Technology Guidance

Acupuncture

for adults with low back pain and neck pain

Technology Guidance from the MOH Medical Technology Advisory Committee

Guidance Recommendations

The Ministry of Health's Medical Technology Advisory Committee has recommended subsidy for adults with low back pain and neck pain in line with the following criteria:

- ✓ Needled acupuncture (with or without electrostimulation) performed in public healthcare institutions (PHIs) for pain reduction or functional improvement in adults aged 18 years and above, following formal diagnosis and recommendation by a referring medical specialist in a PHI, for:
  - Low back pain, including pain radiating to the leg(s);
  - Neck pain, including pain radiating to the shoulder(s).

- ✓ It can be administered for up to 12 sessions within 3 months from treatment initiation unless treatment needs to be delayed for valid medical reasons.

- ✓ Subsequent treatment of up to 12 more sessions within the next 3 months, unless treatment needs to be delayed due to valid medical reasons, is subject to the reviewing medical specialist's assessment of sustained pain reduction or functional improvement for the patient.

- ✓ It shall be performed by acupuncturists registered with the Traditional Chinese Medicine Practitioners Board (TCMPB) in accordance with minimum practice standards defined by the TCM Branch of MOH.

Funding status

Needled acupuncture (with or without electrostimulation) is recommended for subsidy for adults with low back pain and neck pain, in line with the abovementioned recommendations. Subsidy is applicable only for treatments performed in PHIs.

Published: 7 July 2023

Factors considered to inform the recommendations

Technology evaluation

1.1. The MOH Medical Technology Advisory Committee ("the Committee") considered the evidence presented for the technology evaluation of acupuncture for adults with low back pain and other musculoskeletal disorders (e.g. neck pain). The Agency for Care Effectiveness (ACE) conducted the evaluation in consultation with clinical experts from the public healthcare institutions. Published clinical and economic evidence for acupuncture was considered in line with its registered indication.

1.2. The evidence was used to inform the Committee's deliberations around five core decision-making criteria:

- Clinical need of patients and nature of the condition;
- Overall benefit of the technology for the patient and/or the system;
- Cost-effectiveness (value for money), which considers the incremental benefit and cost of the technology compared to existing alternatives;
- Estimated annual technology cost and the number of patients likely to benefit from the technology; and
- Organisational feasibility, which covers the potential impact of adopting the technology, especially barriers for diffusion.

1.3. Additional factors, including social and value judgments, may also inform the Committee's deliberations.

Clinical need

2.1. The Committee noted that in Singapore musculoskeletal disorders accounted for about 13% of disability-adjusted life years in 2017, with low back pain and neck pain being the leading contributors. Current treatment options including medications, physiotherapy, and surgery may not satisfactorily or safely alleviate these conditions.

2.2. Among patients at public healthcare institutions (PHIs) who received acupuncture treatment for musculoskeletal disorders in 2018, low back pain and neck pain comprised an estimated 62% of all cases.

Overall benefit of technology

3.1. The Committee noted that acupuncture referred to all needled variants involving skin penetration with or without moxibustion, electro-acupuncture, or manual acupuncture, delivered as a primary treatment or as an adjunct to standard care. The main comparators were standard care and sham acupuncture, with no treatment as a

secondary comparator. Standard care was any form of medications, physiotherapy or surgery that did not include acupuncture. Sham acupuncture referred to the use of acupuncture controls that may or may not penetrate the skin, and varied in needle depth and the position of needle placement.

3.2. The Committee noted that acupuncture is generally a safe procedure. Minor and transient side effects like bruising, and pain and bleeding at needling sites, occurred in 1% to 15% of treatments. Serious infections and traumatic tissue damage were rare and could be attributed to unqualified acupuncturists.

3.3. The Committee noted that acupuncture was generally more effective in reducing pain in the short term (≤3 months) for low back pain compared with standard care, sham acupuncture, or no treatment. When administered as an adjunctive therapy to standard care, acupuncture improved additional pain relief, with potential benefits up to one year. Acupuncture was also found to be generally more effective in reducing functional disability within 1 week compared with sham acupuncture and when used as adjunctive therapy to standard care for treating low back pain. The evidence was inconsistent for acupuncture as a primary therapy in low back pain in effectively reducing pain when compared with non-steroidal anti-inflammatory drugs (NSAIDS) or transcutaneous electrical nerve stimulation (TENS).

3.4. The Committee noted that for other musculoskeletal conditions, acupuncture can be effective in reducing neck pain immediately after treatment and in the short term when compared with no treatment. For frozen shoulder (bursitis), there was no significant difference in pain, functionality and impairment for acupuncture when compared with alternative treatments.

