



Safety Handbook

for Alberta Acupuncturists

Table of Contents

Section 1 Overview	1
1.1 Introduction	1
1.1 Content	1
1.2 Credits and Acknowledgements	1
1.3 Copyright	1
1.4 Disclaimer	1
Section 2 Infection Prevention and Control	2
2.1 Introduction	2
2.2 General Principles of Infection Prevention and Control	2
2.2.1 A Look at Potential Biological Hazards at Acupuncture Clinics.....	2
2.2.2 Contamination and Cross-contamination in the Acupuncture Clinic	5
2.2.3 Common Risks for Infection in the Acupuncture Clinic	6
2.3 Routine Practices	7
2.3.1 Conducting Risk Assessment	7
2.3.2 Respiratory Etiquette	8
2.3.3 Hand Washing	8
2.3.4 Hand Washing Facilities.....	10
2.3.5 Antiseptic Agents	11
2.3.6 Personal Protective Equipment (PPE)	11
2.3.7 Safe Handling and Disposal of Sharps	11
2.4 Additional Precautions (Transmission-based Precautions)	12
2.4.1 Patient Management.....	12
2.4.2 Additional Precautions for Infectious Patients.....	12
2.4.3 Droplet Transmission Precautions.....	12
2.4.4 Contact Transmission Precautions.....	12
2.4.5 Airborne Transmission Precautions	12
2.5 Cleaning, Disinfecting, and Sterilizing.....	13
2.5.1 Cleaning the Environment	13
2.5.2 Cleaning Blood Spills	13
2.5.3 Laundering Sheets, Towels, or Other Linens.....	14
2.5.4 Cleaning, Disinfecting, and Sterilizing	14
2.5.5 Cleaning Instruments and Equipment.....	15
2.5.6 Sterilizing and Disinfecting	16
2.5.7 Sterilization	20
2.5.8 Clinic Waste and Linen Management.....	21
2.6 Safety Responsibilities of Practitioners and Staff	22
2.6.1 Training	22
2.6.2 Immunization	22
2.7 Blood-borne Diseases: Precautions and Exposure Management.....	22
2.7.1 Blood-Borne Pathogens: Exposure Management.....	22

Section 3 Risk Management and Occupational Hazards Control in the Acupuncture Clinic	24
3.1 Introduction	24
3.2 General Considerations.....	24
3.3 Risk Management In and Around the Clinic.....	25
3.4 Air Quality Control.....	25
3.5 Risk Management: Emergencies	26
3.5.1 Emergency Actions	26
3.6 Communication with Patients: Patient Records.....	27
3.6.1 Patient Records	27
3.6.2 Use, Disclosure, and Transfer of Patient Records.....	29
3.6.3 Patient Records Retention.....	29
3.6.4 Electronic Patient Records	29
3.6.5 Termination of the Practitioner-Patient Relationship.....	30
3.6.6 Informed Consent.....	30
3.7 Patient Privacy and Duty to Report	30
Section 4 Safe Procedures and Risk Management for Acupuncture and Acupuncture-Related Techniques	32
4.1 Acupuncture	32
4.1.1 Introduction: Clean Needle Technique	32
4.1.2 Basic Principles of CNT	32
4.1.3 Hand Washing	32
4.1.4 Pre-sterilized Disposable Instruments (Needles).....	32
4.1.5 CNT Procedure	33
4.1.6 Acupuncture Treatment in an Unfamiliar Setting	34
4.1.7 Aseptic Technique	35
4.1.8 Managing Needlestick Accidents.....	36
4.1.9 Contraindications and Precautions for Acupuncture	38
4.1.10 Additional Precautions.....	39
4.2 Management of Adverse Reactions to Acupuncture Treatment	39
4.2.1 Fainting (Vasovagal syncope)	40
4.2.2 Stuck Needle	40
4.2.3 Broken or Bent Needle	40
4.2.4 Injury to Vital Organs	41
4.2.5 Convulsions	42
4.2.6 Hematoma	42
4.2.7 Post Treatment Pain.....	42
4.2.8 Other Possible Side Effects and Adverse Reactions.....	42
4.3 Moxibustion	44
4.3.1 Introduction.....	44
4.3.2 Precautions and Contraindications for Moxibustion	44
4.3.3 Management of Burns Resulting from Moxibustion	44
4.4 Cupping and Gua Sha.....	44
4.5 Plum Blossom Needling and Bloodletting Technique	44
4.6 Tuina	44

4.7 Patient Privacy and Draping 45

4.8 Equipment and Materials used in Acupuncture Practice (TDP, Electro)..... 46

 4.8.1 Electro-acupuncture..... 46

 4.8.2 TDP Lamps and Other Infrared Devices..... 47

4.9 Additional Considerations 47

Resources and Bibliography 48

Appendices..... 50

 Appendix 1 – CTCMA-BC Dangerous/Cautionary Points..... 50

 Appendix 2 – Sample Emergency Response Plan 60

 Appendix 3 – Incident Report and Investigation Form 61

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- Updated clean needle, cleaning and disinfection, and laundering requirements.
- Reformatted document in compliance with new branding and to fix numbering issues.

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Section 1 Overview

1.1 Introduction

Under the *Health Professions Act*, the College of Acupuncturists of Alberta (College) is mandated to regulate the profession of acupuncturists. This means that its main objective is to protect the safety of Albertans who use acupuncture services, which is also done by establishing and monitoring minimum standards of practice and competency.

This Safety Handbook provides guidelines to all registered acupuncturists and candidate acupuncturists regarding the safe delivery of acupuncture and related modalities without compromising effectiveness.

1.1 Content

This Safety Handbook includes general principles of safety that are considered general standards for all professions in the healthcare industry. It also includes specific information about safety that is related to the practice of acupuncture and risk management strategies applied to commonly used acupuncture-related modalities. This information was derived after consultation with experts in this field from within the acupuncture community and other allied health professions.

The Safety Handbook covers general infection prevention and control principles, risk management in the acupuncture clinic and control of occupational hazards for acupuncturists, and information on safe standards for a variety of acupuncture-related techniques, such as moxibustion, cupping, gua sha, and the safe use of commonly used equipment.

1.2 Credits and Acknowledgements

The support from the College of Traditional Chinese Medicine Practitioners and Acupuncturists of British Columbia (CTCMA-BC) and the College of Traditional Chinese Medicine Practitioners and Acupuncturists of Ontario (CTCMPAO), and permission to use information from their “Safety Program Handbook for Traditional Chinese Medicine Practitioners and Acupuncturists” (December 2012) is greatly appreciated and acknowledged.

This document also makes extensive use of information contained in the five volumes of “Best Practices in Occupational Health and Safety in the Health Care Industry”, produced by the Government of Alberta. The complete documents can be found [here](#).

1.3 Copyright

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1.4 Disclaimer

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Section 2 Infection Prevention and Control

2.1 Introduction

The top priority for acupuncturists is to treat patients in a safe and effective way. It is also important to ensure that the acupuncturist's own safety and the safety of those who work together with them, such as assistants, staff, and janitorial help, is not compromised in the course of providing services. The infection hazards that may affect patients, acupuncturists, and all those who work at or frequent the clinic include (but are not limited to) exposure to blood borne pathogens and other biological agents.

This section focuses specifically on safety concerns as they relate to infectious diseases. Clinics, like most health care settings, are especially vulnerable to infectious agents as they are a gathering place for ill patients and people with compromised immune systems.

In a clinical setting, infection prevention and control are the responsibility of all staff. However, the establishment and assignment of effective procedures and the ongoing monitoring and accountability rests with the practitioner.

With acupuncture being the main procedure used by acupuncturists, the spread of blood-borne diseases is of particular concern. Acupuncturists have an obligation to remain current on the latest information about infection prevention and control procedures and to ensure and monitor that such practices are implemented in their work and by their staff.

As part of the Alberta Healthcare Initiative, a series of best practice documents were produced by Alberta Employment and Immigration – Workplace Health and Safety to better acquaint healthcare workers with workplace hazards and appropriate control measures. Five documents have been produced; each developed with the input of a multidisciplinary stakeholder group. The documents are available on the Alberta Government website: [Overview of best practices in occupational health and safety in the healthcare industry: best practices guidelines for occupational health and safety in the healthcare industry.](#)

This Safety Handbook consolidates published guidelines from Alberta Health Services and other industry sources. Practitioners should not limit their knowledge on this subject to the information of this Safety Handbook but consult other sources, including the aforementioned documents as well.

A registered acupuncturist is expected to:

- Know and apply current infection control guidelines in practice;
- Train others under their supervision in infection prevention and control;
- Ensure ongoing quality of infection prevention and control practices;
- Monitor changes in infection prevention and control practices and adjust as needed; and
- Refer or report patients with suspected infectious diseases to the appropriate healthcare professional, facility, or agency.

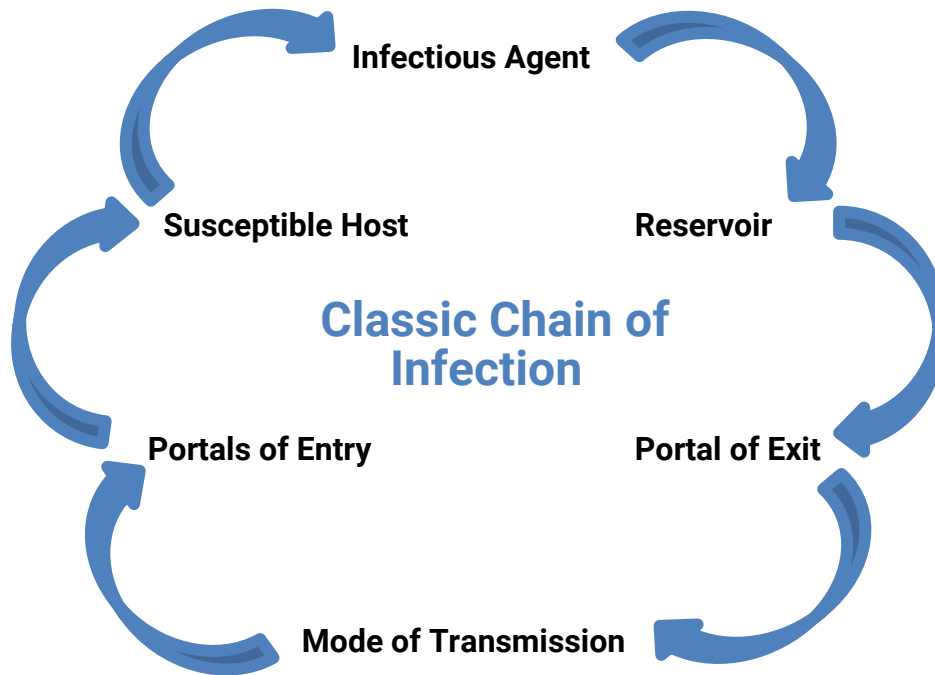
2.2 General Principles of Infection Prevention and Control

2.2.1 A Look at Potential Biological Hazards at Acupuncture Clinics

As with all potential hazards in the work environment, Occupational Health and Safety (OHS) legislation requires a systematic process to identify and assess existing and potential risks of exposure to biological hazards.

Best practices aim to eliminate or reduce the risk of exposure to pathogens. The practitioner should identify the contagious biological agent (pathogen) and the mode of transmission. Once these are identified, controls that aim to break the chain of infection at the most appropriate link(s) need to be selected and addressed.

When conducting hazard and risk assessments, the factors that are required for the transmission of infection must be considered. These factors are commonly referred to as the “chain of infection” components. Controls are directed at the chain’s links to break the “chain of infection” at one of its links. The classic depiction of the chain of infection is:



In the above diagram, the “links” in the chain of infection are¹:

- 1) **Infectious Agent (Causative Agent):** A microorganism capable of causing disease in humans. The four types of infectious agents that cause most infectious disease are viruses, bacteria, fungi, and parasites. There are many other kinds of infectious agents, such as prions (which can cause mad-cow disease) and viroids (which can cause Hepatitis D).
 - a) **Viruses:** (e.g., HIV, chicken pox, influenza, hepatitis) are extremely small microorganisms that are made up of the genetic material known as DNA or RNA, which the virus uses to replicate. Viruses require a living host cell to reproduce.
 - b) **Bacteria:** (e.g., pulmonary tuberculosis, streptococci) are living organisms that are more complex than viruses. Bacteria have the genetic blueprint to reproduce themselves, whereas viruses must invade other cells to reproduce. Bacteria are normally not more than one single cell but can reproduce very rapidly.
 - c) **Fungi:** are single or multi-celled plant-like organisms that can cause a wide variety of fungal infections (e.g., ringworm). Fungi usually appear on the skin but can infect deeper in the body.
 - d) **Parasites:** Organisms that live on or in a host and get their food from or at the expense of their host (e.g., lice).
 - Knowing which type of infectious agent is present informs the practitioner of the types of disinfectants, antiseptics, and antimicrobials that are best to use, the severity of the disease it is

¹ Chain of Infection: Diagram and Explanation; Infection Control for Nursing Students; <http://faculty.ccc.edu/tr-infectioncontrol/chain.htm>

- capable of causing, and the mode of transmission. The possibility of a microorganism causing infection is influenced by the organism's virulence (ability to grow), invasiveness (ability to enter), and pathogenicity (ability to cause disease).
- 2) **Reservoir:** A source that allows for microbial growth and multiplication. Examples include people, equipment, and materials.
 - 3) **Portal of Exit:** The means by which the organisms can leave the reservoir. Some examples include blood, skin, coughs and sneezes, and through other body substances. The portals of exit may be different for different organisms, based on where they are located in the body of the host.
 - 4) **Mode of Transmission:** The method whereby the organisms are transmitted from one place to the next. Examples may be by direct contact, indirect contact with a contaminated body substance, vectors, and fomites (contact with inanimate objects carrying infectious disease). In an acupuncture clinic, the four main transmission routes that are important to understand are direct contact, indirect contact, droplet, and airborne.
 - a) **Direct Contact Transmission:** This is the physical transfer of the infected organisms by the direct physical contact between an infected person and a vulnerable person. Gastrointestinal infections can be transmitted by contact.
 - b) **Indirect Contact Transmission:** This is contact through an intermediary, such as contaminated equipment or work surfaces. Some organisms are capable of surviving on surfaces for lengthy periods of time. For example, Hepatitis B can remain infectious on equipment for a week or more. In an office setting, inanimate objects such as magazines, toys, doorknobs, computer keyboards, and waiting room surfaces are often overlooked as sources of infection.
 - c) **Droplet:** This is contact due to contaminated splatter or through sneezing or talking when an infected person and a vulnerable person are in close proximity. Infected droplets can often be transferred through contact with the eyes or mouth. Droplets normally are large enough that they remain airborne for only short periods of time and can be controlled with protective equipment, such as masks. Influenza, mumps, colds, pertussis, rubella, and SARS are examples of infections that can be transmitted through droplets.
 - d) **Airborne:** Residue from evaporated droplets or infected dust particles can remain suspended in the air for extended periods of time. Airborne microorganisms can remain suspended for long time periods and can be widely distributed by air currents. Environmental controls, such as ventilation systems, are often helpful. Diseases such as tuberculosis, measles, and chickenpox are capable of airborne transmissions.
 - There are other modes of transmission that are not directly relevant to the infection control procedures for an acupuncturist. For example, vector-borne transmission can occur through a bite of vectors, such as mosquitoes, rats, and dogs, or through contact with the infected surfaces of vectors, such as flies. As well, vehicle transmission relates to microorganisms transmitted to multiple hosts through contaminated sources, such as water supply, food products, and medications.
 - 5) **Portals of Entry:** The site where organisms can gain access to the hosts. Examples include mucous membranes, breaks in the skin, needle punctures, etc.
 - 6) **Susceptible Host:** A person who lacks the immunity or resistance to the invasion of the body and reproduction by the microorganisms, resulting in infection.

More information about infectious diseases is found on the Public Health Agency of Canada's website at <http://www.phac-aspc.gc.ca/id-mi/index-eng.php>.

The practitioner should identify the contagious biological agent (pathogen) and the mode of transmission. Once these are identified, controls that aim to break the chain of infection at the most appropriate link(s) need to be selected and addressed.

2.2.2 Contamination and Cross-contamination in the Acupuncture Clinic

Infections can occur with or without direct skin penetration.

Sharps (e.g., acupuncture needles, dermal needles) are intended to penetrate the skin, thereby becoming easily and regularly contaminated by blood or body fluids. The contaminated sharp object can infect the practitioner through inadvertent penetration caused by unsafe disposal or handling of the sharp object (i.e., needle stick accident).

Infections may also be the result of the use of contaminated equipment or utensils coming in contact with open cuts or contaminated hands inadvertently touching mucous membranes in the area of the eye, nose, or mouth.

Potential infection can also be caused through normal contact with the environment, including treatment tables, work surfaces, doorknobs, and waiting room furniture. The name of such objects is **fomites** (objects that have become contaminated with microorganisms and serve as a vehicle of transmission for infection).

Infectious organisms can be spread throughout a clinic by contamination or by cross-contamination.

- **Contamination** is the spread of infectious micro-organisms to an object (such as an acupuncture needle or herb storage container).
- **Cross-contamination** is the indirect spread of infection from one person to another person via unclean instruments or improper sterilization processes.

