

Guidelines for providing acupuncture treatment for cancer patients – a peer-reviewed sample policy document

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Abstract

Clinical guidelines are statements that have been systematically developed and which aim to assist clinicians in making decisions about treatment for specific conditions, and promote best practice. They are linked to evidence and are meant to facilitate good medical practice. We are not aware of any guidelines for the safe practice of acupuncture in a conventional healthcare setting, yet they are necessary as acupuncture may be performed in a variety of settings and by a variety of healthcare professionals: doctors, nurses, physiotherapists, midwives, and non medically trained practitioners. These guidelines were developed for use in cancer patients, mainly for pain but also for some non-pain indications such as hot flushes. They are presented here as a template for other acupuncturists who are requested to provide policies for acupuncture treatment for cancer patients.

This article includes a general review of the evidence on mechanisms, effectiveness and safety of acupuncture that is intended to be used in conjunction with the guidelines; and the guidelines themselves. An appendix includes instructions for self acupuncture. The guidelines contain sections on roles and responsibilities, criteria for acupuncture practice, indications for acupuncture, contraindications and cautions, acupuncture treatment, and review and audit. These guidelines set basic, minimum standards of care, and need re-assessment and ongoing validation as further data and evidence accumulate.

Keywords

Acupuncture, clinical guidelines, cancer, palliative care.

Introduction

Clinical guidelines are statements that have been systematically developed and which aim to assist clinicians in making decisions about treatment for specific conditions.¹ They are linked to evidence and are meant to facilitate good medical practice. The National Institute for Health and Clinical Excellence (NICE) is part of the government's agenda for healthcare. One of its main functions is to develop, issue, and encourage the use of objective guidelines, thus promoting 'best practice'.² Most healthcare organisations lack the skills and resources to develop guidelines from scratch and try to identify previously developed rigorous guidelines and adapt them to their needs.³ It is necessary to appraise the validity of treatments before applying the guidelines

clinically, or harm to patients and waste of resources on ineffective interventions might ensue. A vast number of guidelines from various authoritative bodies have appeared over the past few years; one might expect them to be widely used, but their uptake in clinical practice is disappointingly low and there is no single effective way to ensure that guidelines are applied in practice.⁴ Implementation requires resources, especially the time of appropriately skilled people, which is an increasingly rare commodity. Other barriers include perceived relevance of the guidelines, practical aspects of implementation, necessary changes in organisational and environmental characteristics, and, finally, changes in the behaviours of the clinicians involved.⁵

Guidelines: acupuncture for cancer patients

1 *Roles and responsibilities*

It is the responsibility of the doctor/practitioner in charge of the service to ensure that:

- 1.1 Doctors receive appropriate training to practice acupuncture safely and competently
- 1.2 Allied health professionals are appropriately trained to practice acupuncture safely and competently following an orthodox clinical diagnosis
- 1.3 Doctors and nurses and other allied health professionals are aware of the hospital's or hospice's policies and guidelines outlined in this document for the safe practice and treatment of patients receiving acupuncture.

2 *Criteria for acupuncture practice*

2.1 Training and competence

- 2.1.1 Regulated health care professionals who practise acupuncture will commence treatment only after an orthodox medical diagnosis which comprises history, examination and any further investigations as necessary

- 2.1.2 They must be aware of the diagnosis and stage of cancer in a given patient

- 2.1.3 All acupuncturists must be a member of the appropriate statutory regulatory body eg General Medical Council for doctors and comply with their standards and codes of conduct etc, and have current indemnity cover with a recognised organisation. They should have attended at least one foundation acupuncture course, for example the Palliative Care course of the British Medical Acupuncture Society. They should ideally hold the Certificate of Basic Competence or Diploma from the British Medical Acupuncture Society, or an equivalent training award.

Note: The statutory regulation process for acupuncture is currently underway and may influence future assessment of competencies in the UK.

2.2 Nurses and allied health professionals

- 2.2.1 There are occasions when it may be appropriate for the responsible health care professional to delegate particular aspects of treatment to other health care professionals, under supervision or alone. It is the responsibility of the senior clinician to ensure that the professional's knowledge and skills are adequate for the tasks involved and they should also be specifically approved by the hospital/hospice to undertake acupuncture for specific indications.

