic pain based on systematic reviews of the existing literature.
- 4) In one poor-quality randomized controlled trial (RCT), topical high dose (10%) ketamine reduced allodynia (i.e. a sensation of pain in reaction to normal stimuli) in complex regional pain syndrome (CRPS).
- 5) Combined topical ketamine and amitriptyline was no more effective than placebo for neuropathic pain syndromes in one fair-quality RCT, and in one good-quality RCT that specifically assessed the impact on chemotherapy-induced peripheral neuropathy.
- 6) In a fair-quality randomized cross-over trial, topical amitriptyline was not found to be significantly effective compared to placebo or topical lidocaine in the treatment of neuropathic pain.

#### MED 2017, review of non-opioid analgesics for chronic pain

- 1) Non-opioid analgesics (NSAIDs, acetaminophen, and anticonvulsants) were found to be not significantly different or significantly better than opioids in terms of pain relief and adverse events both short term and at 1 year.
- 2) The two studies that assessed physical function showed significantly greater improvement with non-opioid analgesics compared to opioids.

#### Oregon State Drug Review 2017, Non-Analgesics for Pain Management

- Very low quality evidence demonstrates the marginal benefit of tricyclic antidepressants (TCAs) in managing neuropathic pain. Most of these studies are older and contain methodological deficiencies which makes it difficult to apply their results to patient care. In addition, the adverse effects of TCAs, particularly in elderly patients, are well documented and limit their use.
- 2) Moderate quality evidence supports the efficacy of duloxetine in treating diabetic peripheral neuropathy (DPN) when compared to placebo.
- 3) Moderate quality evidence supports the utilization of gabapentin and pregabalin in managing peripheral neuropathic pain.
- Lidocaine patches have small studies on effectiveness for post herpetic neuralgia (PHN). There is insufficient evidence to support the use of topical lidocaine formulations for peripheral neuropathic pain.
- 5) **Conclusions** Most of the studies evaluating treatment of pain are small, of short duration, and may overestimate treatment effect, so they are graded as low to moderate quality. Moderate quality evidence supports the safety and efficacy of duloxetine and pregabalin as alternatives to morphine in managing several non-cancer pain conditions including DPN, PHN and central neuropathic pain. Duloxetine has also shown to be marginally effective in managing lower back pain. Although the TCAs may be considered as morphine alternatives to managing pain, their adverse effects often limit patient satisfaction.

#### Williams 2017, Cochrane review of CBT for chronic pain

- 1) Forty-two studies met our criteria and 35 (4788 participants) provided data
- 2) Overall there is an absence of evidence for behaviour therapy, except a small improvement in mood immediately following treatment when compared with an active control. CBT has small positive effects on disability and catastrophising, but not on pain or mood, when compared with active controls. CBT has small to moderate effects on pain, disability, mood and catastrophising immediately post-treatment when compared with treatment as usual/waiting list, but all except a small effect on mood had disappeared at followup.
- 3) **Authors' conclusions** Benefits of CBT emerged almost entirely from comparisons with treatment as usual/waiting list, not with active controls. CBT but not behaviour therapy has weak effects in improving pain, but only immediately post-treatment and when compared with treatment as usual/waiting list. CBT but not behaviour therapy has small effects on disability associated with chronic pain, with some maintenance at six months. CBT is effective in altering mood and catastrophising outcomes, when compared with treatment as usual/waiting list, with some evidence that this is maintained at six months. Behaviour therapy has no effects on mood, but showed an effect on catastrophizing immediately post-treatment. CBT is a useful approach to the management of chronic pain.

**AHRQ**, draft comparative effectiveness review on non-pharmacologic treatment of chronic pain (<u>https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/nonpharma-treatment-chronic-pain-draft-report.pdf</u>)

- 1) N=205 publications (192 trials)
  - a. Follow up 1 month to 1 year after intervention
  - Most trials enrolled patients who experienced a moderate pain intensity (e.g., >5 on a 0 to 10 point numeric rating scale for pain) and duration of symptoms ranging from 3 months to >15 years.
- 2) For osteoarthritis, exercise demonstrated small short term improvement in function compared to usual care (SOE: moderate); exercise was also associated with a moderate improvement in pain (SOE: Low). Long-term, the small improvement in function seen with exercise was sustained, but there was no clear effect on pain (SOE: Low).
- 3) For fibromyalgia: Function improved slightly in the short term with cognitive behavioral therapy (CBT) and tai chi and qigong mind-body practices (SOE: Low) and with acupuncture (SOE: Moderate). Improvements in pain were seen in the short term with exercise (SOE: Moderate) and mind body practices (SOE: Low). Small functional improvement continued into the intermediate term for acupuncture and cognitive behavioral therapy (SOE: Low) and was seen for myofascial release massage and multidisciplinary rehabilitation (SOE: Low). Long term, small improvements in function continued for multidisciplinary rehabilitation but not for exercise or massage (SOE: Low for all) and no clear impact on pain for exercise (SOE: Moderate) or multidisciplinary rehabilitation was seen (SOE: Low).
- 4) For chronic tension headache: Evidence was sparse and the majority of trials were of poor quality.
- 5) There was no evidence suggesting increased risk for serious treatment-related harms for any of the interventions, although data on harms were limited.
- 6) Conclusions: A number of nonpharmacological interventions can provide beneficial effects on function and/or pain that are durable 1 month to 1 year after the completion of therapy. Exercise, acupuncture, multidisciplinary rehabilitation, mind-body and mindfulness practices and psychological therapies such as cognitive-behavioral therapy may improve function or pain outcomes for specific chronic pain conditions. There was no evidence suggesting serious harms from any of the interventions studied, although data on harms were limited.

#### Health system guidelines

SIGN 2013, management of chronic pain (http://www.sign.ac.uk/guidelines/fulltext/136/index.html)

- 1) Referral to a pain management program should be considered for patients with chronic pain [C level recommendation]
- 2) Exercise and exercise therapies, regardless of their form, are recommended in the management of patients with chronic pain. [B level recommendation]
  - a. The following approaches should be used to improve adherence to exercise:
    - i. supervised exercise sessions
    - ii. individualised exercises in group settings
    - iii. addition of supplementary material
    - iv. provision of a combined group and home exercise programme.

