

# Acupuncture Safety in the Hospital Setting: The Congruence of the CCAHM Clean Needle Techniques and the Joint Commission Standards.

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## Introduction

Patient safety in all healthcare settings is a fundamental responsibility across all healthcare disciplines, including acupuncture and its related modalities. Among the most pressing concerns are needle safety and infection control. Improper handling of needles and related equipment poses significant health risks to both providers and patients. According to the Centers for Disease Control and Prevention (CDC), an estimated 385,000 sharps injuries occur annually among healthcare workers, underscoring the need for robust safety measures (1).

Regulatory agencies such as the Occupational Safety and Health Administration (OSHA) and the CDC have established guidelines and best practices to mitigate these risks (2,3). The Council of Colleges of Acupuncture and Herbal Medicine (CCAHM) remains a steward in upholding these standards within the acupuncture profession through its Clean Needle Technique® (CNT®) Manual and certification course. The CNT Manual has been the industry benchmark for safe acupuncture practice in the United States since 1989.

A close examination of the CCAHM Clean Needle Technique Manual reveals that its standards are substantially similar to those set forth by The Joint Commission (TJC), the leading accrediting body for healthcare organizations in the U.S. While TJC does not have specific standards for acupuncture, its guidelines on infection control, occupational safety, and risk management mirror those outlined in the CNT Manual. This white paper explores the congruence between the CCAHM CNT Manual and TJC standards, and how the convergence of these standards can inform best practices for acupuncture performed in the hospital setting.

## Background

Needlestick injuries and infections pose significant risks in all healthcare settings, necessitating strict safety protocols. OSHA requires hospitals and healthcare facilities to assess workplace safety risks and implement effective health management systems and measures for patient and worker safety (2). Similarly, the CDC provides infection control guidelines to minimize the risk of disease transmission among healthcare professionals and patients (3). The National Institute for Occupational Safety and Health (NIOSH) further emphasizes needlestick prevention strategies (4). These strategies include proper training, safer work practices, and heightened awareness of safety measures (6).

Within the acupuncture profession, the CCAHM Clean Needle Technique Manual serves as the national standard for safe practice. The CNT Manual, currently in its seventh edition (revised in 2/24), incorporates evidence-based guidelines developed in consultation with OSHA and CDC experts. Applying validation from subject matter experts ensures alignment with current best practices in infection control and needle safety. The CNT Course and exam serve three primary purposes (5):

1. Promote public health and safety – By setting national standards for acupuncture practice, the CNT Manual helps reduce the risk of infection and needlestick injuries.
2. Protect acupuncturists, patients, and healthcare workers – Safety protocols minimize exposure to bloodborne pathogens and improve workplace safety.
3. Maintain public confidence in the acupuncture profession– Adherence to stringent safety standards reinforces trust in acupuncture as a credible and responsible healthcare modality.

The CNT Manual outlines five fundamental principles for acupuncturists (5):

1. Wash hands before and after needling.
2. Maintain a clean field for acupuncture needles and devices.
3. Use only single-use, disposable sterile needles and instruments.
4. Immediately isolate used sharps in biohazard containers.
5. Follow standard precautions at all times.

These principles reflect core infection control strategies that are foundational across healthcare disciplines and are consistent with TJC's approach to patient and environmental safety. While TJC's standards are not specific to acupuncture, its infection control and occupational safety guidelines are in parallel with the CNT Manual's objectives.

## Specific Guidelines for Acupuncture Use in the Hospital Setting:

### Acupuncture Needle safety:

#### *CCAHM CNT Guidelines:*

Acupuncture is the insertion of needles into the skin where the therapeutic effect is expected to come primarily from the act of inserting, manipulating and/or retaining the needles in specific locations.(5) While acupuncture points may be stimulated by a variety of methods by acupuncture practitioners (needling, moxibustion, cupping, manual pressure, electrical stimulation, laser stimulation, magnets, plum blossom, bleeding, and injection therapies among others), when the primary effect is expected from the act of inserting the needle itself, this is acupuncture. Although rare in terms of frequency, the most common adverse events associated with acupuncture are needle site bleeding, superficial hematoma and needle site pain. Reported adverse events with significantly less frequency (less than 1%) include local infections, fainting (or feeling faint) due to acupuncture, tiredness, and aggravation of symptoms. Rare but serious adverse events include systemic infections, and injuries to organs including the lungs and heart.(5)

The main focus of the CCAHM CNT program is to reduce the risk of infections associated with acupuncture practice and minimize the occurrence of other adverse reactions and events.