Contamination and cross-contamination put both the patient and the practitioner at risk and can be caused by practices such as:

- Clean equipment or instruments placed on unclean surfaces.
- Sterile equipment or instruments placed on non-sterile surfaces.
- Inadequate acupuncturist.
- Contaminated instruments and tools are not disposed of promptly and appropriately.
- Linens are not cleaned thoroughly.
- Surfaces and practice environment are not satisfactorily and regularly cleaned (viruses can survive on damp, warm work surfaces for just a few hours, e.g., HIV, or for weeks or longer, e.g., Hepatitis A can survive for months).

The following chart summarizes the most common types of biological hazards, their sources, and their recommended control measures to protect Acupuncturists from exposure:

Type of Biological Hazard	Source of Hazard	Recommended Control Measures
Blood borne pathogens	Needle stick injuries, contaminated surfaces of equipment and furnishings, cups, lancets	<ul style="list-style-type: none"> • Immunization of staff • Use of disposable, single use, sheeted needles • Proper disinfection of cups, other reusable equipment, surfaces, and linens • Use of sharps disposal containers • Proper spill response procedures and waste disposal • Personal protective equipment (PPE) as required
Respiratory infectious agents	Patients coughing, etc., contaminated surfaces	<ul style="list-style-type: none"> • Immunization of staff • Proper disinfection of surfaces and materials • Adequate ventilation

Type of Biological Hazard	Source of Hazard	Recommended Control Measures
		<ul style="list-style-type: none"> Gloves and masks, protective eyewear as required
Intestinal and other parasites	Patients with parasitic infections – contaminated bedding; skin contact	<ul style="list-style-type: none"> Proper disinfection of surfaces and materials PPE as required
Other infectious agents	Needlestick injuries, contaminated surfaces, direct patient contact, etc.	<ul style="list-style-type: none"> Proper disinfection of cups, other reusable equipment, surfaces, and linens Proper disinfection of surfaces and materials PPE as required

2.2.3 Common Risks for Infection in the Acupuncture Clinic

The main modality used in an acupuncture clinic is treatment that involves needling. Because of the invasive nature of this technique, special attention is needed to eliminate the risk for bloodborne infections. Patients with upper respiratory infections are regularly seen in an acupuncture clinic; therefore, care should be taken to avoid the spread of respiratory infections through airborne pathogens.

Gastro-intestinal infections may also occur in an environment with poor hygiene. In a clean, well-maintained acupuncture clinical setting, it is less likely (but not impossible) to have problems with this kind of infectious diseases.

In this Safety Handbook, we will briefly discuss some infections that pose a significant risk in an acupuncture clinic.

- Hepatitis B** is an infection of the liver caused by the Hepatitis B virus (HBV). The swelling of the liver is due to the reaction of the body’s immune system to the infection. Hepatitis B causes acute symptoms but becomes a chronic condition. Sometimes it is asymptomatic. There is no cure for Hepatitis B, but there are means to control the infection. Vaccination is an effective means to prevent HBV infection. Health care workers who regularly come in contact with blood and other body fluids are particularly at risk and should be immunized against Hepatitis B.

 - The use of the clean needle technique and single-use, sterile acupuncture needles greatly reduce the risks of infection. (Read [Hepatitis B Fact Sheet](#), Health Canada.)*
- Hepatitis C** is also a viral infection of the liver and is caused by the Hepatitis C virus (HCV). Hepatitis C has acute and chronic symptoms. Symptomatic treatments are standard and apparently total cure may be possible with new medication that hopefully will be available to the public soon. Health care workers who regularly come in contact with blood have an elevated risk. The use of the clean needle technique greatly reduces the risks of infection. (Read [Hepatitis C Fact Sheet](#), Health Canada.)
- Hepatitis A** is more frequently evidenced in locations with poor sanitation. Eating food and drinking water that is contaminated by fecal matter containing the Hepatitis A virus (HAV). Hepatitis A is generally considered less dangerous than Hepatitis B or C. Similar to Hepatitis B, there is a vaccine available for Hepatitis A. An effective way of preventing an HAV infection is regular hand washing or the use of an alcohol-based hand rub. (Read [Hepatitis A Fact Sheet](#), Health Canada.)

- The **Human Immunodeficiency Virus (HIV)** results in progressive deterioration of the immune system and increased vulnerability to infections. HIV is also a blood-borne pathogen that spreads mainly through direct contact with certain body fluids, including blood. Health care workers who regularly come in contact with blood and other body fluids should take appropriate precautions, such as the use of PPE. HIV can lead to Acquired Immune Deficiency Syndrome (AIDS), in which case patients suffer from a variety of opportunistic infections. HIV can be detected through a blood test.
 - *In an acupuncture practice, strict adherence to routine practices outlined in this document provides effective protection to minimize risks for patients and practitioners. (Read information from Health Canada on [HIV/AIDS](#).)*
- **Influenza** or the flu primarily affects the respiratory tract and is caused by the influenza virus. Influenza can be spread through droplets, often when someone coughs or sneezes, in enclosed spaces without paying attention to respiratory etiquette, through direct contact with contaminated hands, and by indirect contact with contaminated objects (e.g., doorknobs). Influenza often has seasonal strains. The elderly or weak are at greater risk of severe complications. (Health Canada has additional information on the [Canadian Pandemic Influenza Preparedness: Planning Guidance for the Health Sector](#).)
 - *Acupuncturists, as health care professionals, have an obligation to **report** communicable/reportable diseases. If during the course of treatment, practitioners become aware of a communicable/reportable disease, they must take the necessary steps to report as required by provincial legislation.*

2.3 Routine Practices

Health Canada uses the terminology “**Routine Practices**” to describe a basic level of infection control that is expected to be used in a healthcare setting, and it **identifies procedures that apply at all times and with all patients**. In the United States, the Centers for Disease Control (CDC) may use the equivalent term “**Standard Precautions**”.

Routine Practices assume that all patients are potentially sources of infection, even if they don’t show any signs or symptoms of the infection. It also means that all blood, body fluids (except tears and sweat), secretions, excretions, non-intact skin, undiagnosed rashes, and mucous membranes are potentially contagious. Routine practices control the transmission of infectious microorganisms in healthcare settings from patient-to-practitioner, patient-to-patient, and practitioner-to-patient.

Routine practices for acupuncturists include:

- Conducting risk assessments;
- Hand hygiene (hand washing and alcohol-based hand rubs);
- Use of PPE; and
- Safe handling and disposal of sharps.

2.3.1 Conducting Risk Assessment

A risk assessment approach to infection control requires the practitioner to analyze and assess how risk can be minimized before each interaction with patients as an overall strategy for clinical safety.

A patient’s risk assessment should be performed before each interaction. The interventions required to prevent the transmission of infection will vary, and will depend on:

- Likelihood of exposure to blood, secretions, and body fluids;

- Health of the patient;
- Characteristics of the patient, such as level of anxiety;
- Clinical environment and resources available; and
- Immune status of the practitioner.

Higher risk procedures may require the use of appropriate PPE, while interactions that do not involve physical contact may require fewer precautions.

2.3.2 Respiratory Etiquette

The following measures to contain respiratory secretions are recommended for all individuals with signs and symptoms of a respiratory infection:

- Covering cough/sneeze with a sleeve or tissue;
- Disposing of used tissues in garbage;
- Washing hands after coughing or sneezing; and
- Masking when in waiting room with influenza symptoms (cough and fever).

2.3.3 Hand Washing

Hands are the most common vehicles of transmission of disease. Therefore, adequate **hand hygiene** is the most important infection prevention measure. Hand washing with liquid hand soap and water should be performed before procedures requiring aseptic technique, especially when alcohol-based hand rub is not accessible.

Hand washing has to be done before and after patient contact, after contact with contaminated articles, after removing gloves, and after inadvertent exposure to blood or body fluids. Gloves are not a substitute for hand washing. *Alberta Health Services, Infection Prevention and Control* recommends the following hand washing procedure:

- Roll up long sleeves and push up any wrist accessories;
- Wet hands with warm water;
- Apply enough soap to cover surfaces of the hands;
- Vigorously rub soap over palms, backs of hands, and wrists;
- Include space between fingers, fingertips, and thumbs;
- Procedure should take 15 to 30 seconds;
- Rinse under warm, running water;
- Pat hands dry with disposable towel; and
- Turn the tap off with the disposable towel.

Periodically apply hand lotion for skin integrity.

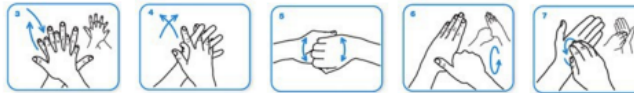


How to Hand Wash

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- Roll up long sleeves and push up any wrist accessories
- Wet hands with warm water
- Apply enough soap to cover surfaces of the hands



- Vigorously rub soap over palms, backs of hands and wrists
- Include space between fingers, fingertips and thumbs
- Procedure should take 15 to 30 seconds



- Rinse under warm, running water
- Pat hands dry with disposable towel
- Turn tap off with the disposable towel

Periodically apply AHS-provided hand lotion for skin integrity.

Adapted with permission from The World Health Organization

Original date: May 2017
Revised date: June 2019



Alcohol-based Hand Rub

Alcohol-based hand rub (ABHR) is the preferred method for decontaminating hands. Using ABHR is better than washing hands when hands are not visibly soiled, in which case hand washing with soap and running water must be performed. If running water is not available, use hand wipes to remove the visible soil, followed by ABHR.

How to Use Alcohol-based Hand Rub

- Roll up long sleeves and push up wrist accessories;
- Apply a palmful of ABHR to hands;
- Rub all surfaces of your hands and wrists;
- Include palms, fingers, fingertips, and thumbs; and
- Rub until hands are completely dry.

Periodically apply hand lotion for skin integrity.

How to Use Alcohol-based Hand Rub

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- Roll up long sleeves and push up wrist accessories
- Apply a palmful of AHS-provided ABHR to hands
- Rub all surfaces of your hands and wrists



- Include palms, fingers, fingertips and thumbs
- Rub until hands are completely dry



Periodically apply AHS-provided hand lotion for skin integrity.

Adapted with permission from The World Health Organization

Original date: May 2017
Revised date: April 2019



2.3.4 Hand Washing Facilities

Hand hygiene is essential to effective infection control. Therefore, hand-washing facilities should be easily accessible and kept clean. Every sink should have a soap dispenser and disposable towels. Sinks designated for hand washing should not be used for other purposes, and, if a sink is not available in a treatment room, an alcohol-based hand sanitizer must be available.

Routine Practices include being attentive to all routes of transmission. Awareness of routes of transmission has led to the development of a variety of transmission-route specific strategies. Most of these are well documented in infection prevention and control plans. In particular, hand hygiene is identified as the single most important administrative strategy in infection prevention and control.

Hand hygiene is the most important infection control measure. Hand washing should be done:

- Before and after patient contact or acupuncture treatment;
- Before and after preparing, handling, or dispensing herbs or herbal remedies;
- When hands are contaminated during the treatment;
- Immediately after inadvertent exposure to blood or body fluids;
- When hands are visibly soiled;
- After contact with environmental surfaces or equipment;
- After removing gloves;
- Before preparing, handling, serving, or eating food;
- After handling money or other items that may be contaminated;

- After answering the phone or using the computer or other electronic devices and returning to a patient; and
- After personal body functions.

2.3.5 Antiseptic Agents

Isopropyl alcohol (70%) is an acceptable disinfectant for the skin. Use disposable alcohol swabs or forceps with a saturated cotton ball (70% isopropyl alcohol) to prepare the skin for needling by performing a firm swipe without overlapping the area that has been swiped (a straight swipe or a swipe making an eccentric circle).

2.3.6 Personal Protective Equipment (PPE).

Medical Gloves

The use of gloves is not a substitute for hand washing. Gloves provide an additional protective barrier between the hands of the health care worker and blood, body fluids, secretions, excretions, and mucous membranes. It reduces the risk of transmission of microorganisms from the infected patient to the health care workers' hands and vice versa.

Recommendations in Glove Use:

- Glove use is not required for routine patient care if contact is limited to the patient's intact skin.
- Clean non-sterile medical gloves should be used in the following situations:
 - If exposure to blood and body fluids is anticipated (bleeding techniques.)
 - When bleeding starts during treatment.
 - If exposure to potentially infectious material such as pus, feces, respiratory secretions, or exudates of skin lesions is anticipated (patients with open skin lesions).
 - When the health care worker has skin lesions on his or her hands or when the health care worker has an HBV or HIV positive status.
- General-purpose reusable utility/household gloves are required for housekeeping activities, instrument cleaning, and decontamination procedures. Medical gloves are not durable enough for these activities. Also, the exposure of latex gloves to soap, chlorhexidine, or alcohol can cause micro punctures in the gloves resulting in "wicking" which can draw contaminated liquid through the glove to the skin putting the person at more risk of exposure to contaminated materials.

Masks

Masks can provide additional protection for the practitioner or the patient against transmission by droplets or splatter. Masks are effective in reducing the risks and the spread of droplet-borne organisms (e.g., coughs and sneezing), but are less effective against airborne infections. Procedure masks need to be replaced if they become wet or soiled at with each new patient. The filtration function of the mask becomes impaired with saturation from moisture with breathing.

2.3.7 Safe Handling and Disposal of Sharps

Used needles and sharps must be treated with extreme caution in order to prevent infections and injuries to practitioners, patients, and staff.

Sharps (needles, "plum blossom" heads, lancets) should be disposed of in an impervious, marked sharps container that is clearly labeled. Each needle or other sharp instrument has to be discarded in this container immediately after use, one by one. Sharps containers should never be filled more than 75% (three-quarters) of their capacity and must be disposed of according to local and provincial guidelines.

2.4 Additional Precautions (Transmission-based Precautions)

Whenever routine practices are not sufficient to control transmission, additional precautions need to be applied. This may include the physical separation of infectious patients and additional use of protective barriers to prevent transmission by contact, droplet or airborne pathogens.

2.4.1 Patient Management

Some patients may arrive at a clinic with communicable diseases that will require additional precautions to keep you, your staff, and other patients safe.

Because of the very nature of the work of acupuncturists, people who are ill will be seeking your advice, and the waiting room of the clinic may be an environment that hosts infectious diseases. It is the responsibility of the practitioner to protect all patients who have come to them for health care through vigilant patient management and a clean clinical environment.

2.4.2 Additional Precautions for Infectious Patients

- Try to arrange the waiting room to maximize the separation of possibly infectious patients from other patients (two meters or more if possible).
- Post signs that patients with respiratory or gastrointestinal symptoms should clearly identify this to the practitioner or to staff.
- Post signs encouraging respiratory etiquette (covering nose and mouth).
- Offer masks to patients, and provide tissues, waste containers, and hand sanitizers.

2.4.3 Droplet Transmission Precautions

- Triage the patient from the waiting room as quickly as possible.
- Use a mask and wear medical gloves while working within two meters of the patient and offer mask and hand sanitizer to the patient.
- At the end of the treatment, wipe all horizontal surfaces and utilized instruments with low-level disinfectant.

2.4.4 Contact Transmission Precautions

- Triage the patient from the waiting room as quickly as possible.
- Wear medical gloves and gown as appropriate.
- Offer patient hand sanitizer.
- At the end of the treatment, wipe all horizontal surfaces and identified instruments with low-level disinfectant.

2.4.5 Airborne Transmission Precautions

- Triage the patient from the waiting room as quickly as possible.
- Try to see these patients at the end of the day or during low volume times.
- Use a high-efficiency mask (e.g., N95 particulate respirator).
- If treating patients with chicken pox (varicella) or measles (rubella), the treating practitioner should be immune.
- Provide a mask for the patient to use throughout the treatment and offer hand sanitizer.
- Notify staff of the need for extra care or to use masks if not immune.
- Open a window if possible or allow time for ventilation to exchange air. (Ideally, see the patient at the end of the day).

Acupuncturists must ensure that infection prevention and control procedures (including routine practices and additional precautions) are evident in their practice and applied by staff.

Another important control to reduce the potential of exposure to biological hazards is the cleaning and disinfection of clinic equipment and surfaces.

The following sections (*in italics*) have been adapted from the *Safety Program Handbook for Traditional Chinese Medicine Practitioners and Acupuncturists* (December 2012) with the kind permission of the (CTCMA-BC) and the (CTCMPAO).

2.5 Cleaning, Disinfecting, and Sterilizing

2.5.1 Cleaning the Environment

General Housekeeping

All housekeeping surfaces need routine or periodic cleaning with a solution of diluted detergents. Establish a cleaning schedule to ensure all surfaces are kept clean and educate your cleaning staff to ensure they understand the importance of their work in a health care setting. High traffic or high touch surfaces should be identified for more frequent cleaning (e.g., doorknobs, handles), possibly using a low-level disinfectant, where appropriate. Non-clinical surfaces that are low risk for contamination should be cleaned first then disinfected using a low-level disinfectant such as:

- Quaternary ammonium compounds;
- Chlorine bleach solution (e.g., 1:500, 1 part chlorine and 499 parts water);
- 3% hydrogen peroxide or
- Phenols (sometimes called phenolics).

These products come as liquids or as disinfectant wipes. Staff should use household utility gloves for disinfecting.

Note: *There is a difference between alcohol-based wipes and detergent-based wipes when cleaning. Alcohol wipes do not clean, and their use is limited to routine environmental decontamination. Detergent wipes clean but do not disinfect. Detergent wipes are suitable for environmental cleaning but are not suitable for blood and body fluid spillages.*

Floor mops should be cleaned and dried after use, and fresh cleaning solutions should be used each day to prevent creating reservoirs for infectious organisms. Carpets are not recommended for high traffic areas. Carpets are more difficult to clean and disinfect to the standard required in a health care setting.