- 1) Self management resources should be considered to complement other therapies in the treatment of patients with chronic pain. [C level recommendation]
- Paracetamol (1,000-4,000 mg/day) should be considered alone or in combination with NSAIDs in the management of pain in patients with hip or knee osteoarthritis in addition to nonpharmacological treatments. [C level recommendation]
- Topical NSAIDs should be considered in the treatment of patients with chronic pain from musculoskeletal conditions, particularly in patients who cannot tolerate oral NSAIDs. [A level recommendation]
- 4) Topical capsaicin patches (8%) should be considered in the treatment of patients with peripheral neuropathic pain when first line pharmacological therapies have been ineffective or not tolerated. [A level recommendation]
- 5) Gabapentin (titrated up to at least 1,200 mg daily) should be considered for the treatment of patients with neuropathic pain. [A level recommendation]
- 6) Pregabalin (titrated up to at least 300 mg daily) is recommended for the treatment of patients with neuropathic pain if other first and second line pharmacological treatments have failed. [A level recommendation]
- 7) Pregabalin (titrated up to at least 300 mg daily) is recommended for the treatment of patients with fibromyalgia. [A level recommendation]
- 8) Carbamazepine should be considered for the treatment of patients with neuropathic pain. Potential risks of adverse events should be discussed. [B level recommendation]
- 9) Amitriptyline (25 125 mg/day) should be considered for the treatment of patients with fibromyalgia and neuropathic pain (excluding HIV-related neuropathic pain). [A level recommendation]
- 10) Duloxetine (60 mg/day) should be considered for the treatment of patients with fibromyalgia or osteoarthritis. [A level recommendation]
- 11) Fluoxetine (20-80 mg/day) should be considered for the treatment of patients with fibromyalgia. [B level recommendation]
- 12) Cognitive behavioural therapy should be considered for the treatment of patients with chronic pain. [C level recommendation]
- 13) Manual therapy (chiropractic, etc.) only recommended for low back pain
- 14) Acupuncture should be considered for short term relief of pain in patients with chronic low back pain or osteoarthritis. [A level recommendation]

# **NICE 2013**, treatment guideline for pharmacologic management of neuropathic pain (https://www.nice.org.uk/puide.org/172)

(https://www.nice.org.uk/guidance/cg173)

- 1) Offer a choice of amitriptyline, duloxetine, gabapentin or pregabalin as initial treatment for neuropathic pain (except trigeminal neuralgia)
- 2) Do not offer opioids or long term tramadol

#### Specialty society guidelines

American Academy of Pain Medicine, 2014 (<u>http://www.painmed.org/files/minimum-insurance-benefits-for-patients-with-chronic-pain.pdf</u>)

#### **Minimum Benefits for Pain Patients**

The idea of developing a program of mandatory benefits, as espoused in this paper, would extend to pain "severe enough" to potentially benefit from such treatment, that has failed or is expected to fail

more conservative therapy, and that is not expected to resolve within the foreseeable future. At minimum, a proposed program of treatment categories should include the following framework:

- 1) Medical management
- 2) Evidence- or consensus-based interventional/procedural therapies
- 3) Ongoing behavioral/psychological/psychiatric therapies
- 4) Interdisciplinary care

5) Evidence-based complementary and integrative medicine (CIM - e.g., yoga, massage therapy, acupuncture, manipulation)

The parity in coverage for people with pain should be similar to that accorded people with mentalhealth disorders [MHPAEA 2008]. Limited visits and reimbursement is not appropriate for patients who have ongoing, sometimes progressive, incurable pain conditions.

The interdisciplinary approach may encompass some combination of the following therapeutic areas:

- Medical management
- Physical therapy
- Occupational therapy
- Biofeedback
- Vocational and recreational therapy
- Psychological counseling (e.g., CBT)
- Complementary and Integrative Medicine

At minimum, all payers should provide three months coverage for an interdisciplinary integrative pain evaluation and treatment program for people with pain that is severe enough to warrant ongoing therapy, that has failed or is not expected to respond to first-line therapies, and that is not expected to resolve in the foreseeable future.

Additionally, it is recommended that payers work with providers to set up bundles, or some form of "global fee" that covers pain diagnoses. A predetermined payment to a healthcare provider or group based on historical reimbursement for all services related to a specific diagnosis is one possible method to align incentives. Such an approach could allow for bundled services that include behavioral therapy, education, training, medical management, and physical therapy or rehabilitation. Care must be taken to adjust for higher risk and to tie financial incentives to patient outcomes. Given careful structuring and adequate oversight, alternative payment systems could allow for cost control while extending interdisciplinary care to many more patients with pain.

#### Other payer policies

 Aetna 2017, covers chronic pain programs for members with pain lasting more than 6 months not responsive to other therapies, after a thorough psychiatric evaluation. The ICD-10 codes used by Aetna for this program are G89.21 (Chronic pain due to trauma), G89.28 (Other chronic postprocedural pain), G89.29 (Other chronic pain), and G89.4 (Chronic pain syndrome). These diagnoses are all currently on line 528 FIBROMYALGIA, CHRONIC FATIGUE SYNDROME, AND RELATED DISORDERS

#### HERC staff summary

Studies on various conditions that result in chronic pain (e.g. rheumatoid arthritis, back and neck pain, osteoarthritis) find evidence of effectiveness for acupuncture, cognitive behavioral therapy, exercise therapy, and interdisciplinary pain clinics. The evidence for massage and yoga is mainly extrapolated from the previous review on treatments for back and neck pain. Chiropractic/osteopathic manipulation was not mentioned as a treatment modality other than for back/neck pain.

Non-opioid medications with evidence of benefit for treatment of some conditions resulting in chronic pain include topical NSAIDs, topical capsaicin, gabapentin, pregabalin, and duloxetine.

#### HERC staff recommendations:

- 1) Create a new line for the 2020 Biennial Review as outlined below
  - a. CPT and HCPCS codes from the medical back line
  - b. The ICD10 codes would also remain on line 528 with the guideline note detailing what is included on each line. Option would be to remove these diagnoses from line 528.
- 2) Adopt a new guideline for this line as shown below
  - a. Based on the back lines guidelines
  - b. Discuss whether medications should be include on the upper line; many of these medications are expensive
    - i. Possible entry for guideline note: Topical NSAIDs, topical capsaicin, gabapentin, pregabalin, and duloxetine
    - ii. Consider limiting various medications to certain diagnoses or certain time periods
- 3) Score this new line as shown below

#### LINE XXX CHRONIC PAIN SYNDROME

TREATMENT: LIMITED PHYSICAL MODALITIES, COGNITIVE BEHAVIORAL THERAPY, MEDICAL THERAPY <u>ICD-10</u>: G89.21 (Chronic pain due to trauma), G89.28 (Other chronic postprocedural pain), G89.29 (Other chronic pain), and G89.4 (Chronic pain syndrome)

<u>CPT</u>: 90785, 90832-90840, 90853 (psychotherapy), 96150-96155 (Health and behavior assessment and intervention), 97110-97124, 97140-97168, 97530, 97535 (PT/OT), 97810-97814 (acupuncture), 98966-98969, 99051, 99060,99070,99078,99201-99215,99281-99285,99304-99337,99340-99404,99408-99449, 99487-99490,99495,99496,99605-99607 (medical office visits, including ER and SNF) <u>HCPCS</u>: G0157-G0160,G0248-G0250,G0396,G0397,G0425-G0427,G0463-G0467,G0469,G0470,G0490, G0511,G0513,G0514

#### **GUIDELINE NOTE XXX CHRONIC PAIN THERAPY**

Lines XXX, 528

Chronic pain conditions are included on line XXX when symptoms have been present for at least 6 months and have not responded to conservative management.