## CCAHM Critical Safety Recommendations for Clean Needle Technique (5)

- Follow Clean Needle Technique.
- Always establish a clean field before starting acupuncture or any technique which breaks the skin.
- Only use single-use sterile instruments when breaking the skin surface (needles and lancets).
- Always wash hands immediately prior to starting acupuncture or any technique which breaks the skin.
- Do not touch the tip or shaft of the acupuncture needle that will enter the patient's skin prior to or during needle insertion with anything which is not itself sterile.
- Do not needle into any skin lesion. Acupuncture needles should never be inserted through inflamed or broken skin.
- Immediately isolate used needles in an appropriate sharps container.
- Use new table paper on each treatment table for each new patient visit.
- Wipe down each treatment chair or table with an approved disinfectant solution or disinfectant cloth between each patient visit.
- Wear gloves or finger cots, or otherwise cover up any areas of broken skin on the practitioner's hands.
- Check needles prior to use for sterilization expiration dates, breaks in the packaging, or any evidence that air or water has entered the needle packaging prior to use.
- Maintain clean procedure at all times while handling needles prior to insertion. If needles or tubes become contaminated, they should be discarded.
- When using a multi-needle pack of sterilized needles, once the packaging is opened for one patient visit, any unused needles must be discarded properly and not saved for another patient treatment session.
- All patients need to be treated as if they are carriers of bloodborne pathogens such as Hepatitis B or HIV.
- Ensure that the part of the body to be treated is clean.
- Obtain a medical history from a patient regarding lung function, lung diseases and smoking history before needling the thorax. Assess the physique of the patient. Atrophy or poor muscle development in the thorax may increase the risk of pneumothorax.
- Identify those acupuncture points which lie over or next to major vessels.

### *The Joint Commission Guidelines*

The Joint Commission has several standards related to needle safety(6), including:

- Storage: Needles and syringes should be kept secure to prevent theft or tampering. Organizations can conduct a risk assessment to determine if a locking device or storage unit is needed.

- Sharps disposal: Used sharps should be disposed of immediately in a designated, puncture-resistant sharps disposal container. Containers should be closable, leakproof, and labeled “biohazardous” or color-coded red. They should also be kept upright, readily accessible, and routinely replaced.
- Needle handling: Needles should not be removed from syringes by hand. Recapping needles is only allowed if there are no other options or it is required for a medical procedure. When recapping, a mechanical device or one-handed technique should be used.
- Sharps container mounting: Sharps containers should be mounted at a height of 52 to 56 inches above a standing workstation, or 38 to 42 inches above a seated workstation.

Both the Joint Commission and CCAHM CNT guidelines focus on patient and practitioner safety. Of the above Joint Commission needle safety standards, only the specific requirement that sharps containers must be mounted varies from the 7<sup>th</sup> Edition Clean Needle Technique Manual. The issue relating to secure needle storage (e.g., use of a locking cabinet) would be up to the individual facility to determine if such practices are warranted for acupuncture needles.

## Infection Control in Acupuncture

### *CCAHM CNT Manual*

At the time of the writing of this white paper, the CCAHM CNT committee recognizes that local infections are a potential adverse event associated with acupuncture practices. The five principles of Clean Needle Technique enumerated above (wash hands, set a clean field, use single-use devices, immediately isolate used sharps, follow Standard Precautions) have been indirectly shown to decrease infections associated with acupuncture.(7)

### *The Joint Commission Standards*

The Joint Commission(6) has several standards related to infection control, including mandating that hospitals have a hospital wide infection prevention and control program for the surveillance, prevention, and control of health care–associated infections (HAIs) and other infectious diseases. Hospitals are expected to implement infection prevention and control programs through surveillance, prevention, and control activities. The design and scope of a hospital’s program are determined by the specific risks faced by its location, the population(s) it serves, and the types of services it provides. Hospitals are directed to implement infection prevention and control activities when performing and performing intermediate- and high-level disinfection and sterilization of medical equipment, devices, and supplies.