Clinical Contact Surfaces

Clinical contact surfaces that may be contaminated by spray, splatter, or touch should be cleaned and disinfected after each patient visit. Surfaces should be cleaned (using utility gloves) with a low-level disinfectant. In some instances, an intermediate level disinfectant (e.g., 1:10 household bleach mixed daily or 70-90% isopropyl alcohol) may be necessary. To facilitate clinical cleaning, treatment areas should be uncluttered and well organized.

2.5.2 Cleaning Blood Spills

- Wear household utility gloves.
- Blot or wipe up as much as possible using disposable towels. Dispose of the paper towels in a plastic lined and covered container. (See additional information on waste disposal.)

- Clean the spill area with a detergent disinfectant. Dry with disposable towels.
- Use an intermediate-level, hospital-grade disinfectant on the area and follow the manufacturer's directions. An alternative is a 1:10 dilution of household bleach and leave for at least ten minutes before drying with a disposable towel.

Suggested uses for Chlorine (bleach) solutions:

Purpose	Solution
General household cleaning	1:500
Cleaning clinical contact surfaces	1:10 to 1:20
Cleaning blood spills	1:10, leave for more than 10 minutes

2.5.3 Laundering Sheets, Towels, or Other Linens

Practitioners may use linens (washed on site or handled by a linen service) or disposable paper sheets to cover patient treatment areas. All bed linens, used towels, or disposable paper sheets must be changed between patients. When using washing machines, linens (e.g., sheets, towels, gowns, pillowcases) must be laundered according to the following protocol:

- Follow washing machine instructions for loading and operating.
- Use hot water wash cycle unless using a cold-water detergent.
- Follow detergent instructions for load size and load soiling. Measure detergent with measuring cup provided or use pre-measured amount, e.g. detergent pod.
- Use complete/full wash and rinse cycles. Heavy soiling may require additional prewash cycles.

It is recommended that linens be laundered with hot water (70°C to 80°C) and soap, as hot water is the single most important factor for preventing disease transmission. Bleach can be added for an extra margin of precaution.

Linens that are soiled with blood should be handled, transported, and laundered with additional care. Place linens in appropriate impermeable bags and use protective nonmedical utility gloves when handling.

2.5.4 Cleaning, Disinfecting, and Sterilizing

Practitioners are expected to understand the differences among and important features of what is meant by cleaning, disinfecting, and sterilizing in the context of their acupuncture practice.

Cleaning is the removal of visible soil from objects and surfaces and is normally accomplished using water with detergents or enzymatic products. Thorough cleaning is vital before high-level disinfection and sterilization, because inorganic and organic materials that remain on the surfaces of instruments constrain the effectiveness of these procedures.

Sterilization describes a process that destroys or eliminates all forms of microbial life and is carried out in health-care facilities by physical or chemical methods. Steam under pressure, dry heat, and liquid chemicals are sterilizing agents often used in health care facilities.

Disinfection describes a process used on inanimate objects that kills or destroys many or all infectious microorganisms, except bacterial spores. In health care settings, objects are usually disinfected using liquid chemicals.

Sterilants are a unique class of disinfectants. Unlike sterilization, disinfection does not kill spores. A few disinfectants will kill spores with prolonged exposure times (three to twelve hours); these are called chemical sterilants. These same chemicals used for shorter exposure periods can act as high-level disinfectants.

Decontamination removes infectious microorganisms from objects, so they are safe to handle or discard.

Germicide is an agent that can kill pathogenic organisms or “germs”. The term germicide includes both *antiseptics* and *disinfectants*. Antiseptics are germicides that can be applied to skin and tissue, while disinfectants are antimicrobial substances that can be applied only to inanimate objects.

Fungicide, bactericide, and sporicide are examples of terms that indicate by their prefix the type of microorganism that can be destroyed through application. For example, a fungicide is an agent that kills fungus.

2.5.5 Cleaning Instruments and Equipment

Cleaning of equipment and reusable patient care items and instruments is an essential step for preventing transmission of infected microorganisms to patients and to practitioners.

Practitioners can reference a useful fact sheet from Toronto Public Health titled, “Personal Service Settings: [Cleaning Instruments.](#)”



Toronto Public Health, January 2009.

Instruments MUST be properly cleaned, rinsed, and dried before disinfection and sterilization. Cleaning can be considered the most important step since it is required to remove any organic debris that will compromise the process of disinfection or sterilization.

The following chart is adapted from “Infection Prevention and Control Best Practices for Personal Services Setting”, Ministry of Health and Long-Term Care, Ontario, January 2009:

Steps to Clean Instruments

	Cleaning Process	Reason and Comments
1	Soak items that cannot be immediately cleaned in a container of clean warm water (with or without detergent) in a clean sink or in a container labeled “dirty instruments”.	Soaking instruments prevents blood and other organic matter from drying on the item. Do not soak dirty items in hot water or in a disinfectant before cleaning, as this can cause organic matter (dirt) to stick to the surface of the object.
2	Put on thick rubber utility gloves (non-medical gloves).	Thick rubber utility gloves suitable for cleaning have a wider bib at the wrist to help prevent water from entering the inside of the glove.

	<i>Cleaning Process</i>	<i>Reason and Comments</i>
3	Take instruments apart and rinse in a sink filled with lukewarm water.	Hot water may cause organic matter (dirt) to stick to objects.
4	Prepare cleaning sink by adding warm water and detergent .	To reduce the risk of injury, ensure that sharp objects are visible by using low suds detergent according to directions.
5	Clean instrument surfaces by using friction (washing and scrubbing motions). Use a brush to clean any crevices or seams in instruments.	Scrub below the water surface to prevent splashing into the eyes or onto clothing. An ultrasonic cleaner may be used for cleaning. When using this device, the lid should be closed to prevent aerosolization.
6	Inspect instruments to ensure removal of all visible organic matter.	Organic matter prevents disinfection from occurring.
7	Drain dirty water. Rinse cleaned instruments under running water.	Rinsing removes residual detergent and soil that may impair the function of the instrument or interfere with the action of disinfectants.
8	Either air dry or dry with a disposable towel.	If wet items are not dried a film may be left on the surface, which may contain pathogens.
9	Store cleaned instruments in a covered container (can be a towel or in a clean storage area) until disinfected or sterilized, as required.	Uncovered, clean instruments may become contaminated by dust or moisture.
10	Clean and disinfect the sink.	Sinks become contaminated during use; therefore, cleaning and disinfection is required to reduce microorganisms prior to reuse.
11	Remove rubber utility gloves and wash, rinse, and hang to dry.	Cleaned rubber utility gloves may be used again as long as the rubber is not torn or punctured.
12	Perform hand hygiene .	Hand hygiene should be performed after removing gloves.

Additional Best Practices: Cleaning

- Staff must be protected when cleaning instruments. Supply required personal protective equipment (including household gloves).
- Begin the cleaning process as soon as possible after use so that organic material does not dry and harden.
- If staff is required to clean equipment, it is best to assign tasks to a single person who should receive ongoing training related to new instruments or equipment.
- Follow manufacturers’ recommendations and keep important procedures near the reprocessing area for reference and reminder.
- The use of automated cleaning equipment can be more efficient, effective, and safe for staff by reducing risks of exposure to blood or body fluids. Large debris should be removed before using ultrasonic cleaners. Ultrasonic cleaners do not sterilize or disinfect.

2.5.6 Sterilizing and Disinfecting

Specific patient care items must be cleaned then disinfected or sterilized after each use. Instruments are categorized based on whether they contact sterile tissue, mucous membranes, or intact skin. Medical instruments are categorized as critical, semi-critical, or non-critical. The categorization is used to determine the reprocessing requirements.

Categorization of Medical Instruments

Category	Definition	Reprocessing (minimum requirement)
Critical item	Enters sterile tissue, including bloodstream (arteries and veins).	Cleaning, followed by sterilization
Semi-critical item	Contacts intact mucous membranes or non-intact skin (but ordinarily does not penetrate), the exception being needling followed by cupping, in which exposure to blood borne pathogens require sterilization of cupping devices. For example, cups used on non-intact skin with needling.	Cleaning, followed by high-level disinfection* (some items may require only intermediate level disinfection)
Non-critical item	Contacts intact skin (but not mucous membranes) or does not directly contact the patient these items are rarely contaminated. For example, Tuina devices, electrical clips, and rubber or silicone electrical pads.	Cleaning, plus low level disinfection

* Sterilization is often preferred for semi-critical items. High-level disinfection may sometimes be used for semi-critical items that cannot tolerate sterilization.

Some of the factors that reduce the effectiveness of disinfection and sterilization include:

- Insufficient cleaning as an initial step to remove matter
- Nature and level of contamination
- Incorrect dilution of disinfectant
- Water that is used is too hard
- Inadequate exposure time to the germicide
- Physical nature of the object (e.g., small crevices, flexible hinges)
- Incorrect temperature and pH of the disinfection process
- Reduced effectiveness because used passed expiry date
- Reactions to rubber or plastic

Disinfection

Disinfection is a process used on inanimate objects to eliminate many or all pathogenic microorganisms, except bacterial spores.

Disinfectants are all registered in Canada and should come with a drug identification number (DIN). This means that the manufacturer has to stand behind the claims about which microorganisms it is effective against and the described safe use of the product. You should request the material safety data sheet (MSDS), which provides information about the product and the worker safety procedures. There are three levels of disinfection: high-level, intermediate-level, and low-level.

Chemical disinfectants

Chemical disinfectants are used to decontaminate surfaces, reservoirs of infectious material, and to clean up spills of infectious material. The choice of chemical disinfectant must be made carefully based on:

- Types of organisms, suspected or known
- Items or surfaces to be decontaminated
- Hazards posed to the worker by the disinfectant
- Cost of disinfectant
- Corrosiveness of disinfectant
- Shelf life and required dilution of disinfectant
- Material which inactivates the disinfectant



Considerations in the Use of Chemical Disinfectants

- *As much as possible, know what the possible contaminants are.*
- *Choose the disinfectant carefully. More than one may be required. Keep in mind the items to be disinfected and the properties and limitations of the various available disinfectants. If more than one disinfectant is required, ensure that those selected are chemically compatible.*
- *Follow the manufacturer's directions for making the proper dilutions of the disinfectants.*
- *The effective life of disinfectants can vary depending on the formulations and the conditions of usage. Follow the manufacturer's directions.*
- *The effective exposure time that the disinfectant must be in contact with the contaminant will also vary with conditions of usage. Often overnight exposure may be recommended to ensure effective decontamination.*
- *Understand the health and safety hazards that may be posed by a particular disinfectant and ensure appropriate precautions are taken. Wear disposable gloves when using any disinfectants. Wear other personal protective equipment or clothing as necessary, depending upon the disinfectants. Consult MSDS for details.*
- *Workers with particular sensitivities to specific disinfectants should avoid using those disinfectants.*

A Word about Bleach

Household bleaches contain sodium hypochlorite; the free chlorine concentration is 5.25%. This is equivalent to 52,000 ppm. Dilutions of 1:10 are frequently used in clinic areas. This provides 5,200 ppm of available chlorine. A 1:20 dilution (2,500 ppm) may be used for routine disinfection when negligible amounts of organic material are present (such as disinfecting surfaces and counters). Concentrations up to 10,000 ppm (1:5 dilution) may be used for heavy organic contamination. Hypochlorite is effective against a wide range of bacteria and viruses and is most commonly used for instrument soaks, spill response, work surfaces, and liquids to be discarded.

Solutions of hypochlorite lose effectiveness with time. Dilutions decay more rapidly. For this reason, solutions should be replaced regularly. The recommended shelf life for a working dilution is approximately twenty-four hours. This is particularly important to keep in mind when providing hypochlorite germicides with spill response supplies.

Time required for disinfection depends upon the nature and amount of material that is to be disinfected. For decontaminating liquid wastes, a more concentrated form of disinfectant should be used; the resulting solution should be kept for at least one hour before disposal. For spill response, disinfectant should be allowed to react with spilled material for approximately ten minutes before further clean up. It is important to note that hypochlorite is very corrosive to metals and should not be used to disinfect metal instruments. In addition, fumes from concentrated bleach can be hazardous, and the bleach solutions can irritate skin. Appropriate PPE should be worn when handling concentrated solutions.

Disinfection Chart

The following chart is adapted from, "Infection Prevention and Control Best Practices for Personal Services Setting," Ministry of Health and Long-Term Care, Ontario, January 2009.

This chart is NOT inclusive of all approved high-, intermediate-, and low-level disinfectants but is only to provide guidance to practitioners.

High-Level Disinfection

High-level disinfectants will kill all bacteria and viruses but will not kill large numbers of bacterial spores. These disinfectants may be used for critical items that cannot withstand heat sterilization.

<i>Chemical (Examples)</i>	<i>Application</i>	<i>Exposure Time (Approximate)</i>	<i>Notes</i>
2% glutaraldehyde* (not recommended for personal service settings)	semi-critical devices	45 minutes (follow manufacturer's instructions)	Toxic, irritating to skin, and limited shelf life Use in well-ventilated room NEVER use as a spray Not recommended for personal service settings
6% hydrogen peroxide (not the 3% hydrogen peroxide found in stores)	semi-critical devices	45 minutes (follow manufacturer's instructions)	Can be corrosive to metals, such as brass, copper, and silver
Ortho-phthalaldehyde (OPA) 0.55%	semi-critical devices	> 10 minutes (follow manufacturer's instructions)	Less occupational risk No mixing and fast acting stains proteins and limited shelf life
1:10 chlorine bleach solution (using 5.25% chlorine bleach)	semi-critical devices	> 10 minutes	Inexpensive, but can corrode and destroy adhesives
* Can be used as a sterilant with increased exposure time (>10 hours) and carefully following manufacturer's instructions.			

Intermediate-Level Disinfection

Intermediate-level disinfectants will kill most bacteria, most fungi, and most viruses but does not kill large numbers of bacterial spores, such as *Mycobacterium tuberculosis*.

<i>Chemical (Examples)</i>	<i>Application</i>	<i>Exposure Time (Approximate)</i>	<i>Notes</i>
70 to 90% isopropyl alcohol	Non-critical equipment and devices that require intermediate-level disinfection	10 minutes	Allow to dry Fast acting Can damage rubber
1:50 chlorine bleach solution (5.25% chlorine bleach)	Non-critical equipment and devices that require intermediate-level disinfection	10 minutes	Inexpensive, but can corrode and destroy adhesives

Low-Level Disinfection

Low-level disinfectants will kill some bacteria, some fungi, and some viruses (e.g., HBV, HCV), but it is not effective against *Mycobacterium tuberculosis*, fungi, or spores.

<i>Chemical (Examples)</i>	<i>Application</i>	<i>Exposure Time (Approximate)</i>	<i>Notes</i>
Quaternary ammonium compounds	Non-critical devices that require low-level disinfection	Follow manufacturer's instructions	Do not use for instruments
3% hydrogen peroxide			Low risk of irritation to the user

1:100 chlorine bleach solution	and environmental surfaces		No cleaning properties. May corrode or oxidize some metals
Phenolics			For environmental surfaces only

2.5.7 Sterilization

Sterilization, when done correctly, destroys all forms of microbial organism (bacteria, viruses, spores, and fungi), including the most resistant forms, such as bacterial spores. Any item that is invasive or pierces the skin MUST be sterile. Single-use, pre-sterilized, acupuncture needles must be used prior to the expiry date and should not be reused or de-sterilized.

Any sterile instruments that are accidentally touched or contaminated, either before or during treatment, should be replaced by another sterile instrument. All items that are reprocessed for sterilization must be pre-cleaned and appropriately packaged and stored after sterilization. There are two main types of sterilization: steam (autoclave) and dry heat.

Since the use of pre-sterilized disposable single use needles, equipment for sterilization is not regularly available in acupuncture clinics. It is much more economical to discard and/or destroy items that would need sterilizing because of contact with blood or other body fluids in a safe manner.

Steam Autoclave

The time required for sterilization will be dependent on whether the instrument is wrapped or unwrapped. For example, packaged items at 121°C may require a sterilization time of 30 minutes. Others may suggest 133°C for 15 minutes. Unpackaged instruments regularly require less time. Unwrapped instruments should be used immediately to avoid contamination. Some autoclaves may not have a drying cycle, but packages must be dry before being removed to reduce chance of contamination. Always follow manufacturer’s guidelines and instructions when using the autoclave.

Sterilization CANNOT be done in domestic ovens, microwave ovens, boiling water, alcohol, ultraviolet sterilizers, or pressure cookers.

Monitoring Sterilization

Chemically treated bags or tape that alters color are useful to confirm that items have been processed and have been exposed to the required combination of time, temperature, and steam. These indicators do NOT provide evidence that sterilization has taken place. Only biological indicators (or spore tests) can confirm sterilization. Spore strips or vials should be placed in the center of the load during a regular sterilizing cycle. Bacillus stearothermophilus should be used for steam sterilization, and Bacillus subtilis should be used for dry heat.

Tests should be conducted each month (more frequently for heavy use) and sent to a laboratory to test for spore kill. A clinic should have a back-up plan for sterilization in case test results are positive and the sterilizer needs to be repaired or replaced.

All items for sterilization must be pre-cleaned. The effectiveness of sterilization is influenced by time, temperature, pressure (in autoclave), and full contact with the item that is being sterilized.