3 *Patients who should be considered for acupuncture*

3.1 General indications include:¹

- 3.1.1 Patients who fail to respond to conventional analgesic approaches and remain in pain
- 3.1.2 Patients who experience unacceptable side effects with conventional medication such as excessive sedation
- 3.1.3 Patients who wish to reduce existing medication

3.1.4 Patients who have pain that is likely to respond to acupuncture such as pain around surgical scars and who wish to avoid medication

3.1.5 Patients who refuse conventional analgesia.

The use of self needling with acupuncture, using either 'one off' needling or semi-permanent indwelling needles, in a limited number of locations, as this has been found in practice to maintain a response

3.2 Some specific conditions that may be relieved include:

3.2.1 Xerostomia in patients who fail to respond to conventional treatment

3.2.2 Refractory nausea and vomiting, either postoperatively or secondary to chemotherapy

3.2.3 Advanced cancer-related dyspnoea

3.2.4 Vasomotor symptoms with breast cancer, prostate cancer or other cancers in patients who have either failed to respond to conventional treatment or choose acupuncture instead of conventional medication on account of potential side effects

3.2.5 Radiation proctitis with treatment-related rectal or vaginal bleeding in patients with abdominal or pelvic cancer

3.2.6 Ulcers which fail to heal following surgery or radiotherapy, including ulcers caused by radiotherapy

3.2.7 Intractable fatigue

3.2.8 Other symptoms such as insomnia which have failed to respond to standard treatments.

It must be noted that acupuncture should not necessarily be used as a 'last resort' but may also be tried early for symptom control, for example in pain following breast surgery, as its side effect profile is good compared with many standard drugs.

4 *Contraindications and cautions*

Contraindications²

The following list is particularly relevant to cancer patients and patients having palliative care and should be applied in addition to general contraindications to acupuncture. The list includes conditions in which acupuncture or particular techniques are contraindicated, and sites where needling should be avoided.

4.1 Acupuncture is contraindicated:

4.1.1 in patients who refuse eg in cases of extreme needle phobia

4.1.2 in patients with severe clotting dysfunction or who bruise spontaneously

4.2 Semi-permanent needles are contraindicated:

4.2.1 in patients with valvular heart disease – risk of sub-acute bacterial endocarditis

4.2.2 in neutropenic patients – risk of infection

4.2.3 in patients after splenectomy – risk of infection

4.3 Electroacupuncture is contraindicated:

4.3.1 in patients with an intracardiac defibrillator

- 4.4 Needling should be avoided:
- 4.4.1 directly onto a tumour nodule or into an area of ulceration
 - 4.4.2 in lymphoedematous limbs or limbs prone to lymphoedema
 - 4.4.3 in the ipsilateral arm in patients who have undergone axillary dissection, as there is a risk of development of swelling and lymphoedema after insertion of any needle³
 - 4.4.4 in areas of spinal instability due to potential risk of cord compression due to acupuncture's muscle relaxing properties
 - 4.4.5 into a prosthesis as this could cause leakage of saline/silicone
 - 4.4.6 over intracranial deficits following neurosurgery.
- 4.5 Cautions
- 4.5.1 Cancer patients may be very sensitive to acupuncture, so close supervision is advised especially at the first treatment
 - 4.5.2 Take extra care with all patients who are 'strong reactors' to acupuncture
 - 4.5.3 Care should be taken not to needle too deeply over the chest wall in cachectic patients
 - 4.5.4 Disease progression should always be considered in those who become suddenly tolerant to acupuncture having previously responded well
 - 4.5.5 Patients prone to keloid scar formation
 - 4.5.6 Pregnancy
 - 4.5.7 Epilepsy – patients need to be accompanied
 - 4.5.8 Confused patients
 - 4.5.9 Electroacupuncture in a patient with a cardiac pacemaker

5 *Acupuncture treatment*

- 5.1 Pre-treatment management and responsibilities
- Patients with pain and symptoms for whom acupuncture is thought to be appropriate should be referred to ... (named practitioner), who will then:
- 5.1.1 Decide whether the patient is suitable for acupuncture with or without other forms of medication and or pain management
 - 5.1.2 Discuss the use of acupuncture with the patient and ensure the patient is aware of potential side effects such as post treatment drowsiness, the possibility of exacerbation of symptoms and minor bruising or pain at needle sites
 - 5.1.3 Obtain the patient's verbal consent to treatment⁴
- 5.2 Acupuncture equipment and handling
- 5.2.1 Single use disposable needles will be used
 - 5.2.2 After insertion, the introducers will be counted twice and the number recorded
 - 5.2.3 If introducers are not used, a needle count will be made twice when needles are in situ