### *Variation from the CNT Manual:*

The main differences between the Joint Commission standards(6) and the 7<sup>th</sup> Edition Clean Needle Technique Manual(5) in the area of infection control relate to scope. The CNT Manual considers ambulatory individual and small group practices as the main users for the CNT

Manual. TJC considers a larger epidemiologic approach. Such an approach to infection control could be based on the known risks for infection spread within the larger facility and community identified by the 7<sup>th</sup> Edition Clean Needle Technique Manual along with other community resources.

## Fire Risks

### *Fire Risks Addressed by CCAHM CNT Manual*

#### **Moxibustion:**

The Clean Needle Technique Manual(5) identifies that the risk of setting a fire during moxa therapies is small but possible. All necessary fire safety protocols should be followed. It is strongly recommended that rooms in which moxa treatments are to be performed be equipped with either fire extinguishers or sprinkler systems.

#### **Fire cupping:**

Burns are associated with fire cupping. General safe practices for use of an open flame should be followed.

### *The Joint Commission Standards relating to Fire*

TJC Guidelines(6) clearly prohibit open flames in order to manage fire risks.

### *Variation from the CNT Manual:*

The Joint Commission standards do not specifically include risks associated with moxibustion and fire cupping. Generally, managing safety, smoke and fire risks would include considerations about the use of both techniques. With oxygen therapies and other fire risks being present in the hospital setting, best practices would suggest that moxibustion and fire cupping do not belong in US hospital-based acupuncture practices.

## General equipment safety:

The FDA regulates the sale of medical devices and monitors the safety of all regulated medical products. Before a medical device can be sold or marketed in the U.S., the FDA must approve or clear the device.(8)

### *CCAHM CNT:*

Focusing on infection control, the CCAHM CNT Manual advises that reusable medical and acupuncture equipment must be disinfected between use on patients.(5) Safety guidelines for disinfecting reusable medical equipment follow CDC guidelines.

The CNT Manual instructs acupuncturists to check electroacupuncture devices and TDP lamps for defects before use. Defective or dysfunctional devices including TDP lamps should not be used in any clinic.(5)

### *The Joint Commission*

TJC has several standards related to equipment safety.(6) Included in TJC guidelines is a requirement that a hospital must maintain a written inventory of all medical equipment and equipment incident history. More specifically, a hospital must identify high-risk medical equipment in the inventory for which there is a risk of serious injury or death to a patient or staff member should the equipment fail. Hospitals maintain written procedures to follow when medical equipment fails, including using emergency clinical interventions and backup equipment. Furthermore, a hospital's activities and frequencies for inspecting, testing, and maintaining the following items must be in accordance with manufacturers' recommendations.

### *Variation from the CNT Manual:*

The differences between The Joint Commission standards and the 7<sup>th</sup> Edition Clean Needle Technique Manual standards relating to medical devices are that the TJC requires more consistent record keeping, device surveillance, and specific rules associated with injuries associated with the use of specific equipment and devices. For an acupuncturist in a hospital setting, this would apply to electroacupuncture stimulation machines, TDP lamps and Near Infrared Laser devices among others.

## Charting Guidelines

### *CNT Manual:*

The CCAHM CNT Manual recommends that acupuncturists follow standard medical charting procedures such as using SOAP notes.(5) The acupuncture record should be adequately detailed to allow others to understand the care provided. All records need to be both accurate and complete. In order to prevent needles from being retained in a patient at the end of a treatment, acupuncturists are advised to document needle counts in the patient chart.(5)

### *The Joint Commission:*

The Joint Commission has several standards related to charting patient care.(6) The hospital is directed to maintain complete and accurate medical records for each individual patient. The hospital medical record must contain information that reflects the patient's care, treatment, and services. Entries in the medical record are required to be authenticated, whether by manual or electronic signatures. Documentation in the medical record is to be entered in a timely manner.