The following chart is adapted from, “Infection Prevention and Control Best Practices for Personal Services Setting,” Ministry of Health and Long-Term Care, Ontario, January 2009:

Steps to Sterilizing Instruments

	<i>Steps</i>	<i>Notes</i>
1	<i>Clean instruments (refer to chart: Steps to Clean Instruments).</i>	<i>Instruments that are not clean cannot be sterilized.</i>
2	<i>Perform hand hygiene and apply gloves.</i>	<i>Hands should be as clean as possible to prevent contamination of clean instruments /equipment.</i>
3	<i>Clean instruments must be placed in the appropriate sterilization package and sealed.</i>	<i>Sealed, packaged items will maintain sterility after sterilization has been achieved until opened for use. If packaging becomes wet or damaged, sterility cannot be ensured.</i>
4	<i>Temperature sensitive chemical indicators must be used with each package.</i>	<i>Temperature sensitive chemical indicators provide an immediate visual check to ensure package has been processed. Note: The colour change demonstrated by a chemical indicator.</i>
5	<i>Load the sterilizer evenly and avoid overloading the chamber. Follow manufacturer's directions for loading the chamber.</i>	<i>Overloading the sterilizer will prevent effective sterilization; allow space between the packages.</i>
6	<i>Start the sterilization process.</i>	<i>Sterilizing time, temperature, pressure, and cycles may vary depending on the type of sterilizer used. Follow manufacturer's instructions at all times.</i>
7	<i>After the sterilization cycle has been completed, remove instruments when dry.</i>	<i>With dry heat, and ensure items are dry before removing from the unit. Sterilized instruments may become contaminated when wet packaging is handled.</i>
8	<i>Store sterilized items in a clean, dry place that is protected from dust, dirt, and moisture.</i>	<i>Handling increases the chances of punctures of sterilized bags. Sterilized items must be stored separately from dirty equipment/instruments.</i>
9	<i>Record information about each of the sterilization cycles in the logbook.</i>	<i>Monitor each load, recording temperature, pressure, cycle length, etc. Mark the date that the product was sterilized.</i>

2.5.8 Clinic Waste and Linen Management

The waste from an acupuncture clinic should be segregated and disposed of according to municipal/provincial regulations. This means that all waste sharps, such as needles, syringes, and razor blades, shall be placed in a puncture-resistant container with a tight-fitting lid and disposed of in accordance with the Regional Health Authority's requirements. All other waste materials shall be collected in appropriate containers.

Indoor waste receptacles shall be lined with disposable plastic bags. Regular waste, such as office paper or single-use paper hand washing towels, may be discarded in regular waste bins. Contaminated waste (e.g., swabs tinged with blood) should be disposed of in plastic bags and tied before being put in regular waste pick-up. It is preferable to avoid having waste receptacles with a swinging lid in the acupuncture clinic, as they are touched, and therefore may be contaminated. All bed linens, used towels, or disposable paper sheets must be changed between patients.

Linens (e.g., sheets, towels, gowns, pillowcases) can be laundered with hot water (70°C to 80°C) and soap if there is no visible soiling (bleach can be added as required by soiling). Linen that is soiled with blood should be handled, transported, and laundered with additional care. Place linen in appropriate impermeable bags and use protective non-medical utility gloves when handling.

2.6 Safety Responsibilities of Practitioners and Staff

2.6.1 Training

All clinical staff should receive sufficient training about the risks of their assigned tasks and infection prevention and control strategies that applicable to them. Risks should be expressed in terms of the office-specific environment. The training should be monitored and updated to reflect changes in policies, procedures, staff changes, and equipment. The training should include information about the responsibilities of working in a health care facility, methods to manage one's personal health, and actions that impact the health and safety of patients and co-workers.

Acupuncturists have an ethical obligation to remain current on infection prevention and control procedures and to ensure that such practices are implemented in their practice. It is recommended that acupuncturists have written policies and procedures for infection control that are available to staff and are appropriate and relevant to the practices and duties of staff.

2.6.2 Immunization

Immunization is an important infection prevention and control method. Health care workers have increased exposure to communicable diseases and should, therefore, consider vaccinations that provide immunity for preventable illness. All staff members are strongly encouraged to know their immunization status and to keep their chosen immunizations up to date. Staff members who are not immunized are at increased risk of acquiring infection or suffering severe symptoms from acquiring infectious diseases from patients. Immune-compromised staff may also be more likely to transmit some viruses to staff and patients over longer periods of time. Care should be taken when assigning certain tasks to staff with compromised immunity. Hepatitis B and tetanus are the most important vaccine-preventable diseases for all acupuncture practitioners and staff to carefully consider.

It is **strongly recommended** that all acupuncturists and staff who may come into contact with blood, blood products, body fluids, or sharps, be immunized against Hepatitis B and tetanus. Acupuncturists should also consider the following immunizations: flu, measles, mumps, diphtheria, and polio.

2.7 Blood-borne Diseases: Precautions and Exposure Management

Most exposures are preventable by adhering to practices that include safe handling and disposal of sharps, use of PPE, appropriate immunization, hand hygiene, and effective cleaning of blood spills. Acupuncturists should treat every patient as a potential host of a contagious pathogen regardless of the complaint.

2.7.1 Blood-Borne Pathogens: Exposure Management

Exposure to blood-borne pathogens, such as HBV, HCV, and HIV, requires practitioners and staff to react in an effective and organized way. This requires attention and pre-planning in order to minimize risk to staff caused by accidental exposure to blood (needle stick) or mucous membrane (splash) accidents.

If the exposure is deemed significant, the following steps are recommended:

1. *Immediately provide first aid.*
 - a. *Cleanse body sites exposed to potentially infectious blood/body fluids immediately with soap and water. Allow the wound to bleed freely, then cover lightly. (Dress the injury.)*
 - b. *For exposure to body fluids in the area of the eye, nose, or mouth, flush exposed mucous membranes (including eyes if exposed) with generous amounts of water and normal saline.*

- c. *Don't "milk" the wound! Squeezing may promote inflammation and increased blood flow to the wound site, potentially increasing exposure if HIV is present.*
 - d. *Avoid the use of alcohol, hydrogen peroxide, bleach, or other chemical cleansers, antiseptics, and disinfectants (bbfeab.ca).*
2. *Report the incident to the clinic supervisor or other occupational health and safety officer who will assess patient's status and seek patient consent for testing. The Acupuncturist needs to do this themselves:*
 - a. *The Acupuncturist should assess the risk by examining the patient's medical history and obtaining pertinent information from the patient.*
 - b. *With the patient's cooperation, HBV, HCV, or HIV status needs to be verified, and, if unknown or uncertain, obtain the source patient's informed consent for testing by qualified medical professionals.*
3. *Refer for further treatment and seek expert advice:*
 - a. *Contact the designated health professional with expertise in blood and body fluid exposure as soon as possible after the exposure, preferably within 1 to 2 hours for further advice, and, if necessary, post-exposure prophylaxis.*
 - b. *Treatment should be sought within 72 hours of exposure, because some treatments are not as effective unless started within 72 hours.*
 - c. *Useful contacts include HealthLink, 811, or the local emergency department.*
4. *Document the incident and prepare for a meeting with the health care professional:*
 - a. *Document place (location), date, time, and circumstances of the incident. If applicable, inform the Workers' Compensation Board (WCB), and take note of the WCB account number.*
 - b. *Document the type of body substance, fluid, and estimated amount or volume.*
 - c. *Document the equipment involved (for example, plum blossom needle, acupuncture needle), depth of insertion, and name of the source patient.*

An incidence report needs to be completed immediately following the previous steps. The report must contain a detailed description of all people involved (source, victim, practitioner, etc.), a detailed description of the incident (time, circumstances, etc.), and a detailed description of the action taken. Refer also to information from <https://bbfeab.ca/>.

Refer to Appendix 3, Incident Report and Investigation Form.

Section 3 Risk Management and Occupational Hazards Control in the Acupuncture Clinic

3.1 Introduction

Acupuncture is practiced in a variety of locations and health care facilities, such as multidisciplinary clinics, private clinics, hospitals, and educational institutions. Specific regulations, requirements, and bylaws, pertinent to the location, apply to the acupuncture practice or clinic. The Acupuncturist has to research these bylaws with the applicable municipal, provincial, and federal authorities.

Some sources for information regarding regulations, requirements, and bylaws can be found at Health Canada - Workplace Hazardous Materials Information System (WHMIS), the municipal building, or the College.

3.2 General Considerations

Risk management for Acupuncturists involves the implementation of regulations and guidelines that minimize or eliminate risk for injuries in an acupuncture clinic. This applies to the entire clinic or practice site for the purpose of protecting staff, practitioners, and patients.

1. The premises must be appropriate and suitable for the safe delivery of professional health care services, acupuncture in particular.
2. The premises must allow for safe, clean, and sanitary practices.
3. The premises must have hand-washing facilities.
4. The treatment room must allow for ease of movement and efficient cleaning.
5. The treatment procedures must be conducted in such a way that the risk of possible cross-contamination is minimized as much as possible.
6. Acupuncture clinic staff, including a receptionist, cleaning staff, and co-workers, are to be trained in the safe operation of the clinic as it relates to their responsibilities and duties.
7. Every acupuncture clinic should be equipped with a functional first aid kit. Guidelines for the content and number of first aid kits can be found at the Canadian Red Cross website (www.redcross.ca). It is recommended that Registered Acupuncturists hold a current Standard First Aid Certificate and is trained in CPR, and that a person who holds a current Standard First Aid Certificate is present in the acupuncture clinic and has been appointed by the Registered Acupuncturist to administer first aid if needed.
8. Hand sink(s) with hot and cold running water installed at proper height shall be available in a convenient location in or near the treatment rooms and shall be supplied with liquid soap and single service towels in suitable dispensers. It is strongly recommended that a hand sink be provided in each room where the acupuncture is performed and used only for hand washing. A hand sink of either porcelain or stainless steel is acceptable.
9. A service sink with hot and cold running water dedicated to the acupuncture practice shall be supplied for cleaning of equipment. The minimum dimensions for the single compartment sink are 16" by 18" by 7" and for the double compartment sink are 31" by 18" by 7". The size must be adequate to accommodate the largest piece of equipment to be cleaned. Stainless steel is recommended to minimize damage from cleaning of equipment. Taps and faucet should be selected as to also allow for the use of hand washing. Optional is the installation of a splashguard to keep cleaning easy.
10. The premises of the acupuncture clinic shall be maintained in a clean and sanitary condition and in good repair. It is recommended that a cleaning schedule be documented.
11. The treatment area shall be constructed of materials that are washable and can be cleaned easily.
12. Floors in hardwood, tiles, or laminated material that can be cleaned easily are recommended throughout the clinic and particularly in the treatment areas.

13. Walls may be covered in paint or any type of paneling that allows for easy cleaning.
14. The work area shall be well lit.
15. Washroom facilities shall be conveniently located and available for the staff and patients during the hours of operation.
16. Work surfaces, including countertops, trays, or other surfaces used by the Acupuncturist to place instruments and supplies on during an acupuncture treatment, shall have a smooth and impervious finish.
17. Patient tables, chairs, armrests, mats, and other surfaces that come in direct contact with the client's skin during an acupuncture treatment shall be impervious to moisture and easily cleanable.
18. Sufficient space shall be provided for the storage of instruments and supplies. Cabinets or storage space (preferably enclosed) should provide protection from dust and moisture.
19. Each treatment room shall be equipped with a box of disposable gloves, a waste container (lined with a plastic bag), and a sharps container out of reach for patients.
20. The waste container needs to be equipped with a foot-operated lid.

3.3 Risk Management In and Around the Clinic

1. To minimize security risks, choose an area of low crime. Talk to neighboring businesses and police regarding local crime experiences. If your clinic is located in a high crime area, consider the availability of security for yourself, your employees, and your patients.
2. Ensure that parking areas, entryways, and hallways are well lit.
3. Install a security system.
4. Carry premises liability insurance.
5. Check with city bylaws to ensure the area is zoned for the practice of acupuncture.
6. Make sure that building code requirements are met.
7. Obtain a business license if applicable.
8. Seek legal advice regarding any contractual agreement with landlords.
9. Confirm responsibilities, such as shoveling the sidewalk or building repairs, as detailed in the lease agreement.
10. Ensure there is accessibility for disabled patients or employees. Assess the building location for safe accessibility. Assess wheelchair access from the parking area to the office. Assess wheelchair access to a washroom with a transfer-bar-equipped toilet stall and with a sink for seated users.
11. The acupuncture clinic shall be appropriate to the practice of acupuncture: simple, organized, and clean.
12. The acupuncture clinic shall be entirely separate from any premises used for living, sleeping, dining, or other incompatible activity.
13. The acupuncture clinic has to meet the requirements of the local health and fire department and regulations or standards of practice and competency.

3.4 Air Quality Control

The quality of air in the acupuncture clinic environment is very important. Fumes, odours, and vapours can affect the health of practitioners, staff, and the patients.

Moxa smoke may require the installation of special ventilation systems (or choosing other options). Moxibustion treatments need to be carefully monitored as a potential fire hazard.

Consider installing ventilation and air filtration systems to improve the quality of the air.

Odours from disinfectants, such as bleach and other solvents, may cause allergic reactions or illness. Thoughtful selection of a disinfectant is an important risk management consideration. Weak air exchange systems and molds are also important considerations in air quality control.

3.5 Risk Management: Emergencies

3.5.1 Emergency Actions

Anticipating and planning for emergency situations is a critical step in risk management to protect your patients and staff and to avoid or reduce the likelihood of possible liability issues.

1. Clearly identify and post a list of phone numbers to call in the event of an emergency. These telephone numbers may need to include local hospital, local physician and community health center, and the poison control center.
2. Develop responses so that staff members know what to do in a power failure.
3. Post or have on file guidelines for common mishaps (e.g., burns and scalds, chemical burns, electrical burns, eye injuries, choking).
4. Post the locations of emergency items, such as first aid boxes and fire extinguishers.
5. Establish and post escape plans and routes in case of fire or other emergencies that requires the premises to be evacuated. Check with local authorities on any requirements that require staff training or practice of the evacuation plan.
6. Establish procedures in order to account for all individuals after evacuation.
7. Fire emergency plans:
 - a. Health care settings often have flammable items that can start or accelerate the spread of fire. Fire emergencies are a potential risk factor in the acupuncture practice and, especially when using moxa or fire-cupping modalities. Moxa extinguishers or containers with sand are critical when using moxa in the clinic.
 - b. It is important that the acupuncture clinic has a documented fire prevention plan that includes information on location of fire alarms and fire extinguishers, instructions on how to use the fire extinguisher, how and where to evacuate the building, guidelines to assist the evacuation of patients or staff with disabilities, guidelines for when people become trapped in the building due to fire, and a list of flammable chemicals that are used or stored in the clinic.
 - c. The acupuncturist/clinic owner and/or a staff member should be trained in the use of a fire extinguisher. The fire extinguisher must be checked, maintained, and replaced as required by the manufacturer's instructions and local fire regulations. It is recommended a list of potential fire hazards or ignition sources for fire is available, and that chemicals or flammable items (properly labeled as such) are stored in a safe way, in an area where the fire hazard is minimal. If possible, patient files and other important documents should also be stored in an area where the fire hazard is minimal.
8. Fall injuries:
 - a. Good housekeeping practices can reduce incidents of falling or tripping by staff or patients. Keep main walkways clear of trip or slip threats.
 - b. Practitioners are liable for preventable situations that cause staff or patients to trip and fall (e.g., dangling electrical cords, slippery or recently washed floors, loose rugs, stairways without railings, ice on outdoor sidewalks). When in treatment, patients may faint or fall asleep.
 - c. Ensure that patients are under supervision at all times and that they can safely move on and off treatment tables. Fall or slip incidents must be documented. Staff should have access to forms that allow them to document the circumstances of an incident.

3.6 Communication with Patients: Patient Records

Without adequate relevant training and licensing, Acupuncturists should not make a conventional medical diagnosis. Acupuncturists must refer patients to other health care professionals with the required knowledge and skills based on:

1. Limitations of their personal training and skills; or
2. Limitations of Traditional Chinese Medicine (TCM) and acupuncture in particular.

3.6.1 Patient Records

Registered Acupuncturists are expected to keep accurate records of all patient visits and professional services that they provided to a patient. It is the Registered Acupuncturist's responsibility to collect, organize, and store all the information that is obtained during each patient consultation in the patient file. The patient records shall be stored in a safe way that ensures integrity and confidentiality. The primary purpose and goal of patient records is to enable the Registered Acupuncturist to provide quality care to the patient. In addition to this, patient records are particularly useful to assist other health care providers, particularly TCM practitioners in the continuation of care if indicated.

Other advantages of accurately recorded patient information are:

1. **In case of an external review by the College:** An additional tool in assessing the member's ability to provide quality care or identification of areas that may need improvement.
2. **In case of investigations:** Valuable information to determine details about complaints, which can benefit the patient and/or practitioner. Patient records can provide evidence of decisions, transactions, and events, which may need to be recalled or proven at a later date.
3. **For the individual acupuncturist:** A good opportunity for self-assessment and learning from unique experiences. The most important source for producing reports for third parties, such as medico-legal reports, with the patient's consent.

Patient records are legal documents, evidencing that consultation or treatment of a patient took place on a certain date.