- 5.2.4 When the needles are removed, they will be counted twice and formally checked against the earlier record that the same number are removed as inserted
- 5.2.5 Used needles will then be disposed of directly into a sharps box
- 5.2.6 In case of inadvertent needle stick injury to staff, use local hospital/hospice/practice needle stick injury policy
- 5.3 First treatment
 - 5.3.1 Patients should be treated on a couch either lying down or with the facility to lie down quickly in case of vasovagal reactions
 - 5.3.2 A gentle treatment should be used in case the patient is a 'strong reactor'. Up to 9% of patients feel woozy during or after this first treatment
 - 5.3.3 Someone should remain with the patient throughout their first treatment as their reaction to acupuncture is not known
 - 5.3.4 The practitioner should document the patient's response to the initial treatment for future reference
 - 5.3.5 Strong reactors should be supervised during acupuncture at all times and allowed to lie down until fully recovered
- 5.4 A typical treatment schedule
 - 5.4.1 Patients should be seen weekly or twice weekly to be able to gauge the response to treatment adequately. Six plus treatments constitute an adequate clinical trial⁵
 - 5.4.2 Six initial treatments should be adequate for patients with breast pain post surgery for example. Then the treatment plan should be reviewed and subsequent 'top-ups' given at, say, two, three, four, six and eight weekly intervals depending on their response
 - 5.4.3 If there is no response after six weekly treatments it is unlikely that there will be a response and other treatment options should be considered
 - 5.4.4 Patients with certain conditions, eg rectal ulceration post radiotherapy, may need 12 or more initial consecutive treatments before adequate assessment is possible and then 'top-ups' given again at increasing intervals
 - 5.4.5 If there is no response after 12 weekly treatments it is unlikely that there will be a response and other treatment options should be considered
 - 5.4.6 'Top-up' treatments in the clinic are given when the response to the initial treatment regimen diminishes. This will initially be after 2-4 weeks and subsequent intervals should then be increased as soon as possible
 - 5.4.7 It is important that there is no break in the treatment schedule as success depends to a large extent on up-regulation of analgesic genes⁶⁻⁸ and any benefit may be lost if the treatment schedule is broken. It may then be necessary to restart a new course of treatment
 - 5.4.8 Adequate backup support is needed to treat patients if or when a practitioner is absent
 - 5.4.9 Special schedules may be developed for particular conditions, for example the algorithm for treatment of hot flushes as described in an earlier paper,⁹ and sternal studs for breathlessness¹
 - 5.4.10 Each case should be judged on its own merits and the lead practitioner will decide on the treatment schedule

5.5 Self acupuncture

Some patients with pain or hot flushes are taught how to treat themselves with acupuncture at home:

- 5.5.1 Patients will be given clear instructions how to self treat
- 5.5.2 Patients should be taught where to needle eg SP6 (four fingerbreadths above the medial malleolus and posterior to the medial edge of the tibia)
- 5.5.3 In addition, LR3 (between the first two metatarsals) or ST36 (below knee) may be taught to some patients, in order to increase the weekly dose of acupuncture
- 5.5.4 Patients should be advised how long to keep the needles in (typically 15 minutes) and how frequently (usually once a week)
- 5.5.5 Patients will be given a pot for storing used needles. This should then be returned to the clinic for safe disposal.

Self acupuncture for different sites on the body may be taught, providing that the patient is deemed sufficiently responsible to carry it out and the point locations are unlikely to do any serious harm.

(A model patient information leaflet for self acupuncture is given in the Appendix to these guidelines, available at <http://acupunctureinmedicine.org.uk>).

6 *Review, audit*

- 6.1 The practitioner in charge will co-ordinate an audit review of the use of acupuncture initially and (for example) every two years
- 6.2 If any changes are deemed necessary following clinical audit, the guidelines will be reviewed accordingly
- 6.3 Patient's progress will be discussed in the multidisciplinary team meetings in accordance with national cancer regulations
- 6.4 Patients will be discharged from the clinic as soon as it is reasonably practicable following a course of treatment and an adequate follow up period – yet ongoing 'top ups' of say 1-3 monthly intervals may be required
- 6.5 If a patient is discharged after five years from the Breast Unit, for example, that patient will also be expected to be discharged from acupuncture treatment
- 6.6 If further follow up top-up treatments are required long term, every attempt shall be made to find a suitable practitioner to carry on with the treatment locally, and self acupuncture may be taught if at all appropriate.
- 6.7 Patients with complex clinical problems may be followed up at the host hospital/practice in the long term