### *Variation from the CNT Manual:*

The differences between The Joint Commission standards and the 7<sup>th</sup> Edition Clean Needle Technique Manual standards relating to charting simply add the best practice of documenting needle counts for each acupuncture treatment.

## Adverse Event (AE) Reporting:

### *CCAHM CNT Manual*

At the time of the writing of this white paper, there is no specific language about adverse event reporting in the CCAHM CNT Manual.

### *The Joint Commission:*

The Joint Commission adopted a formal Sentinel Event Policy in 1996 to help healthcare organizations improve safety and learn from serious adverse events. Sentinel events are a type of adverse event that results in severe harm.

The Joint Commission advises that healthcare organizations have effective systems in place to identify, report, and analyze adverse events. While organizations are strongly encouraged to report sentinel events, it is not a mandatory requirement. Reporting sentinel events promotes transparency and a culture of safety.(9)

Currently, the FDA has clear reporting guidelines regarding devices (including acupuncture needles) used in the practice of acupuncture.(10)

Because acupuncture needles are approved by the FDA for use in the clinical setting, serious and unexpected adverse events associated with acupuncture needling, including those involving medical devices, should be reported to the FDA, especially if they result in death, life-threatening situations, hospitalization, disability, or permanent damage.

The CNT Manual advises that while in most cases extremely rare, adverse events have been reported with acupuncture practice. To capture the adverse events correctly, only those acupuncture events that would be rated as a grade 3 or higher in the chart below need to be reported to the FDA.



## ACUPUNCTURE ADVERSE EVENT (AE) GRADING

<i><b>AE that DO NOT require FDA reporting</b></i>	<i><b>AE that DO require FDA reporting</b></i>
<p><i>Grade 1</i></p> <ul style="list-style-type: none"> <li>Asymptomatic or mild symptoms - (e.g., mild tissue damage due to stuck needle removed in the office at the encounter time).</li> <li>Intervention not indicated - clinical or diagnostic observations only.</li> <li>It may be managed by an Acupuncturist.</li> <li>If worsens, then refer to an MD.</li> <li>Usually does not require liability insurance involvement.</li> </ul> <p>Hospital practice: notify supervisor when appropriate.</p> <p><i>Grade 2</i></p> <ul style="list-style-type: none"> <li>Moderate symptoms - (e.g., local infection).</li> <li>Minimal, local, or noninvasive intervention indicated.</li> <li>Requires referral to an MD.</li> <li>Consult your liability insurance.</li> </ul> <p>Hospital practice: notify supervisor as soon as possible.</p>	<p><i>Grade 3</i></p> <ul style="list-style-type: none"> <li>Severe or medically significant but not immediately life-threatening - (e.g., loss of consciousness).</li> <li>Hospitalization indicated.</li> <li>Require referral to an Emergency Department.</li> <li>Contact your liability insurance.</li> </ul> <p>Hospital practice: follow hospital emergency procedures and notify supervisor immediately.</p> <p><i>Grade 4</i></p> <ul style="list-style-type: none"> <li>Life-threatening consequences - (e.g., internal organ damage).</li> <li>Hospitalization &amp; urgent intervention are indicated.</li> <li>Requires a call to 911.</li> <li>Contact your liability insurance.</li> </ul> <p>Hospital practice: follow hospital emergency procedures and notify supervisor immediately.</p> <p><i>Grade 5</i></p> <ul style="list-style-type: none"> <li>Death related to AE.</li> <li>Subject to an investigation.</li> <li>Contact your liability insurance ASAP.</li> </ul> <p>Hospital practice: follow hospital emergency procedures and notify supervisor immediately.</p>

## ACUPUNCTURE-RELATED ADVERSE EVENTS CLASSIFICATION (CNT MANUAL)

An adverse reaction is any unintended response to a medical treatment or medication, ranging from mild to severe. An adverse event is specifically a harmful outcome that occurs resulting from medical care or treatment.