In general, patient records will include:

1. An informed consent form, signed by the patient.
2. A cumulative patient profile, which contains a summary of essential information about the patient. This cumulative patient profile is commonly collected in an intake form during the first or second patient visit. The cumulative patient profile needs to be updated regularly (whenever there is a change in data). Cumulative patient profiles should include at least the following:
 - a. Identification (name, address, phone number, email).
 - b. Name of family physician.
 - c. Personal and family information (occupation, relationship status, habits, family medical history).
 - d. Past medical history (past serious illnesses, operations, accidents).
 - e. Allergies, addictions.
 - f. Current medication.
 - g. Contact person in case of emergencies.
3. Written, scanned, digital, photographic, radiological, or other forms of chronicled or documented patient information.
4. Intake forms (also available through companies specialized in TCM), documentation of consent, procedure explanation, patient comments and responses, observations, diagnostic processes, clinical recommendations, findings and emails, and records of telephone conversations or text messages directly or indirectly related to the patient's condition or treatment with their date and time.

5. Detailed clinical notes regarding the provided treatments and modalities used and recommendations to the patient. Patient reactions to treatments (past and present, subjective and objective).
6. The use of a numeric rating scale (NRS) or a visual analogue scale (VAS) can be quite useful to document the subjective progress or regress of a patient's condition.
7. The Subjective Data, Objective Data, Assessment, Plan (SOAP) method of documenting patient information is recommended and may assist with completeness of records:
 - a. Subjective data: Information reported by the patient, including elements such as present complaints (pain, nausea, discomfort, changes in health status since last visit, etc.).
 - b. Objective data: Measurable assessment findings obtained by the Acupuncturist or other health care practitioner involved in the patient care, positive physical findings (pulse characteristics, tongue presentation, measured range of motion, swelling, vital signs, such as blood pressure, lab tests, etc.), and reassessment results of objective findings throughout the treatment process.
 - c. Assessment: Working TCM diagnosis, differential diagnosis.
 - d. Plan: Treatment plan (anticipated frequency and duration of the treatment, treatment details [modalities, point selection, and treatment method etc.]). Recommendations, treatment options, and suggestions (herbal supplements, lifestyle and diet changes, exercise, etc.) and decisions of the patient not to follow any of the recommendations. Referrals to other health care providers.

Important considerations:

1. Patient records are confidential. It is the responsibility of the ACUPUNCTURIST (and clinic administration, if applicable) to store the records in a way that the confidentiality and integrity cannot be breached. The safeguarding of records can be assigned to an appropriate individual in a clinic.
2. The language used in patient records has to be factual, objective, and non-judgmental. The information must be recorded in English.
3. Records must be legibly handwritten in permanent ink, typed, or in electronic format.
4. Modification of entries in the patient file: If entries are modified at a later date, changes and additions have to be dated and initialed, with a brief explanation for the modification. The original entries need to be legibly present and cannot be removed from the file. Corrections also need to be dated and initialed. In this case, the incorrect information that has been corrected needs to be remained legible, for example by striking out the incorrect information with a single line.
5. Records must be accurate and concise. The treating practitioner is solely responsible for the accuracy of the records. Documentation of content of the records cannot be delegated to another person.
6. All entries must be dated and signed. In case of treatment by a practitioner under direct supervision (e.g., a student), the supervisor also needs to countersign the entries.
7. All pages of the patient records must clearly and uniquely identify the patient (preferably at the top of the page).
8. The information, recorded in the file must be understandable to other acupuncture/TCM practitioners and to other health care professionals, except for any acupuncture/TCM terminology. Commonly used abbreviations that are generally recognizable by professional peers are allowed. Obscure codes or abbreviations are not. Practitioners who use a lot of abbreviations should consider including an abbreviation key in the file to clearly explain their meaning.
9. The records need to be documented at the time of the consultation or as soon as practically possible following the consultation.
10. Acupuncture points used in the treatment need to be identified by the numbering or naming system used in the "WHO Standard Acupuncture Point Locations in the Western Pacific Region, WHO (2008)". Extra acupuncture points that are not mentioned in this document should be documented with a brief literature reference of their name.
11. The physical patient file is the property of the treating practitioner or the clinic, but the patient has a right of access to the information. This access can be provided in a variety of ways, such as inspection, provision of a copy, documented explanation, or summary of the contents.

3.6.2 Use, Disclosure, and Transfer of Patient Records

Records must be handled and accessed in compliance with provincial personal information and protection of privacy acts. There is a range of statutory provisions that may limit the disclosure of records, even to the police, other health care professionals, relatives of patients, etc. Acupuncturists are advised to obtain advice regarding these provisions. Patient records, or any other patient-related information, should not be sent by email unless there is protection against unauthorized access, such as encryption.

No individual should be allowed to access or use the practitioner's computer(s), other than authorized staff. Authorized staff must be informed of who is allowed access to the information from the patient's records (e.g., patients may request information from their own file, parents may not have access to records of a child who is capable of making their own treatment and privacy decisions).

Individuals can complain to the Privacy Commissioner of Alberta if they believe their privacy rights have been violated. Practitioners are responsible for the records of their patients. If a practitioner leaves the practice, they must arrange for a safe transfer of those records. If the patients' records cannot be transferred to a new practitioner, the original practitioner needs to plan for the secure storage of the records until another practitioner or agency for continuous patient care requests them.

3.6.3 Patient Records Retention

Patient records must be maintained for a minimum of 10 years from the date of last entry or, if the patient was less than 18 years old at the time of the last entry, 10 years from the date the patient became 18.

3.6.4 Electronic Patient Records

A Registered Acupuncturist who uses an electronic patient record must ensure that the confidentiality and security of information is protected and that an unauthorized person cannot access identifiable health information on electronic devices.

1. Patient records that are in an electronic format must have appropriate password controls and data encryption.
2. Audit logging must always be enabled and meet the requirements of section 6 of the *Alberta Electronic Health Record Regulation*.
3. Electronically stored patient records should not be accessed remotely to maximize integrity and confidentiality.
4. Electronically stored patient records should be backed up regularly with the same protection measures in place.
5. Practice continuity protocols should be in place in the event that information cannot be accessed electronically.
6. The Acupuncturist needs to ensure that all patient record data are removed and cannot be reconstructed upon disposal of the hardware that contains such information.
7. Disposal of patient records
 - a. Disposal of patient records (following the end of treatment plus the recommended periods of retention) must be conducted in a managed and confidential way and in accordance with all regulations and requirements related to the legal disposal of patient records.
 - b. Records must be destroyed or shredded in a secure environment.
 - c. Contractors who are used must agree and adhere to confidentiality requirements and agreements.
 - d. Keep a register of the records that have been destroyed.

3.6.5 Termination of the Practitioner-Patient Relationship

The practitioner-patient relationship should be terminated if no further treatment is needed, when the patient chooses to end the practitioner-patient relationship, or when/if the practitioner chooses to terminate the practitioner-patient relationship for valid reasons.

Acupuncturists have an ethical responsibility not to abandon their patients. If the practitioner decides to terminate the practitioner-patient relationship, this must be done carefully and thoughtfully in order to ensure that the patient's health and continuity of care is not compromised.

The practitioner must provide written notification to the patient, outlining the specific reasons for termination and the date that care will be discontinued. If applicable, the practitioner must identify the need for continued care and establish a process that allows for the efficient transfer of records to a new acupuncturist.

3.6.6 Informed Consent

The patient has the right to information about treatments, which allows them to allow or decline treatments.

Some of the elements of informed consent for an acupuncture/TCM procedure include:

1. Information about the procedure.
2. Information about the potential benefits of the procedure.
3. Information about potential risks, discomfort, and potential side effects of the procedure.
4. Information about alternatives to the procedure.

Other considerations around the issue of informed consent:

1. It is important that consent be informed after a meaningful dialogue between the practitioner and the patient. The actual consent is the dialogue that occurs between the practitioner and the patient. If a patient is asked to sign a form without having had the discussion with the practitioner, then the practitioner has not managed risk. Once the dialogue is complete and the patient has provided informed consent, the practitioner can document this in the record and ask the patient to sign a consent form.
2. The practitioner must ensure that the patient is capable of consent to the treatment and that the patient clearly understands the information provided by the Acupuncturist.
3. The practitioner must communicate in a manner appropriate to the patient's skills and abilities.
4. The clinical record in the patient's file must include evidence that the process of informed consent occurred and the written (signed) consent.
5. All patients' records must be in permanent form (i.e., ink). Corrections and modifications have to be signed and dated while the changed information should be crossed out so that it is still legible.
6. A generic informed consent form is often insufficient and needs to be adjusted according to clinic and patient situations. It is recommended that practitioners discuss their consent form with legal counsel.

3.7 Patient Privacy and Duty to Report

As a health care provider, practitioners have a legal and professional duty to keep information about their patients private and confidential. However, there is a responsibility and a need to report particular events or conditions to the appropriate government or regulatory agency.

Requirements for mandatory reporting include, but are not limited to, the following:

1. Suspected child abuse and neglect;
2. Suspected elder abuse; and

3. Certain communicable and reportable diseases.

Strong patient and practitioner relationships are built on trust and good communication. Practitioners should inform their patients about the requirement to make a mandatory report whenever possible without putting themselves, their patients, or others at risk. While practitioners have a legal obligation to report certain events and situations, they should use sound professional judgment in deciding how best to communicate with patients or their guardians in this process.

Section 4 Safe Procedures and Risk Management for Acupuncture and Acupuncture-Related Techniques

4.1 Acupuncture

4.1.1 Introduction: Clean Needle Technique

A standard procedure for acupuncture (needling) was established to minimize risk of infection caused by inserting a needle below the dermis. This standard procedure is referred to as Clean Needle Technique (CNT) and serves as a basis for all needling techniques used in the acupuncture clinic. The basics of this technique must be obeyed at all times, and some aspects may need to be adjusted or modified according to circumstances, such as treatment location, sharing treatment space with others, vicinity of clean field and materials, and availability of waste disposal receptacles.

This technique, also called the aseptic acupuncture technique, involves the insertion and withdrawal of the acupuncture needle in such a way that the risk of infection is reduced to a minimum. This means that only the handle of the needle can be touched by the acupuncturist and that the insertion/withdrawal of the acupuncture needle is performed in a fast and virtually pain free manner as to avoid a lot of movements from the patient, provoked as a reaction to sudden pain.

4.1.2 Basic Principles of CNT

1. Wash hands between patients, before and after needling, and whenever the hands may have been contaminated.
2. Use sterile single-use needles or other instruments that may break the skin (e.g., lancets, seven-star, or plum blossom needle).
3. Needles should be stored in a safe, clean, dry, well-ventilated area. Improper storage conditions may result in contamination of the needles well before the expiry date.
4. Establish and maintain a clean field.
5. Immediately and safely discard used needles and swabs.

4.1.3 Hand Washing

1. Alcohol-based hand rubs are preferable if hands are not visibly soiled.
2. Medical gloves are not a substitute for hand washing but may be used in instances where hand washing is not possible.
3. Medical gloves should be used when a practitioner has a lesion on the hand (e.g., cuts or abrasions).
4. A practitioner with a significant infected lesion on their hands should not practice until hands are healed. Under those circumstances gloves are not an option.

4.1.4 Pre-sterilized Disposable Instruments (Needles)

1. Disposable needles must be in appropriate packaging and be approved by Health Canada: Medical Devices, subject to all federal legislation.
2. Needles in packages that have the seal broken or show evidence of moisture or other damage should not be used.
3. Single use sterile needles should not be used past their expiry date.
4. Disposable needles must be removed from the packaging without contaminating them.
5. The sterility of the needle shaft may not be compromised before and during insertion.
6. Each sterile acupuncture needle should be used for puncturing only once.

7. Only pre-sterilized disposable lancets and pre-sterilized disposable three-edge needles are acceptable if these techniques are indicated.
8. Only pre-sterilized disposable plum blossom needles are acceptable. The disposable heads of the plum blossom equipment must be disposed of immediately after use in the sharps container. Detaching of the used needle heads may pose a risk for needle stick injury; therefore, the use of appropriate equipment for this purpose is highly recommended.
 - a. All seven-star/plum blossom needle handles must be cleaned with a high-level disinfectant and the handle (with a new needle head) can only be used for the **same** patient.
9. Needle guide tubes must also be sterile at the start of a treatment. A same guide tube may be used for multiple needle insertions for the same patient.

4.1.5 CNT Procedure

Preparing the Clean Field

1. A clean field has to be established on a smooth cleanable work surface without contaminating it. This work surface should be cleaned first and disinfected with a low-level disinfectant. The work surface should be dried before placing the clean field.
2. A clean field is prepared near the treatment table. The clean field may be made using a piece of clean paper towel, table paper, a clean metal, or a clean field purchased for this purpose. A metal tray may be used as a clean field provided that it is cleaned and disinfected appropriately between patients.
3. Place the treatment materials, such as sterile needles, alcohol swabs, and cotton balls, on the clean field.
4. Place sterile items in the central area of the clean field (e.g., needles in their original packaging are placed on the center of the clean field).
5. A clean blister pack of sterile needles may be placed back onto the clean field after handling. Any remaining needles after a treatment must be disposed of in an appropriate sharps container.
6. Sharps containers and containers for contaminated waste should be placed at a safe, practical distance away from the clean field.

Preparing the Treatment Site

1. Use an alcohol-based hand rub or wash your hands.
2. Inspect the site for skin lesions and other contraindications for needling. Body parts that are very dirty should be washed (by the patient) first with soap and water, then swabbed with an alcohol swab.
3. Palpate the point for correct point location.
4. Each point to be punctured needs to be cleaned with an alcohol swab (70% isopropyl alcohol). Replace the swab when it becomes soiled, contaminated, or excessively dry to maintain a thin layer of alcohol solution on the skin.
5. Insert the needle without touching the shaft of the needle. The shaft of the needle should not be touched during insertion. If the needle is too long, sterile gauze or a sterile cotton ball may be used to hold the needle shaft.
6. Needles have to be disposed of in the sharps container immediately after withdrawal.
7. A clean, dry cotton ball should be used to support the skin while withdrawing the needle.
8. Use an alcohol-based hand rub or wash your hands.

4.1.6 Acupuncture Treatment in an Unfamiliar Setting

The Travel Kit

1. A clean container, large enough to carry all the equipment needed for the acupuncture treatment. Hard-sided containers must have lids that seal. The following items shall be carried in this container:
 - a. Sealed, pre-sterilized disposable needles in a separate sealed plastic bag (with an expiry date on the packages);
 - b. Clean fields or equivalent materials that will be used as a clean field in a separate sealed plastic bag;
 - c. Clean, dry cotton balls in a separate sealed plastic bag or container;
 - d. Sterile gauze;
 - e. Disposable medical gloves;
 - f. Clean tweezers or forceps; and
 - g. 70% isopropyl alcohol swabs in a separate container or box.
2. The following two items should be placed in a separate bag: a small paper bag with a plastic lining clearly marked as containing medical waste, and a portable sharps container appropriately labelled.
3. Supplies for proper hand washing.
4. Proper documents, such as an informed consent form and stationery for proper record keeping and documenting of the assessment information.

Preparing the Clean Field in an Unfamiliar Setting

1. Choose a suitable area for establishing your clean field. Clean and disinfect the area appropriately. The work surface should be dried before placing the clean field.
2. A clean field is prepared near the treatment table. The clean field may be made using a piece of clean paper towel, table paper, a clean metal, or a clean field purchased for this purpose. A metal tray may be used as a clean field provided that it is cleaned and disinfected appropriately between patients.
3. Place the treatment materials, such as sterile needles, alcohol swabs, and cotton balls, on the clean field.
4. Place sterile items in the central area of the clean field (e.g., needles in their original packaging are placed on the center of the clean field).
5. A clean blister pack of sterile needles may be placed back onto the clean field after handling. Any remaining needles after a treatment must be disposed of in an appropriate sharps container.
6. The waste bag and the sharps container should be placed away from the clean field.

Preparing the Treatment Site

1. Use an alcohol-based hand rub or wash your hands.
2. Inspect the site for skin lesions and other contraindications for needling. Body parts that are very dirty should be washed (by the patient) first with soap and water, then swabbed with an alcohol swab.
3. Palpate the point for correct point location.
4. Each point to be punctured needs to be cleaned with an alcohol swab (70% isopropyl alcohol). Replace the swab when it becomes soiled, contaminated, or excessively dry to maintain a thin layer of alcohol solution on the skin.
5. Insert the needle without touching the shaft of the needle. The shaft of the needle should not be touched during insertion. If the needle is too long, a sterile gauze or sterile cotton ball may be used to hold the needle shaft.
6. Needles have to be disposed of in the sharps container immediately after withdrawal.
7. A clean, dry cotton ball should be used to support the skin while withdrawing the needle.
8. Use an alcohol-based hand rub or wash your hands.

4.1.7 Aseptic Technique

The aseptic technique details the necessary procedures for the hygienic and safe insertion and removal of needles and is summarized below:

Hygienic and Safe Insertion of the Needle

1. Open all single-use needles and instruments just before use in the presence of the patient.
2. Patients should be placed in a comfortable position that allows safe access to the selected points.
3. After being removed from the packaging, the shaft of the needle is never touched with bare fingers or with non-sterile materials.
4. Do not place a needle on a non-sterile surface before use.
5. If the needle shaft becomes contaminated before insertion, it must not be used. It must be disposed of in the sharps container.
6. Use sterile material (e.g., a sterile gauze pad) to support the shaft of the needle once it has been inserted or if it is inserted without a guide tube.
7. Guide tubes should be sterile at the start of the treatment.
8. Hands must be cleaned if they become contaminated during the treatment (e.g., touch non-sterile surfaces or materials, touch saliva when needling near the mouth).
9. The use of disposable medical gloves is recommended in situations such as:
 - a. The patient begins bleeding during the treatment;
 - b. The patient has open lesions;
 - c. The practitioner has a skin infection or hand wounds, cuts, or hangnails that are not properly bandaged; and
 - d. Where exposure to blood borne pathogens are likely, i.e., use of lancets, three-edged needle, plum blossom and seven-star needle, or lancet for bloodletting.