The following treatments are included on line XXX

- Office evaluation, consultation and education
- Cognitive behavioral therapy. The necessity for cognitive behavioral therapy should be reevaluated every 90 days and coverage will only be continued if there is documented evidence of

decreasing depression or anxiety symptomatology, improved ability to work/function, increased self-efficacy, or other clinically significant, objective improvement.

- The following therapies, when available, may be provided: yoga, massage, supervised exercise therapy, intensive interdisciplinary rehabilitation. HCPCS S9451 is only included on Line 401 for the provision of yoga or supervised exercise therapy.
- A total of 30 visits per year of any combination of the following therapies when available and medically appropriate. These therapies are only included on these lines if provided by a provider licensed to provide the therapy and when there is documentation of measurable clinically significant progress toward the therapy plan of care goals and objectives using evidence based objective tools
  - 1) Rehabilitative therapy (physical and/or occupational therapy), if provided according to Guideline Note 6 REHABILITATIVE AND HABILITATIVE THERAPIES. Rehabilitation services provided under this guideline also count towards visit totals in Guideline Note 6. CPT 97124 is included in this category.
  - 2) Acupuncture

All other therapies, including opioid medications, are included on line 528.

Line Scoring Line XXX (line 528 scores shown in parentheses) Category: 7 (7) HL: 4 (4) Suffering: 3 (3) Population effects: 0 (0) Vulnerable population: 0 (0) Tertiary prevention: 1 (0) Effectiveness: 2 (1) Need for service: 0.9 (0.8) Net cost: 2 (2) Score: 288 Approximate line placement: 443

# PAIN

# The persistence of the effects of acupuncture after a course of treatment: a meta-analysis of patients with chronic pain

H. MacPherson<sup>a,\*</sup>, E.A. Vertosick<sup>b</sup>, N.E. Foster<sup>c</sup>, G. Lewith<sup>d</sup>, K. Linde<sup>e</sup>, K.J. Sherman<sup>f</sup>, C.M. Witt<sup>g,h,i</sup>, A.J. Vickers<sup>b</sup>, On behalf of the Acupuncture Trialists' Collaboration

#### Abstract

There is uncertainty regarding how long the effects of acupuncture treatment persist after a course of treatment. We aimed to determine the trajectory of pain scores over time after acupuncture, using a large individual patient data set from high-quality randomized trials of acupuncture for chronic pain. The available individual patient data set included 29 trials and 17,922 patients. The chronic pain conditions included musculoskeletal pain (low back, neck, and shoulder), osteoarthritis of the knee, and headache/ migraine. We used meta-analytic techniques to determine the trajectory of posttreatment pain scores. Data on longer term follow-up were available for 20 trials, including 6376 patients. In trials comparing acupuncture to no acupuncture control (wait-list, usual care, etc), effect sizes diminished by a nonsignificant 0.011 SD per 3 months (95% confidence interval: -0.014 to 0.037, P = 0.4) after treatment ended. The central estimate suggests that approximately 90% of the benefit of acupuncture relative to controls would be sustained at 12 months. For trials comparing acupuncture to sham, we observed a reduction in effect size of 0.025 SD per 3 months (95% confidence interval: 0.000-0.050, P = 0.050), suggesting approximately a 50% diminution at 12 months. The effects of a course of acupuncture treatment for patients with chronic pain do not seem to decrease importantly over 12 months. Patients can generally be reassured that treatment effects persist. Studies of the cost-effectiveness of acupuncture should take our findings into account when considering the time horizon of acupuncture effects. Further research should measure longer term outcomes of acupuncture.

Keywords: Acupuncture, Chronic pain, Meta-analysis, Trajectory

#### 1. Introduction

In an individual patient data meta-analysis of nearly 18,000 patients on high-quality randomized trials involving patients with chronic pain, the Acupuncture Trialists' Collaboration reported that acupuncture provided small but statistically significant benefits over sham (placebo) acupuncture, a result that can be

Sponsorships or competing interests that may be relevant to content are disclosed at the end of this article.

Members of the Acupuncture Trialists' Collaboration are listed in the acknowledgements at the end of the article.

<sup>a</sup> Department of Health Sciences, University of York, York, United Kingdom, <sup>b</sup> Department of Epidemiology and Biostatistics, Memorial Sloan-Kettering Cancer Center, New York, NY, USA, <sup>c</sup> Research Institute for Primary Care and Health Sciences, Keele University, Keele, United Kingdom, <sup>a</sup> Department of Primary Care, University of Southampton, Southampton, United Kingdom, <sup>e</sup> Institute of General Practice, Technische Universität München, München, Germany, <sup>f</sup> Group Health Research Institute, Seattle, WA, USA, <sup>g</sup> Institute for Complementary and Integrative Medicine, University Hospital Zurich, University of Zurich, Zurich, Switzerland, <sup>h</sup> Institute for Social Medicine, Epidemiology and Health Economics, Charité—Universitätsmedizin, Berlin, Germany, <sup>l</sup> Center for Integrative Medicine, University of Maryland School of Medicine, Baltimore, MD, USA

\*Corresponding author. Address: Department of Health Sciences, University of York, York YO10 5DD, United Kingdom. Tel.: 44+(0)1904 321394. E-mail address: hugh.macpherson@york.ac.uk (H. MacPherson).

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© 2016 International Association for the Study of Pain http://dx.doi.org/10.1097/j.pain.0000000000000747 distinguished from bias.<sup>35</sup> Moreover, a robust and larger effect size was observed when acupuncture was compared with no acupuncture control, with the difference being clinically relevant.<sup>35</sup> The data from each trial entered into the collaboration meta-analysis were the outcomes at the trial's primary endpoint. For instance, if a trial measured outcome after 12 weeks of treatment and then 3 months later, but the authors specified the posttreatment follow-up as primary, then it would be the 12-week follow-up used in the meta-analysis.

For approximately two-thirds of the trials in the meta-analysis, the primary endpoint was between 1 and 3 months after the end of treatment. The primary endpoint was 1 year or more after randomization for only 3 trials. This is problematic in the context of chronic pain. For a patient who has endured chronic pain for a decade or more, the promise of a few months relief, while welcome, is less relevant than the question of whether an intervention provides benefits over the longer term. The duration of acupuncture effects also has clear health economic implications. Whether the benefits of a course of acupuncture treatment are worth its cost depends critically on how long those benefits last.