Below are listed reported adverse reactions and adverse events with the distinction that adverse events require investigation and response while the adverse reactions can be managed by the acupuncturist in both in-patient and outpatient settings.

<b><i>Acupuncture Adverse Reactions (AR)</i></b>	<b><i>Acupuncture Adverse Events (AE)</i></b>
<ul style="list-style-type: none"> <li>• Bruising and bleeding</li> <li>• Needle site pain/sensation</li> <li>• Vaso-vagal response</li> <li>• Aggravation of symptoms</li> <li>• Fatigue/Drowsiness</li> <li>• Lightheadedness</li> <li>• Non-specific discomfort</li> <li>• Sensation similar to an electrical shock (quick &amp; fast resolving)</li> <li>• Allergic reaction to topical used (e.g., Alcohol, Po Sum On.)</li> <li>• Local allergic reaction (e.g., nickel in needle device, or latex in the ear seed bandage)</li> </ul>	<ul style="list-style-type: none"> <li>• Failure to remove needles</li> <li>• Local/Superficial infections</li> <li>• Blood vessel injury</li> <li>• Peripheral nerve injury</li> <li>• Systemic/Deep infections</li> <li>• Pneumothorax</li> <li>• Injury to other organs</li> <li>• Traumatic tissue injury</li> <li>• Stuck needle</li> <li>• Falls (due to vaso-vagal response) causing injury</li> </ul>

<b><i>Electroacupuncture (EA) Adverse Reactions</i></b>	<b><i>Electroacupuncture (EA) Adverse Events</i></b>
<ul style="list-style-type: none"> <li>• Pain due to excessive current</li> </ul>	<ul style="list-style-type: none"> <li>• Injuries due to muscle contraction</li> <li>• Electrical injury, (e.g., shock or burn)</li> <li>• Interference with a Cardiac Pacemaker or other implanted electric devices</li> </ul>

<b><i>Moxibustion Adverse Reactions</i></b>	<b><i>Moxibustion Adverse Events</i></b>
<ul style="list-style-type: none"> <li>• Cough</li> <li>• Asthma attack</li> <li>• Lightheadedness</li> </ul>	<ul style="list-style-type: none"> <li>• Burns</li> <li>• Secondary infection from Moxa burns</li> </ul>

<b><i>Other Heat Therapies (TDP lamp, hot packs, electric pad, etc.) Adverse Reactions</i></b>	<b><i>Other Heat Therapies (TDP lamp, etc.) Adverse Events</i></b>
	<ul style="list-style-type: none"> <li>• Burns</li> </ul>

<b><i>Cupping Adverse Reactions</i></b>	<b><i>Cupping Adverse Events</i></b>
<ul style="list-style-type: none"> <li>• Extensive bruising</li> <li>• Bullae/blister formation</li> </ul>	<ul style="list-style-type: none"> <li>• Burns (fire cupping)</li> <li>• Infections</li> <li>• Cardiovascular/embolus production through cupping over major blood vessels</li> </ul>

<b><i>Gua sha Adverse Reactions</i></b>	<b><i>Gua Sha Adverse Events</i></b>
<ul style="list-style-type: none"> <li>• Extensive bruising</li> </ul>	<ul style="list-style-type: none"> <li>• Local/Superficial infection spread</li> </ul>

The CCAHM CNT Manual recommends that best practices include reporting to the vendor immediately if any acupuncture device is defective or the needles appear to have become non-sterile where the packaging is compromised.(5)

## Conclusion

Overall recommendations about the application of acupuncture in a hospital setting can meet both the CCAHM Clean Needle Technique Manual and the Joint Commission guidelines. The CCAHM Clean Needle Technique Manual contains more specific requirements for acupuncture-related techniques to reduce the risks associated with acupuncture while the Joint Commission guidelines are more specific regarding population-based infection control, fire safety and equipment use and maintenance. Where the Joint Commission requirements are more rigorous than the CNT Manual, standard acupuncture practices can be modified to meet or exceed the requirements of both documents. Stringent application of CNT and TJC guidelines can and should be applied in the hospital setting.

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