Hygienic and Safe Removal of the Needle

1. Use an alcohol-based hand rub or wash your hands immediately before the removal of needles.
2. Remove the needle without touching the shaft or the insertion site with bare fingers.
3. Dispose of each needle immediately into the properly labelled sharps container.
4. On withdrawing a needle, a clean cotton ball (from the clean field) can be used to press the skin at the insertion site. All compresses or cotton balls that are contaminated by blood or body fluids must be disposed of appropriately. Do not touch the waste bag.
5. If blood is drawn, apply light pressure with a clean cotton ball. Dispose of the cotton ball immediately.
6. After needling, do not immediately re-palpate the point with a bare finger unless it has been washed or sanitized.
7. Following treatment, use an alcohol-based hand rub or wash your hands to reduce the risk of cross-infection with subsequent patients.

Counting Needles

It is strongly recommended that the Acupuncturist count the number of needles used during a treatment, then track the number needles removed and disposed of upon completion of the treatment. Document the needle counts in the patient's record. Alternatively, keep used or empty needle packets in the treatment room and ensure that all needles are accounted for and match their packaging at the end of the treatment.

Other Equipment

1. Cupping is not a sterile procedure. However, cups must be cleaned and disinfected after each patient use.

2. Cups used on **intact** skin are non-critical items and should be cleaned and disinfected with a low or medium level disinfectant between patients.
3. Cups used on **non-intact** skin (e.g., used with needling) are a semi-critical item and should be cleaned and disinfected with a high-level disinfectant between patients.

***** Management of cups that have come in contact with blood or OPIM:** Practitioners who perform cupping with bloodletting technique must use single-use disposable cups and dispose of these cups after each use in a biohazard waste disposal bucket. Practitioners choosing this option should arrange for a proper pick-up service of this hazardous waste. Single-use disposable cups are affordable and readily available from common distributors.

4. Bamboo cups should not be used because of the difficulty in disinfecting.
5. Lancets or three-edged needles used for bloodletting must be sterile (disposable lancets or three-edged needles are recommended).
6. Based on use, disinfect or sterilize moxa equipment as required.
7. When an electro-stimulation machine is used, the clippers that attach to the handle of the needle and leads must be cleaned and disinfected between patients.
8. Re-useable needle trays should be disinfected after each patient.
9. Any item that is used to handle or manipulate the sterile needle before insertion must also be sterile.
10. Instruments that contact the needle after insertion (forceps, tweezers) must be cleaned and disinfected between patients. Sterilization may be required based on use.

4.1.8 Managing Needlestick Accidents

Needlestick accidents are injuries caused by needles that unintentionally puncture the skin. Needlestick injuries can transmit infectious diseases, especially blood-borne infections, such as Hepatitis B and HIV.

Safe needle management is essential to reduce the risk of needlestick accidents. Needle management requires the practitioner to account for every needle that is inserted, removed, and disposed of during treatment.

Routines to Reduce Risks of Needlestick Accidents

Establish routines and procedures that will reduce the risks of stray or lost needles. For example:

1. Thoroughly check the patient for needles that have been left in after treatment.
2. Be vigilant during treatment knowing that needles can accidentally fall out of the patient's body before removal or can drop to the ground during removal.
3. Check the bed, linens, and surrounding areas for dropped needles before, during, and especially after a treatment.
4. Be especially carefully when changing bed linen. Do not sweep your hands over the area, but rather hold the sheet up by the edges and allow any needles to drop to the floor and dispose of them safely.

Needlestick injuries are an important concern for the practitioner, not only for personal health, but also the health and safety of patients and staff. The risk of developing an infection after a needlestick injury will depend on the infectious status of the source, the immune status of the injured person, the severity of the injury, and the availability and use of proper post-exposure treatment following exposure to the pathogen. Thoughtful and informed procedures to reduce the likelihood of needlestick injuries are essential for all acupuncture clinics. Medical gloves and, in some cases, mask and goggles, must be used when using three-edged needles or lancets for bloodletting.

Refer to the Canadian Centre for Occupational Health and Safety,
http://www.ccohs.ca/oshanswers/diseases/needlestick_injuries.html.

Because of the risks associated with needlestick accidents, it is strongly recommended that all acupuncture/TCM practitioners and staff are immunized against Hepatitis B, as well have an annual blood test to check for HIV, Hepatitis C, and other blood-borne diseases.

Recommended Actions Following a Needlestick Accident

If the exposure is deemed significant, the following steps are recommended. If you suffer a needlestick injury, act quickly for your own safety.

1. Immediately provide first aid.
 - a. Cleanse body sites exposed to potentially infectious blood/body fluids immediately with soap and water.
 - b. Allow the wound to bleed freely, then cover lightly. (Dress the injury).
 - c. For exposure to body fluids in the area of the eye, nose, or mouth, flush exposed mucous membranes (including eyes if exposed) with generous amounts of water and normal saline.
 - d. Don't "milk" the wound. Squeezing may promote inflammation and increased blood flow to the wound site, potentially increasing exposure if HIV is present.
 - e. Avoid the use of alcohol, hydrogen peroxide, bleach, or other chemical cleansers, antiseptics, and disinfectants. (Refer also to information from <https://bbfeab.ca/>.)
2. Report the incident to the clinic supervisor or other occupational health and safety officer who will assess the patient's status and seek patient consent for testing. Eventually the Acupuncturist will need to do this themselves.

The Acupuncturist should assess the risk by examining the patient's medical history and obtaining pertinent information from the patient. With the patient's cooperation, their HBV, HCV, or HIV status needs to be verified and, if unknown or uncertain, obtain the source patient's informed consent for testing by qualified medical professionals.

3. Refer for further treatment and seek expert advice:
 - a. Contact the designated health professional with expertise in blood and body fluid exposure as soon as possible after the exposure, preferably within 1 to 2 hours for further advice and if necessary, post-exposure prophylaxis.
 - b. Treatment should be sought within 72 hours of exposure, because some treatments are not as effective unless started within 72 hours.
 - c. Useful contacts include HealthLink, 811, or the local emergency department.
4. Document the incident and prepare for a meeting with the health care professional:
 - a. Document the place (location), date, time, and circumstances of the incident. If applicable, inform WCB and take note of the WCB account number.
 - b. Document the type of body substance, fluid, and estimated amount or volume.
 - c. Document the equipment involved (such as for example plum blossom needle, acupuncture needle), depth of insertion, and name of the source patient.

An incidence report needs to be completed immediately following the previous steps. This report has to contain a detailed description of all people involved (source, victim, practitioner), a detailed description of the incident (time, circumstances), and a detailed description of the action taken. (Refer also to information from <https://bbfeab.ca/>.)

Similar to needlestick injuries, the above guidelines may apply to other accidents related to blood-borne pathogens that can occur during treatment procedures, such as:

1. Suffering a cut on contaminated equipment (e.g., from a broken cup);
2. Blood splashed on broken or cracked skin; or
3. Blood splashed on mucous membranes (e.g., a practitioner's eyes or mouth).

4.1.9 Contraindications and Precautions for Acupuncture

For the skilled and well-trained Acupuncturist, there are very little, if any, points that are dangerous to puncture if a correct technique, depth, and angle of insertion is observed and if the chosen points are correctly indicated for the treatment.

However, the Acupuncturist has to be aware of those points that have an increased possibility of serious injury to the patient, especially if the acupuncturist lacks sufficient experience and training. Therefore, the selection of acupuncture points should be limited for less experienced acupuncturists who can expand their range of acupuncture points and techniques as their experience and skill develops.

In order to provide safe and professional acupuncture care, acupuncture should be administered with great caution or avoided all together in the following situations:

1. During Pregnancy

Some acupuncture points, including ear acupuncture points (ovaries and uterus points), could potentially result in miscarriage.

In summary: The following points have been traditionally considered forbidden to use during the nine months of gestation (pregnancy) with any technique. This is due to their oxytocic effect (ability to induce labour by stimulating contractions of the muscles of the uterus):

Forbidden Points	
LI4	BL33
SP6	BL34
GB21	BL60
BL31	BL67
BL32	KI6

2. Medical Emergencies

In emergency situations, practitioners are expected to use sound judgment. First aid or CPR techniques are often the best course of action in an emergency situation. In the event of an emergency, Acupuncturists should not hesitate to terminate treatment immediately and seek medical and first aid assistance from emergency responders and other health care professionals, and have the patient transported to a hospital.

The Acupuncturist’s course of action should be guided by the nature of the emergency. A stroke or heart attack is an emergency situation that warrants immediate action and calling 911. There are situations that acupuncture or other treatments may aid or resuscitate a patient while waiting for first responders to arrive, but in most cases an Acupuncturist should respond with first aid or CPR.

3. As a Replacement for Surgical Procedures

Acupuncture may assist patients in the preparation for and recovery from surgery, but it should not be used to replace a required surgical procedure.

4. Malignant Tumors

Acupuncture should not be used alone to treat malignant tumors. Only experienced acupuncture/TCM practitioners with advanced specialized training may perform needling at the site of the tumor. Acupuncture may be used as a complementary measure for the relief of pain or other symptoms or to reduce side effects of chemotherapy and radiotherapy and to improve quality of life.

5. Specific Areas of the Body

The following areas of the body should not be punctured: fontanel of an infant, external genitalia, nipples, and eyeballs.

6. For patients with bleeding disorders or who are on blood thinning medication, acupuncture may be contraindicated, or special caution is required.
7. Acupuncture should not be performed on skin lesions or skin that is not intact or inflamed.
8. Puncturing near vital organs or sensitive areas.
9. Caution is required for points located over large blood vessels or vital organs. Deep puncturing is contraindicated in those areas or acupuncture should not be performed over these areas.

4.1.10 Additional Precautions

Acupuncture should not be performed, or only with extreme caution, on patients who are intoxicated or under the influence of drugs; haven't eaten in a long time; or are very fatigued. Acupuncture should also not be applied to patients who have just finished vigorous physical activity and who are confused, emotionally unstable, non-cooperative, or have a needle phobia.

Special caution is required for patients with diabetes because of possible effects on blood sugar levels and because peripheral blood circulation may be reduced at the extremities.

Electro-acupuncture should not be used on patients with a pacemaker or other electronic implants. Certain patients are at greater risk for infection from acupuncture, such as patients after recent heart surgery or with a suppressed immune system as a result of medication or other treatments.

4.2 Management of Adverse Reactions to Acupuncture Treatment

Acupuncture is a safe procedure when conducted by trained and skilled practitioners who have taken informed and thoughtful precautions and are prepared to respond to accidents or adverse reactions of patients in their care.

Practitioners are expected to identify symptoms, causes, and management strategies related to the adverse reactions and accidents, such as:

- Fainting;
- Bent needle;
- Stuck needle; and
- Broken needle.

The following sections provide summary information related to these adverse reactions as required for the course but is not intended to be comprehensive. Practitioners are expected to continually expand their professional learning to effectively identify and manage adverse reactions or side effects to acupuncture treatment.

Terminology

- **Side effects** are undesirable effects, which may occur in addition to the desired therapeutic effect of treatment.
- **Adverse reactions** are unexpected and undesirable effects that were not predicted or foreseen. The reasons for adverse reaction vary greatly based on the current mental, emotional, and physical status of the patient.

4.2.1 Fainting (Vasovagal syncope)

A patient may feel faint during acupuncture treatment. Especially for patients that have not had previous treatments, patients should be informed of this possibility and treatment should be done gently while the patient is lying down.

Fainting can be the result of the patient being nervous, weak, fatigued, or overly hungry. It may also be the result of uncomfortable positioning, overly forceful needle manipulation, or over stimulation.

Patients should be monitored for symptoms that may indicate that a fainting spell may be approaching. Symptoms during treatment of potential fainting include:

- Feeling ill, nauseous, and possibly vomiting;
- Dizziness, vertigo, and giddiness;
- Seeing movements or swaying of nearby objects;
- Oppressive sensation in the chest and palpitations; or
- Complexion or lips turning pale.

More severe cases may show a weak pulse, cold hands or feet, cold sweating, drop in blood pressure, and loss of consciousness.

If the practitioner identifies symptoms of pending fainting, carefully remove needles and ensure the patient is lying flat on their back with their head down and their feet elevated. The patient should be offered sips of warm water or sugar water. In most instances, patients will recover following rest. If symptoms persist, seek medical assistance immediately.

The practitioner can reduce the likelihood of fainting by attending to gentle needle manipulation and monitoring early warning signs (such as changes to complexion colour and signs of disorientation). Patients that may be predisposed to fainting should be treated while lying down or firmly supported while sitting up for treatment.

4.2.2 Stuck Needle

Following insertion of the needle, it may be difficult to rotate, lift and thrust, or withdraw. The cause of a stuck needle is often the result of a patient muscle spasm or sudden movement but can also be the result of rotation with too wide an amplitude or rotating in only one direction, causing the needle shaft to tangle with muscle fibres.

The key to resolving a stuck needle is to reassure the patient and ask them to relax. It may be necessary to leave the needle in for a while to allow for relaxation or to tap or massage around the point. It is often helpful to needle a nearby point to help relax the muscle. If needles are still entangled in fibrous tissue, needles can be slightly and gently rotated in the opposite direction to loosen and allow for withdrawal.

4.2.3 Broken or Bent Needle

There are many factors that may cause a needle to break or bend, including:

- Poor needle quality;
- Erosion or cracks between the shaft and the handle;
- Sudden movement or strong muscle spasm by the patient;
- Improper withdrawal of a stuck needle or bent needle;
- Excessive force manipulating the needle; or
- Needle is struck by external force (e.g., practitioner extends to reach another point and accidentally leans against an existing insertion).

A needle that is bent during insertion should be withdrawn and replaced by another. Excessive force should not be used when manipulating needles, especially when lifting and thrusting. The most common part of the needle that is prone to breaking is at the junction of the handle and the shaft. For this reason, it is strongly recommended that needles never be inserted up to the handle, and at least one-quarter (1/4) of the shaft is always being kept above the skin. The risk of a broken needle can be further reduced by carefully examining needles prior to treatment and not using excessive force to manipulate needles. It is recommended to always remind patients to avoid moving during acupuncture treatment.

- If a needle breaks, ask the patient to stay still and calm so that any movements do not cause the broken part of the needle to sink deeper into the tissues.
- If a portion of the broken needle can be seen above the skin, remove it gently with forceps.
- If the needle is at skin level, gently press around the site until the broken end is exposed, then remove it with forceps.
- If the broken needle shaft is completely under the skin, seek medical assistance. Do not cut the skin to allow access to the needle. Surgical intervention may be required.

Properly Positioning the Patient

Practitioners must be aware that the proper positioning of patients can reduce the likelihood of fainting or of causing sudden movements that can result in bent or stuck needles.

Depending on the area to be needled, the practitioner should carefully consider both the comfort of the patient and the requirements for effective and safe insertion and manipulation of the needle. Both the patient and the practitioner should feel comfortable.

4.2.4 Injury to Vital Organs

Accidents may occur near vital organs or very sensitive areas as a result of the site chosen, the needle depth, the needle direction or angle, the manipulation technique used, the stimulation provided, and other factors. Injuries can be avoided if the practitioner pays special attention to the local anatomy and takes additional precautions when treating points near vital organs.

Accidents must be managed effectively but **any injury to vital organs may be serious and may require the practitioner to act urgently to arrange for medical assistance.**

Lung and Pleura

- Attend very carefully to the depth and angle of inserted needles on the chest, back, or immediately above the clavicle (supraclavicular fossa).
- Deep insertion may cause collapsed lung (traumatic pneumothorax). Attend to symptoms such as cough, chest pain, and difficult or laboured breath (dyspnoea) that happen immediately or gradually develop in the next few hours following treatment.
- Pneumothorax is one of the most frequently reported complication (point Jianjing, GB 21 is the most commonly reported point).

Points on the Chest, Back, and Abdomen

- Attend carefully to the depth and direction of inserted needles.

Liver, Spleen, and Kidney

- Attend carefully to the depth and direction of inserted needles.
- A liver or spleen puncture may cause pain or tenderness that is localized, a tear with associated bleeding, or stiffness of the abdominal muscles.

- A kidney puncture may cause pain in the lumbar region and the patient may see evidence of blood in the urine (haematuria). If bleeding continues, the patient may suffer shock due to dropping blood pressure.

Circulatory System

- Attend carefully to the depth and direction of inserted needles. Feel for the pulse to locate artery.
- Bleeding caused by penetration of shallow blood vessels can often be stopped by applying direct pressure.
- Additional precautions should be taken in needling areas of poor circulation where there is a risk of infection (e.g. varicose veins).
- Avoid puncturing of arteries and veins.

Central Nervous System

- Exercise caution at points between or beside the upper cervical vertebrae (Yamen GV 15, Fengfu GV 16). Needling the lower half of the brainstem (medulla oblongata) may cause headaches, nausea, vomiting, and slowed respiration. This can be followed by convulsions, paralysis, or coma. Seek immediate medical assistance.
- Exercise extreme caution near the spinal cord. Deep insertions may cause lightning pain for the patient or more serious complications, such as loss of sensation or movement.