In this article, we analyze individual patient data from the Acupuncture Trialists' Collaboration to determine the time course of acupuncture effects. We sought to take advantage of the fact that many of the eligible trials measured outcome at more than one time point after the end of treatment. By comparing how differences between groups change between 2 posttreatment time points, we aimed to estimate the degree to which the effects of acupuncture persist.

the**bm**i

# Management of chronic pain using complementary and integrative medicine

Lucy Chen,<sup>1 2</sup> Andreas Michalsen<sup>3 4</sup>

#### ABSTRACT

Complementary and integrative medicine (CIM) encompasses both Western-style medicine and complementary health approaches as a new combined approach to treat a variety of clinical conditions. Chronic pain is the leading indication for use of CIM, and about 33% of adults and 12% of children in the US have used it in this context. Although advances have been made in treatments for chronic pain, it remains inadequately controlled for many people. Adverse effects and complications of analgesic drugs, such as addiction, kidney failure, and gastrointestinal bleeding, also limit their use. CIM offers a multimodality treatment approach that can tackle the multidimensional nature of pain with fewer or no serious adverse effects. This review focuses on the use of CIM in three conditions with a high incidence of chronic pain: back pain, neck pain, and rheumatoid arthritis. It summarizes research on the mechanisms of action and clinical studies on the efficacy of commonly used CIM modalities such as acupuncture, mind-body system, dietary interventions and fasting, and herbal medicine and nutrients.

#### Introduction

Chronic pain, a term that often refers to pain conditions that last more than three months,<sup>1</sup> is a common reason for patients to seek medical assistance. Clinically relevant chronic pain conditions include back and neck pain, migraine and other headaches, osteoarthritis, rheumatic arthritis, fibromyalgia, neuropathic pain, and cancer related pain. This review focuses on chronic back and neck pain and rheumatoid arthritis as important examples of chronic pain owing to their high incidence. Although advances have been made in pharmacological and interventional (eg, nerve block) treatments for chronic pain, it remains inadequately controlled for many people. Moreover, side effects and complications of treatment, such as addiction to opioid analgesics, kidney failure, or gastrointestinal bleeding due to long term use of drugs, make the management of chronic pain difficult.

The concept of complementary and integrative medicine (CIM) encompasses both Western-style medicine and complementary health approaches as a new combined approach to treat a variety of clinical conditions. CIM may have a unique role in chronic pain management because the multidimensional nature of the pain experience requires a multimodality treatment approach. Recent advances in basic science and clinical research on CIM have substantially increased patients' awareness about the potential therapeutic use of CIM.

This review summarizes the evidence from basic science and clinical research on the role of CIM in clinical symptoms (eg, pain) associated with rheumatoid arthritis and chronic neck and back pain.

#### **GLOSSARY OF ABBREVIATIONS**

ACR—American College of Rheumatology CBT-cognitive behavioral therapy CIM—complementary and integrative medicine CLBP—chronic low back pain CNP—chronic neck pain DMARD-disease modifying anti-rheumatic drug GLA-y-linolenic acid MBSR-mindfulness based stress reduction MRI-magnetic resonance imaging NHIS-National Health Interview Survey NSAID—non-steroidal anti-inflammatory drug NSP-needle stimulation pad RCT-randomized controlled trial SMD-standardized mean difference TNF-a-tumor necrosis factor-a TWH-Tripterygium Wilfordii Hook F

#### Incidence/prevalence

In the US, about 25.3 million adults have daily chronic pain and 23.4 million adults experience a substantial level of pain.<sup>2</sup> The incidence of chronic low back pain, neck pain, and arthritic pain can be as high as 29%, 15.7%, and 28%, respectively, in American adult populations.<sup>3</sup> According to the World Health Organization's 2010 Global Burden of Disease Study estimation, low back pain is among the top 10 clinical conditions that affect all age groups, peaking at ages 35 to 55 years. The lifetime prevalence of low back pain is estimated at 60-70% in several countries.<sup>4</sup>

<sup>1</sup>MGH Center for Translational Pain Research, Pain Management Center of MGH, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital. Boston, MA 02114, USA <sup>2</sup>Harvard Medical School, Boston, MA 02115. USA <sup>3</sup>Institute for Social Medicine, Epidemiology and Health Economics and Immanuel Hospital Berlin, Berlin, Germany <sup>4</sup>Charité - Universitätsmedizin Berlin, Berlin, Germany Correspondence to: L Chen llchen@mgh.harvard.edu Cite this as: BMI 2017:357:i1284 doi: 10.1136/bmj.j1284

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#### **Non-Analgesics for Pain Management**

By Deanna Moretz, PharmD, BCPS, OSU College of Pharmacy Drug Utilization Research and Management

Due to the adverse impact of prolonged long term opiate therapy including overdose, abuse, and dependence, there is increased interest in alternative therapies to manage chronic non-cancer pain.<sup>1</sup> Antidepressants and antiepileptics are two classes of medications that have been studied in neuropathic and other chronic pain conditions. The interpretation of pain trials is difficult to a number of potential biases in study design. Most of the trials are of short duration with a small number of subjects. In addition to evaluating the risk of potential biases, it is difficult to compare studies because randomized controlled trials (RCTs) differ substantially in research design.<sup>2</sup> The outcomes have also varied; newer RCTs have used measures such as daily numeric ratings of pain intensity and measures of health-related quality of life that were not collected in many older RCTs.<sup>3</sup> In general, most trials of effective treatments have found that less than 50% of patients achieve satisfactory pain relief.<sup>3</sup> The focus of this review will be on the comparative safety and effectiveness of non-analgesics such as antidepressants, antiepileptics and topical lidocaine used to manage various pain conditions outlined in **Table 1**.