3.5. The Committee noted that due to poor quality of evidence, small sample size, or unclear clinically relevant benefits, the effectiveness of acupuncture was unclear for chronic arthritis (rheumatoid arthritis), osteoarthritis, shoulder-arm syndrome (cervico-brachial syndrome), and epicondylitis (tennis elbow), when compared with alternative treatments.

3.6. The Committee acknowledged that the true effect size of acupuncture was difficult to estimate due to poor methodological quality, considerable heterogeneity among studies, poor reporting of acupuncture treatment details, small sample sizes for some sub-group analyses, and high placebo response observed in the sham acupuncture arm of comparative studies.

Cost effectiveness

4.1. The Committee noted that in South Korea, the UK and Germany, acupuncture as an adjunctive therapy to standard care was shown to be cost-effective for treating low back pain of at least four weeks to six months in duration, when compared with standard care alone. The reported ICERs ranged from about KRW3.4 million

(S$3,900) to EUR10,500 (S$16,000) per quality-adjusted life year (QALY) gained.

4.2. The Committee acknowledged that the overall applicability of these estimates to the local context was unclear given concerns with heterogeneity in the acupuncture technique, and potential differences in local care settings. No economic evidence was identified for neck pain or other musculoskeletal disorders.

Estimated annual technology cost

5.1. The Committee noted that the annual cost impact to the public healthcare system for subsidising acupuncture in specialist outpatient clinics for adults with low back pain and neck pain was estimated to be between SG$1 million to less than SG$3 million, based on case volume trends in PHIs from 2014 to 2018.

Organisational feasibility

6.1. The Committee noted that a positive subsidy recommendation would likely increase the utilisation of acupuncture as adjunctive therapy for the subsidised indications. There is an adequate local supply of qualified graduates who possess credentials recognised by the Traditional Chinese Medicine Practitioners Board (TCMPB) to meet the potential increase in demand.

Recommendations

7.1. Based on available evidence, the Committee recommended subsidy for needled acupuncture (with or without electrostimulation) performed in PHIs by acupuncturists registered with the TCMPB — in accordance with minimum practice standards defined by the TCM Branch of MOH (Annex) — for pain reduction or functional improvement in adults aged 18 years and above, following formal diagnosis and recommendation by a referring medical specialist in a PHI, for:

- Low back pain, including pain radiating to the leg(s);
- Neck pain, including pain radiating to the shoulder(s).

7.2. The Committee recommended the following criteria for acupuncture:

- Needled acupuncture sessions (with or without electrostimulation), for low back pain including pain radiating to the leg(s) or neck pain including pain radiating to the shoulder(s), can be administered for up to 12 sessions within 3 months from treatment initiation, unless treatment needs to be delayed for valid medical reasons.
- Subsequent treatment of up to 12 more sessions within the next 3 months, unless treatment needs to be delayed due to valid medical reasons, is subject

to the reviewing medical specialist's assessment of sustained pain reduction or functional improvement for the patient.

7.3. The Committee advised that referrals for acupuncture should be initiated by attending medical specialists within the PHIs.

7.4. Acupuncture should be performed by acupuncturists registered with the Traditional Chinese Medicine Practitioners Board (TCMPB) in accordance with minimum practice standards defined by the TCM Branch of MOH.

7.5. Treatment for low back pain including pain radiating to the leg(s) or neck pain including pain radiating to the shoulder(s), involves acupuncture at trigger points as well as basic acupoints along the meridians or for the TCM syndromes presented (see Annex). A TCM syndrome is the foundation of TCM practice and is a categorised pattern of symptoms and signs of a medical condition.

VERSION HISTORY

Guidance on Acupuncture
for adults with low back pain and neck pain

This Version History is provided to track any updates or changes to the guidance following the first publication date. It is not part of the guidance.

1. **Publication of guidance**
   Date of Publication 20 Dec 2020

2. **Amendment to guidance and Annex for clarity**
   Date of Publication 7 Jul 2023

Agency for Care Effectiveness - ACE Agency for Care Effectiveness (ACE)

About the Agency

The Agency for Care Effectiveness (ACE) was established by the Ministry of Health (Singapore) to drive better decision-making in healthcare through health technology assessment (HTA), clinical guidance, and education.

As the national HTA agency, ACE conducts evaluations to inform government funding decisions for treatments, diagnostic tests and vaccines, and produces guidance for public hospitals and institutions in Singapore.

This guidance is based on the evidence available to the MOH Medical Technology Advisory Committee as at 4 November 2019. It is not, and should not be regarded as, a substitute for professional or medical advice. Please seek the advice of a qualified healthcare professional about any medical condition. The responsibility for making decisions appropriate to the circumstances of the individual patient remains with the healthcare professional.

Find out more about ACE at www.ace-hta.gov.sg/about

Chief HTA Officer
Agency for Care Effectiveness
Email: ACE_HTA@moh.gov.sg