Other Points

Other points that require significant precautions and specialized training include:

- Near the carotid artery (Renying ST 9);
- Near the femoral artery (Jimen SP 11, Chongmen SP 12);
- On the radial artery (Taiyuan LU 9, Jingqu LU 8);
- Points near the eyes (Jingming BL 1, Chengqi ST 1); and
- Front of the trachea (Tiantu CV 22).

4.2.5 Convulsions

If convulsions occur during an acupuncture treatment, the needles should be removed immediately, and first aid rendered. If the condition fails to stabilize rapidly or if the convulsions continue, the patient should be transferred to a medical emergency center. Patients who have suffered a convulsion should be referred to a physician as soon as possible.

4.2.6 Hematoma

If a bruise or swelling occurs after needling, mild pressure or gentle massage, a hot compress, or indirect moxibustion should be applied in the area of the hematoma to promote absorption.

4.2.7 Post Treatment Pain

Gentle massage or moxibustion of the painful site may be helpful.

4.2.8 Other Possible Side Effects and Adverse Reactions

The following side effects and adverse reactions can be experienced by patients:

Acupuncture

- De-Qi (acupuncture sensation) – A commonly experienced sensation of warmth, tingling, or tightness. **(Note:** Other sensations include numbness, mild electrical shooting sensations that last for seconds, distension, soreness, or pulsation like waves. These are all good sensations (or good pain) of de qi. There is also sharp, excruciating, and uncomfortable pain (or bad pain) that can be experienced. Practitioners should stop the insertion or manipulation and slightly withdraw the needle to relieve the bad pain.
- Common reactions are feelings of light-headedness, slight disorientation, or euphoria.
- Feelings of cold if needles are retained for longer periods.
- Minor bleeding or bruising due to penetration of small blood vessels.
- Minor swelling or bruising from hematoma.
- Fatigue caused by the temporary lowering of blood pressure (may also cause fainting). **(Note:** It is common for the patient to feel fatigued or relaxed during or after treatment. It is highly recommended that the patient experiences no intensive stimulation for the rest of the day. Going to sleep early is also recommended after acupuncture treatments.)
- Dizziness, light-headedness, and vertigo may occur if too many needles are used or if the patient has a weak constitution. **(Note:** Caution should be taken, and needles should be immediately removed if symptoms do not subside.)
- Rashes, itching, and discomfort at the site of insertion caused by allergic reactions to the metals in the needles.

Moxibustion

- Blisters and second degree burns if moxibustion is done too close to the skin.

Cupping and Gua Sha

- The suction action of cupping, to reduce the stagnation of qi and blood, draws blood close to the skin surface and may cause mild bruising, redness, and some local tenderness for several days. Patients are advised to stay warm and avoid chills for one or two days.
- Like cupping, the scraping action of gua sha, to stimulate circulation of qi and blood, may cause mild bruising, redness, and some local tenderness for several days. Patients are advised to stay warm and avoid chills for one or two days.

Tapping, Plum Blossom, Bleeding, and Pricking

- Bruising or bleeding caused by the intentional drawing of blood, or using multiple needles that may rupture small blood vessels.

Electrical Stimulation (PENS, TENS)

- Temporary tingling due to the electrical stimulation.
- Electro-stimulator, if not used properly (on for too long, setting is too high) or poorly maintained, can cause nerve irritation.

Tuina

- Tuina therapy may cause soreness. Tuina and other manual therapies often make muscles and tendons sore from various techniques such as pressing, stretching, and tapping on the meridians system. De-Qi sensation may be more pronounced.
- Tuina therapy may cause bruising in patients who are prone to bruising.

Bloodletting

- Slight bruising may occur at the site where the lancet is inserted.

4.3 Moxibustion

4.3.1 Introduction

It is beyond the scope of this handbook to give a comprehensive explanation of the theory of moxibustion. However, the following information may be useful to better understand risk management as it pertains to moxibustion.

The technique of scarring moxibustion is not allowed in Alberta, and the use of a “heat shield” is a requirement when using the “Moxa-on-the-needle” (warm needle) technique. Because of the fire hazard, the presence of a fire extinguisher nearby is recommended. Extreme caution is required for patients with an altered heat perception (some patients with diabetes). Acupuncturists should test patients for heat perception abilities and inquire about hypo- or hypersensitivity.

4.3.2 Precautions and Contraindications for Moxibustion

Patients who are either hungry or have over-eaten, intoxicated, over fatigued, or very weak should not receive moxibustion.

Moxibustion is contraindicated near large blood vessels, on the face, on prominent skin creases, on specific points (such as CV14, 15), or near the mucous membranes and sensory organs.

Moxibustion is contraindicated on the abdomen or lower back of pregnant women.

4.3.3 Management of Burns Resulting from Moxibustion

Small blisters should be protected and allowed to heal without puncturing them. A physician should deal with large blisters. In general, the blister should be punctured and drained in a hygienic, sterile manner and dressed with a sterile gauze. As this is not within the scope of practice for acupuncturists, the patient should consult a physician.

4.4 Cupping and Gua Sha

The suction action of cupping may cause mild bruising, redness, and some local tenderness for several days. Patients are advised to stay warm and avoid chills for one or two days. Like cupping, the scraping action of Gua Sha usually causes a rash, mild bruising, redness, and some local tenderness for several days. Patients are advised to stay warm and avoid chills for one or two days.

4.5 Plum Blossom Needling and Bloodletting Technique

Acupuncturists should take special care to avoid infections caused by blood-borne pathogens. Gloving is required for these techniques, together with the common precautions such as hand washing, sterilization measures after the treatment, etc.

4.6 Tuina

Standard precautions apply also to the practice of Tuina. Draping techniques that are standard in massage therapy should also be practiced for acupuncture and Tuina, can make patients feel more comfortable with their treatments, and may avoid allegations of sexual harassment.

Draping is an essential element of risk management for acupuncturists as it helps the patients to maintain their privacy and dignity.

1. The patient must consent to undressing and draping.
2. The patient must be provided with adequate and appropriate draping materials.
3. The practitioner must never be present during undressing (unless assistance is needed, requested, and allowed) and the dignity of the patient must be respected at all times.
4. The degree of undressing must be based on the treatment requirements.
5. It is recommended that if draping is necessary females remain clothed in a bra (preferably with a hook at the back) and all patients remain clothed in underwear unless specific procedures cannot be conducted effectively this way.
6. If full undress is needed, a female's breasts and a patient's genitals and gluteal cleft must remain properly draped at all times except for the safe, comfortable, and effective application of the treatment.

4.7 Patient Privacy and Draping

Practitioners must follow all regulations related to proper draping of patients, including the applicable College's Practice Standards. Establishing and maintaining ethical draping procedures is an essential element of risk management for the acupuncturist.

Practitioners have a professional and moral responsibility to ensure that a patient's dignity and privacy is maintained in the conduct of consented treatments.

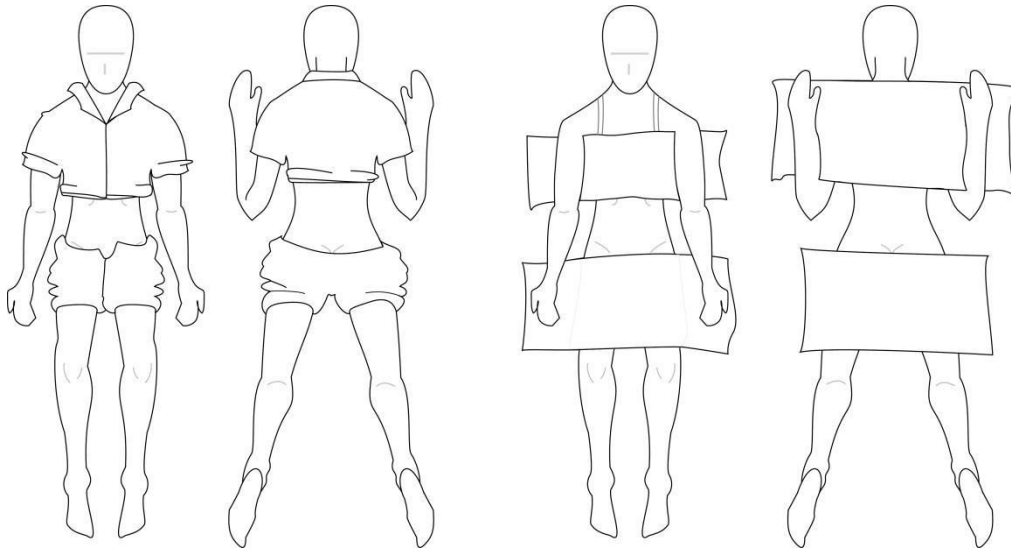
For some treatments, draping may not be required. If the patient has loose fitting clothing, it may be possible for the patient to remain fully clothed during treatment by rolling sleeves above the elbow, pant legs to above the knees, and allowing full exposure to the abdomen or back. It can also be suggested that patients bring loose fitting clothes or shorts that they can change into for treatment.

For other procedures, draping may be necessary. It should be explained fully to the patient why draping is necessary as it relates to their personal safety making needling safer. Draping significantly reduces the opportunity for clothing to inadvertently cover needles or to having needles left in after treatment. The patient must be given the opportunity to consent to undressing and draping. The patient must be provided with adequate and appropriate draping materials. The practitioner must not be present during undressing and the dignity of the patient must be maintained at all times.

The degree of undress must be based on the treatment requirements. It is recommended that if draping is necessary, unless specific procedures cannot be conducted safely and effectively, females remain clothed in a bra (preferably with a hook at the back) and all patients remain clothed in underwear. If full undress is needed, a female's breasts and a client's genitalia and gluteal cleft must remain properly draped at all times except for the safe, comfortable, and effective application of treatment requirements.

Every effort must be made by the practitioner to ensure the dignity and modesty of the patient is respected and maintained by the use of maximum proper draping. The use of gowns may be more comfortable in addition to site-specific draping of private areas involving woman's breast, genitalia, and gluteal cleft of all patients. Patients should be informed to express any concerns whenever they are uncomfortable or unsure of any aspect of the treatment. If the patient is comfortable with not being draped or clothed, it is the duty of the practitioner to insist, for the practitioner's protection, that the patient be properly draped. At all times, the practitioner must establish an uncompromised professional environment of treatment.

The following graphic is a visual guide to draping that is useful for many common situations. The graphic is for reference only and is not meant to be comprehensive for all procedures or point selections.



4.8 Equipment and Materials used in Acupuncture Practice (TDP, Electro)

4.8.1 Electro-acupuncture

Contraindications to Electrical Stimulations

- Do not use with patients with pacemakers or other electronic implants.
- Do not use with patients with a history of seizures.
- The circuit should never cross from one side of the back or the chest to the other side (i.e., the current does not cross the mid-sagittal or median plane) in the vicinity of the heart.
- Do not apply stimulation in regions close to the heart.

Precautions and Considerations

- Carefully examine the equipment before each treatment. Clean and disinfect required surfaces prior to treatment.
- Ensure that all dials are set to zero before applying current or attaching the clips to the needles.
- Increase intensity gradually.
- Throughout the treatment, make sure that the patient is not in discomfort. Stimulation should never become painful.
- Carefully monitor the patient to prevent neural injury.
- Carefully consider the time requirements of treatment.
- All dials must be set to zero before switching off power and removing connections.
- Use additional precautions with older patients or with frail patients.

Ensure that all electrical stimulators, acupuncture scope, probes, and handheld devices, if using 110 voltages, are plugged into a surge protection bar, not directly to the outlet. The consequence in a power surge could transfer extra current to the patient. For portability, many of these electrical devices provide optional battery backup. Inspection of medical devices on a regular basis is important to ensure effective treatment and safety of the patient.

4.8.2 TDP Lamps and Other Infrared Devices

For patient safety, heat lamp infrared devices, including TDP lamps, must be used and maintained in strict accordance with manufacturer's instructions. It is essential that Acupuncturists regularly monitor the devices to ensure that they are operating as intended and maintained in safe working order. Because of the nature and design of a TDP device, Acupuncturists should monitor their patients to avoid burn injuries.

Note that other materials can warm up with a potential danger for fire. It is not uncommon to see melted vinyl on treatment tables after the use of TDP or IR lamps. Preparation and covering items that can easily warm up or even burn with fire retardant materials may be necessary.

4.9 Additional Considerations

It is highly recommended that treatment rooms have a wireless call button or alert button to notify the practitioner or staff of any situation that requires swift response (e.g., excessively strong electro-acupuncture stimulation, heat lamp too hot, discomfort or uncomfortable position, need to use the washroom during the treatment, etc.) If a call button is not used, the Acupuncturist should stay in the treatment room or regularly check on the patient at frequent intervals.

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Appendices

Appendix 1 – CTCMA-BC Dangerous/Cautious Points

This draft document will be used as a reference for the course content and the course assessment in the identification of dangerous and cautious points. The information in the table is based on references to the following journal articles and texts:

1. The Safe Use of Difficult and Dangerous Acupuncture Points (Journal of Chinese Medicine #72, June 2003).
2. The Use of Acupuncture As a Routine Pre-Birth Treatment (Journal of Chinese Medicine #76, October 2004).
3. A Manual of Acupuncture, 2nd Edition (2007) by Peter Deadman, Kevin Baker et al. Published by Journal of Chinese Medicine. ISBN: 0-9510546-5-1.
4. Chinese Acupuncture and Moxibustion (1993) by Qiu Mao-Liang, Zang Shanchen, et al. Published by Longman Singapore Publishers Ltd. Distributed by Churchill Livingstone Inc., 650 Avenue of the Americans, New York, New York.
5. Chinese Acupuncture and Moxibustion (1990) by Foreign Language Press, Beijing. 1ISBN: 08351-2109-7, 1ISBN:7-119-00378-X.

The points highlighted in blue in the table refer to dangerous and cautious points identified in two or more reference texts. They correspond with the dangerous points identified in the referenced journal articles. Some points are considered dangerous because they are contraindicated in pregnancy. For course purposes, these are referred to as “cautious” as related to use in pregnant patients.

Extra points are not included in the review of dangerous points in this draft.

This list may not include all dangerous points or describe all the potential harm that may be inflicted to patients. It is the responsibility of all Acupuncturists to further research this, especially when in doubt.