Condition	Duloxetine	Milnacipran	Gabapentin	Pregabalin	Carbamazepine	Topical Lidocaine
Diabetic Neuropathy	Х			Х		
Postherpetic Neuropathy			Х	Х		Х
Fibromyalgia		Х		Х		
Chronic Musculoskeletal Pain						
Trigeminal Neuralgia					Х	
Neuropathic pain associated with spinal cord injury				Х		

Table 1. FDA approved pain indications for selected medications<sup>4-8</sup>

#### **Tricyclic Antidepressants in Neuropathic Pain**

Tricyclic antidepressants, which include amitriptyline, imipramine, nortriptyline and desipramine, have been shown to be effective in the off-label treatment of a variety of painful neuropathic conditions including diabetic peripheral neuropathy (DPN), post-herpetic neuropathy (PHN), polyneuropathy, and post-stroke pain.<sup>9</sup> Guidelines for neuropathic pain prefer nortriptyline and desipramine, over amitriptyline because they provide comparable pain relief while causing fewer anticholinergic side effects.<sup>3</sup>

The most recent Cochrane review evaluating the safety and efficacy of amitriptyline in neuropathic pain was published in 2015.<sup>10</sup> In a pooled analysis from the DPN, PHN and mixed neuropathic pain trials (n=382, 4 trials), amitriptyline was shown to be more beneficial than placebo in managing neuropathic pain (Relative Risk (RR) 2.0; 95% CI 1.5 to 2.8). <sup>10</sup> Due to the small sample size in many of these studies, they are at high risk for bias which compromises the quality of the evidence. More participants who received amitriptyline experienced at least one adverse event compared to placebo (55% vs. 36%, respectively; RR 1.5; 95% CI 1.3 to 1.8).<sup>10</sup> The number needed to harm (NNH) for one additional harmful outcome was 5 (95% CI 3.6 to 9.1).<sup>10</sup> Serious adverse events were rare.

A 2014 Cochrane review examined the efficacy of desipramine in 5 studies that treated 177 participants with DPN or PHN.<sup>11</sup> Desipramine doses ranged from 100 mg to 150 mg once daily following titration. Low quality evidence in individual studies indicated some improvement in pain relief with desipramine compared with placebo. There was insufficient data for active treatment comparisons.<sup>11</sup> Participants taking desipramine experienced more adverse events, and a higher rate of withdrawal due to adverse events, than did participants taking placebo.<sup>11</sup>

In summary, very low quality evidence demonstrates the marginal benefit of TCAs in managing neuropathic pain. Most of these studies are older and contain methodological deficiencies which makes it difficult to apply their results to patient care.

In addition, the adverse effects of TCAs, particularly in elderly patients, are well documented and limit their use. The possibility of over sedation leading to increased risk of falling and possible bone fracture is particularly problematic in older patients.

#### Serotonin and Norepinephrine Reuptake Inhibitors in Neuropathic Pain

Another class of antidepressants, the serotonin and norepinephrine reuptake inhibitors (SNRIs), has also shown efficacy in treating peripheral neuropathic pain and other chronic pain conditions.<sup>3</sup> Specific SNRI's studied in pain management include duloxetine, milnacipran, and venlafaxine. Only duloxetine and milnacipran have FDA approved indications for treating specific pain conditions as summarized in **Table 1**. Milnacipran does not have FDA approval for management of depression and is only indicated for treatment of fibromyalgia. Although venlafaxine has been studied in pain management, it is primarily used to treat depression. Duloxetine has emerged as the SNRI with the most evidence to support its use in managing a variety of pain conditions including neuropathy, fibromyalgia, and chronic musculoskeletal pain.

A 2014 Cochrane review assessed the benefits and harms of duloxetine in treating painful neuropathy and chronic pain.<sup>9</sup> Duloxetine 60 mg once daily was shown to be effective compared to placebo in treatment of painful DPN, with a RR for  $\geq 50\%$  pain reduction at 12 weeks of 1.73 (95% CI 1.44 to 2.08).<sup>12</sup> The estimated NNT was 5 (95% CI 4 to 7).<sup>9</sup> When compared to placebo in 48 patients with central neuropathic pain, duloxetine showed no effect in improving pain over 12 weeks as measured on a 1-10 Visual Analog Scale (VAS) (Mean Difference (MD) -1.0; 95% CI -2.05 to 0.05).<sup>9</sup> Adverse events were common in both treatment and placebo arms but more common in the treatment arm, with a dose-dependent effect.<sup>9</sup> Serious adverse events were rare. However, 12.6% of trial participants stopped duloxetine due to adverse effects.<sup>12</sup> Moderate quality evidence supports the efficacy of duloxetine in treating DPN when compared to placebo. Adverse effects such as nausea, drowsiness, dry mouth and constipation increase when patients are titrated up to 120 mg per day of duloxetine.

#### **Antiepileptics in Neuropathic Pain**

The first antiepileptic used in clinical trials to treat a neuropathic pain disorder was carbamazepine. Carbamazepine and its derivative oxcarbazepine are used for the treatment of trigeminal neuralgia, but have not been shown to be as effective in treating other neuropathic pain disorders.<sup>3</sup> Gabapentin and pregabalin have both been shown to be effective when compared with placebo in treating painful DPN, PHN, polyneuropathy, neuropathic cancer pain, central post-stroke pain, and spinal cord injury pain.<sup>3</sup> Other antiepileptic drugs such as topiramate, valproic acid, levetiracetam, zonisamide, tiagabine and lamotrigine have been studied for various neuropathic pain disorders; however, evidence of their effectiveness is lacking.<sup>3</sup> A 2007 systematic review of lamotrigine for acute and chronic pain concluded it does not have a place in the treatment of pain, given other more effective therapies.<sup>13</sup>

A 2013 Cochrane review assessed the evidence for antiepileptics in treatment of neuropathic pain.<sup>11</sup> Ninety-one studies including 17,955 subjects were included in the review. Antiepileptics studied for management of neuropathic pain included carbamazepine, gabapentin, lacosamide, lamotrigine, oxcarbazepine, pregabalin, topiramate, and valproic acid. Most of the studies were conducted over short durations (i.e., 6 weeks) in small sample sizes.

Trials for gabapentin versus placebo in DPN utilized a wide range of doses from 600 to 3600 mg per day to reduce pain intensity by 50% from baseline (RR 1.8; 95% CI 1.4-2.2) with a NNT of 5 (95% CI 4.3-9.0).<sup>14</sup> In contrast, relief of PHN with gabapentin required higher daily doses (1800-3600 mg) for at least a 50% reduction in pain intensity compared to placebo (RR 1.7; 95% CI 1.3-2.2) with a NNT of 8 (95% CI 6-14) in 3 studies comprised of 892 subjects.<sup>11</sup> Pregabalin 300

mg and 600 mg once daily gave similar results relative to placebo in reducing PHN pain intensity by 50% from baseline (RR 2.7; 95% CI 1.9-4.0 and RR 2.8; 95% CI 2.0-3.9, respectively).<sup>11</sup> For relief of central neuropathic pain, the only data available was with pregabalin 600 mg once daily. In 2 studies with a total of 176 patients, pregabalin compared to placebo showed a 50% pain reduction with a RR of 3.6 (95% CI 1.5-8.4) and NNT of 6 (95% CI 4-14).<sup>11</sup> Moderate quality evidence indicated little or no effect for lamotrigine, oxcarbazepine and topiramate in treatment of neuropathic pain.<sup>11</sup> There was insufficient evidence of efficacy for valproic acid, lacosamide, levetiracetam, and phenytoin in treatment of neuropathic pain.<sup>11</sup> Withdrawals due to adverse events were much higher with antiepileptics than placebo except for carbamazepine, where studies were of short duration, and for the low dose of pregabalin 150 mg once daily.<sup>11</sup> Numbers needed to harm (NNH) decreased as doses increased for pregabalin and lacosamide. About 80% of participants experienced an adverse event with an antiepileptic, compared to about 70% of participants receiving placebo.<sup>11</sup>

Moderate quality evidence supports the utilization of gabapentin and pregabalin in managing peripheral neuropathic pain. Pregabalin has the additional FDA indication to manage central neuropathic pain due to spinal cord injury. Carbamazepine is FDA approved for treating trigeminal neuralgia. Of note, patient withdrawals due to adverse effects with the antiepileptics were higher compared to placebo. Significant adverse effects include central nervous system depression, dry mouth, blurred vision, and peripheral edema.