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Appendix

Patient instructions for self acupuncture

The guidelines advocate self acupuncture, particularly for the treatment of hot flushes. The following instructions for self acupuncture are based extensively on suggestions by Anthony Campbell.¹

Self needling using standard disposable needles

1. Wash your hands in the usual way.
2. Remove the needle from its envelope without bending it. Do not use a needle or introducer which has been dropped on the floor or anywhere else.
3. Hold the introducer in one hand over the acupuncture point on the skin as advised by your doctor.
4. Twist the needle firmly to release it from the top of the introducer. It will drop gently down on to the skin.
5. Flick the needle briskly into the skin.
6. Gently withdraw the introducer taking care that it does not pull the needle out with it.
7. Hold the junction between the handle and the needle and gently advance the needle about half an inch – yet avoid inserting it ‘up to the hilt’.
8. You may need to twist the needle gently a few times for 10-20 seconds in both directions. Your doctor will tell you if that is necessary.
9. Leave the needle in place for approximately 15 minutes.
10. After treatment withdraw the needle, steadying the skin with your other hand as you do so.
11. Dispose of the needle safely in a sterile pot.
12. Return the pot to the hospital at your next visit for safe disposal of needles.

Possible Problems

1. A small drop of blood appears when you remove the needle. Remedy: Wipe it away with a clean tissue and press the site gently for a minute or so. If the site you needled was your foot, keep the leg up until the bleeding has stopped.
2. If bleeding persists (very unlikely), apply firm pressure and seek medical advice.
3. If a bruise appears where the needle was inserted there is probably no need to do anything, but if it is large or painful you can apply ice for about 5 minutes and seek medical advice if necessary.
4. A small ‘bump’ appears when the needle is removed. Remedy – press and flatten it gently with a tissue for a minute or two.
5. Needle breakage (extremely unlikely). Remedy: try to pull the end out with a pair of clean tweezers or similar implement. If this fails, consult your doctor or a hospital casualty department.

6. Very rarely, a needle may be gripped by the tissues and be difficult to withdraw. Don't worry; just wait a few minutes and then it will come out easily.

Important Notes

- * Use only the needles that have been approved by your doctor. If you are unsure of the instructions, do not do self acupuncture.
- * If any difficulty due to acupuncture occurs, please feel free to telephone the hospital/practice to ask for advice. Ask to speak to the doctor who treated you or the clinical nurse specialist for pain management or the doctor on duty.
- * Please follow the instructions given to you exactly, especially as regards frequency of treatment and sites(s) of insertion. Do not change these without consulting your doctor first. If at any time the treatment ceases to be effective ask the hospital to give you a new outpatient appointment.
- * Never put needles into areas of skin that are sore, infected, bruised, or abnormal in any way.
- * If you become pregnant or are trying to become pregnant you should not do acupuncture until you have discussed it with us
- * If you start taking aspirin, warfarin or other medicines to thin the blood you should not do self acupuncture until you have discussed it with us.
- * Do not try to treat anyone else
- * If anyone else becomes accidentally injured by one of your needles you should get advice immediately from us or from a hospital casualty department

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So far, guidelines have played a subsidiary role in medical litigation, as the traditional test in law for the standard of care in the UK at present is the Bolam test, which measures an action against the weight of opinion of a body of similar responsible and skilled clinicians. However, guidelines from NICE may take on a more important role in the future and courts might enquire why guidelines were not followed.⁶

We are not aware of any guidelines for the safe practice of acupuncture in a conventional healthcare setting, yet they are necessary as acupuncture may be performed in a variety of settings and by a variety of healthcare professionals: doctors, nurses, physiotherapists, midwives etc and non medically trained practitioners.

The guidelines were developed for use in cancer patients, mainly for pain but also for some non-pain indications such as hot flushes.

These guidelines have evolved as a response to requests from several trusts (including the Royal Marsden NHS Foundation Trust) and followed a period of extensive consultation with other practitioners who have an interest in guidelines for acupuncture for cancer patients.

Although generic guidelines for acupuncture in other healthcare settings are probably overdue, these guidelines are presented here only as a template for other acupuncturists who are requested to provide policies for acupuncture in cancer and palliative care. As cancer patients are a particularly vulnerable group of patients, we have developed these first.

This paper consists of a general review of the evidence on mechanisms, effectiveness and safety of acupuncture, which is intended to be used in conjunction with the guidelines, and the formal guidelines themselves. If readers are stimulated to develop generic guidelines in other areas, they are welcome to contact the authors.