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
LU -1	Zhongfu	76	Deep perpendicular or oblique insertion carries a substantial risk of causing pneumothorax.	127	To avoid injuring the lungs, never puncture deeply towards the medial aspect.	63	Never puncture deeply towards the medial aspect
LU-2	Yunmen	77	Deep perpendicular or oblique insertion carries a substantial risk of causing pneumothorax.	128	To avoid injuring the lungs, never puncture deeply towards the medial aspect.	63	Never puncture deeply towards medial aspect of chest
LU-8	Jingqu			130	Avoid puncturing the radial artery	65	No moxa
LU-9	Taiyuan			130	Avoid puncturing the radial artery		
LI-4	Hegu	103	Contraindicated in pregnancy	132	Acupuncture and moxibustion are contraindicated in pregnant women.	68	Contraindicated for pregnant women
LI-13	Shouwuli			134	Avoid injuring the artery		
LI-16	Jugu	117	Deep medial insertion carries a risk of causing pneumothorax, particularly in thin patients				
LI-17	Tianding	118	Deeper needling may puncture the carotid artery or jugular vein				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
LI-18	Futu	118	Deeper needling may puncture the carotid artery or jugular vein				
LI-20	Yingxiang					72	Contraindicated in moxibustion
ST-1	Chengqi	130	Needle should be inserted slowly without lifting, thrusting or rotating; - immediately on withdrawal of the needle, press firmly with a cotton wool ball for about a minute to prevent haematoma; this needling method should not be attempted by those who have not had appropriate clinical supervision.	136	It is not advisable to manipulate the needle with large amplitude.	74	Avoid injuring blood vessels and causing haematoma, not advisable to lift and thrust needle
ST-2	Sibai	131	Deep insertion along the foramen may injure the eyeball; - manipulation by lifting and thrusting is contraindicated due to risk of damaging the infraorbital nerve which emerges from foramen.	137	It is not advisable to puncture deeply.	75	Deep needling is contraindicated
ST-5	Daying	133	Vigorous manipulation is contraindicated to avoid the risk of damaging the facial artery and vein.	137	Avoid puncturing the artery.	75	Avoid artery
ST-15	Wuyi	142	Deep or perpendicular insertion carries a substantial risk of puncturing the lung.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-16	Yingchuang	142	Deep or perpendicular insertion carries a substantial risk of puncturing the lung.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-17	Ruzhong	142	This point is contraindicated to both needling and moxibustion, and is used simply as a reference point.	140	Acupuncture and moxibustion on this point are contraindicated. This point serves only as a landmark for locating points on the chest and abdomen.	77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-18	Rugen	143	Deep or perpendicular insertion carries a substantial risk of puncturing the lung.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
St-19	Burong	144	Deep insertion may injure the heart on the left or the liver on the right if either of these organs is enlarged			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-20	Chengman	144	In thin subject, deep needling may penetrate the peritoneal cavity. Deep needling at right Chengman ST-20 may penetrate an enlarged liver.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
ST-21	Liangmen	145	In thin subject, deep needling may penetrate the peritoneal cavity. Deep needling at right Liangmen ST-21 may penetrate an enlarged liver.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-22	Guanmen	146	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-23	Taiyi	146	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-24	Huaroumen	147	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-25	Tianshu	148	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated; moxibustion is contraindicated on this point for pregnant women
ST-26	Wailing	149	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-27	Daju	150	In thin subject, deep needling may penetrate the peritoneal cavity.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-28	Shuidao	150	Deep needling may penetrate the peritoneal cavity in thin patients or may penetrate a full bladder; the patient should therefore be asked to empty the bladder before needling.			77	Deep underneath from ST-11 to ST-28 are large arteries and important viscera such as lung, liver, so deep puncture is contraindicated
ST-29	Guitai	151	Deep needling may penetrate the peritoneal cavity in thin patients or may penetrate a full bladder; the patient should therefore be asked to empty the bladder before needling.				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
ST-30	Qichong	152	In thin patients: Deep insertion in superior direction may penetrate the peritoneal cavity or a full bladder (the patient should therefore be asked to empty the bladder before needling); Deep insertion in an inferior direction in the male may penetrate the spermatic cord.				
ST-41	Jiexi	167	The anterior tibial vessels and nerve lie deep to this point.				
ST-42	Chongyang	169	Care should be taken not to puncture the dorsalis pedis artery which lies beneath this point.	147	Avoid puncturing the artery.	83	Avoid the artery
SP-6	Sanyinjiao	189	Contraindicated in pregnancy	150	Acupuncture on this point is contraindicated in pregnant women.	87	Contraindicated in pregnant women
SP-11	Jimen	198	Deep needling may puncture the femoral artery.			89	Avoid artery
SP-12	Chongmen	198	Deep needling in medial direction may puncture the femoral artery, and in lateral direction, the femoral nerve.	152	Avoid puncturing the artery.	89	Avoid artery
SP-13	Fushe	199	In thin patients deep needling may penetrate the peritoneal cavity.				
SP-14	Fujie	199	In thin patients deep needling may penetrate the peritoneal cavity.				
SP-15	Daheng	200	In thin patients deep needling may penetrate the peritoneal cavity. Deep needling at this point may penetrate a substantially enlarged spleen or liver.				
SP-16	Fuai	201	In thin patients deep needling may penetrate the peritoneal cavity. Deep needling at this point may penetrate a substantially enlarged spleen.				
SP-17	Shidou	201	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.			90	Underneath points from SP-17 to SP-21 lies the lung; deep needling is contraindicated.
SP-18	Tianxi	202	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.			90	Underneath points from SP 17 to SP 21 lies the lung; deep needling is contraindicated.
SP-19	Xiongxiang	203	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.			90	Underneath points from SP 17 to SP 21 lies the lung; deep needling is contraindicated.
SP-20	Zhourong	204	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.			90	Underneath points from SP 17 to SP 21 lies the lung; deep needling is contraindicated.
SP-21	Dabao	204	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.			90	Underneath points from SP 17 to SP 21 lies the lung; deep needling is contraindicated.
HT-1	Jiquan	212	Medial insertion toward the chest may puncture the lung.	155	Avoid puncturing the axillary artery.	92	Avoid axillary artery
HT-7	Shenmen	219	The ulnar artery and ulnar nerve lie adjacent to this point.				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
SI-8	Xiaohai	239	The ulnar nerve lies deep to this point.				
SI-12	Bingfeng	242	Deep perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax				
SI-13	Quyuan	243	This point is located close to the medial border of the scapula. Too medial an insertion or deep medial oblique needling may puncture the lung.				
SI-14	Jianwaishu	244	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing pneumothorax.				
SI-15	Jianzhongzhu	244	Deep insertion inferiorly, especially in thin patients, carries a substantial risk of inducing pneumothorax.				
SI-18	QuanLiao					100	Contraindicated for moxibustion
BL-1	Jingming	256	- Needling at this point should not be attempted by those who have not had appropriate clinical supervision.	164	Moxibustion is forbidden	102	Not advisable to rotate or lift and thrust needle. To avoid bleeding, press the puncture for a while; moxibustion is contraindicated on this point
BL-10	Tianzhu					104	Puncture in a medial or upward direction is forbidden, to avoid injuring medulla
BL-11	Dazhu	264	Perpendicular needling carries a substantial risk of causing pneumothorax			105	Deep puncture is contraindicated for the points on the back along this meridian, to avoid injuring important viscera beneath
BL-12	Fengmen	266	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-13	Feishu	267	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-14	Jueyinshu	269	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-15	Xinshu	270	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax				See BL-11
BL-16	Dushu	272	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax				See BL-11
BL-17	Geshu	273	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax				See BL-11

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
BL-18	Ganshu	275	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-19	Danshu	277	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-20	Pishu	278	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax				See BL-11
BL-21	Weishu	280	Perpendicular or oblique needling away from spine carries a substantial risk of causing pneumothorax.				See BL-11
BL-22	Sanjiaoshu	281	Deep perpendicular needling carries a risk of injuring the kidneys				See BL-11
BL-23	Shenshu	283	Deep perpendicular needling carries a risk of injuring the kidneys				See BL-11
BL-40	Weizhong	300	The tibial nerve and the popliteal artery lie deep to this point.				
BL-41	Fufen	301	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-42	Pohu	302	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax				See BL-11
BL-43	Gaohuangshu	303	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-44	Shentang	304	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-45	Yixi	305	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-46	Geguan	306	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-47	Hunmen	306	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-48	Yanggang	308	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax				See BL-11
BL-49	Yishe	308	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11
BL-50	Weicang	309	Deep perpendicular or oblique needling in a medial direction carries a substantial risk of causing pneumothorax.				See BL-11

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
BL-51	Huangmen	309	Deep perpendicular needling carries a risk of injuring the kidney.				See BL-11
BL-52	Zhishi	310	Deep perpendicular needling carries a risk of injuring the kidney				See BL-11
BL-60	Kunlun	318	Contraindicated in pregnancy			113/ 114	Abortion may be induced by needling this point in pregnant women
KI-11	Henggu	352	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment.				
KI-12	Dahe	352	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment.				
KI-13	Qixue	353	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment.				
KI-14	Siman	354	Deep needling may penetrate the peritoneal cavity.				
KI-15	Zhongzhu	354	Deep needling may penetrate the peritoneal cavity.				
KI-16	Huangshu	355	Deep needling may penetrate the peritoneal cavity.				
KI-17	Shangqu	356	Deep needling may penetrate the peritoneal cavity.				
KI-18	Shiguan	357	Deep needling may penetrate the peritoneal cavity.				
KI-19	Yindu	357	Deep needling may penetrate the peritoneal cavity.				
KI-20	Futonggu	358	Deep needling may penetrate the peritoneal cavity.				
KI-21	Youmen	358	Deep needling, especially in thin subjects, will puncture the liver on the right side and the peritoneum on the left.	186	To avoid injuring the liver, deep insertion is not advisable.	122	Deep needling is forbidden, to avoid injuring the liver
KI-22	Bulang	360	Deep perpendicular or oblique needling may puncture the lung and/or the liver.	186	To avoid injuring the heart, deep insertion is not advisable.	123	For points along this meridian on the chest, Deep needling is contraindicated so as not to injure the heart and lung
KI-23	Shenfeng	360	Deep perpendicular or oblique needling may puncture the lung.				See KI-22
KI-24	Lingxu	361	Deep perpendicular or oblique needling may puncture the lung.				See KI-22
KI-25	Shencang	361	361 Deep perpendicular or oblique needling may puncture the lung.				See KI-22
KI-26	Yuzhong	362	Deep perpendicular or oblique needling may puncture the lung.				See KI-22
KI-27	Shufu	362	Deep perpendicular or oblique needling may puncture the lung.				See KI-22
PC-1	Tianchi	370	Deep needling carries a substantial risk of causing a pneumothorax.	189	Deep puncture is not advisable.	125	Deep needling is contraindicated so as not to injure the lung
PC-3	Quze	372	The brachial artery and veins lie deeply, just medial to this point.				
P-6	Neiguan	376	The median nerve lies directly under this point and needling commonly induces a significant electric sensation. This is an acceptable manifestation of deqi, but once elicited, further manipulation is inappropriate and may damage the nerve.				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
PC-7	Daling	379	The median nerve lies directly under this point and needling commonly induces a significant electric sensation. This is an acceptable manifestation of deqi, but once elicited, further manipulation is inappropriate and may damage the nerve.				
TE-5	Waiguan	396	Movement of the patient's arm or hand after needling this point can result in a bent needle.				
TE-6	Zhigou	398	Movement of the patient's arm or hand after needling this point can result in a bent needle.				
TE-15	Tianliao	406	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing a pneumothorax.				
TE-22	Erheliao					134	Avoid artery
GB-3	Shangguan	424	It is traditionally emphasized that deep needling should be avoided at this point.				
GB-20	Fengchi	436	Deeper needling may damage the spinal cord.			140	In the centre of the deep portion is the medulla; correct angle and depth of needling are strictly demanded.
GB-21	Jianjing	438	Perpendicular insertion, especially in thin patients, carries a substantial risk of inducing a pneumothorax - contraindicated in pregnancy.			140	Underneath is the apex of the lung and deep needling is contraindicated; contraindicated for pregnant women
GB-22	Yuanye	440	Deep or perpendicular insertion may induce pneumothorax.			140	For points of this meridian from GB 22 to GB 25, deep needling is contraindicated so as not to injure the important viscera underneath
GB-23	Zhejin	441	Deep or perpendicular insertion may induce pneumothorax.				See GB-22
GB-24	Riyue	441	Deep or perpendicular insertion may induce pneumothorax.				See GB-22
GB-25	Jingmen	442	In thin subjects, deep needling may penetrate the peritoneal cavity.				See GB-22
GB-26	Daimai	444	In thin subjects, deep needling may penetrate the peritoneal cavity.				
LR-1	Dadun					148	Contraindicated for pregnant women (before and after labour) when treated with moxibustion.
LR-12	Jimai	488	Care should be taken to avoid penetrating femoral vein			151	The Plain Questions states that moxibustion is applicable but needling contraindicated at this point
LR-13	Zhangmen	489	Deep perpendicular needling may damage an enlarged liver or spleen.				
LR-14	Qimen	490	Deep perpendicular or oblique insertion carries a substantial risk of causing pneumothorax				
CV-1	Huiyin	497	Contraindicated in pregnancy.				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
CV-2	Qugu	498	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment.			161	Points from CV-2 to CV 13 can only be used with special caution for acupuncture or moxibustion treatment in pregnant women
CV-3	Zhongji	499	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment				See CV-2
CV-4	Guanyuan	501	Deep insertion will penetrate a full bladder which therefore should be emptied before treatment.				See CV-2
CV-5	Shimen	503	Deep needling may penetrate the peritoneal cavity.				CV-2
CV-6	Qihai	504	Deep needling may penetrate the peritoneal cavity.				CV-2
CV-7	Yinjiao	507	Deep needling may penetrate the peritoneal cavity				See CV-2
CV-8	Shenque	507	Needling is contraindicated at this point				507 Generally needling is not applied in this point. See CV-2
CV-9	Shuifen	508	In thin patients, deep needling may penetrate the peritoneal cavity.				See CV-2
CV-10	Xiawan	510	In thin patients, deep needling may penetrate the peritoneal cavity.				See CV-2
CV-11	Jianli	510	In thin patients, deep needling may penetrate the peritoneal cavity.				See CV-2
CV-12	Zhongwan	511	In thin patients, deep needling may penetrate the peritoneal cavity				See CV-2
CV-13	Shangwan	512	In thin patients, deep needling may penetrate the peritoneal cavity.				See CV-2
CV-14	Juque	514	Deep insertion, especially in thin patients, may damage the left lobe of the liver or the heart if either is enlarged - oblique superior insertion towards the heart is contraindicated in all cases.				
CV-15	Jiuwei	516	Deep insertion, especially in thin patients, may damage the left lobe of the liver or the heart if either is enlarged - oblique superior insertion towards the heart is contraindicated in all cases.				
CV-22	Tiantu	522	Needling this point should not be attempted by practitioners who have not had appropriate clinical experience under supervision.			165	Correct angle and depth of needling should be stressed so as not to injure the lung and related arteries and veins
GV-1	Changqiang					153	Perpendicular puncture easily injures the rectum
GV-3	Yaoyangguan	536	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-4	Mingmen	536	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-5	Xuanshu	538	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				

Point	Point Name	Pg.	P. Deadman	Pg.	CAM	Pg.	Qiu Mao-Liang
GV-6	Jizhong	539	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-7	Zhongshu	540	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-8	Jinsuo	540	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build				
GV-9	Zhiyang	541	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build				
GV-10	Lingtai	541	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-11	Shendao	542	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-12	Shenzhu	543	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-13	Taodao	544	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-14	Dazhui	545	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build.				
GV-15	Yamen	547	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build. Deep perpendicular insertion is therefore strictly contraindicated, as is superior oblique insertion towards the brain.	221	Neither upward obliquely nor deep puncture is advisable. It is near the medullar bulb in the deep layer, and the depth and angle of the puncture should be paid strict attention to.	156	Upward oblique or deep puncture is forbidden. The point is near the medulla in its deep portion, and the correct angle and depth of needling should be strictly enforced
GV-16	Fengfu	548	The spinal canal lies between 1.25 and 1.75 cun deep to the skin surface, varying according to body build. Deep perpendicular or superior oblique insertion is therefore strictly contraindicated.	222	Deep puncture is not advisable. Medullar bulb is in the deep layer, special attention should be paid in acupuncture.	156	Deep puncture is forbidden. Deep underneath is the medulla, and caution is needed while needling this point
GV-21	Qianding	554	This point should not be needled in infants whose fontanelle has not yet closed.				
GV-22	Xinhui	555	This point should not be needled in infants whose fontanelle has not yet closed.	223	This point is prohibited in infants with metopism.	157	This point is prohibited in infants with a patent frontal suture
GV-23	Shangxing			224	This point is prohibited in infants with metopism		

Appendix 2 – Sample Emergency Response Plan

Company Name: _____

Address: _____

Potential Emergencies (check all that apply)	<input type="checkbox"/> Fire <input type="checkbox"/> Infectious disease outbreak <input type="checkbox"/> Biological spill <input type="checkbox"/> Chemical spill <input type="checkbox"/> Structural damage <input type="checkbox"/> Bomb threat <input type="checkbox"/> Severe weather <input type="checkbox"/> Flood <input type="checkbox"/> Suspicious package <input type="checkbox"/> Violent behavior <input type="checkbox"/> Other: _____				
Location of Emergency Equipment	Emergency equipment is located at: _____ Fire Alarm: _____ Fire Extinguishers: _____ Fire Hose: _____ Panic Alarm Button: _____ AED: _____ First Aid Kit (include type): _____ Other: _____				
Workers trained in the use of emergency equipment (names)	1. _____ 2. _____ 3. _____				
Qualified first aid providers and work hours	1. _____ 2. _____ 3. _____				
Emergency response training requirements	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%; text-align: left;">Type of training</th> <th style="width: 40%; text-align: left;">Frequency required</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"> </td> <td> </td> </tr> </tbody> </table>	Type of training	Frequency required		
Type of training	Frequency required				
Emergency external contact locations (nearest)	Fire station: _____ Ambulance: _____ Police: _____ Hospital: _____ Other: _____				
Procedure to transport injured or ill worker					
Evacuation and rescue procedures					
Fire protection requirements					
Alarm and emergency communication requirements					
Other specific procedures					

Call 911

Appendix 3 – Incident Report and Investigation Form

Employee Name: _____	Date of Incident: _____
Position: _____	Supervisor's Name: _____
Location of Incident: _____	Time of Incident: _____

Description of Incident:

Body Part Injured: _____

Type of Incident:

<input type="checkbox"/> Blood/body fluid exposure	<input type="checkbox"/> Infectious/biohazardous	<input type="checkbox"/> Slip/trip/fall
<input type="checkbox"/> Chemical/harmful materials	<input type="checkbox"/> Motor vehicle accident	<input type="checkbox"/> Sharp object
<input type="checkbox"/> Electrical contact	<input type="checkbox"/> Musculoskeletal – overexertion	<input type="checkbox"/> Temperature
<input type="checkbox"/> Fall from elevation	<input type="checkbox"/> Musculoskeletal – repetitive motion	<input type="checkbox"/> Traumatic or stressful event
<input type="checkbox"/> Fire/explosion	<input type="checkbox"/> Needlestick	<input type="checkbox"/> Violence
	<input type="checkbox"/> Other _____	

Manager and employee complete the following sections:

Immediate causes (actions and conditions that contributed to the incident):

Root causes (underlying causes that allowed Immediate causes to occur):

<input type="checkbox"/> Controls unavailable	<input type="checkbox"/> Inadequate maintenance	<input type="checkbox"/> Health and safety rules not enforced
<input type="checkbox"/> Hazards not identified	<input type="checkbox"/> Inadequate supervision	<input type="checkbox"/> Unsafe design or construction
<input type="checkbox"/> Insufficient training	<input type="checkbox"/> Inadequate workplace inspection	<input type="checkbox"/> Other _____
<input type="checkbox"/> Inadequate equipment	<input type="checkbox"/> Lack of written procedures or policies	<input type="checkbox"/> Other _____

Corrective action taken to prevent recurrence:

Employee Signature: _____	Date: _____
Supervisor Signature: _____	Date: _____

Forward completed copies of this form to the affected employee and management.

Form developed by Wilco Health and Safety Ltd.