#### Lidocaine Patch in Neuropathic Pain

The lidocaine patch is approved for relief of pain associated with PHN.<sup>7</sup> The FDA approval was based on one unpublished trial in a single dose study in 35 PHN patients whose pain intensity was monitored over 12 hours.<sup>6</sup> After reviewing the initial study, the FDA requested more data. Therefore, an additional open label, multiple dose, 2-week treatment trial was conducted in 32 subjects who had responded in the previous study. Statistically significant differences favoring the lidocaine patch over observation (no treatment) were noted in terms of time to exit from the trial (14 versus 3.8 days; p <0.001).<sup>7</sup> A 2014 Cochrane review found insufficient evidence to support the use of topical lidocaine formulations for peripheral neuropathic pain.<sup>15</sup>

#### Pharmacologic Treatments for Lower Back Pain

A 2016 Agency for Healthcare Research and Quality (AHRQ) report of noninvasive treatments for lower back pain (LBP) evaluated systematic reviews of pharmacologic treatments for nonradicular or radicular LBP.<sup>16</sup> Most of the trials enrolled patients with pain symptoms of at least moderate intensity (> 5 on a 0-10 numeric rating scale for pain).<sup>15</sup> Pain intensity was the most commonly reported outcome. Pharmacological treatments included nonsteroidal anti-inflammatory drugs, acetaminophen, opiates, muscle relaxants, antiepileptics, and antidepressants.<sup>15</sup> For LBP, one systematic review found no differences in pain between TCAs and placebo (4 trials; Standardized Mean Difference (SMD) = -0.10; 95% CI -0.51 to 0.31; I2 = 32%).<sup>15</sup> Three placebocontrolled trials of moderate quality evaluated duloxetine in management of chronic LBP and found duloxetine was associated with lower pain intensity (differences: 0.58 to 0.74 on a 0-10 scale) and better function (differences 0.58 to 0.74 on the Brief Pain Inventory-Interference on a 0 -10 scale) than placebo.<sup>15</sup> No studies compared TCAs with duloxetine. Moderate quality evidence showed TCAs were associated with high risk of adverse events compared with placebo, although there was no difference in the risk of serious adverse effects.<sup>15</sup> There was insufficient evidence to evaluate the effect of antiepileptics on controlling acute nonradicular LBP.15

#### **Guidelines**

The International Association for the Study of Pain (IASP) 2015 guidelines support the use of pregabalin, gabapentin, and duloxetine as first line agents for treatment of neuropathic pain based on their panel's assessment of high quality evidence.<sup>16</sup> Moderate to low quality evidence supports the use of TCAs as first line agents in managing neuropathic pain. Lidocaine patches are no longer recommended as first line agents due to the weak quality of evidence supporting their efficacy.<sup>16</sup> The National Institute for Health and Care Excellence (NICE) 2014 guidelines support IASP recommendations.<sup>17</sup>

#### Conclusions

Most of the studies evaluating treatment of pain are small, of short duration, and may overestimate treatment effect, so they are graded as low to moderate quality. Moderate quality evidence supports the safety and efficacy of duloxetine and pregabalin as alternatives to morphine in managing several non-cancer pain conditions including DPN, PHN and central neuropathic pain. Duloxetine has also shown to be marginally effective in managing lower back pain. Although the TCAs may be considered as morphine alternatives to managing pain, their adverse effects often limit patient satisfaction.

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Psychological therapies for the management of chronic pain

# (excluding headache) in adults (Review)

Williams ACDC, Eccleston C, Morley S

Williams ACDC, Eccleston C, Morley S.
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[Intervention Review]

# Psychological therapies for the management of chronic pain (excluding headache) in adults

Amanda C de C Williams<sup>1</sup>, Christopher Eccleston<sup>2</sup>, Stephen Morley<sup>3a</sup>

<sup>1</sup>Research Department of Clinical, Educational & Health Psychology, University College London, London, UK. <sup>2</sup>Centre for Pain Research, University of Bath, Bath, UK. <sup>3</sup>University of Leeds, Leeds, UK

<sup>a</sup>Deceased

Contact address: Amanda C de C Williams, Research Department of Clinical, Educational & Health Psychology, University College London, Gower Street, London, WC1E 6BT, UK. amanda.williams@ucl.ac.uk, ucjtamw@ucl.ac.uk.

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#### ABSTRACT

#### Background

Psychological treatments are designed to treat pain, distress and disability, and are in common practice. This review updates and extends the 2009 version of this systematic review.

#### Objectives

To evaluate the effectiveness of psychological therapies for chronic pain (excluding headache) in adults, compared with treatment as usual, waiting list control, or placebo control, for pain, disability, mood and catastrophic thinking.

#### Search methods

We identified randomised controlled trials (RCTs) of psychological therapy by searching CENTRAL, MEDLINE, EMBASE and Psychlit from the beginning of each abstracting service until September 2011. We identified additional studies from the reference lists of retrieved papers and from discussion with investigators.

#### Selection criteria

Full publications of RCTs of psychological treatments compared with an active treatment, waiting list or treatment as usual. We excluded studies if the pain was primarily headache, or was associated with a malignant disease. We also excluded studies if the number of patients in any treatment arm was less than 20.

#### Data collection and analysis

Forty-two studies met our criteria and 35 (4788 participants) provided data. Two authors rated all studies. We coded risk of bias as well as both the quality of the treatments and the methods using a scale designed for the purpose. We compared two main classes of treatment (cognitive behavioural therapy(CBT) and behaviour therapy) with two control conditions (treatment as usual; active control) at two assessment points (immediately following treatment and six months or more following treatment), giving eight comparisons. For each comparison, we assessed treatment effectiveness on four outcomes: pain, disability, mood and catastrophic thinking, giving a total of 32 possible analyses, of which there were data for 25.