Scientific background to acupuncture

Acupuncture is a therapeutic technique that involves the insertion of fine needles into the skin and underlying tissues at specific points, for therapeutic or preventative purposes. Considerable evidence now exists for understanding the neurophysiological mechanisms of acupuncture. Acupuncture works by modulating several endogenous analgesic

mechanisms and also works via multiple central connections and descending pain inhibition via noradrenergic and serotonergic pathways to give extrasegmental pain relief ie analgesia throughout the body.⁷ Acupuncture is known to cause the release of a number of endogenous substances including β -endorphin, met-enkephalin and dynorphins.⁸ Changes in the expression of analgesic genes may contribute to the sustained effects.⁹⁻¹¹ Acupuncture releases serotonin,¹² oxytocin,¹³ and endogenous steroids,¹⁴ which may further contribute to analgesia. Acupuncture is particularly useful for treatment of myofascial pain as it deactivates trigger points.¹⁵ Electroacupuncture can be used for analgesia and during surgery.¹⁶

Evidence for the effectiveness of acupuncture

There is increasing evidence from systematic reviews that acupuncture is effective for the treatment of many conditions including experimental pain,¹⁷ dental pain,¹⁸ nausea and vomiting, particularly post-operatively,¹⁹⁻²¹ and vomiting post-chemotherapy,²² headache,²³ fibromyalgia,²⁴ osteoarthritis of the knee,^{25,26} epicondylitis²⁷ and back pain.²⁸ There is good evidence from clinical trials that acupuncture reduces acute peri- and postoperative pain.²⁹⁻³¹ Acupuncture is of mixed value for asthma³² and stroke,³³ but so far thought to have no specific effect in smoking cessation³⁴ or weight loss.³⁵ For chronic cancer pain acupuncture has also been found to be helpful,³⁶ but a systematic review was inconclusive, which is perhaps unsurprising as it included only one randomised controlled trial - which was itself positive.³⁷ The majority of papers suggest that acupuncture may help a variety of pain symptoms, including post-surgical and treatment-induced breast pain, often leading to a reduction in analgesic requirements and an improvement of mobility and circulation.^{7,38-46} Naturally, further formal research is to be welcomed in this area.

Acupuncture is increasingly used for treatment of non-pain conditions in cancer patients, in addition to nausea and vomiting as above. There is increasing evidence for its effect on vasomotor symptoms in non-cancer patients,⁴⁷⁻⁴⁹ and cancer patients.⁵⁰⁻⁵⁶ It is effective for patients troubled by xerostomia,⁵⁷⁻⁵⁹ including those who have had radiotherapy and whose symptoms are not improved by pilocarpine.

Acupuncture has been shown to be helpful for treatment of breathlessness secondary to chronic obstructive pulmonary disease.⁶⁰⁻⁶² Positive effects on both subjective and objective outcomes were found for advanced cancer-related breathlessness in one study,⁶³ though not in another.⁶⁴ There is ongoing research in this area.

A recent phase 2 study concluded that acupuncture was worthy of further study in the treatment of post-chemotherapy fatigue,⁶⁵ and this conclusion is supported by the findings of a more recent randomised controlled trial.⁶⁶

Evidence for the safety of acupuncture

Acupuncture in general is a very safe treatment with a low side effect profile, as shown by two large prospective studies of 32 000,⁶⁷ and 34 000 treatments.⁶⁸ There were only six serious adverse events in a further review of 12 prospective studies.⁶⁹ One advance that has reduced the risk of blood-borne infection is the single use disposable needle.

Aspects of the safe use of acupuncture specifically for palliation of symptoms in cancer patients have been reviewed.⁷⁰ Further more general risks of acupuncture have been categorised as follows:⁷¹ delayed or missed diagnosis (ie conventional western diagnostic categories); deterioration of disorder under treatment; systemic reactions (eg syncope, vertigo, sweating); bacterial and viral infection (eg hepatitis B, C and HIV infection); and trauma to tissues and organs.

Conclusion

These are initial guidelines for the safe practice of acupuncture in cancer patients, and set basic, minimum standards of care. They require further validation and re-assessment over the next year or two. Clinical directors and managers of pain management units should find these guidelines helpful in setting standards of practice. Audit of practice with respect to these recommendations should be performed at say 2-3 yearly intervals, and the appropriate changes implemented.

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