Psychological therapies for the management of chronic pain (excluding headache) in adults (Review) Copyright © 2017 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.



#### Main results

Overall there is an absence of evidence for behaviour therapy, except a small improvement in mood immediately following treatment when compared with an active control. CBT has small positive effects on disability and catastrophising, but not on pain or mood, when compared with active controls. CBT has small to moderate effects on pain, disability, mood and catastrophising immediately post-treatment when compared with treatment as usual/waiting list, but all except a small effect on mood had disappeared at followup. At present there are insufficient data on the quality or content of treatment to investigate their influence on outcome. The quality of the trial design has improved over time but the quality of treatments has not.

#### Authors' conclusions

Benefits of CBT emerged almost entirely from comparisons with treatment as usual/waiting list, not with active controls. CBT but not behaviour therapy has weak effects in improving pain, but only immediately post-treatment and when compared with treatment as usual/waiting list. CBT but not behaviour therapy has small effects on disability associated with chronic pain, with some maintenance at six months. CBT is effective in altering mood and catastrophising outcomes, when compared with treatment as usual/waiting list, with some evidence that this is maintained at six months. Behaviour therapy has no effects on mood, but showed an effect on catastrophising immediately post-treatment. CBT is a useful approach to the management of chronic pain. There is no need for more general RCTs reporting group means: rather, different types of studies and analyses are needed to identify which components of CBT work for which type of patient on which outcome/s, and to try to understand why.

#### PLAIN LANGUAGE SUMMARY

#### Psychological therapy for adults with longstanding distressing pain and disability

Many people have pain that lasts for a long time, pain that is not relieved by drugs, surgery or physical therapy. The search for a diagnosis and for pain relief is often long, discouraging and even damaging. For some people, the pain leads to disability, depression, anxiety and social isolation. It is also associated with a tendency to experience much or all in life as ruined by pain, as a catastrophe that is impossible to control. These major life changes are not inevitable and are thought to be at least partly reversible using a treatment which aims to reduce disability and distress despite continuing pain. Treatment is based on robust psychological principles that have developed over 40 years of clinical use.

Our search found 42 trials of treatments which met our criteria, but only 35 provided data in a form that could be used. The two main types of psychological treatment are called cognitive behavioural therapy (CBT) and behaviour therapy. Both focus on helping people to change behaviour that maintains or worsens pain, disability, distress and catastrophic thinking; CBT also directly addresses the thoughts and feelings that are a problem for people with persistent pain. The effects of these two treatments on pain, disability, mood and catastrophic thinking were tested immediately after the treatment, and six months later.

Small to moderate benefits, more for disability, mood and catastrophic thinking than for pain, were found in trials which compared CBT with no treatment. Some of these were still positive six months later. Behaviour therapy showed few and only brief benefits. Psychological therapies can help people with chronic pain reduce negative mood (depression and anxiety), disability, catastrophic thinking, and in some cases, pain. Although the overall effect is positive, we do not know enough about exactly which type of treatment is best for which person.



# **Chronic Pain Programs**

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#### Policy

Aetna considers a screening examination medically necessary for members who are being considered for admission into a chronic pain program.

I. Outpatient Pain Management Programs

Aetna considers outpatient multi-disciplinary pain management programs medically necessary when *all* of the following criteria are met:

- If a surgical procedure or acute medical treatment is indicated, it has been performed prior to entry into the pain program; *and*
- Member has experienced chronic non-malignant pain (not cancer pain) for 6 months or more; and
- Member has failed conventional methods of treatment; and
- Member has undergone a mental health evaluation, and any primary psychiatric conditions have been treated, where indicated; *and*
- Member's work or lifestyle has been significantly impaired due to chronic pain; and
- Referral for entry has been made by the primary care physician/attending physician; and
- The cause of the member's pain is unknown or attributable to a physical cause, i.e., not purely psychogenic in origin.

Aetna considers entry into an outpatient multi-disciplinary chronic pain program of no proven benefit for members with *any* of the following contraindications:

- Member exhibits aggressive and/or violent behavior; or
- Member exhibits imminently suicidal tendencies; or
- Member has previously failed an adequate multi-disciplinary (e.g., Commission on Accreditation of Rehabilitation Facilities (CARF) accredited) chronic pain management program; or
- Member has unrealistic expectations of what can be accomplished from the program (i.e., member expects an immediate cure); *or*
- Member is medically unstable (e.g., due to uncontrollable high blood pressure, unstable congestive heart failure, or other medical conditions); *or*
- Member is unable to understand and carry out instructions.

Pain is considered chronic if it results from a chronic pathological process, has recurred periodically over months or years, or persists longer than expected after an illness or injury. Typically, pain is considered chronic if it has persisted for 6 months or more.

Modality-oriented pain clinics and single disciplinary pain clinics are considered not medically necessary and inappropriate for comprehensive treatment of members with chronic pain.

<u>Note</u>: Dependence or addiction to narcotics or other controlled substances is frequently part of the presentation of a member with chronic pain. Issues surrounding addiction, detoxification must be considered and evaluated prior to enrollment of a member into a pain management program.

#### II. Inpatient Pain Management Programs

Actna considers entry into an inpatient multi-disciplinary pain management program for up to 21 days medically necessary when members meet the above criteria for entry into an outpatient pain management program as well as *all* of the following criteria:

- Member has major functional disabilities; and
- Member needs extensive psychological or behavioral therapy; and
- Member needs temporary removal from a detrimental home situation to re-focus their lives away from the pain; *and*
- The pain has caused extensive disruption in family functioning.

<u>Note</u>: Most inpatient chronic pain treatment programs require both medical and psychological evaluations before admission into the program. These evaluations should be performed on an outpatient basis; inpatient admission for these evaluations is considered not medically necessary. Participation in inpatient pain management programs for more than 21 days is subject to medical necessity review. Continued inpatient chronic pain treatment is considered not medically necessary for members who are not participating (e.g., failure to attend scheduled treatment sessions) in the program. An inpatient chronic pain management program is considered not medically necessary for persons who have failed a prior adequate multi-disciplinary (e.g., CARF accredited) chronic pain management program.

<u>Note</u>: Neuropsychological evaluation/testing is of no proven benefit for members with chronic pain being considered for treatment solely with narcotic pain medication. See <u>CPB 0158 - Neuropsychological and</u> <u>Psychological Testing</u>.

#### Background

Pain is considered chronic if it persists longer than expected after an illness or injury, if it is associated with a chronic pathological process, or if it flares up periodically over months to years. Typically, pain is considered chronic if it has lasted 6 months or more. Chronic pain may be caused by physical, psychological, and environmental factors. It can be categorized as malignant or non-malignant in etiology. Chronic non-malignant pain encompasses many painful disorders such as back pain, migraine headaches, diabetic neuropathy, dental and orofacial pain, arthritic pain and pain due to musculo-skeletal/rheumatic disorders.

Pain rehabilitation programs are a relatively new and innovative approach to the treatment of chronic, intractable nonmalignant pain. The goal of such programs is to give patients the tools to manage and control their pain and thereby improve their ability to function independently. Comprehensive treatment of chronic pain must address both physical and psychological aspects; thus, inter-disciplinary approaches to pain management involve medical management, physical therapy, occupational therapy, biofeedback, vocational and recreational therapy, and psychological counseling. Collaboration among therapists, psychologists, and other supportive resources is important to delivering effective pain treatments.

Chronic pain patients often have psychological problems that accompany or stem from physical pain. Hence, it is appropriate to include psychological treatment in the multi-disciplinary approach to pain management. However, patients whose pain results solely or primarily from psychiatric disorders rather than physical conditions generally can not be successfully treated in a pain rehabilitation program.

Hospital-level pain rehabilitation programs use coordinated multi-disciplinary teams to deliver, in a controlled environment, a concentrated program to modify pain behavior, which addresses physiological, psychological, and social factors that may contribute to the patient's pain. Such programs generally include diagnostic testing, skilled nursing,

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psychotherapy, structured progressive withdrawal from pain medications, physical therapy and occupational therapy to restore physical fitness (mobility and endurance) to a maximal level within the constraints of a patient's physical disability, and the use of mechanical devices and/or activities to relieve pain or modify a patient's reaction to it (e.g., nerve stimulation, hydrotherapy, massage, ice, systemic muscle relaxation training, and diversional activities). The program's day-to-day activities are under the general supervision and, as needed, direct supervision of a physician.

The literature suggests that generally up to 3 weeks of inpatient care may be required to modify pain behavior. Any chronic pain rehabilitation that may be needed after that can usually be effectively provided on an outpatient basis. Although many multi-disciplinary pain facilities have both inpatient and outpatient treatment programs, there is little evidence that inpatient programs are more effective than outpatient programs. Outpatient pain rehabilitation programs frequently provide services in group settings, even though these services are being furnished pursuant to each patient's individualized plan of treatment.

There is sufficient evidence that multi-disciplinary pain treatment clinics/centers are effective for the management of appropriately selected patients with chronic non-malignant pain. Studies have shown that chronic pain patients who have completed these programs have lasting reductions in pain and psychological distress. These studies have demonstrated improvements both in subjective ratings of pain and in objective measures such as reduced use of narcotic pain medications, increased rates of return-to-work, and decreased utilization of the health care system.

A systematic evidence review by the Swedish Council on Technology Assessment in Health Care (SBU, 2006) concluded that "rehabilitation programs, referred to as multimodal rehabilitation (usually a combination of psychological interventions and physical activity, physical exercise or physical therapy) is that pain decreases more, a greater number of people return to work and sick leaves are shorter than with passive control and/or limited, separate interventions." The SBU assessment also found that multi-modal rehabilitation improves long-term functional ability in fibromyalgia patients more effectively than passive control or limited, separate interventions.

An assessment of multidisciplinary pain programs for chronic non-cancer pain, preparted for the Agency for Healthcare Research and Quality (Jeffery, et al, 2011) found that multidisciplinary pain programs have been extensively documented in the standard medical literature. The 183 papers considered in the AHRQ assessment followed a biopsychosocial model of chronic pain, including treatment components in each of four areas: medical, behavioral, physical reconditioning, and education. Most of the studies considered in the AHRQ assessment were observational before-after designs. Although several different clinical conditions were studied, 90 percent of the studies included chronic back pain, the most frequent condition addressed in the literature. The report noted that differences were apparent between studies based in the United States and those in Europe; recent European studies were more likely than U.S. studies to include inpatient delivery of multidisciplinary pain program treatment. Declining access to multidisciplinary pain program treatment in the United States is highlighted as a key issue faced by those in the community of chronic pain sufferers and researchers.

Heutink et al (2012) evaluated a multi-disciplinary cognitive behavioral treatment program for persons with chronic neuropathic pain after spinal cord injury (SCI). The intervention consisted of educational, cognitive, and behavioral elements. A total of 61 people were randomized to either the intervention group or the waiting list control group in 4 Dutch rehabilitation centers. Primary outcomes were pain intensity and pain-related disability (Chronic Pain Grade questionnaire), and secondary outcomes were mood (Hospital Anxiety and Depression Scale), participation in activities (Utrecht Activities List), and life satisfaction (Life Satisfaction Questionnaire). Measurements were performed at baseline, and at 3, and 6 months follow-up. The primary statistical technique was random co-efficient analysis. The analyses showed significant changes over time on both primary (t1 - t2), and 2 out of 4 secondary outcomes (both t1-t2 and t1-t3). Significant intervention effects (Time\*Group interactions) were found for anxiety and participation in activities group that were not seen in the control group: decrease of pain intensity, pain-related disability, anxiety, and increase of participation in activities. The authors concluded that these findings implied that a multi-disciplinary cognitive behavioral program might have beneficial effects on people with chronic neuropathic SCI pain.

### CPT Codes / HCPCS Codes / ICD-10 Codes

Information in the [brackets] below has been added for clarification purposes. Codes requiring a 7th character are represented by "+":

ICD-10 codes will become effective as of October 1, 2015 :

#### CPT codes not covered for indications listed in the CPB:

96118 - 96120	Neuropsychological testing (e.g., Halstead-Reitan, Weschsler Memory Scales, Wisconsin Card Sorting Test)
Other CPT codes relat	ed to the CPB:
64550 - 64595	Neurostimulators
90785	Interactive complexity (list separately in addition to the code for primary procedure)
90791	Psychiatric diagnostic evaluation
90792	Psychiatric diagnostic evaluation with medical services
90832 - 90838	Psychotherapy
90845 - 90853	Psychotherapy for crisis
96150	Health and behavior assessment (e.g., health-focused clinical interview, behavioral observations, psychophysiological monitoring, health-oriented questionnaires), each 15 minutes face-to-face with the patient; initial assessment
97010 - 97546	Therapeutic procedures
ICD-10 codes covered	if selection criteria are met :
G89.21 - G89.3	Chronic pain, not elsewhere classified
G89.4	Chronic pain syndrome

#### The above policy is based on the following references:

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# **Policy History**

- <u>Last Review</u> 04/14/2017 Effective: 05/07/1998 Next Review: 02/22/2018
- <u>Review History</u>
- <u>Definitions</u>

# **Additional Information**

• <u>Clinical Policy Bulletin Notes</u>

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